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- A.J. Murphy & Associates 6/10/93.

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## 1.0 INTRODUCTION

This report describes the feasibility work performed by Lynch Mining Pty Ltd for the establishment of mining operations at Mt. Bischoff, near Waratah in north-west Tasmania.

## 2.0 LOCATION

Mt. Bischoff is located in the Waratah district, north-west Tasmania. (figure 1) The township of Waratah is approximately one kilometre south of the existing open cut workings and 60 kilometres south by road from Burnie (sea port). Wynyard (airport) is another 20km distant. Good sealed roads connect Waratah with these northern ports, as well as the southern townships of Rosebery and Zeehan.

Eighteen kilometres east of Waratah is the Guilford junction of the railway line between Zeehan, Rosebery and Burnie.

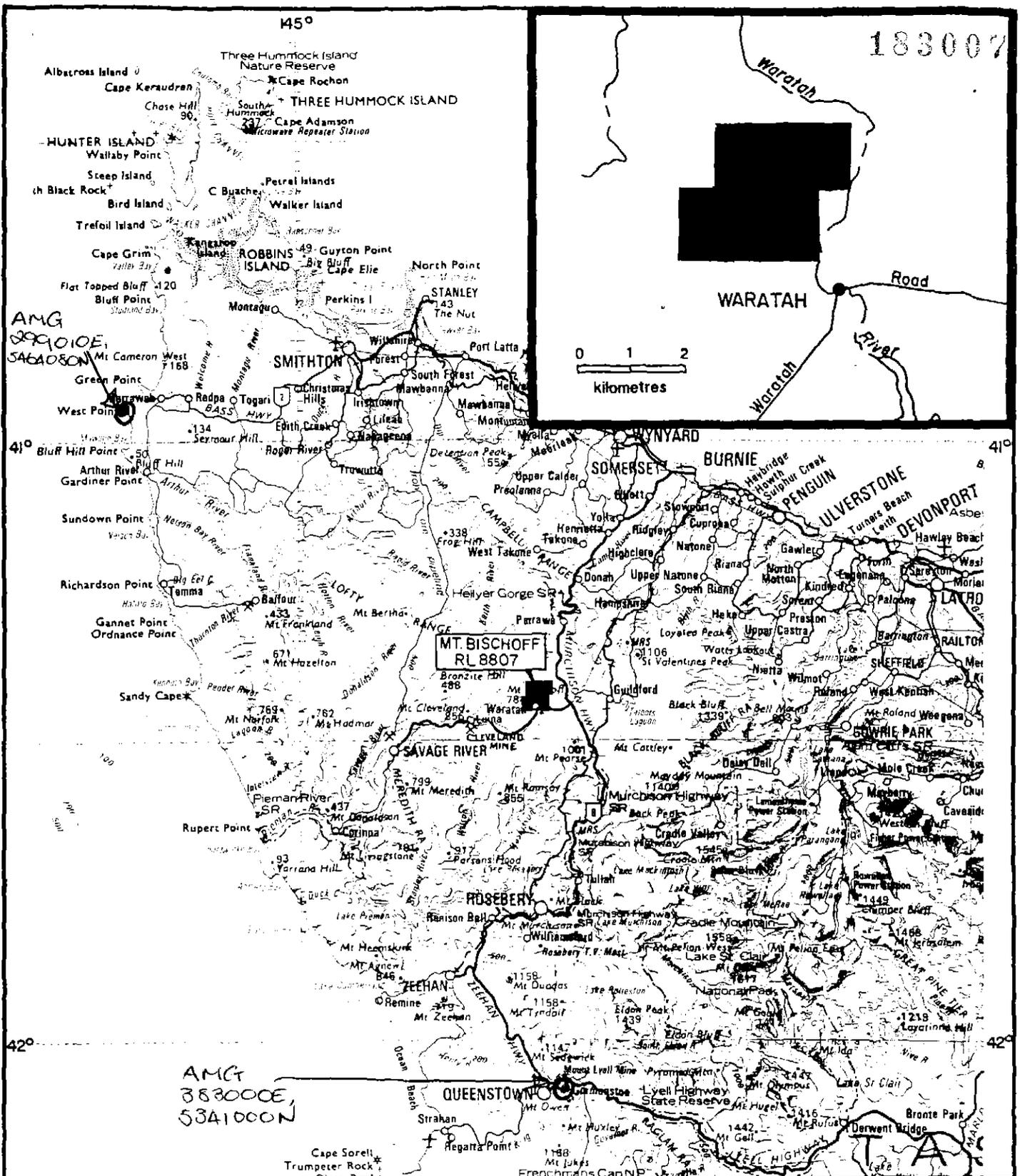
## 3.0 DISCOVERY AND CORPORATE BACKGROUND

Tin ore was first discovered in December 1871 by James Smith in the alluvium of Tinstone Creek on the south-west slope of Mt. Bischoff.

In 1873 the Mt. Bischoff Tin Mining Company Registered was formed and after some initial difficulties production commenced. The operation was initially worked as an alluvial mine with sluices and hand jigs producing tin concentrates. Underground prospecting commenced in 1897 to supplement the open cut operations.

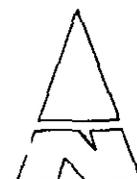
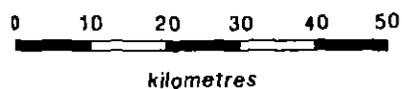
Mining and processing continued by private companies until 1929, when the most significant tin producer, Mt. Bischoff Tin Mining Company Registered, ceased to operate profitably.

After 1929 large scale mining operations ceased and the Mt. Bischoff Tin Mining Company Registered let the mine to tributors. The Commonwealth Government acquired the mine and plant from the Mt. Bischoff Tin Mining Company Registered in 1942. The Commonwealth worked the area until its withdrawal in 1947.



# MOUNT BISCHOFF TENEMENT LOCATION

AMG REFERENCE POINTS ADDED



Since 1947 the tin ores of Mt. Bischoff have been intermittently worked on a small scale by tributors, and various surface investigations have been carried out by a number of mining companies.

In 1964, Mt. Costigan Mines Ltd, later joined by Broken Hill South, extensively drilled and prospected the central mine area in an effort to prove the ore reserves remaining beneath the old workings. This work was largely unsuccessful.

In September 1964 Comstaff Pty Ltd was formed between Mt. Costigan and Broken Hill South. Australian Anglo American joined Comstaff in 1968, and became operator.

Between 1964 and 1970, exploration programmes completed included electrical and geophysical surveying, geological mapping, rock sampling, diamond drilling and adit rehabilitation.

In September 1972 Australian Anglo American became 100% contributors to the joint venture.

The Comstaff Joint Venture was formed in 1977 between Comstaff Pty Ltd and Preussag Australia Pty Ltd. The Joint Venture determined that potential existed to successfully mine the dolomite lodes at Mt. Bischoff, and in November 1977 Metals Exploration Ltd (MEL) were approached to join the Mt. Bischoff Project.

MEL joint ventured into the Mt. Bischoff project in early 1978, and in August the same year CRAE entered into a joint venture with MEL. The Mt. Bischoff Joint Venture commenced field work on the Mt. Bischoff project in June 1978.

Several major mining evaluations were undertaken between 1981 and 1984, these being summarised in section 4 of this report. In March 1983 CRAE assigned its equity to MEL.

The Mt. Bischoff Joint Venture, comprising MEL 85% and Comstaff and Preussag 15%, were granted Retention licence No 8807 of 4 square kilometres on 14 October 1988.

On 5th October 1993 Lynch Mining Pty Ltd purchased Retention licence No 8807 from Metals Exploration Ltd, Comstaff and Preussag to own 100% equity in the leases.

#### 4.0 PREVIOUS WORK

Numerous engineering studies and mine planning exercises have been carried out with the intention of establishing the most cost effective means of mining and processing the ore from the Mt. Bischoff tin deposit.

A brief history of the more recent studies is as follows:

##### 4.1 Austin Anderson Preliminary Engineering Study

This study was commissioned by the Joint Venture managers (Metals Exploration Ltd) in 1981. Three case studies were developed.

###### 4.1.1 Case 1

Mining and concentrating at Waratah with one pre-production year followed by an initial annual production of 200,000 tonnes of DSL ore increasing to an ultimate annual production rate of 550,000 tonnes of combined DSL and Porphyry ore.

###### 4.1.2 Case 2

Mining and concentrating at Waratah with one pre-production year followed by an initial annual production of 150,000 tonnes of DSL ore increasing to an ultimate annual production rate of 400,000 tonnes of combined DSL and porphyry ore.

###### 4.1.3 Case 3

Mining and stockpiling operations at Waratah with transport to custom milling at Aberfoyle's Cleveland concentrator at Luina. One pre-production year would be followed by an initial annual production of 150,000 tonnes of DSL ore increasing to an ultimate annual production rate of 260,000 tonnes of DSL ore only.

#### 4.2 Minimum Production Case

The 1978 Comstaff Joint Venture - Metals Exploration Ltd Agreement called for a Decision to Mine to be made at a minimum rate of 100 tonnes per annum contained tin. In order to be assured that this would be possible, the Mt. Bischoff Joint Venture performed several studies incorporating the use of a small modular plant at Waratah and contractor mining of high grade DSL ore at low stripping ratios. The first such plan called for mining in the Greisen face area. The second plan called for mining in the Pit Flat area.

#### 4.3 Stage 3B Mining Study - Modified Case 3

Performed in 1982 based on the work undertaken by Austin Anderson, modifications to the plan were broadly set as follows:

- a) DSL ore mined in years 1 and 2 and from then on blended with Porphyry ore so that
  - (i) 270,000 tonnes of porphyry ore mined per annum, stockpiled, and transported to Cleveland for preconcentration. 50% rejected as tailings and the remainder delivered to the concentrator as an upgraded flotation feed.
  - (ii) 130,000 tonnes of DSL ore mined, stockpiled, and transported to Cleveland for direct feeding to the concentrator.
- b) A complete reassessment of the geological information and updated drilling result was carried out.

#### 4.4 Mining Optimisation Study

Completed in June 1984 by G. Jones on behalf of the Mt. Bischoff Joint Venture, the optimisation study required mine planning to optimise cash flow without restrictions imposed by:

- (i) Joint Venture agreement requirement
- (ii) Specific maximum tonnage to an offsite plant

The Austin Anderson exercise and the Stage 3B Mining Study (March 1982) were used to develop the rationale for this mining plan.

Three open pit cases were examined with underground reserves also being established.

The main pit by itself without a pre-production year was argued by Jones to be the optimum mining case.

#### 4.5 Re-estimate of Minimum Production Case

Completed by G Jones in June 1988, this was a revision of the previous 1982 Minimum case study.

Table 1.0 summarises the various mining and processing studies undertaken on the Mt. Bischoff Tin project.

#### 4.6 Metallurgical Studies

Evaluation of the metallurgical characteristics of Mt. Bischoff ores was initiated in 1979 by the Mt. Bischoff joint venture. As part of Stage I (1979) and Stage II (1980) Development Programs, Amdel investigated the following two concentration routes.

- (i) Conventional: used gravity techniques to recover coarse cassiterite and flotation to recover fine cassiterite subsequent to a medium grind and removal of sulphides.

- (ii) *Unconventional: used very fine grind and recovery of cassiterite by flotation only.*

*Testing of the conventional approach identified problems associated with the presence of massive sulphide and talc mineralisation and the variability in cassiterite grain size.*

*The unconventional approach illustrated the general applicability of tin flotation technology to finely ground Bischoff ores.*

*In November 1979, Cleveland Tin reported results of laboratory tests on six Mt. Bischoff samples predicting similar metallurgical performance to their own ores in the Cleveland concentrator.*

*Comprehensive evaluation of the response of Bischoff DSL and porphyry to conventional gravity/flotation cassiterite recovery commenced in January 1981 as part of the Stage III Program.*

*Testwork established that while Bischoff metallurgy is complex and variable, acceptable tin concentrates could be produced at reasonable tin recoveries for this type of ore.*

*Several consultants carried out testwork on Bischoff ore samples in the Stage III Program as follows:*

- (i) *Aberfoyle's Central Metallurgical Services tested composite samples and confirmed metallurgical predictions of the Joint Venture.*
- (ii) *Testing of composite samples at Renison Ltd. using their standard amenability test indicated that Bischoff and Renison ores are very similar.*
- (iii) *Mineral Deposits Limited tested and confirmed the amenability of porphyry ore to preconcentration using rod milling and spirals.*
- (iv) *Amdel carried out Bond Work Index Grindability Tests.*

From the results of the Stage III Program parameters were derived for the design of a treatment plant for Bischoff DSL and Porphyry ores.

#### 4.7 Ore Reserves

The Ore Reserve calculation for the Mt. Bischoff Tin Deposit were undertaken by Douglas McKenna and Partners Pty Ltd on two separate occasions (1982, 1983).

The 1982 work was restricted to a portion of the deposit between Section 920E and 1300E and provided ore reserves at 0.4%, 0.3% and 0.2% Sn cut offs for the Dolomite Sulphide Lode (DSL) ore and 0.3% and 0.2% Sn cut offs for the Quartz Porphyry (QP) ore.

The 1983 work covered the remainder of the Mt. Bischoff deposit to complete the ore reserve calculations.

The ore reserve calculations were based on geological data obtained from cross-sections, long-sections and 10 metre level plans prepared by the Mt. Bischoff Joint Venture.

Initially the footwall of the dolomite, and the hangingwall and footwall of the quartz porphyry were contour plotted, using drill-hole and surface data. Contour plotting was necessary as many drill holes, particularly those drilled prior to the joint venture, did not fall on the metric sections, and are only projected onto the sections.

From the contour plans, the cross-sections and long-sections the 10 metre level plans were compiled, ensuring that the three sets correlated.

Specific gravity values of 3.5 t/m<sup>3</sup> and 3.0 t/m<sup>3</sup> were used for the DSL and QP ore types respectively. These were determined from testwork carried out at Amdel. Later work done by Douglas McKenna and Partners has suggested that these specific gravity values may be slightly low.

The ore reserves at Mt. Bischoff of DSL and QP ore are:-

DSL at 0.3% Sn cut-off

| <u>% Sn</u> | <u>Tonnes</u> | <u>Category</u> |
|-------------|---------------|-----------------|
| 1.12        | 53800         | Proven          |
| 1.05        | 1053800       | Probable        |
| 0.76        | 221260        | Possible        |
| 0.52        | 99240         | PP              |
| 0.87        | 1428100       | Total           |

QP at 0.2% Sn cut-off

| <u>% Sn</u> | <u>Tonnes</u> | <u>Category</u> |
|-------------|---------------|-----------------|
| 0.47        | 3325500       | Probable        |
| 0.50        | 76300         | Possible        |
| 0.33        | 120100        | PP              |
| 0.47        | 3521900       | Total           |

Note: PP - this represents the near surface mineralisation relying heavily on surface hand auger sampling. This mineralisation is below the "possible" category and is designated on the sections and calculation sheets as "PP".

Table 1.0 Past Mining Studies

| YEAR        | STUDY DESCRIPTION   | UNDERTAKEN BY   | MINEABLE ORE RESERVE<br>(TONNES x 10 <sup>6</sup> ) |          |          | % TIN |          |          | STRIP RATIO<br>(t:t) | MINE LIFE<br>(Years) |        |
|-------------|---|-----------------|---|----------|----------|-------|----------|----------|----------------------|----------------------|--------|
|             |   |                 | DSL   | PORPHYRY | COMBINED | DSL   | PORPHYRY | COMBINED |                      |                      |        |
| NOV<br>1981 | Preliminary Feasibility Study for the Alternatives to establish Mining and Treatment Operations | Austin Andersen |   |          |          |       |          |          |                      |                      |        |
|             |   |                 | Cases 1 & 2   | 1.20     | 2.62     | 3.82  | 0.81     | 0.33     | 0.48                 | 5.9                  | 8 & 12 |
|             |   |                 | Case 3  | 0.894    |          | 0.894 | 0.80     |          | 0.80                 | 3.8                  | 4      |
| FEB<br>1982 | Minimum Production Case   | MEL             | 0.234   |          | 0.234    | 0.90  |          | 0.90     | 2.4                  | 8                    |        |
| MAR<br>1982 | Stage 3B - Optimised Mine Plan based on Austin Anderson case 3 (Modified Case 3 study)          | MEL             | 1.475   | 1.843    | 3.318    | 0.74  | 0.40     | 0.55     | 4.7                  | 10                   |        |
| AUG<br>1982 | Stage IV Preliminary Economic Evaluation Study  | CRA             | 1.18  | 0.44     | 1.62     | 0.87  | 0.49     | 0.77     | 6.2                  | 8                    |        |

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| YEAR      | STUDY DESCRIPTION   | UNDERTAKEN BY | MINEABLE ORE RESERVE<br>(TONNES x 10 <sup>6</sup> ) |          |          | % TIN |          |          | STRIP RATIO<br>(t:t) | MINE LIFE<br>(Years) |
|-----------|---|---------------|---|----------|----------|-------|----------|----------|----------------------|----------------------|
|           |   |               | DSL   | PORPHYRY | COMBINED | DSL   | PORPHYRY | COMBINED |                      |                      |
| DEC 1982  | Minimum 100 tpa Contained Tin Operation                                   | CRA           | 0.042   |          | 0.042    | 1.40  |          | 1.40     | 1.4                  | 5                    |
| JUL 1983  | Development of Open Pit Mining Operations at a Milling Rate of 56500 tpa. | MEL           | 0.238   |          | 0.238    | 1.02  |          | 1.02     | 4.5                  | 4                    |
| JUNE 1984 | Mining Optimisation Study G. Jones  | MEL           |   |          |          |       |          |          |                      |                      |
|           | Case 1  |               | 1.02  | 0.71     | 1.73     | 0.78  | 0.43     | 0.64     | 5.3                  | 10                   |
|           | Case 2  |               | 1.02  | 1.22     | 2.24     | 0.78  | 0.41     | 0.58     | 5.4                  | 10                   |
|           | Case 3  |               | 1.02  | 0.78     | 1.80     | 0.78  | 0.43     | 0.63     | 5.1                  | 10                   |
| JUN 1988  | Re Estimate of Minimum Production Case                                    | MEL           | 0.238   |          | 0.238    | 0.90  |          | 0.90     | 2.3                  | 8                    |

## 5.0 GEOLOGY

### 5.1 Mineralisation

The Mt. Bischoff tin deposit lies close to the hinge zone of the Bischoff Anticlinorium in an area of strong positive relief above the surrounding plateau.

Tin occurs as cassiterite in three styles of primary mineralisation namely:

- (i) disseminations in massive sulphide ore;
- (ii) disseminations in porphyry; and
- (iii) vein deposits.

A major part of the tin resource is concentrated in the sulphide ore type. This ore type occurs within the dolomite host rock and is commonly well developed close to the porphyry/dolomite contact. The sulphide ore type is of variable mineralogy consisting of combinations of pyrrhotite, pyrite, talc, quartz, carbonate (usually dolomite), serpentine with minor amounts of other minerals such as tourmaline, tremolite and of course cassiterite. Other sulphides occasionally present are chalcopyrite, sphalerite, galena and arsenopyrite with stannite recorded rarely.

### 5.2 The Dolomite Sulphide Lode (DSL)

The DSL is a complex mineralisation of metasomatic replacement type. It occurs as lenses within a locally restricted synclinal dolomite horizon of Precambrian age, mainly in a footwall position on the northern flank of the dolomite. The base of the syncline (and the tin mineralisation) reaches to about 100 metres below surface. The strike length of the lode is 300 metres and its thickness is highly variable averaging about 20 metres.

DSL also occurs as lenses along the hangingwall and footwall contact of the intruding porphyry sill/dyke.

### 5.3 Quartz Porphyry

The main porphyry tin reserves lie in one major quartz porphyry dyke - White Face/Stanhope Dyke - of Devonian age. This dyke is over 1 kilometre long, with most of the tin reserves occurring within a 600 metre length centred around the mine dolomite sequence. The dyke is typically 20 metres wide, dips at about 20 to 30 degrees north west near the surface and 50 to 60 degrees at depth. The dyke obliquely cuts the dolomite horizon.

The best cassiterite mineralisation lies at the bend in the porphyry where the dip changes from 30 to 60 degrees. The edges of the porphyry are generally of low tin grade, and the centre is higher in grade.

The dyke is composed of quartz, topaz and lesser feldspars (these having been replaced by topaz). Disseminated pyrite, and occasionally pyrrhotite occur throughout. Between sections 980E and 1150E, the bend in the porphyry dyke pitches shallowly west along the base of the dolomite, providing a locus for the development of DSL ore and porphyry ore. It is in this zone of higher grade ore development that mining would commence.

## 6.0 WORK CONDUCTED

### 6.1 Introduction

Lynch Mining Pty Ltd has not undertaken any further field exploration work as it believes that a satisfactory knowledge of the local geology has been developed from work undertaken by Metals Exploration Limited.

Efforts have been concentrated on a series of feasibility studies based around the mining and processing of the DSL. Some studies have been undertaken that also include the mining of the porphyry ore.

### 6.2 DSL Mine Planning

#### 6.2.1 Commissioned Pit Designs

A J Murphy & Associates were commissioned to assess the ore grade potential for mining a selected quantity of the Dolomite Sulphide Lode (DSL) for possible sale to Renison Limited, as supplementary feedstock for their treatment plant located at Renison.

A series of open cut pit designs were completed using base data available from the comprehensive set of ore reserve tables, previously calculated by Douglas McKenna and Partners (1982,1983), using a 0.4% Sn cut off grade. The base data was presented both in plan and in cross section.

The aim of the design work was to identify diluted mineable reserves totalling 500,000 tonnes at 1.2% Sn. To achieve this, A J Murphy & Associates selected ore blocks from the ore reserve tables at grades of 0.8% Sn or better, after dilution. Ore blocks grading between 0.4% Sn and 0.79% Sn are subgrade and will be stockpiled awaiting more favourable tin prices.

The initial estimate based on the above criteria indicated a potential mineable resource of about 498,000 tonnes of DSL containing an average grade of about 1.21% Sn, as follows:

**DILUTED MINEABLE ORE RESERVE**  
(Initial Assessment)

|                   |                           |
|-------------------|---------------------------|
| Proved            | 41,740 tonnes @ 1.34% Sn  |
| Probable          | 396,525 tonnes @ 1.21% Sn |
|                   | -----                     |
| Sub-total         | 438,265 tonnes @ 1.23% Sn |
| Plus:             |                           |
| Measured Resource | 59,955 tonnes @ 1.11% Sn  |

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Following discussions with Renison staff in April 1993 and then in August, 1993 it was agreed that the initial estimate would be reviewed, taking into account the apparent lower grade ore blocks located on the bottom levels of the proposed open pit. This resulted in a revised ore potential of about 430,000 tonnes of DSL containing an average grade of about 1.24% Sn, as follows:

**DILUTED MINEABLE ORE RESERVE**  
(Revised Assessment)

|                   |                           |
|-------------------|---------------------------|
| Proved            | 41,740 tonnes @ 1.34% Sn  |
| Probable          | 329,312 tonnes @ 1.25% Sn |
|                   | -----                     |
| Sub-total         | 371,052 tonnes @ 1.26% Sn |
| Plus:             |                           |
| Measured Resource | 59,955 tonnes @ 1.11% Sn  |

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The revised assessment was discarded due largely to the reduction in available ore.

The original open pit was redesigned by A J Murphy & Associates to segregate the three identified zones of known mineralisation, incorporating them into separate pits with alternative access into each pit. The rationale behind this design was to provide an improved breakdown of ore and waste in each zone and to enable better scheduling of overburden removal, in conjunction with establishing an earlier cashflow from mine production.

Both the initial and revised assessments were characterised by single ramp access with obvious flexibility restrictions. The redesigned pit with dual ramp entrance is the proposed design.

The proposed design has an ore potential of approximately 470,000 tonnes of DSL at an average grade of 1.22% Sn, as follows:

DILUTED MINEABLE ORE RESOURCE

(Proposed)

|                   |                           |
|-------------------|---------------------------|
| Measured          | 41,740 tonnes @ 1.34% Sn  |
| Indicated         | 373,397 tonnes @ 1.22% Sn |
|                   | -----                     |
| Sub-total         | 415,137 tonnes @ 1.23% Sn |
| Plus:             |                           |
| Inferred Resource | 61,460 tonnes @ 1.11% Sn  |

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A comprehensive summary of the 3 mine designs performed by A J Murphy & Associates is included in Table 2.0.

The full reports from A J Murphy & Associates are included as Appendices 1 and 2.

Table 2.0 Summary of Diluted Mineable Ore Reserves

|                      |                                   | <i>Initial<br/>Assessment</i> | <i>Revised<br/>Assessment</i> | <i>Proposed</i>   |
|----------------------|-----------------------------------|-------------------------------|-------------------------------|-------------------|
| Proved               | (t)                               | 41740 @ 1.34% Sn              | 41740 @ 1.34% Sn              | 41740 @ 1.34% Sn  |
| Probable             | (t)                               | 396525 @ 1.21% Sn             | 329312 @ 1.25% Sn             | 373397 @ 1.22% Sn |
| Sub-total            | (t)                               | 438265 @ 1.23% Sn             | 371052 @ 1.26% Sn             | 415137 @ 1.23% Sn |
| Measured             | (t)                               | 59955 @ 1.11% Sn              | 59955 @ 1.11% Sn              | 61460 @ 1.11% Sn  |
| Total ore Resource   | (t)                               | 498220 @ 1.21% Sn             | 431007 @ 1.24% Sn             | 476598 @ 1.22% Sn |
| <hr/>                |                                   |                               |                               |                   |
| Total Ore            | (t)                               | 498,220                       | 431,007                       | 476,598           |
| Total Waste          | (t)                               | 1,854,955                     | 1,595,843                     | 1,913,930         |
| Total Tonnes Mined   |                                   | 2,353,175                     | 2,026,850                     | 2,390,528         |
| Strip Ratio          | (t:t)                             | 3.72                          | 3.70                          | 4.02              |
| <hr/>                |                                   |                               |                               |                   |
| Ore Volume           | (bcm)                             | 142,349                       | 123,145                       | 136,171           |
| Waste Volume         | (bcm)                             | 650,861                       | 559,945                       | 671,554           |
| Total Volume mined   |                                   | 793,210                       | 683,090                       | 807,725           |
| Strip Ratio          | (m <sup>3</sup> :m <sup>3</sup> ) | 4.57                          | 4.55                          | 4.93              |
| <hr/>                |                                   |                               |                               |                   |
| Dilution % and grade |                                   | 15% @ 0.3% Sn                 | 15% @ 0.3% Sn                 | 15% @ 0.3% Sn     |

### 6.2.2 Inhouse Review of DSL Mineable Reserves

A review of the DSL reserves was conducted by Lynch Mining staff in September 1993. Work undertaken included:

- (i) review of the ore block cross sections and plans prepared by Douglas McKenna and Partners.
- (ii) review of density data
- (iii) simulation of extraction to validate DSL mineable reserves.

The simulation of extraction was undertaken using the "Revised Assessment" pit design. The review indicated that approximately 500,000 tonnes grading 1.2% Sn was attainable, as suggested by the work undertaken by A.J. Murphy and Associates.

Details of the results from the in house review are included in Appendix 3.

### 6.2.3 Mine Scheduling

A.J. Murphy and Associates proposed pit was scheduled so that early cashflow was established by being able to supply a continuous ore stream to Renison Limited at a monthly rate of 12000 tonnes at 1.2% Sn.

Tables A1 to A13 are attached in Appendix 4 and summarise the mine scheduling undertaken to meet the above criteria.

### 6.2.4 Review of Old Plans and Sections

Old mine plans and sections were reviewed in the Rosny Park office of the Mines Department. Copies of relevant plans and sections were taken to allow digitising to determine the extent that existing underground openings are contained within the bounds of A.J. Murphy's proposed pit design.

**6.2.5 Surveying**

On site surveying was conducted by L.C. MacKenzie & Associates of Wynyard and included:

- a) resurrection of Metals Exploration's survey grid.
- b) set out of A.J. Murphy and Associates proposed pit design.
- c) establishment of sufficient survey control around the proposed open pit.
- d) provide a rough volume of the Glory Hole

Volumes of the Glory Hole are as follows:

|              |                                      |
|--------------|--------------------------------------|
| at 684 level | 285468 m <sup>3</sup>                |
| at 678 level | 177411 m <sup>3</sup> (edge of hole) |

**6.3 Quartz Porphyry Mine Planning**

**6.3.1 In house Pit Design**

An in house pit design was undertaken to assess the viability of supplying DSL and porphyry ore for treatment at a revamped Cleveland Concentrator.

A.J. Murphy and Associates proposed pit design was modified to include porphyry ore at low incremental strip ratios. The modifications included:

- a) NE east extension to 620 RL
- b) SE east extension and pit deepening

The in house pit has an ore potential of approximately 470,000 tonnes of DSL at an average grade of 1.22% Sn, and a porphyry ore potential of 400,000 tonnes grading 0.49% Sn, as follows:

Diluted Mineable Ore Reserve*(In House Assessment)***DSL Reserve**

|                  |                      |          |                 |
|------------------|----------------------|----------|-----------------|
| DSL High Grade   | 476598 tonnes        | @        | 1.22% Sn        |
| DSL Low Grade    | 133932 tonnes        | @        | 0.69% Sn        |
| <u>Total DSL</u> | <u>610530 tonnes</u> | <u>@</u> | <u>1.10% Sn</u> |

**Porphyry Reserve**

|                       |                      |          |                 |
|-----------------------|----------------------|----------|-----------------|
| NE extension          | 211077 tonnes        | @        | 0.53% Sn        |
| SE extension          | 196676 tonnes        | @        | 0.45% Sn        |
| <u>Total Porphyry</u> | <u>407753 tonnes</u> | <u>@</u> | <u>0.49% Sn</u> |

Mine Design statistics for the in house design including mining of the porphyry ore are as listed in Table 3.

**Table 3.0 Mine Design Statistics - In House Assessment**

| Ore Type                  | Ore<br>(tonnes) | Grade<br>(%Sn) | Waste<br>(tonnes) | Total<br>Tonnes | Strip<br>Ratio<br>(t:t) | Ore<br>(BCM)  | Waste<br>(BCM) | Total<br>BCM   | Strip<br>Ratio<br>(m <sup>3</sup> :m <sup>3</sup> ) |
|---------------------------|-----------------|----------------|-------------------|-----------------|-------------------------|---------------|----------------|----------------|---|
| DSL HG                    | 476598          | 1.22           | 1886798           | 2363396         | 3.96                    | 136171        | 628933         | 765104         | 4.62  |
| DSL LG                    | 133932          | 0.69           |                   | 133932          |                         | 38266         |                |                |   |
| <b>Total DSL</b>          | <b>610530</b>   | <b>1.10</b>    | <b>1886798</b>    | <b>2497328</b>  | <b>3.09</b>             | <b>174437</b> | <b>628933</b>  | <b>803370</b>  | <b>3.61</b>   |
| Porphyry NE               | 211077          | 0.53           | 416645            | 627722          | 1.97                    | 70359         | 146191         | 216550         | 2.08  |
| Porphyry SE               | 196676          | 0.45           | 204819            | 401495          | 1.04                    | 65559         | 71866          | 137425         | 1.10  |
| <b>Total<br/>Porphyry</b> | <b>407753</b>   | <b>0.49</b>    | <b>621464</b>     | <b>1029217</b>  | <b>1.52</b>             | <b>135918</b> | <b>218057</b>  | <b>353975</b>  | <b>1.60</b>   |
| <b>Grand Total</b>        | <b>1018283</b>  | <b>0.86</b>    | <b>2508262</b>    | <b>3526545</b>  | <b>2.46</b>             | <b>310355</b> | <b>846990</b>  | <b>1157345</b> | <b>2.73</b>   |

#### 6.4 **Operations Strategies**

The main strategies for processing Mt. Bischoff ores have been modelled, along with minor variations to these strategies.

The Operations strategies favoured are briefly discussed.

##### 6.4.1 **Renison Model**

The Renison model has been developed based upon negotiations with Renison Limited for Lynch Mining to supply Renison with approximately 140,000 tonnes per annum of tin ore grading 1.2% Sn.

Presentations were made to Renison Limited by J. Murphy and Lynch Mining staff at Renison. In August 1993, A. Jannink (Douglas McKenna and Partners) and J. Murphy visited Renison to outline the ore reserve estimate and preliminary DSL pit design.

Various studies were undertaken by Esker Milling and Processing Pty Ltd to ensure that the processing route was viable for both parties.

The report "Sampling Bischoff DSL ore processed in the Renison Mill" is included in Appendix 5.

Negotiations with Renison are continuing.

##### 6.4.2 **Cleveland Model**

Previous work undertaken by Metals Exploration Limited identified the option of processing at the Cleveland site as the most viable.

With these early findings in mind, the Cleveland site was inspected in December 1993 and again in March 1994. Detailed site assessments were undertaken.

Various case studies performed by Esker Milling and Processing identify the Cleveland processing option as viable.

Substantial capital expenditure is required to re-establish a reliable tin processing circuit. Nevertheless, the various existing utilities and site infrastructure make the proposal attractive.

## 6.5 Environmental Considerations

### 6.5.1 Introduction

Environmental work carried out during the period includes:

1. Review of existing data
2. Consultation with the Division of Environmental Management.
3. Collection of preliminary base line data on vegetation and water quality.  
Environmental field work has concentrated on water quality of the subject area and existing AMD as these are the most significant issues which will have to be addressed in any development proposal for the area.

### 6.5.2 Water

Existing data on water quality dates back to 1981 when Mr J. Stephens was retained by Metals Exploration Ltd. to collect environmental base line data.

Sampling of waters has been conducted by Lynch Mining Pty Ltd to supplement the existing data. Waters emanating from the mine are highly acid with high levels of mobilised metals.

The Department of Environment and Land Management have been made aware of the water quality status of the site and further sampling will be carried out to assess the impact of development of the site. ( Ref. Appendix 6)

**6.5.3 Heritage Values**

Preliminary contact has been made with the Department of Parks, Wildlife and Heritage and the Department will inspect the site to determine if a survey of the site's historic value is warranted.

**6.5.4 Development Proposal**

Discussions with the Division of Environmental Management has reached a stage where guidelines have been produced and a copy of these are contained in Appendix 7.

**7.0 EXPENDITURE**

Expenditure on the licence for the period to 30 June 1994 is as follows:

|                     |               |
|---------------------|---------------|
| Geology             | 0             |
| Geochemistry        | 0             |
| Geophysics - air    | 0             |
| Geophysics - ground | 0             |
| Feasibility Studies | 106725        |
| Rehabilitation      | 0             |
| Drilling            | 0             |
| Gridding            | 0             |
| Administration      | 11068         |
| Other               | <u>0</u>      |
| Total               | <u>117793</u> |

**APPENDIX 1**

**REVIEW OF ORE RESOURCE POTENTIAL  
BASED ON 0.80% CUT-OFF GRADE**

*A.J. Murphy & Associates 25/8/93*

180031

# A.J. MURPHY & ASSOCIATES

## Consultant Mining Engineers

*Mine Feasibility Studies  
Detailed Mine Designs  
Development & Production Schedules*

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Telephone: (03) 802 5833  
Facsimile: (03) 802 4604*

LYNCH MINING LIMITED

MT BISCHOFF TIN PROJECT  
TASMANIA

REVIEW

OF

ORE RESOURCE POTENTIAL

BASED ON

0.80% CUT-OFF GRADE

→ Tim

Prepared For: J E Lynch

Prepared By: A J Murphy

Date: 25 August, 1993

ref: JELREP93

MT BISCHOFF TIN PROJECT  
TASMANIA

1. INTRODUCTION:

A J Murphy & Associates were commissioned by Lynch Mining Limited to assess the ore grade potential for mining a selected quantity of the Dolomite Sulphide Lode (DSL), located at the old Mt Bischoff Tin Mine, Tasmania, for possible sale to Renison Limited, as supplementary feedstock for their treatment plant located at Renison, Tasmania.

Base data selected for this assessment was available from a comprehensive set of ore reserve tables, previously calculated by Douglas McKenna & Partners (1982), using an 0.4% Sn cut-off grade. The base data was presented both in plan and in cross-section.

A J Murphy & Associates selected ore blocks from these tables at grades of 0.8% Sn or better.

The initial estimate based on the above criteria indicated a potential mineable resource of about 500,000 tonnes of DSL containing an average grade of about 1.21% Sn, as follows:

DILUTED MINEABLE ORE RESERVE  
(Initial Assessment)

|                   |                           |
|-------------------|---------------------------|
| Proved            | 41,740 tonnes @ 1.34% Sn  |
| Probable          | 396,525 tonnes @ 1.21% Sn |
|                   | -----                     |
| Sub-total         | 438,265 tonnes @ 1.23% Sn |
| Plus:             |                           |
| Measured Resource | 59,955 tonnes @ 1.11% Sn  |

Following discussions with Renison staff in early August, 1993 it was agreed that the initial estimate would be reviewed, taking into account the apparent lower grade ore blocks located on the bottom levels of the proposed open pit. This resulted in a revised ore potential of about 430,000 tonnes of DSL containing an average grade of about 1.24% Sn, as follows:

DILUTED MINEABLE ORE RESERVE  
(Revised Assessment)

|                   |                           |
|-------------------|---------------------------|
| Proved            | 41,740 tonnes @ 1.34% Sn  |
| Probable          | 329,312 tonnes @ 1.25% Sn |
|                   | -----                     |
| Sub-total         | 371,052 tonnes @ 1.26% Sn |
| Plus:             |                           |
| Measured Resource | 59,955 tonnes @ 1.11% Sn  |

Although there was a significant reduction in the overall pit volumes to be mined as a result of the review, viz: from about 793,000 bcm down to 683,000 bcm, the average waste to ore ratios (based on adjusted tonnages for ore and waste) remained unchanged at 3.7:1.0. Therefore, there would be no cost savings in the overall mining costs if the revised option was adopted, and there would certainly be a significant potential revenue loss to Lynch Mining at the lower available ore tonnage.

## 2. SUMMARY:

- Basic Assumptions - Ore will be mined over 5.0m benches by drilling & blasting.
- All blastholes will be sampled and assayed to provide more detailed grade information on ore blocks.
  - 15% dilution at an average grade of 0.3% Sn has been added to all selected ore blocks.
  - Ore blocks located outside the designed open pit have been classified in this assignment as non-recoverable ore; however, some of these may be accessible at a later date from underground development.
  - Ore blocks estimated to contain less than 0.8% Sn after the addition of the dilution factor have been classified as sub-ore.
  - Areas of known waste (e.g. dolomite) can be mined over 10m or 15m benches.
  - Final bench heights will range between 10m and 15m at batter angles of about 70 degrees. Safety berms on the final benches will be 5.0m wide.
  - Main haul road within the pit will be 12.0m wide on a gradient of 1 in 10.

## 2.1 Initial Assessment - refer attached Tables 1A, 2A, 3A

## 1) ORE RESERVE ASSESSMENT

Extract - Table 1A

| <u>Level</u>   | <u>Tonnes</u>  | <u>Grade % Sn</u> | <u>T x G</u>   |
|----------------|----------------|-------------------|----------------|
| 655m RL        | 188            | 0.88              | 166            |
| 650m RL        | 2,120          | 0.88              | 1,873          |
| 645m RL        | 2,851          | 0.91              | 2,591          |
| 640m RL        | 4,619          | 0.89              | 4,131          |
| 635m RL        | 20,614         | 1.01              | 20,907         |
| 630m RL        | 35,798         | 1.20              | 42,909         |
| 625m RL        | 40,861         | 1.40              | 57,365         |
| 620m RL        | 66,225         | 1.25              | 82,525         |
| 615m RL        | 59,860         | 1.34              | 80,473         |
| 610m RL        | 59,025         | 1.35              | 79,969         |
| 605m RL        | 47,231         | 1.23              | 57,946         |
| 600m RL        | 47,597         | 1.13              | 53,898         |
| 595m RL        | 54,860         | 1.04              | 56,962         |
| 590m RL        | 36,670         | 1.08              | 39,532         |
| 585m RL        | 19,702         | 1.16              | 22,757         |
| <b>Totals:</b> | <b>498,220</b> | <b>1.21</b>       | <b>604,006</b> |

## 11) OPEN PIT VOLUMES - ORE &amp; WASTE

Extract - Table 3A

|               |                  |             |
|---------------|------------------|-------------|
| Total Volume: |                  | 793,210 bcm |
| less ore:     | 498,220 tonnes   |             |
| @ SG 3.50     |                  | 142,349 bcm |
| Waste Volume: |                  | 650,861 bcm |
| @ SG 2.85     | 1,854,955 tonnes |             |

Therefore:

W : O ratio (based on adj. tonnage factors) = 3.7:1.0

498 220 tonnes

## 2.2 Revised Assessment - refer attached Tables 1,2,3

## 1) ORE RESERVE ASSESSMENT

Extract - Table 1

| Level   | Tonnes  | Grade % Sn | T x G   |
|---------|---------|------------|---------|
| 655m RL | 188     | 0.88       | 166     |
| 650m RL | 2,120   | 0.88       | 1,873   |
| 645m RL | 2,851   | 0.91       | 2,591   |
| 640m RL | 4,619   | 0.89       | 4,131   |
| 635m RL | 20,614  | 1.01       | 20,907  |
| 630m RL | 35,798  | 1.20       | 42,909  |
| 625m RL | 40,861  | 1.40       | 57,365  |
| 620m RL | 66,225  | 1.25       | 82,525  |
| 615m RL | 59,860  | 1.34       | 80,473  |
| 610m RL | 59,025  | 1.35       | 79,969  |
| 605m RL | 47,231  | 1.23       | 57,946  |
| 600m RL | 36,369  | 1.09       | 39,603  |
| 595m RL | 36,666  | 1.17       | 42,907  |
| 590m RL | 18,581  | 1.17       | 21,743  |
| 585m RL | 0       | 0.00       | 0       |
| Totals: | 498,220 | 1.24       | 604,006 |

## 11) OPEN PIT VOLUMES - ORE &amp; WASTE

Extract - Table 3

|               |                  |             |
|---------------|------------------|-------------|
| Total Volume: |                  | 683,090 bcm |
| less ore:     | 431,007 tonnes   |             |
| @ SG 3.50     |                  | 123,145 bcm |
| Waste Volume: |                  | 559,945 bcm |
| @ SG 2.85     | 1,595,843 tonnes |             |

Therefore:

W : O ratio (based on adj. tonnage factors) = 3.7:1.0

3. COMMENTS:

Because of the significant reduction in the potential cash flow if the revised option is adopted, Lynch Mining should continue to consider the initial ore reserve assessment as the optimum option - ie ore availability of around 500,000 tonnes at about 1.21% Sn.

It will not be possible to commence shipping ore from Mt Bischoff until consistent ore supplies can be established from the 630m RL level and below.

Ore produced during mining will be stockpiled in three separate areas to facilitate blending, based on the following categories:

(a) Initial Ore Reserve Assessment:

|                    |          |           |                     |
|--------------------|----------|-----------|---------------------|
| High Grade S'pile  | -        | >1.30% Sn | 190,161t @ 1.57% Sn |
| Run of Mine S'pile | - 1.00 - | 1.19% Sn  | 135,072t @ 1.11% Sn |
| Low Grade S'pile   | - 0.80 - | 0.99% Sn  | 172,987t @ 0.90% Sn |
|                    |          |           | -----               |
| Totals:            |          |           | 498,220 @ 1.21% Sn  |

---

(b) Revised Ore Reserve Assessment:

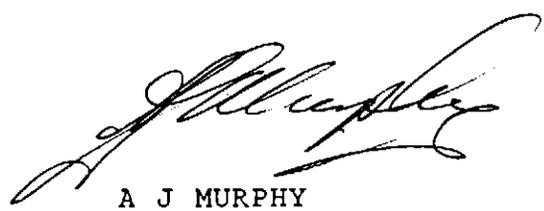
|                    |          |           |                     |
|--------------------|----------|-----------|---------------------|
| High Grade S'pile  | -        | >1.30% Sn | 173,785t @ 1.58% Sn |
| Run of Mine S'pile | - 1.00 - | 1.19% Sn  | 141,892t @ 1.11% Sn |
| Low Grade S'pile   | - 0.80 - | 0.99% Sn  | 115,330t @ 0.89% Sn |
|                    |          |           | -----               |
| Totals:            |          |           | 431,007t @ 1.24% Sn |

---

The adoption of an average dilution grade at 0.30% Sn is considered reasonable, in that dilution will be derived from three sources, viz:

|          |                          |                             |
|----------|--------------------------|-----------------------------|
| DSL      | at grades below 0.80% Sn | (represents 34% of Pit Vol) |
| Porphyry | around 0.2-0.30% Sn      | ( " " " 10% of Pit Vol)     |
| Dolomite | nil grade                | ( " " " 56% of Pit Vol)     |

However, many of the ore blocks abut other ore grade blocks and low grade DSL.



A J MURPHY

AWASM (mining);FAusIMM;MMICA

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TABLES FOR  
INITIAL ASSESSMENT

LYNCH MINING LIMITED

TABLE 1A.

Mt BISCHOFF TIN PROJECT - ORE RESERVE ASSESSMENT

17 July, 1993

| Level | Block No. | GEOLOGICAL RESOURCE |         |        | NON RECOVERABLE ORE |         |        | DILUTION |         |       | SUB - ORE |         |        | DILUTED MINEABLE RESERVES |         |        |
|-------|-----------|---------------------|---------|--------|---------------------|---------|--------|----------|---------|-------|-----------|---------|--------|---------------------------|---------|--------|
|       |           | Tonnes              | Grade % | T x G  | Tonnes              | Grade % | T x G  | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G  | Tonnes                    | Grade % | T x G  |
| 655m  | RL        | 157                 | 1.00    | 157    | 0                   | 0.00    | 0      | 31       | 0.30    | 9     | 0         | 0.00    | 0      | 188                       | 0.88    | 166    |
| 650m  | RL        | 1767                | 1.00    | 1767   | 0                   | 0.00    | 0      | 353      | 0.30    | 106   | 0         | 0.00    | 0      | 2120                      | 0.88    | 1873   |
| 645m  | RL        | 4951                | 0.82    | 4035   | 0                   | 0.00    | 0      | 475      | 0.30    | 143   | 2575      | 0.62    | 1587   | 2851                      | 0.91    | 2591   |
| 640m  | RL        | 17603               | 0.77    | 13637  | 0                   | 0.00    | 0      | 1341     | 0.30    | 402   | 14325     | 0.69    | 9908   | 4619                      | 0.89    | 4131   |
| 635m  | RL        | 33547               | 0.95    | 32012  | 3220                | 0.99    | 3198   | 2959     | 0.30    | 888   | 12672     | 0.69    | 8795   | 20614                     | 1.01    | 20907  |
| 630m  | RL        | 51146               | 1.16    | 59224  | 8858                | 1.04    | 9227   | 5304     | 0.30    | 1591  | 11794     | 0.74    | 8680   | 35798                     | 1.20    | 42909  |
| 625m  | RL        | 57512               | 1.27    | 73135  | 7575                | 1.03    | 7796   | 5585     | 0.30    | 1675  | 14662     | 0.66    | 9649   | 40861                     | 1.40    | 57365  |
| 620m  | RL        | 86061               | 1.14    | 97849  | 16025               | 0.64    | 10285  | 8638     | 0.32    | 2756  | 12449     | 0.63    | 7794   | 66225                     | 1.25    | 82525  |
| 615m  | RL        | 78809               | 1.25    | 98237  | 10291               | 0.77    | 7892   | 8776     | 0.30    | 2633  | 17435     | 0.72    | 12505  | 59860                     | 1.34    | 80473  |
| 610m  | RL        | 70207               | 1.30    | 91010  | 6213                | 0.77    | 4756   | 7699     | 0.30    | 2310  | 12668     | 0.68    | 8594   | 59025                     | 1.35    | 79969  |
| 605m  | RL        | 67386               | 1.10    | 74289  | 14809               | 0.69    | 10197  | 6360     | 0.30    | 1908  | 11707     | 0.87    | 10197  | 47231                     | 1.23    | 57946  |
| 600m  | RL        | 72764               | 1.04    | 75967  | 20790               | 0.79    | 16407  | 6208     | 0.30    | 1863  | 10585     | 0.71    | 7523   | 47597                     | 1.13    | 53898  |
| 595m  | RL        | 101066              | 0.94    | 94566  | 31558               | 0.74    | 23454  | 7156     | 0.30    | 2147  | 21804     | 0.75    | 16297  | 54860                     | 1.04    | 56962  |
| 590m  | RL        | 82094               | 0.96    | 78863  | 47722               | 0.81    | 38827  | 4783     | 0.30    | 1435  | 2485      | 0.78    | 1938   | 36670                     | 1.08    | 39532  |
| 585m  | RL        | 57113               | 0.93    | 53369  | 39981               | 0.78    | 31382  | 2570     | 0.30    | 771   | 0         | 0.00    | 0      | 19702                     | 1.16    | 22757  |
|       |           | 782183              | 1.08    | 848117 | 207042              | 0.79    | 163422 | 68239    | 0.30    | 20637 | 145160    | 0.71    | 103467 | 498220                    | 1.21    | 604006 |

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TABLE 1A - ORE RESERVE ASSESSMENT SUMMARY  
TABLE 2A - ORE RESERVE ASSESSMENT  
TABLE 3A - TOTAL VOLUMES (ORE - WASTE)

MT BISCHOFF TIN PROJECT  
TASMANIA

Mt BISCHOFF TIN PROJECT - ORE RESERVE ASSESSMENT

17 July, 1993

| Level   | Block No. | GEOLOGICAL RESOURCE |             |               | NON RECOVERABLE ORE |             |               | DILUTION     |             |              | SUB - ORE     |             |               | DILUTED MINEABLE RESERVES |             |               |
|---------|-----------|---------------------|-------------|---------------|---------------------|-------------|---------------|--------------|-------------|--------------|---------------|-------------|---------------|---------------------------|-------------|---------------|
|         |           | Tonnes              | Grade %     | T x G         | Tonnes              | Grade %     | T x G         | Tonnes       | Grade %     | T x G        | Tonnes        | Grade %     | T x G         | Tonnes                    | Grade %     | T x G         |
| 655m RL |           | 157                 | 1.00        | 157           | 0                   | 0.00        | 0             | 31           | 0.30        | 9            | 0             | 0.00        | 0             | 188                       | 0.88        | 166           |
| 650m RL |           | 1767                | 1.00        | 1767          | 0                   | 0.00        | 0             | 353          | 0.30        | 106          | 0             | 0.00        | 0             | 2120                      | 0.85        | 1873          |
| 645m RL |           | 4951                | 0.82        | 4035          | 0                   | 0.00        | 0             | 475          | 0.30        | 143          | 2575          | 0.62        | 1587          | 2851                      | 0.91        | 2591          |
| 640m RL |           | 17603               | 0.77        | 13637         | 0                   | 0.00        | 0             | 1341         | 0.30        | 402          | 14325         | 0.69        | 9908          | 4619                      | 0.89        | 4131          |
| 635m RL |           | 33547               | 0.95        | 32012         | 3220                | 0.99        | 3198          | 2959         | 0.30        | 888          | 12672         | 0.69        | 8795          | 20614                     | 1.01        | 20907         |
| 630m RL |           | 51146               | 1.16        | 59224         | 8858                | 1.04        | 9227          | 5304         | 0.30        | 1591         | 11794         | 0.74        | 8680          | 35798                     | 1.20        | 42909         |
| 625m RL |           | 57512               | 1.27        | 73135         | 7575                | 1.03        | 7796          | 5585         | 0.30        | 1675         | 14662         | 0.66        | 9649          | 40861                     | 1.40        | 57365         |
| 620m RL |           | 86061               | 1.14        | 97849         | 16025               | 0.64        | 10285         | 8638         | 0.32        | 2756         | 12449         | 0.63        | 7794          | 66225                     | 1.25        | 82525         |
| 615m RL |           | 78809               | 1.25        | 98237         | 10291               | 0.77        | 7892          | 9776         | 0.30        | 2633         | 17435         | 0.72        | 12505         | 59860                     | 1.34        | 80473         |
| 610m RL |           | 70207               | 1.30        | 91010         | 6213                | 0.77        | 4756          | 7699         | 0.30        | 2310         | 12668         | 0.68        | 8594          | 59025                     | 1.35        | 79969         |
| 605m RL |           | 67386               | 1.10        | 74289         | 14809               | 0.69        | 10197         | 6360         | 0.30        | 1908         | 11707         | 0.87        | 10197         | 47231                     | 1.23        | 57946         |
| 600m RL |           | 72764               | 1.04        | 75967         | 20790               | 0.79        | 16407         | 6208         | 0.30        | 1863         | 10525         | 0.71        | 7523          | 47597                     | 1.13        | 53898         |
| 595m RL |           | 101066              | 0.94        | 94566         | 31558               | 0.74        | 23454         | 7156         | 0.30        | 2147         | 21804         | 0.75        | 16297         | 54860                     | 1.04        | 56962         |
| 590m RL |           | 82094               | 0.96        | 78863         | 47722               | 0.81        | 38827         | 4783         | 0.30        | 1435         | 2485          | 0.78        | 1938          | 36670                     | 1.08        | 39532         |
| 585m RL |           | 57113               | 0.93        | 53369         | 39981               | 0.78        | 31382         | 2570         | 0.30        | 771          | 0             | 0.00        | 0             | 19702                     | 1.16        | 22757         |
|         |           | <u>782183</u>       | <u>1.08</u> | <u>848117</u> | <u>207042</u>       | <u>0.79</u> | <u>163422</u> | <u>68239</u> | <u>0.30</u> | <u>20637</u> | <u>145160</u> | <u>0.71</u> | <u>103467</u> | <u>498220</u>             | <u>1.21</u> | <u>604006</u> |

183040

ME BISCHOFF TIN PROJECT - ORE RESERVE ASSESSMENT

17 July, 1993

183041

| Level   | Block No. | GEOLOGICAL RESOURCE |         |        | NON RECOVERABLE ORE |         |       | DILUTION |         |       | SUB - ORE |         |        | DILUTED MINEABLE RESERVES |         |       | CATEGORY |
|---------|-----------|---------------------|---------|--------|---------------------|---------|-------|----------|---------|-------|-----------|---------|--------|---------------------------|---------|-------|----------|
|         |           | Tonnes              | Grade % | T x G  | Tonnes              | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G  | Tonnes                    | Grade % | T x G |          |
| 655m    | 1 (i)     | 157                 | 1.00    | 157    |                     |         |       | 31       | 0.30    | 9     |           |         |        | 158                       | 0.88    | 166   | Possible |
| 650m    | 1         | 1767                | 1.00    | 1767   |                     |         |       | 353      | 0.30    | 106   |           |         |        | 2120                      | 0.38    | 1273  | Possible |
| 645m    | 1(i)      | 745                 | 0.55    | 410    |                     |         |       |          |         |       | 745       | 0.55    | 410    |                           |         |       |          |
|         | 2(1)      | 1470                | 0.63    | 926    |                     |         |       |          |         |       | 1470      | 0.63    | 926    |                           |         |       |          |
|         | 3         | 1575                | 1.00    | 1575   |                     |         |       | 315      | 0.30    | 95    |           |         |        | 1890                      | 0.88    | 1670  | Possible |
|         | 4 (i)     | 45                  | 0.96    | 43     |                     |         |       | 9        | 0.30    | 3     |           |         |        | 54                        | 0.35    | 46    | Probable |
|         | 5 (i)     | 700                 | 1.09    | 763    |                     |         |       | 140      | 0.30    | 42    |           |         |        | 840                       | 0.96    | 805   | Possible |
|         | 6 (i)     | 297                 | 0.77    | 221    |                     |         |       |          |         |       | 287       | 0.77    | 221    |                           |         |       |          |
|         | 7 (i)     | 56                  | 1.20    | 67     |                     |         |       | 11       | 0.30    | 3     |           |         |        | 67                        | 1.05    | 71    | Possible |
|         | 8 (i)     | 73                  | 0.41    | 30     |                     |         |       |          |         |       | 73        | 0.41    | 30     |                           |         |       |          |
|         |           | 4951                | 0.82    | 4035   |                     |         |       | 475      | 0.30    | 143   |           |         |        | 2575                      | 0.62    | 1587  |          |
| 640m RL | 1 (i)     | 582                 | 0.78    | 688    |                     |         |       |          |         |       | 882       | 0.78    | 688    |                           |         |       |          |
|         | 2         | 1032                | 0.55    | 568    |                     |         |       |          |         |       | 1032      | 0.55    | 568    |                           |         |       |          |
|         | 3 (i)     | 1575                | 0.77    | 1213   |                     |         |       |          |         |       | 1575      | 0.77    | 1213   |                           |         |       |          |
|         | 4/5       | 2380                | 0.75    | 1785   |                     |         |       |          |         |       | 2380      | 0.75    | 1785   |                           |         |       |          |
|         | 6         | 1102                | 0.97    | 1069   |                     |         |       | 220      | 0.30    | 66    |           |         |        | 1322                      | 0.86    | 1135  | Proven   |
|         | 7 (i)     | 693                 | 0.66    | 457    |                     |         |       |          |         |       | 693       | 0.66    | 457    |                           |         |       |          |
|         | 8         | 1645                | 0.88    | 1448   |                     |         |       | 329      | 0.30    | 99    |           |         |        | 1974                      | 0.78    | 1546  |          |
|         | 9 (i)     | 1512                | 0.90    | 1361   |                     |         |       | 302      | 0.30    | 91    |           |         |        | 1814                      | 0.80    | 1452  | Probable |
|         | 10 (i)    | 1078                | 0.49    | 528    |                     |         |       |          |         |       | 1078      | 0.49    | 528    |                           |         |       |          |
|         | 11 (i)    | 1176                | 0.48    | 564    |                     |         |       |          |         |       | 1176      | 0.48    | 564    |                           |         |       |          |
|         | 12        | 1540                | 0.77    | 1186   |                     |         |       |          |         |       | 1540      | 0.77    | 1186   |                           |         |       |          |
|         | 13 (i)    | 1211                | 0.89    | 1078   |                     |         |       | 242      | 0.30    | 73    |           |         |        | 1453                      | 0.79    | 1150  |          |
|         | 14 (i)    | 588                 | 1.18    | 694    |                     |         |       | 118      | 0.30    | 35    |           |         |        | 706                       | 1.03    | 729   | Possible |
|         | 15        | 647                 | 1.20    | 776    |                     |         |       | 129      | 0.30    | 39    |           |         |        | 776                       | 1.05    | 815   | Possible |
|         | 16        | 542                 | 0.41    | 222.22 |                     |         |       |          |         |       | 542       | 0.41    | 222.22 |                           |         |       |          |
|         |           |                     | 17603   | 0.77   | 13637               |         |       |          | 1341    | 0.30  | 402       |         |        |                           | 14325   | 0.69  | 9908     |

| Level  | Block No. | GEOLOGICAL RESOURCE |         |       | NON RECOVERABLE ORE |         |       | DILUTION |         |       | SUB - ORE |         |       | DILUTED MINEABLE RESERVES |         |       | CATEGORY |       |
|--------|-----------|---------------------|---------|-------|---------------------|---------|-------|----------|---------|-------|-----------|---------|-------|---------------------------|---------|-------|----------|-------|
|        |           | Tonnes              | Grade % | T x G | Tonnes              | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                    | Grade % | T x G |          |       |
| 635m   | 1         | 2555                | 0.78    | 1993  |                     |         |       |          |         |       | 2555      | 0.78    | 1993  |                           |         |       |          |       |
|        | 2         | 805                 | 0.55    | 443   |                     |         |       |          |         |       | 805       | 0.55    | 443   |                           |         |       |          |       |
|        | 3/4       | 2940                | 1.15    | 3381  |                     |         |       | 441      | 0.30    | 132   |           |         |       | 3381                      | 1.04    | 3513  | Possible |       |
|        | 5         | 2222                | 1.11    | 2466  |                     |         |       | 333      | 0.30    | 100   |           |         |       | 2555                      | 1.00    | 2566  | Probable |       |
|        | 6/7/8     | 1820                | 1.15    | 2093  |                     |         |       | 273      | 0.30    | 82    |           |         |       | 2093                      | 1.04    | 2175  | Possible |       |
|        | 9 (i)     | 45                  | 0.72    | 32    |                     |         |       |          |         |       | 45        | 0.72    | 32    |                           |         |       |          |       |
|        | 10        | 2310                | 0.66    | 1525  |                     |         |       |          |         |       | 2310      | 0.66    | 1525  |                           |         |       |          |       |
|        | 11        | 1610                | 0.64    | 1030  |                     |         |       |          |         |       | 1610      | 0.64    | 1030  |                           |         |       |          |       |
|        | 12        | 1732                | 0.90    | 1559  |                     |         |       | 260      | 0.30    | 78    |           |         |       | 1992                      | 0.82    | 1637  | Probable |       |
|        | 13 (i)    | 73                  | 0.42    | 31    |                     |         |       |          |         |       | 73        | 0.42    | 31    |                           |         |       |          |       |
|        | 14 (i)    | 1802                | 0.82    | 1478  |                     |         |       | 270      | 0.30    | 81    |           |         |       | 2072                      | 0.75    | 1559  |          |       |
|        | 15 (i)    | 37                  | 0.98    | 85    |                     |         |       | 13       | 0.30    | 4     |           |         |       | 100                       | 0.39    | 39    | Possible |       |
|        | 16        | 2415                | 0.77    | 1860  |                     |         |       |          |         |       | 2415      | 0.77    | 1860  |                           |         |       |          |       |
|        | 17        | 3990                | 0.89    | 3551  |                     |         |       | 599      | 0.30    | 180   |           |         |       | 4589                      | 0.81    | 3731  | Possible |       |
|        | 18 (i)    | 1261                | 2.06    | 2639  |                     |         |       | 192      | 0.30    | 58    |           |         |       | 1473                      | 1.83    | 2697  | Probable |       |
|        | 19        | 980                 | 1.18    | 1156  |                     |         |       | 147      | 0.30    | 44    |           |         |       | 1127                      | 1.07    | 1201  | Possible |       |
|        | 20        | 1330                | 1.20    | 1596  |                     |         |       | 200      | 0.30    | 60    |           |         |       | 1530                      | 1.08    | 1656  |          |       |
|        | 21        | 787                 | 0.41    | 323   |                     |         |       |          |         |       | 787       | 0.41    | 323   |                           |         |       |          |       |
|        | 22 (i)    | 1543                | 1.02    | 1574  |                     |         |       | 231      | 0.30    | 69    |           |         |       | 1774                      | 0.93    | 1643  | Possible |       |
|        | 23 (i)    | 2163                | 0.55    | 1190  | 2163                | 0.55    | 1190  |          |         |       |           |         |       |                           |         |       |          |       |
|        | 24 (i)    | 1057                | 1.90    | 2008  | 1057                | 1.90    | 2008  |          |         |       |           |         |       |                           |         |       |          |       |
|        |           |                     | -----   | ----- | -----               | -----   | ----- | -----    | -----   | ----- | -----     | -----   | ----- | -----                     | -----   | ----- | -----    | ----- |
|        |           |                     | 33547   | 0.95  | 32012               | 3220    | 0.99  | 3198     | 2959    | 0.30  | 888       | 12672   | 0.69  | 8795                      | 20614   | 1.01  | 20907    |       |
|        | 630m      | 1                   | 3325    | 0.78  | 2594                |         |       |          |         |       |           | 3325    | 0.78  | 2594                      |         |       |          |       |
| 2      |           | 5397                | 1.54    | 9081  |                     |         |       | 885      | 0.30    | 265   |           |         |       | 6782                      | 1.38    | 9347  | Probable |       |
| 3      |           | 2397                | 1.38    | 3308  |                     |         |       | 360      | 0.30    | 108   |           |         |       | 2757                      | 1.24    | 3416  |          |       |
| 4 - 7  |           | 2485                | 1.58    | 3926  |                     |         |       | 373      | 0.30    | 112   |           |         |       | 2858                      | 1.41    | 4038  | Proven   |       |
| 8      |           | 332                 | 0.72    | 239   |                     |         |       |          |         |       | 332       | 0.72    | 239   |                           |         |       |          |       |
| 9/10   |           | 3377                | 0.57    | 2938  |                     |         |       | 507      | 0.30    | 152   |           |         |       | 3584                      | 0.30    | 3090  | Possible |       |
| 11     |           | 962                 | 0.64    | 616   |                     |         |       |          |         |       | 962       | 0.64    | 616   |                           |         |       |          |       |
| 12 (i) |           | 252                 | 0.50    | 126   |                     |         |       |          |         |       | 252       | 0.50    | 126   |                           |         |       |          |       |
| 13     |           | 1330                | 0.42    | 559   | 1330                | 0.42    | 559   |          |         |       |           |         |       |                           |         |       |          |       |
| 14 (i) |           | 1022                | 0.49    | 501   | 511                 | 0.49    | 250   |          |         |       | 511       | 0.49    | 250   |                           |         |       |          |       |
| 15 (i) |           | 38                  | 0.67    | 25    |                     |         |       |          |         |       | 38        | 0.67    | 25    |                           |         |       |          |       |
| 16     |           | 1557                | 0.82    | 1277  |                     |         |       | 234      | 0.30    | 70    |           |         |       | 1791                      | 0.75    | 1347  |          |       |
| 17 (i) |           | 2205                | 0.98    | 2161  |                     |         |       | 331      | 0.30    | 99    |           |         |       | 2536                      | 0.39    | 2260  | Possible |       |
| 18     |           | 840                 | 0.83    | 697   |                     |         |       | 126      | 0.30    | 38    |           |         |       | 966                       | 0.76    | 735   |          |       |
| 19     |           | 1505                | 0.77    | 1159  |                     |         |       |          |         |       | 1505      | 0.77    | 1159  |                           |         |       |          |       |
| 20     |           | 1802                | 0.90    | 1622  |                     |         |       | 270      | 0.30    | 81    |           |         |       | 2072                      | 0.82    | 1703  | Probable |       |
| 21     |           | 4252                | 0.29    | 3784  |                     |         |       | 638      | 0.30    | 191   |           |         |       | 4890                      | 0.31    | 3976  | Possible |       |
| 22     |           | 6072                | 1.98    | 12023 |                     |         |       | 911      | 0.30    | 273   |           |         |       | 6983                      | 1.76    | 12296 | Probable |       |
| 23     |           | 1837                | 0.32    | 1506  |                     |         |       | 276      | 0.30    | 83    |           |         |       | 2113                      | 0.75    | 1589  |          |       |
| 24     |           | 997                 | 0.99    | 987   |                     |         |       | 190      | 0.30    | 45    |           |         |       | 1147                      | 0.90    | 1032  | Possible |       |
| 25     |           | 1645                | 1.02    | 1678  |                     |         |       | 247      | 0.30    | 74    |           |         |       | 1892                      | 0.93    | 1752  |          |       |
| 26     |           | 3640                | 0.55    | 2002  | 3640                | 0.55    | 2002  |          |         |       |           |         |       |                           |         |       |          |       |
| 27     |           | 3377                | 1.90    | 6416  | 3377                | 1.90    | 6416  |          |         |       |           |         |       |                           |         |       |          |       |
|        |           |                     | -----   | ----- | -----               | -----   | ----- | -----    | -----   | ----- | -----     | -----   | ----- | -----                     | -----   | ----- | -----    | ----- |
|        |           |                     | 51146   | 1.16  | 39224               | 8858    | 1.04  | 9227     | 5304    | 0.30  | 1591      | 11794   | 0.74  | 8680                      | 35798   | 1.20  | 42909    |       |

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| Level   | Block No. | GEOLOGICAL RESOURCE |         |       | NON RECOVERABLE ORE |         |       | DILUTION |         |       | SUB - ORE |         |       | DILUTED MINEABLE RESERVES |         |       | CATEGORY |
|---------|-----------|---------------------|---------|-------|---------------------|---------|-------|----------|---------|-------|-----------|---------|-------|---------------------------|---------|-------|----------|
|         |           | Tonnes              | Grade % | T x G | Tonnes              | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                    | Grade % | T x G |          |
| 625m RL | 1         | 3797                | 0.78    | 2962  | 1899                | 0.78    | 1481  |          |         |       | 1899      | 0.78    | 1481  |                           |         |       |          |
|         | 2/4A      | 8435                | 1.61    | 13580 |                     |         |       | 1265     | 0.30    | 380   |           |         |       | 9700                      | 1.44    | 13960 | Probable |
|         | 3         | 2992                | 1.38    | 4129  |                     |         |       | 449      | 0.30    | 135   |           |         |       | 3441                      | 1.24    | 4264  | Probable |
|         | 4 - 5     | 3447                | 1.62    | 5534  |                     |         |       | 517      | 0.30    | 155   |           |         |       | 3964                      | 1.45    | 5739  | Proven   |
|         | 9         | 560                 | 0.70    | 392   |                     |         |       |          |         |       | 560       | 0.70    | 392   |                           |         |       |          |
|         | 10        | 2625                | 1.32    | 3465  |                     |         |       | 394      | 0.30    | 118   |           |         |       | 3019                      | 1.19    | 3583  | Probable |
|         | 11        | 245                 | 0.72    | 176   |                     |         |       |          |         |       | 245       | 0.72    | 176   |                           |         |       |          |
|         | 12 (i)    | 140                 | 0.50    | 70    |                     |         |       |          |         |       | 140       | 0.50    | 70    |                           |         |       |          |
|         | 13 (i)    | 175                 | 0.58    | 102   |                     |         |       |          |         |       | 175       | 0.58    | 102   |                           |         |       |          |
|         | 14 (i)    | 133                 | 0.60    | 80    |                     |         |       |          |         |       | 133       | 0.60    | 80    |                           |         |       |          |
|         | 15 (i)    | 903                 | 0.47    | 424   |                     |         |       |          |         |       | 903       | 0.47    | 424   |                           |         |       |          |
|         | 16 (i)    | 238                 | 1.13    | 269   |                     |         |       | 36       | 0.30    | 11    |           |         |       | 274                       | 1.02    | 280   | Probable |
|         | 17        | 3430                | 0.67    | 2298  |                     |         |       |          |         |       | 3430      | 0.67    | 2298  |                           |         |       |          |
|         | 18        | 2240                | 0.98    | 2195  |                     |         |       | 336      | 0.30    | 101   |           |         |       | 2576                      | 0.89    | 2296  | Possible |
|         | 19        | 1715                | 1.18    | 2024  |                     |         |       | 257      | 0.30    | 77    |           |         |       | 1972                      | 1.07    | 2101  | Probable |
|         | 20        | 980                 | 0.77    | 755   |                     |         |       |          |         |       | 980       | 0.77    | 755   |                           |         |       |          |
|         | 21 (i)    | 1036                | 0.67    | 694   |                     |         |       |          |         |       | 1036      | 0.67    | 694   |                           |         |       |          |
|         | 22 (i)    | 567                 | 0.66    | 374   |                     |         |       |          |         |       | 567       | 0.66    | 374   |                           |         |       |          |
|         | 23/26     | 10150               | 1.85    | 18778 |                     |         |       | 1523     | 0.30    | 457   |           |         |       | 11673                     | 1.65    | 19234 | Probable |
|         | 24 (i)    | 1701                | 0.84    | 1429  |                     |         |       | 255      | 0.30    | 77    |           |         |       |                           |         |       |          |
|         | 25 (i)    | 325                 | 0.45    | 146   |                     |         |       |          |         |       | 1956      | 0.77    | 1505  |                           |         |       |          |
|         | 27 (i)    | 1435                | 1.71    | 2454  |                     |         |       |          |         |       | 325       | 0.45    | 146   |                           |         |       |          |
|         | 28 (i)    | 1099                | 1.50    | 1649  |                     |         |       | 215      | 0.30    | 65    |           |         |       | 1650                      | 1.53    | 2518  | Possible |
|         | 29        | 2240                | 0.50    | 1120  |                     |         |       | 165      | 0.30    | 49    |           |         |       | 1264                      | 1.34    | 1698  | Possible |
|         | 30        | 1155                | 1.42    | 1640  |                     |         |       |          |         |       | 2240      | 0.50    | 1120  |                           |         |       |          |
|         | 31        | 3727                | 1.29    | 4808  |                     |         |       | 173      | 0.30    | 52    |           |         |       | 1328                      | 1.27    | 1692  | Possible |
|         | 32 (i)    | 94                  | 0.76    | 71    | 3727                | 1.29    | 4808  |          |         |       |           |         |       |                           |         |       |          |
|         | 33 (i)    | 378                 | 1.18    | 446   | 94                  | 0.76    | 71    |          |         |       |           |         |       |                           |         |       |          |
|         | 34 (i)    | 567                 | 0.45    | 255   | 378                 | 1.18    | 446   |          |         |       |           |         |       |                           |         |       |          |
|         | 35 (i)    | 259                 | 1.48    | 383   | 567                 | 0.45    | 255   |          |         |       |           |         |       |                           |         |       |          |
|         | 36 (i)    | 73                  | 0.43    | 31    | 259                 | 1.48    | 383   |          |         |       |           |         |       |                           |         |       |          |
|         | 37 (i)    | 651                 | 0.54    | 352   |                     |         |       |          |         |       | 73        | 0.43    | 31    |                           |         |       |          |
|         |           | 57512               | 1.27    | 73135 | 7575                | 1.03    | 7796  | 5535     | 0.30    | 1675  | 14662     | 0.66    | 9649  | 40861                     | 1.40    | 57365 |          |

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| Level   | Block No. | GEOLOGICAL RESOURCE |         |       | NON RECOVERABLE ORE |         |       | DILUTION |         |       | SUB - ORE |         |       | DILUTED MINEABLE RESERVES |         |       | CATEGORY |          |
|---------|-----------|---------------------|---------|-------|---------------------|---------|-------|----------|---------|-------|-----------|---------|-------|---------------------------|---------|-------|----------|----------|
|         |           | Tonnes              | Grade % | T x G | Tonnes              | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                    | Grade % | T x G |          |          |
| 620m RL | 1         | 3745                | 0.78    | 2921  | 1124                | 0.78    | 876   |          |         |       | 2622      | 0.78    | 2045  |                           |         |       |          |          |
|         | 2/2A      | 5215                | 1.63    | 8500  |                     |         |       | 782      | 0.30    | 235   |           |         |       | 5997                      | 1.46    | 8735  | Probable |          |
|         | 3         | 3500                | 1.38    | 4830  |                     |         |       | 525      | 0.30    | 158   |           |         |       | 4025                      | 1.24    | 4988  | Probable |          |
|         | 4         | 945                 | 0.59    | 558   |                     |         |       |          |         |       | 945       | 0.59    | 558   |                           |         |       |          |          |
|         | 5 - 15    | 5355                | 1.40    | 7497  |                     |         |       | 803      | 0.30    | 241   |           |         |       | 6158                      | 1.26    | 7738  | Proven   |          |
|         | 16 (i)    | 77                  | 1.26    | 97    |                     |         |       | 12       | 0.30    | 3     |           |         |       | 89                        | 1.13    | 100   | Proven   |          |
|         | 17/18     | 875                 | 0.79    | 691   |                     |         |       |          |         |       | 875       | 0.79    | 691   |                           |         |       |          |          |
|         | 19        | 700                 | 0.69    | 483   |                     |         |       |          |         |       | 700       | 0.69    | 483   |                           |         |       |          |          |
|         | 20        | 1645                | 1.70    | 2797  |                     |         |       | 247      | 0.30    | 74    |           |         |       | 1892                      | 1.52    | 2871  | Probable |          |
|         | 21        | 1680                | 0.47    | 790   |                     |         |       |          |         |       | 1680      | 0.47    | 790   |                           |         |       |          |          |
|         | 22/23     | 12600               | 0.94    | 11844 |                     |         |       | 1890     | 0.30    | 567   |           |         |       | 14490                     | 0.86    | 12411 | Probable |          |
|         | 24/25     | 3080                | 0.96    | 2957  |                     |         |       | 462      | 0.30    | 139   |           |         |       | 3542                      | 0.87    | 3095  | Probable |          |
|         | 26 (i)    | 1722                | 1.62    | 2790  |                     |         |       | 258      | 0.30    | 77    |           |         |       | 1980                      | 1.45    | 2867  | Probable |          |
|         | 27        | 2012                | 1.11    | 2233  |                     |         |       | 302      | 0.30    | 91    |           |         |       | 2314                      | 1.00    | 2324  | Probable |          |
|         | 28        | 2590                | 0.66    | 1709  |                     |         |       |          |         |       | 2590      | 0.66    | 1709  |                           |         |       |          |          |
|         | 29        | 8995                | 2.06    | 13530 |                     |         |       | 1349     | 0.30    | 405   |           |         |       | 10344                     | 1.83    | 18934 | Probable |          |
|         | 30/31     | 4497                | 1.00    | 4497  |                     |         |       | 675      | 0.30    | 202   |           |         |       | 5172                      | 0.91    | 4699  | Probable |          |
|         | 32 - 35   | 8242                | 1.50    | 12363 |                     |         |       | 1236     | 0.30    | 371   |           |         |       | 9478                      | 1.34    | 12734 | Possible |          |
|         | 36        | 3797                | 0.50    | 1899  | 759                 | 0.50    | 380   |          |         |       | 3038      | 0.50    | 1519  |                           |         |       |          |          |
|         | 37 (i)    | 2068                | 0.62    | 1282  | 2068                | 0.62    | 1282  |          |         |       |           |         |       |                           |         |       |          |          |
|         | 38 (i)    | 161                 | 0.48    | 77    | 161                 | 0.48    | 77    |          |         |       |           |         |       |                           |         |       |          |          |
|         | 39        | 322                 | 0.92    | 756   | 822                 | 0.92    | 756   |          |         |       |           |         |       |                           |         |       |          |          |
|         | 40 (i)    | 1484                | 0.67    | 994   | 1484                | 0.67    | 994   |          |         |       |           |         |       |                           |         |       |          |          |
|         | 41        | 3237                | 0.52    | 1683  | 3237                | 0.52    | 1683  |          |         |       |           |         |       |                           |         |       |          |          |
|         | 42        | 1050                | 1.48    | 1554  | 1050                | 1.48    | 1554  |          |         |       |           |         |       |                           |         |       |          |          |
|         | 43 (i)    | 434                 | 0.62    | 269   | 434                 | 0.62    | 269   |          |         |       |           |         |       |                           |         |       |          |          |
|         | 44        | 647                 | 1.29    | 835   |                     |         |       | 97       | 0.30    | 194   |           |         |       | 744                       | 1.38    | 1029  | Possible |          |
|         | 45 (i)    | 1722                | 0.43    | 740   | 1722                | 0.43    | 740   |          |         |       |           |         |       |                           |         |       |          |          |
|         | 46 (i)    | 1204                | 0.51    | 614   | 1204                | 0.51    | 614   |          |         |       |           |         |       |                           |         |       |          |          |
|         | 47        | 1960                | 0.54    | 1058  | 1960                | 0.54    | 1058  |          |         |       |           |         |       |                           |         |       |          |          |
|         |           |                     | 86061   | 1.14  | 97849               | 16025   | 0.54  | 10285    | 8638    | 0.32  | 2756      | 12449   | 0.63  | 7794                      | 66225   | 1.25  | 82525    |          |
|         | 615 m RL  | 1/2                 | 3500    | 0.75  | 2625                | 2625    | 0.75  | 1969     |         |       |           | 375     | 0.75  | 656                       |         |       |          |          |
|         |           | 3/4                 | 3465    | 1.50  | 5198                |         |       |          | 520     | 0.30  | 156       |         |       |                           | 3985    | 1.34  | 5353     | Probable |
|         |           | 5                   | 1207    | 0.59  | 712                 |         |       |          |         |       |           | 1207    | 0.59  | 712                       |         |       |          |          |
|         |           | 6 - 15              | 7507    | 1.42  | 10660               |         |       |          | 1126    | 0.30  | 338       |         |       |                           | 8633    | 1.27  | 10998    | Proven   |
|         |           | 16 - 18             | 665     | 1.33  | 884                 |         |       |          | 100     | 0.30  | 30        |         |       |                           | 765     | 1.20  | 914      | Proven   |
|         |           | 19                  | 1575    | 1.70  | 2678                | 866     | 1.70  | 1473     | 106     | 0.30  | 32        |         |       |                           | 815     | 1.52  | 1237     | Probable |
|         |           | 20 (i)              | 437     | 0.71  | 310                 |         |       |          |         |       |           | 437     | 0.71  | 310                       |         |       |          |          |
|         |           | 21                  | 1995    | 0.56  | 1117                |         |       |          |         |       |           | 1995    | 0.56  | 1117                      |         |       |          |          |
|         |           | 22/23               | 15522   | 1.06  | 16453               |         |       |          | 2328    | 0.30  | 698       |         |       |                           | 17350   | 0.96  | 17152    | Probable |
|         |           | 24/25               | 6457    | 0.86  | 5553                |         |       |          | 969     | 0.30  | 291       |         |       |                           | 7426    | 0.79  | 5844     | Probable |
|         |           | 26                  | 4900    | 1.52  | 7938                |         |       |          | 735     | 0.30  | 221       |         |       |                           | 5635    | 1.45  | 8159     | Probable |
|         |           | 27                  | 2170    | 0.77  | 1671                |         |       |          |         |       |           | 2170    | 0.77  | 1671                      |         |       |          |          |
|         |           | 28                  | 3325    | 0.66  | 2195                |         |       |          |         |       |           | 3325    | 0.66  | 2195                      |         |       |          |          |
|         |           | 29                  | 8820    | 2.06  | 18169               |         |       |          | 1323    | 0.30  | 397       |         |       |                           | 10143   | 1.83  | 18566    | Probable |
|         |           | 30/31               | 2222    | 1.44  | 3200                |         |       |          | 333     | 0.30  | 100       |         |       |                           | 2555    | 1.29  | 3300     | Probable |
|         |           | 32/33               | 8242    | 1.75  | 14424               |         |       |          | 1236    | 0.30  | 371       |         |       |                           | 9478    | 1.56  | 14794    | Possible |
| 34      |           | 4252                | 0.50    | 2126  | 4252                | 0.50    | 2126  |          |         |       |           |         |       |                           |         |       |          |          |
| 35      | 805       | 1.87                | 1505    | 805   | 1.87                | 1505    |       |          |         |       |           |         |       |                           |         |       |          |          |
| 36 (i)  | 1743      | 0.47                | 819     | 1743  | 0.47                | 819     |       |          |         |       |           |         |       |                           |         |       |          |          |
|         |           | 78809               | 1.25    | 98237 | 10291               | 0.77    | 7892  | 8776     | 0.30    | 2633  | 17435     | 0.72    | 12505 | 59860                     | 1.34    | 80473 |          |          |

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| Level   | Block No.    | GEOLOGICAL RESOURCE |         |       | NON RECOVERABLE ORE |         |       | DILUTION |         |       | SUB - ORE |         |       | DILUTED MINEABLE RESERVES |         |       | CATEGORY |
|---------|--------------|---------------------|---------|-------|---------------------|---------|-------|----------|---------|-------|-----------|---------|-------|---------------------------|---------|-------|----------|
|         |              | Tonnes              | Grade % | T x G | Tonnes              | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                    | Grade % | T x G |          |
| 610m RL | 1            | 2870                | 0.69    | 1980  | 2870                | 0.69    | 1980  |          |         |       |           |         |       |                           |         |       |          |
|         | 2            | 2870                | 1.72    | 4936  |                     |         |       | 431      | 0.30    | 129   |           |         |       | 3301                      | 1.53    | 5066  | Probable |
|         | 3            | 1085                | 0.59    | 640   |                     |         |       |          |         |       | 1085      | 0.59    | 640   |                           |         |       |          |
|         | 4 - 14       | 7385                | 1.63    | 12038 |                     |         |       | 1108     | 0.30    | 332   |           |         |       | 8493                      | 1.46    | 12370 | Proven   |
|         | 15           | 1120                | 0.94    | 1053  |                     |         |       | 165      | 0.30    | 50    |           |         |       | 1282                      | 0.86    | 1103  |          |
|         | 16/17        | 8312                | 0.69    | 5735  | 2909                | 0.69    | 2007  |          |         |       | 5403      | 0.69    | 3728  |                           |         |       |          |
|         | 18           | 13055               | 1.11    | 14491 |                     |         |       | 1958     | 0.30    | 587   |           |         |       | 15013                     | 1.00    | 15079 | Probable |
|         | 19/20        | 8470                | 0.38    | 7454  |                     |         |       | 1271     | 0.30    | 381   |           |         |       | 9741                      | 0.80    | 7835  |          |
|         | 21           | 4200                | 1.62    | 6804  |                     |         |       | 630      | 0.30    | 189   |           |         |       | 4830                      | 1.45    | 6993  |          |
|         | 22(ii)/23(i) | 1333                | 0.63    | 840   |                     |         |       |          |         |       | 1333      | 0.63    | 840   |                           |         |       |          |
|         | 23A          | 2345                | 0.74    | 1735  |                     |         |       |          |         |       | 2345      | 0.74    | 1735  |                           |         |       |          |
|         | 24           | 2502                | 0.66    | 1651  |                     |         |       |          |         |       | 2502      | 0.66    | 1651  |                           |         |       |          |
|         | 25           | 7822                | 2.06    | 16113 |                     |         |       | 1173     | 0.30    | 352   |           |         |       | 8995                      | 1.83    | 16465 | Probable |
|         | 26           | 1277                | 1.65    | 2107  |                     |         |       | 192      | 0.30    | 57    |           |         |       | 1469                      | 1.47    | 2165  |          |
| 27      | 5127         | 2.47                | 12664   |       |                     |         | 769   | 0.30     | 231     |       |           |         | 5896  | 2.19                      | 12294   |       |          |
| 28 (i)  | 434          | 1.77                | 768     | 434   | 1.77                | 768     |       |          |         |       |           |         |       |                           |         |       |          |
|         |              | 70207               | 1.30    | 91010 | 6213                | 0.77    | 4756  | 7699     | 0.30    | 2310  | 12668     | 0.68    | 8594  | 59025                     | 1.35    | 79969 |          |
| 605m RL | 1            | 3150                | 0.64    | 2016  | 3150                | 0.64    | 2016  |          |         |       |           |         |       |                           |         |       |          |
|         | 2 (i)        | 357                 | 0.80    | 286   | 357                 | 0.80    | 286   |          |         |       |           |         |       |                           |         |       |          |
|         | 3            | 2117                | 1.32    | 3853  |                     |         |       | 318      | 0.30    | 95    |           |         |       | 2435                      | 1.62    | 3948  | Probable |
|         | 4            | 1610                | 0.59    | 950   | 1610                | 0.59    | 950   |          |         |       |           |         |       |                           |         |       |          |
|         | 5 - 12       | 5285                | 1.77    | 9354  |                     |         |       | 793      | 0.30    | 238   |           |         |       | 6078                      | 1.58    | 9592  | Proven   |
|         | 13/14        | 1330                | 0.80    | 1064  |                     |         |       | 200      | 0.30    | 60    | 1530      | 0.73    | 1124  |                           |         |       |          |
|         | 15/16        | 10675               | 0.70    | 7473  | 5325                | 0.70    | 3728  |          |         |       | 5350      | 0.7     | 3745  |                           |         |       |          |
|         | 17/18        | 15172               | 1.04    | 15779 |                     |         |       | 2276     | 0.30    | 683   |           |         |       | 17448                     | 0.94    | 16462 | Probable |
|         | 19           | 6685                | 1.03    | 5886  |                     |         |       | 1003     | 0.30    | 301   |           |         |       | 7688                      | 0.93    | 7186  |          |
|         | 20           | 3237                | 1.62    | 5244  |                     |         |       | 486      | 0.30    | 146   |           |         |       | 3723                      | 1.45    | 5390  |          |
|         | 21           | 1505                | 1.77    | 2664  |                     |         |       | 226      | 0.30    | 68    |           |         |       | 1731                      | 1.58    | 2732  |          |
|         | 22/23        | 7402                | 0.66    | 4885  | 2575                | 0.66    | 1700  |          |         |       | 4827      | 0.66    | 3186  |                           |         |       |          |
|         | 24           | 2117                | 1.00    | 2117  |                     |         |       | 318      | 0.30    | 95    |           |         |       | 2435                      | 0.91    | 2212  | Probable |
|         | 25/26        | 4952                | 2.06    | 10201 |                     |         |       | 743      | 0.30    | 223   |           |         |       | 5695                      | 1.33    | 10424 |          |
| 27 (i)  | 910          | 0.99                | 901     | 910   | 0.99                | 901     |       |          |         |       |           |         |       |                           |         |       |          |
| 28 (i)  | 882          | 0.70                | 617     | 882   | 0.70                | 617     |       |          |         |       |           |         |       |                           |         |       |          |
|         |              | 67386               | 1.10    | 74239 | 14809               | 0.69    | 10197 | 6360     | 0.30    | 1908  | 11707     | 0.87    | 10197 | 47231                     | 1.23    | 57946 |          |

183046

| Level   | Block No. | GEOLOGICAL RESOURCE |         |       | NON RECOVERABLE ORE |         |       | DILUTION |         |       | SUB - ORE |         |       | DILUTED MINEABLE RESERVES |         |       | CATEGORY |       |       |
|---------|-----------|---------------------|---------|-------|---------------------|---------|-------|----------|---------|-------|-----------|---------|-------|---------------------------|---------|-------|----------|-------|-------|
|         |           | Tonnes              | Grade % | T x G | Tonnes              | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                    | Grade % | T x G |          |       |       |
| 600m RL | 1         | 4077                | 0.64    | 2609  | 4077                | 0.64    | 2609  |          |         |       |           |         |       |                           |         |       |          |       |       |
|         | 2         | 1435                | 0.80    | 1148  | 1435                | 0.80    | 1148  |          |         |       |           |         |       |                           |         |       |          |       |       |
|         | 3 (i)     | 882                 | 0.56    | 494   | 882                 | 0.56    | 494   |          |         |       |           |         |       |                           |         |       |          |       |       |
|         | 4         | 1522                | 1.82    | 2770  | 1522                | 1.82    | 2770  |          |         |       |           |         |       |                           |         |       |          |       |       |
|         | 5         | 2677                | 0.66    | 1767  | 2677                | 0.66    | 1767  |          |         |       |           |         |       |                           |         |       |          |       |       |
|         | 6 (i)     | 1144                | 1.05    | 1201  |                     |         |       | 172      | 0.30    | 51    |           |         |       | 1316                      | 0.95    | 1253  | Probable |       |       |
|         | 7/8       | 5810                | 0.72    | 4183  | 2900                | 0.72    | 2088  |          |         |       | 2910      | 0.72    | 2095  |                           |         |       |          |       |       |
|         | 9 (i)     | 2579                | 0.89    | 2295  |                     |         |       | 387      | 0.30    | 116   |           |         |       | 2966                      | 0.81    | 2411  | Probable |       |       |
|         | 10 (i)    | 2600                | 0.78    | 2028  |                     |         |       |          |         |       | 2600      | 0.78    | 2028  |                           |         |       |          |       |       |
|         | 11 (i)    | 2331                | 1.49    | 3473  |                     |         |       | 350      | 0.30    | 105   |           |         |       | 2681                      | 1.33    | 3578  | Probable |       |       |
|         | 12/13     | 16572               | 1.10    | 18229 |                     |         |       | 2486     | 0.30    | 746   |           |         |       | 19058                     | 1.00    | 18975 | • • •    |       |       |
|         | 14        | 7595                | 1.40    | 10633 |                     |         |       | 1139     | 0.30    | 342   |           |         |       | 8734                      | 1.26    | 10975 | • • •    |       |       |
|         | 15        | 2100                | 1.77    | 3717  |                     |         |       | 315      | 0.30    | 95    |           |         |       | 2415                      | 1.58    | 3812  | • • •    |       |       |
|         | 16        | 6685                | 0.67    | 4479  | 1610                | 0.67    | 1079  |          |         |       | 5075      | 0.67    | 3400  |                           |         |       |          |       |       |
|         | 17        | 5127                | 1.14    | 5845  |                     |         |       | 769      | 0.30    | 231   |           |         |       | 5896                      | 1.03    | 6075  | Probable |       |       |
|         | 18        | 2415                | 1.00    | 2415  |                     |         |       | 362      | 0.30    | 109   |           |         |       | 2777                      | 0.91    | 2524  | • • •    |       |       |
|         | 19 (i)    | 1526                | 2.77    | 4227  |                     |         |       | 229      | 0.30    | 69    |           |         |       | 1755                      | 2.45    | 4296  | • • •    |       |       |
|         | 20        | 1627                | 0.99    | 1611  | 1627                | 0.99    | 1611  |          |         |       |           |         |       |                           |         |       |          |       |       |
|         | 21        | 4060                | 0.70    | 2842  | 4060                | 0.70    | 2842  |          |         |       |           |         |       |                           |         |       |          |       |       |
|         |           |                     | -----   | ----- | -----               | -----   | ----- | -----    | -----   | ----- | -----     | -----   | ----- | -----                     | -----   | ----- | -----    | ----- | ----- |
|         |           |                     | 72764   | 1.04  | 75967               | 20796   | 0.79  | 16407    | 6208    | 0.30  | 1863      | 10585   | 0.71  | 7523                      | 47597   | 1.13  | 53898    |       |       |
| 595m RL | 1         | 7770                | 0.77    | 5983  | 7770                | 0.77    | 5983  |          |         |       |           |         |       |                           |         |       |          |       |       |
|         | 2         | 1172                | 0.80    | 938   | 1172                | 0.80    | 938   |          |         |       |           |         |       |                           |         |       |          |       |       |
|         | 3         | 1872                | 0.56    | 1048  | 1872                | 0.56    | 1048  |          |         |       |           |         |       |                           |         |       |          |       |       |
|         | 4 (i)     | 1225                | 0.49    | 600   | 1225                | 0.49    | 600   |          |         |       |           |         |       |                           |         |       |          |       |       |
|         | 5 (i)     | 882                 | 0.50    | 441   | 882                 | 0.50    | 441   |          |         |       |           |         |       |                           |         |       |          |       |       |
|         | 6/7       | 8995                | 0.80    | 7196  | 8995                | 0.80    | 7196  |          |         |       |           |         |       |                           |         |       |          |       |       |
|         | 8         | 4620                | 0.73    | 3373  | 4620                | 0.73    | 3373  |          |         |       |           |         |       |                           |         |       |          |       |       |
|         | 9         | 8312                | 0.89    | 7398  |                     |         |       | 1247     | 0.30    | 374   |           |         |       | 9559                      | 0.81    | 7772  | Probable |       |       |
|         | 10        | 8102                | 0.78    | 6320  |                     |         |       |          |         |       | 8102      | 0.78    | 6320  |                           |         |       |          |       |       |
|         | 11        | 7245                | 0.78    | 5651  |                     |         |       |          |         |       | 7245      | 0.78    | 5651  |                           |         |       |          |       |       |
|         | 12        | 6300                | 1.49    | 9387  |                     |         |       | 945      | 0.30    | 284   |           |         |       | 7245                      | 1.33    | 9671  | Probable |       |       |
|         | 13        | 7385                | 1.13    | 8345  |                     |         |       | 1108     | 0.30    | 332   |           |         |       | 8493                      | 1.02    | 8677  | • • •    |       |       |
|         | 14        | 11777               | 1.07    | 12601 |                     |         |       | 1767     | 0.30    | 530   |           |         |       | 13544                     | 0.97    | 13131 | • • •    |       |       |
|         | 15        | 7840                | 1.33    | 10427 |                     |         |       | 1176     | 0.30    | 353   |           |         |       | 9016                      | 1.20    | 10780 | • • •    |       |       |
|         | 16        | 6457                | 0.67    | 4326  |                     |         |       |          |         |       | 6457      | 0.67    | 4326  |                           |         |       |          |       |       |
|         | 17        | 4410                | 1.14    | 5027  |                     |         |       | 662      | 0.30    | 198   |           |         |       | 5072                      | 1.03    | 5226  | Probable |       |       |
|         | 18 (i)    | 1680                | 0.97    | 1630  |                     |         |       | 252      | 0.30    | 76    |           |         |       | 1932                      | 0.88    | 1705  | • • •    |       |       |
|         | 19 (i)    | 350                 | 0.51    | 179   | 350                 | 0.51    | 179   |          |         |       |           |         |       |                           |         |       |          |       |       |
|         | 20        | 1470                | 0.99    | 1455  | 1470                | 0.99    | 1455  |          |         |       |           |         |       |                           |         |       |          |       |       |
|         | 21        | 3202                | 0.70    | 2241  | 3202                | 0.70    | 2241  |          |         |       |           |         |       |                           |         |       |          |       |       |
|         |           |                     | -----   | ----- | -----               | -----   | ----- | -----    | -----   | ----- | -----     | -----   | ----- | -----                     | -----   | ----- | -----    | ----- | ----- |
|         |           | 101066              | 0.94    | 94566 | 31558               | 0.74    | 23454 | 7156     | 0.30    | 2147  | 21804     | 0.75    | 16297 | 54860                     | 1.04    | 56962 |          |       |       |

183047

| Level   | Block No. | GEOLOGICAL RESOURCE |         |       | NON RECOVERABLE ORE |         |       | DILUTION |         |       | SUB - ORE |         |       | DILUTED MINEABLE RESERVES |         |       | CATEGORY |       |
|---------|-----------|---------------------|---------|-------|---------------------|---------|-------|----------|---------|-------|-----------|---------|-------|---------------------------|---------|-------|----------|-------|
|         |           | Tonnes              | Grade % | T x G | Tonnes              | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                    | Grade % | T x G |          |       |
| 590m RL | 1         | 8120                | 0.71    | 5765  | 8120                | 0.71    | 5765  |          |         |       |           |         |       |                           |         |       |          |       |
|         | 2         | 1400                | 0.59    | 826   | 1400                | 0.59    | 826   |          |         |       |           |         |       |                           |         |       |          |       |
|         | 3 (i)     | 409                 | 0.84    | 344   | 409                 | 0.84    | 344   |          |         |       |           |         |       |                           |         |       |          |       |
|         | 4 (i)     | 217                 | 0.52    | 113   | 217                 | 0.52    | 113   |          |         |       |           |         |       |                           |         |       |          |       |
|         | 5         | 1820                | 0.50    | 910   | 1820                | 0.50    | 910   |          |         |       |           |         |       |                           |         |       |          |       |
|         | 6 (i)     | 6762                | 1.50    | 10143 | 6762                | 1.50    | 10143 |          |         |       |           |         |       |                           |         |       |          |       |
|         | 7 (i)     | 178                 | 0.59    | 105   | 178                 | 0.59    | 105   |          |         |       |           |         |       |                           |         |       |          |       |
|         | 8         | 6475                | 0.46    | 2979  | 6475                | 0.46    | 2979  |          |         |       |           |         |       |                           |         |       |          |       |
|         | 9         | 2730                | 1.05    | 2867  | 2730                | 1.05    | 2867  |          |         |       |           |         |       |                           |         |       |          |       |
|         | 10 (i)    | 336                 | 0.71    | 239   | 336                 | 0.71    | 239   |          |         |       |           |         |       |                           |         |       |          |       |
|         | 11        | 4480                | 0.74    | 3315  | 4480                | 0.74    | 3315  |          |         |       |           |         |       |                           |         |       |          |       |
|         | 12        | 7035                | 0.39    | 6261  | 3270                | 0.89    | 2910  | 565      | 0.30    | 169   |           |         |       | 4330                      | 0.81    | 3520  | Probable |       |
|         | 13        | 2485                | 0.78    | 1938  |                     |         |       |          |         |       | 2485      | 0.78    | 1938  |                           |         |       |          |       |
|         | 14/15     | 7420                | 1.53    | 11353 |                     |         |       | 1113     | 0.30    | 334   |           |         |       | 8533                      | 1.37    | 11627 | Probable |       |
|         | 16        | 4515                | 1.13    | 5102  |                     |         |       | 677      | 0.30    | 203   |           |         |       | 5192                      | 1.02    | 5305  | •••      |       |
|         | 17        | 9905                | 1.07    | 10598 |                     |         |       | 1486     | 0.30    | 446   |           |         |       | 11391                     | 0.97    | 11044 | •••      |       |
|         | 18        | 2800                | 1.33    | 3724  |                     |         |       | 420      | 0.30    | 126   |           |         |       | 3220                      | 1.20    | 3850  | •••      |       |
|         | 19        | 3482                | 1.14    | 3969  |                     |         |       | 522      | 0.30    | 157   |           |         |       | 4004                      | 1.03    | 4126  | •••      |       |
|         | 20        | 3430                | 0.67    | 2298  | 3430                | 0.67    | 2298  |          |         |       |           |         |       |                           |         |       |          |       |
|         | 21        | 1382                | 0.97    | 1341  | 1382                | 0.97    | 1341  |          |         |       |           |         |       |                           |         |       |          |       |
|         | 22        | 2065                | 0.51    | 1053  | 2065                | 0.51    | 1053  |          |         |       |           |         |       |                           |         |       |          |       |
|         | 23        | 1890                | 0.99    | 1871  | 1890                | 0.99    | 1871  |          |         |       |           |         |       |                           |         |       |          |       |
|         | 24/25     | 2520                | 0.65    | 1638  | 2520                | 0.65    | 1638  |          |         |       |           |         |       |                           |         |       |          |       |
|         | 26 (i)    | 119                 | 0.47    | 56    | 119                 | 0.47    | 56    |          |         |       |           |         |       |                           |         |       |          |       |
|         | 27 (i)    | 119                 | 0.47    | 56    | 119                 | 0.47    | 56    |          |         |       |           |         |       |                           |         |       |          |       |
|         |           |                     | -----   | ----- | -----               | -----   | ----- | -----    | -----   | ----- | -----     | -----   | ----- | -----                     | -----   | ----- | -----    | ----- |
|         |           |                     | 82094   | 0.96  | 78363               | 47722   | 0.81  | 38827    | 4783    | 0.30  | 1435      | 2485    | 0.78  | 1938                      | 36670   | 1.02  | 39532    |       |
| 585m RL | 1 (i)     | 266                 | 0.52    | 138   | 266                 | 0.52    | 138   |          |         |       |           |         |       |                           |         |       |          |       |
|         | 2/4       | 9572                | 0.67    | 6413  | 9572                | 0.67    | 6413  |          |         |       |           |         |       |                           |         |       |          |       |
|         | 3         | 1907                | 0.84    | 1602  | 1907                | 0.84    | 1602  |          |         |       |           |         |       |                           |         |       |          |       |
|         | 5 (i)     | 2537                | 0.71    | 1801  | 2537                | 0.71    | 1801  |          |         |       |           |         |       |                           |         |       |          |       |
|         | 6         | 4497                | 1.50    | 6746  | 4497                | 1.50    | 6746  |          |         |       |           |         |       |                           |         |       |          |       |
|         | 7         | 1592                | 0.59    | 939   | 1592                | 0.59    | 939   |          |         |       |           |         |       |                           |         |       |          |       |
|         | 8         | 4952                | 0.74    | 3664  | 4952                | 0.74    | 3664  |          |         |       |           |         |       |                           |         |       |          |       |
|         | 9         | 7000                | 1.59    | 11130 |                     |         |       | 1050     | 0.30    | 315   |           |         |       | 8050                      | 1.42    | 11445 | Probable |       |
|         | 10        | 5915                | 1.07    | 6329  |                     |         |       | 887      | 0.30    | 266   |           |         |       | 6802                      | 0.97    | 6595  | •••      |       |
|         | 11        | 1575                | 1.13    | 1780  |                     |         |       | 236      | 0.30    | 71    |           |         |       | 1811                      | 1.02    | 1951  | •••      |       |
|         | 12        | 3482                | 1.04    | 3621  | 840                 | 1.04    | 874   | 396      | 0.30    | 119   |           |         |       | 3038                      | 0.94    | 2867  | •••      |       |
|         | 13 (i)    | 1148                | 0.47    | 540   | 1148                | 0.47    | 540   |          |         |       |           |         |       |                           |         |       |          |       |
|         | 14/15     | 6965                | 0.83    | 5781  | 6965                | 0.83    | 5781  |          |         |       |           |         |       |                           |         |       |          |       |
|         | 16/17     | 2030                | 0.57    | 1157  | 2030                | 0.57    | 1157  |          |         |       |           |         |       |                           |         |       |          |       |
|         | 18        | 3675                | 0.47    | 1727  | 3675                | 0.47    | 1727  |          |         |       |           |         |       |                           |         |       |          |       |
|         |           |                     | -----   | ----- | -----               | -----   | ----- | -----    | -----   | ----- | -----     | -----   | ----- | -----                     | -----   | ----- | -----    | ----- |
|         |           |                     | 57113   | 0.93  | 53369               | 39981   | 0.78  | 31382    | 2570    | 0.30  | 771       |         |       |                           | 19702   | 1.16  | 22757    |       |

## MT BISCHOFF TIN PROJECT

25 July, 1993

## TOTAL VOLUMES - ORE + WASTE

| Section:            | 1                      | 2                      | 3                      | 4                      | Totals                 |                           |            |                          |
|---------------------|------------------------|------------------------|------------------------|------------------------|------------------------|---------------------------|------------|--------------------------|
| m RL<br>----        | Area<br>m <sup>2</sup> | Average<br>m <sup>2</sup> | Depth<br>m | Volume<br>m <sup>3</sup> |
| (a) In-Pit Volumes: |                        |                        |                        |                        |                        |                           |            |                          |
| 590                 | 2480                   |                        |                        |                        | 2480                   |                           |            |                          |
|                     |                        |                        |                        |                        |                        | 3375                      | 10         | 33750                    |
| 600 (top)           | 2720                   | 1550                   |                        |                        | 4270                   |                           |            |                          |
| 600 (toe)           | 3690                   | 2560                   |                        |                        | 6250                   |                           |            |                          |
|                     |                        |                        |                        |                        |                        | 7635                      | 10         | 76350                    |
| 610 (top)           | 4340                   | 2970                   | 1710                   |                        | 9020                   |                           |            |                          |
| 610 (toe)           | 5120                   | 5550                   | 4470                   |                        | 15140                  |                           |            |                          |
|                     |                        |                        |                        |                        |                        | 16395                     | 10         | 163950                   |
| 620 (top)           | 7010                   | 6310                   | 4330                   |                        | 17650                  |                           |            |                          |
| 620 (toe)           | 8060                   | 7750                   | 5760                   | 1340                   | 22910                  |                           |            |                          |
|                     |                        |                        |                        |                        |                        | 22175                     | 10         | 221750                   |
| 630 (top)           | 5520                   | 6250                   | 6980                   | 2690                   | 21440                  |                           |            |                          |
| 630 (toe)           | 6460                   | 6900                   | 7300                   | 3540                   | 24200                  |                           |            |                          |
|                     |                        |                        |                        |                        |                        | 20385                     | 10         | 203850                   |
| 640 (top)           | 6730                   | 7250                   |                        | 2590                   | 16570                  |                           |            |                          |
|                     | 52130                  | 47090                  | 30550                  | 10160                  | 139930                 | 69965                     | 10         | 699650                   |
| (b) Overburden:     |                        |                        |                        |                        |                        |                           |            |                          |
| 640 (toe)           | 7700                   | 7840                   |                        | 3550                   | 19090                  |                           |            |                          |
|                     |                        |                        |                        |                        |                        | 14920                     | 2          | 29840                    |
| 642                 | 7410                   |                        |                        | 3340                   | 10750                  |                           |            |                          |
|                     |                        |                        |                        |                        |                        | 10250                     | 2          | 20500                    |
| 644                 | 7200                   |                        |                        | 2550                   | 9750                   |                           |            |                          |
|                     |                        |                        |                        |                        |                        | 7800                      | 2          | 15600                    |
| 646                 | 4110                   |                        |                        | 1740                   | 5850                   |                           |            |                          |
|                     |                        |                        |                        |                        |                        | 4950                      | 2          | 9900                     |
| 648                 | 3400                   |                        |                        | 650                    | 4050                   |                           |            |                          |
|                     |                        |                        |                        |                        |                        | 2660                      | 2          | 5320                     |
| 650                 | 840                    |                        |                        | 430                    | 1270                   |                           |            |                          |
|                     |                        |                        |                        |                        |                        | 925                       | 10         | 9250                     |
| 660                 | 580                    |                        |                        |                        | 580                    |                           |            |                          |
|                     |                        |                        |                        |                        |                        | 315                       | 10         | 3150                     |
| 670                 | 50                     |                        |                        |                        | 50                     |                           |            |                          |
|                     | 31290                  | 7840                   | 0                      | 12260                  | 51390                  | 41820                     |            | 93560                    |

Total Volume (m<sup>3</sup>): 793210  
less ore (tonnes): 498220  
@ SG 3.5 (m<sup>3</sup>): 142349  
-----  
650861  
less waste (tonnes): 1854955  
@ SG 2.85 (m<sup>3</sup>):  
therefore:  
w : o ratio (based on adj. tonnage factors) = 3.7

183048

TABLE 1 - ORE RESERVE ASSESSMENT SUMMARY  
TABLE 2 - ORE RESERVE ASSESSMENT  
TABLE 3 - TOTAL VOLUMES (ORE - WASTE)

MT BISCHOFF TIN PROJECT  
TASMANIA

183050

LYNCH MINING LIMITED

TABLE 1.

Mt BISCHOFF TIN PROJECT - ORE RESERVE ASSESSMENT SUMMARY

24 August, 1993

| Level   | Block No. | GEOLOGICAL RESOURCE |         |        | NON RECOVERABLE ORE |         |        | DILUTION |         |       | SUB - ORE |         |       | DILUTED MINEABLE RESERVES |         |        |
|---------|-----------|---------------------|---------|--------|---------------------|---------|--------|----------|---------|-------|-----------|---------|-------|---------------------------|---------|--------|
|         |           | Tonnes              | Grade % | T x G  | Tonnes              | Grade % | T x G  | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                    | Grade % | T x G  |
| 655m RL |           | 157                 | 1.00    | 157    | 0                   | 0.00    | 0      | 31       | 0.30    | 9     | 0         | 0.00    | 0     | 188                       | 0.88    | 166    |
| 650m RL |           | 1767                | 1.00    | 1767   | 0                   | 0.00    | 0      | 353      | 0.30    | 106   | 0         | 0.00    | 0     | 2120                      | 0.88    | 1873   |
| 645m RL |           | 4951                | 0.82    | 4035   | 0                   | 0.00    | 0      | 475      | 0.30    | 143   | 2575      | 0.62    | 1587  | 2851                      | 0.91    | 2591   |
| 640m RL |           | 17603               | 0.77    | 13637  | 0                   | 0.00    | 0      | 1341     | 0.30    | 402   | 14325     | 0.69    | 9908  | 4619                      | 0.89    | 4131   |
| 635m RL |           | 33547               | 0.95    | 32012  | 3220                | 0.99    | 3198   | 2959     | 0.30    | 888   | 12672     | 0.69    | 8795  | 20614                     | 1.01    | 20907  |
| 630m RL |           | 51146               | 1.16    | 59224  | 8858                | 1.04    | 9227   | 5304     | 0.30    | 1591  | 11794     | 0.74    | 8680  | 35798                     | 1.23    | 42909  |
| 625m RL |           | 57512               | 1.27    | 73135  | 7575                | 1.03    | 7796   | 5585     | 0.30    | 1675  | 14662     | 0.66    | 9649  | 40861                     | 1.40    | 57365  |
| 620m RL |           | 86061               | 1.14    | 97549  | 16025               | 0.64    | 10285  | 8638     | 0.32    | 2756  | 12449     | 0.63    | 7794  | 66225                     | 1.25    | 82525  |
| 615m RL |           | 78809               | 1.25    | 98237  | 10291               | 0.77    | 7892   | 3776     | 0.30    | 2633  | 17435     | 0.72    | 12505 | 59860                     | 1.34    | 80473  |
| 610m RL |           | 70207               | 1.30    | 91010  | 6213                | 0.77    | 4756   | 7699     | 0.30    | 2310  | 12668     | 0.68    | 8594  | 59025                     | 1.35    | 79969  |
| 605m RL |           | 67386               | 1.10    | 74289  | 14809               | 0.69    | 10197  | 6360     | 0.30    | 1908  | 11707     | 0.69    | 8055  | 47231                     | 1.23    | 57946  |
| 600m RL |           | 72764               | 1.04    | 75967  | 41139               | 0.92    | 37786  | 4744     | 0.30    | 1423  | 0         | ERR     | 0     | 36369                     | 1.09    | 39603  |
| 595m RL |           | 131066              | 0.94    | 94566  | 66521               | 0.79    | 52295  | 2121     | 0.30    | 636   | 0         | 0.00    | 0     | 36666                     | 1.17    | 42907  |
| 590m RL |           | 82094               | 0.96    | 78863  | 63513               | 0.90    | 57120  | 0        | 0.00    | 0     | 0         | 0.00    | 0     | 18581                     | 1.17    | 21743  |
| 585m RL |           | 57113               | 0.93    | 53369  | 57113               | 0.93    | 53369  | 0        | 0.00    | 0     | 0         | 0.00    | 0     | 0                         | 0.00    | 0      |
|         |           | 782183              | 1.08    | 348117 | 295277              | 0.86    | 253922 | 54387    | 0.30    | 16481 | 110286    | 0.69    | 75567 | 431007                    | 1.24    | 535109 |

ref: JELMTB2

LYNCH MINING LIMITED

Mt BISCHOFF TIN PROJECT - ORE RESERVE ASSESSMENT

TABLE 2.

Page 1.

24 August, 1993

| Level   | Block No. | GEOLOGICAL RESOURCE |         |       | NON RECOVERABLE ORE |         |       | DILUTION |         |       | SUB - ORE |         |       | DILUTED RECOVERABLE RESERVES |         |       | CATEGORY |
|---------|-----------|---------------------|---------|-------|---------------------|---------|-------|----------|---------|-------|-----------|---------|-------|------------------------------|---------|-------|----------|
|         |           | Tonnes              | Grade % | T x G | Tonnes              | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                       | Grade % | T x G |          |
| 655m    | 1 (i)     | 157                 | 1.00    | 157   |                     |         |       | 31       | 0.30    | 9     |           |         |       | 182                          | 0.88    | 166   | Possible |
| 650m    | 1         | 1767                | 1.00    | 1767  |                     |         |       | 353      | 0.30    | 106   |           |         |       | 2120                         | 0.88    | 1873  | Possible |
| 645m    | 1(i)      | 745                 | 0.55    | 410   |                     |         |       |          |         |       | 745       | 0.55    | 410   |                              |         |       |          |
|         | 2(i)      | 1470                | 0.63    | 926   |                     |         |       |          |         |       | 1470      | 0.63    | 926   |                              |         |       |          |
|         | 3         | 1575                | 1.00    | 1575  |                     |         |       | 315      | 0.30    | 95    |           |         |       | 1890                         | 0.88    | 1670  | Possible |
|         | 4 (i)     | 45                  | 0.96    | 43    |                     |         |       | 9        | 0.30    | 3     |           |         |       | 54                           | 0.85    | 46    | Probable |
|         | 5 (i)     | 700                 | 1.09    | 763   |                     |         |       | 140      | 0.30    | 42    |           |         |       | 840                          | 0.96    | 805   | Possible |
|         | 6 (i)     | 287                 | 0.77    | 221   |                     |         |       |          |         |       | 287       | 0.77    | 221   |                              |         |       |          |
|         | 7 (i)     | 56                  | 1.20    | 67    |                     |         |       | 11       | 0.30    | 3     |           |         |       | 67                           | 1.05    | 71    | Possible |
|         | 8 (i)     | 73                  | 0.41    | 30    |                     |         |       |          |         |       | 73        | 0.41    | 30    |                              |         |       |          |
|         |           | 4951                | 0.82    | 4035  |                     |         |       | 475      | 0.30    | 143   |           |         |       | 2575                         | 0.62    | 1587  |          |
| 640m RL | 1 (i)     | 882                 | 0.78    | 688   |                     |         |       |          |         |       | 882       | 0.78    | 688   |                              |         |       |          |
|         | 2         | 1032                | 0.55    | 568   |                     |         |       |          |         |       | 1032      | 0.55    | 568   |                              |         |       |          |
|         | 3 (i)     | 1575                | 0.77    | 1213  |                     |         |       |          |         |       | 1575      | 0.77    | 1213  |                              |         |       |          |
|         | 4/5       | 2380                | 0.75    | 1785  |                     |         |       |          |         |       | 2380      | 0.75    | 1785  |                              |         |       |          |
|         | 6         | 1102                | 0.97    | 1069  |                     |         |       | 220      | 0.30    | 66    |           |         |       | 1322                         | 0.86    | 1135  | Proven   |
|         | 7 (i)     | 693                 | 0.66    | 457   |                     |         |       |          |         |       | 693       | 0.66    | 457   |                              |         |       |          |
|         | 8         | 1645                | 0.82    | 1443  |                     |         |       | 329      | 0.30    | 99    |           |         |       | 1974                         | 0.78    | 1546  |          |
|         | 9 (i)     | 1512                | 0.90    | 1361  |                     |         |       | 302      | 0.30    | 91    |           |         |       | 1814                         | 0.80    | 1452  | Probable |
|         | 10 (i)    | 1072                | 0.49    | 523   |                     |         |       |          |         |       | 1072      | 0.49    | 523   |                              |         |       |          |
|         | 11 (i)    | 1176                | 0.43    | 564   |                     |         |       |          |         |       | 1176      | 0.43    | 564   |                              |         |       |          |
|         | 12        | 1540                | 0.77    | 1186  |                     |         |       |          |         |       | 1540      | 0.77    | 1186  |                              |         |       |          |
|         | 13 (i)    | 1211                | 0.89    | 1073  |                     |         |       | 242      | 0.30    | 73    |           |         |       | 1453                         | 0.79    | 1150  |          |
|         | 14 (i)    | 588                 | 1.18    | 694   |                     |         |       | 118      | 0.30    | 35    |           |         |       | 706                          | 1.03    | 729   | Possible |
|         | 15        | 647                 | 1.20    | 776   |                     |         |       | 129      | 0.30    | 39    |           |         |       | 776                          | 1.05    | 815   |          |
|         | 16        | 542                 | 0.41    | 222   |                     |         |       |          |         |       | 542       | 0.41    | 222   |                              |         |       |          |
|         |           |                     | 17603   | 0.77  | 13637               |         |       |          | 1341    | 0.30  | 402       |         |       |                              | 16325   | 0.69  | 9902     |

| Level  | Block No. | GEOLOGICAL RESOURCE |         |       | NON RECOVERABLE ORE |         |       | DILUTION |         |       | SUB - ORE |         |       | DILUTED MINEABLE RESERVES |         |          | CATEGORY |  |
|--------|-----------|---------------------|---------|-------|---------------------|---------|-------|----------|---------|-------|-----------|---------|-------|---------------------------|---------|----------|----------|--|
|        |           | Tonnes              | Grade % | T x G | Tonnes              | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                    | Grade % | T x G    |          |  |
| 635m   | 1         | 2555                | 0.78    | 1993  |                     |         |       |          |         | 2555  | 0.78      | 1993    |       |                           |         |          |          |  |
|        | 2         | 805                 | 0.55    | 443   |                     |         |       |          |         | 805   | 0.55      | 443     |       |                           |         |          |          |  |
|        | 3/4       | 2940                | 1.15    | 3381  |                     |         |       | 441      | 0.30    | 132   |           |         | 3381  | 1.04                      | 3513    | Possible |          |  |
|        | 5         | 2222                | 1.11    | 2466  |                     |         |       | 333      | 0.30    | 100   |           |         | 2555  | 1.00                      | 2566    | Probable |          |  |
|        | 6/7/8     | 1820                | 1.15    | 2093  |                     |         |       | 273      | 0.30    | 82    |           |         | 2093  | 1.04                      | 2175    | Proven   |          |  |
|        | 9 (i)     | 45                  | 0.72    | 32    |                     |         |       |          |         |       | 45        | 0.72    | 32    |                           |         |          |          |  |
|        | 10        | 2310                | 0.66    | 1525  |                     |         |       |          |         |       | 2310      | 0.66    | 1525  |                           |         |          |          |  |
|        | 11        | 1610                | 0.64    | 1030  |                     |         |       |          |         |       | 1610      | 0.64    | 1030  |                           |         |          |          |  |
|        | 12        | 1730                | 0.90    | 1559  |                     |         |       | 260      | 0.30    | 78    |           |         |       | 1992                      | 0.82    | 1637     | Probable |  |
|        | 13 (i)    | 73                  | 0.42    | 31    |                     |         |       |          |         |       | 73        | 0.42    | 31    |                           |         |          |          |  |
|        | 14 (i)    | 1802                | 0.89    | 1471  |                     |         |       | 270      | 0.30    | 81    |           |         | 2072  | 0.75                      | 1559    |          |          |  |
|        | 15 (i)    | 57                  | 0.48    | 25    |                     |         |       | 13       | 0.30    | 4     |           |         |       | 100                       | 0.89    | 31       | Possible |  |
|        | 16        | 2415                | 0.77    | 1860  |                     |         |       |          |         |       | 2415      | 0.77    | 1860  |                           |         |          |          |  |
|        | 17        | 3990                | 0.39    | 3581  |                     |         |       | 599      | 0.30    | 180   |           |         |       | 4589                      | 0.81    | 3701     | Possible |  |
|        | 18 (i)    | 1291                | 2.06    | 2634  |                     |         |       | 192      | 0.30    | 58    |           |         |       | 1473                      | 1.93    | 2897     | Probable |  |
|        | 19        | 980                 | 1.18    | 1156  |                     |         |       | 147      | 0.30    | 44    |           |         |       | 1127                      | 1.57    | 1201     | Possible |  |
|        | 20        | 1330                | 1.20    | 1596  |                     |         |       | 200      | 0.30    | 60    |           |         |       | 1530                      | 1.20    | 1650     |          |  |
|        | 21        | 787                 | 0.41    | 323   |                     |         |       |          |         |       | 787       | 0.41    | 323   |                           |         |          |          |  |
|        | 22 (i)    | 1543                | 1.02    | 1574  |                     |         |       | 231      | 0.30    | 69    |           |         |       | 1774                      | 0.93    | 1643     | Possible |  |
|        | 23 (i)    | 2163                | 0.55    | 1190  | 2163                | 0.55    | 1190  |          |         |       |           |         |       |                           |         |          |          |  |
|        | 24 (i)    | 1057                | 1.90    | 2001  | 1057                | 1.90    | 2001  |          |         |       |           |         |       |                           |         |          |          |  |
|        |           |                     | -----   | ----- | -----               | -----   | ----- | -----    | -----   | ----- | -----     | -----   | ----- | -----                     | -----   | -----    | -----    |  |
|        |           |                     | 33547   | 0.95  | 32012               | 3220    | 0.99  | 3198     | 3959    | 0.30  | 831       | 12672   | 0.69  | 8795                      | 20614   | 1.01     | 20907    |  |
|        | 635m      | 1                   | 3325    | 0.78  | 2594                |         |       |          |         |       | 3325      | 0.78    | 2594  |                           |         |          |          |  |
| 2      |           | 5897                | 1.54    | 9081  |                     |         |       | 865      | 0.30    | 265   |           |         | 6732  | 1.38                      | 9347    | Probable |          |  |
| 3      |           | 2397                | 1.38    | 3308  |                     |         |       | 360      | 0.30    | 108   |           |         | 2757  | 1.24                      | 3416    |          |          |  |
| 4 - 7  |           | 2455                | 1.58    | 3926  |                     |         |       | 373      | 0.30    | 112   |           |         | 2358  | 1.41                      | 4038    | Proven   |          |  |
| 8      |           | 332                 | 0.72    | 239   |                     |         |       |          |         |       | 332       | 0.72    | 239   |                           |         |          |          |  |
| 9/10   |           | 3377                | 0.27    | 2938  |                     |         |       | 507      | 0.30    | 152   |           |         |       | 3884                      | 0.80    | 3090     | Possible |  |
| 11     |           | 962                 | 0.64    | 616   |                     |         |       |          |         |       | 962       | 0.64    | 616   |                           |         |          |          |  |
| 12 (i) |           | 252                 | 0.50    | 126   |                     |         |       |          |         |       | 252       | 0.50    | 126   |                           |         |          |          |  |
| 13     |           | 1330                | 0.42    | 559   | 1330                | 0.42    | 559   |          |         |       |           |         |       |                           |         |          |          |  |
| 14 (i) |           | 1022                | 0.49    | 501   | 511                 | 0.49    | 250   |          |         |       | 511       | 0.49    | 250   |                           |         |          |          |  |
| 15 (i) |           | 38                  | 0.67    | 25    |                     |         |       |          |         |       | 38        | 0.67    | 25    |                           |         |          |          |  |
| 16     |           | 1557                | 0.82    | 1277  |                     |         |       | 234      | 0.30    | 70    |           |         | 1791  | 0.75                      | 1347    |          |          |  |
| 17 (i) |           | 2205                | 0.98    | 2161  |                     |         |       | 331      | 0.30    | 99    |           |         |       | 2536                      | 0.89    | 2260     | Possible |  |
| 18     |           | 840                 | 0.83    | 697   |                     |         |       | 126      | 0.30    | 38    |           |         |       | 966                       | 0.76    | 735      |          |  |
| 19     |           | 1505                | 0.77    | 1159  |                     |         |       |          |         |       | 1505      | 0.77    | 1159  |                           |         |          |          |  |
| 20     |           | 1892                | 0.90    | 1622  |                     |         |       | 270      | 0.30    | 81    |           |         |       | 2072                      | 0.82    | 1703     | Probable |  |
| 21     |           | 4252                | 0.39    | 3784  |                     |         |       | 638      | 0.30    | 191   |           |         |       | 4890                      | 0.21    | 3976     | Possible |  |
| 22     |           | 6072                | 1.98    | 12023 |                     |         |       | 911      | 0.30    | 273   |           |         |       | 6983                      | 1.76    | 12296    | Probable |  |
| 23     |           | 1837                | 0.82    | 1506  |                     |         |       | 276      | 0.30    | 83    |           |         | 2113  | 0.75                      | 1589    |          |          |  |
| 24     |           | 997                 | 0.99    | 987   |                     |         |       | 150      | 0.30    | 45    |           |         |       | 1147                      | 0.40    | 1032     | Possible |  |
| 25     |           | 1645                | 1.02    | 1678  |                     |         |       | 247      | 0.30    | 74    |           |         |       | 1892                      | 0.93    | 1752     |          |  |
| 26     |           | 3640                | 0.55    | 2002  | 3640                | 0.55    | 2002  |          |         |       |           |         |       |                           |         |          |          |  |
| 27     |           | 3377                | 1.90    | 6416  | 3377                | 1.90    | 6416  |          |         |       |           |         |       |                           |         |          |          |  |
|        |           |                     | -----   | ----- | -----               | -----   | ----- | -----    | -----   | ----- | -----     | -----   | ----- | -----                     | -----   | -----    | -----    |  |
|        |           | 51146               | 1.16    | 59224 | 8858                | 1.04    | 9227  | 5304     | 0.30    | 1591  | 11794     | 0.74    | 8680  | 35798                     | 1.20    | 42909    |          |  |

| Level   | Block No. | GEOLOGICAL RESOURCE |         |       | NON RECOVERABLE ORE |         |       | DILUTION |         |       | SUB - ORE |         |       | DILUTED RECOVERABLE RESERVES |         |       | CATEGORY |
|---------|-----------|---------------------|---------|-------|---------------------|---------|-------|----------|---------|-------|-----------|---------|-------|------------------------------|---------|-------|----------|
|         |           | Tonnes              | Grade % | T x G | Tonnes              | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                       | Grade % | T x G |          |
| 625m RL | 1         | 3797                | 0.78    | 2962  | 1899                | 0.78    | 1481  |          |         |       | 1899      | 0.78    | 1481  |                              |         |       |          |
|         | 2/4A      | 3435                | 1.61    | 13580 |                     |         |       | 1265     | 0.30    | 380   |           |         |       | 9700                         | 1.44    | 13960 | Probable |
|         | 3         | 2992                | 1.38    | 4129  |                     |         |       | 449      | 0.30    | 135   |           |         |       | 3441                         | 1.24    | 4264  | Probable |
|         | 4 - 5     | 3447                | 1.62    | 5581  |                     |         |       | 517      | 0.30    | 155   |           |         |       | 3964                         | 1.45    | 5739  | Proven   |
|         | 9         | 560                 | 0.70    | 390   |                     |         |       |          |         |       | 560       | 0.70    | 392   |                              |         |       |          |
|         | 10        | 2625                | 1.32    | 3465  |                     |         |       | 394      | 0.30    | 118   |           |         |       | 3019                         | 1.19    | 3563  | Probable |
|         | 11        | 245                 | 0.72    | 176   |                     |         |       |          |         |       | 245       | 0.72    | 176   |                              |         |       |          |
|         | 12 (i)    | 140                 | 0.50    | 70    |                     |         |       |          |         |       | 140       | 0.50    | 70    |                              |         |       |          |
|         | 13 (i)    | 175                 | 0.58    | 102   |                     |         |       |          |         |       | 175       | 0.58    | 102   |                              |         |       |          |
|         | 14 (i)    | 133                 | 0.60    | 80    |                     |         |       |          |         |       | 133       | 0.60    | 80    |                              |         |       |          |
|         | 15 (i)    | 903                 | 0.47    | 424   |                     |         |       |          |         |       | 903       | 0.47    | 424   |                              |         |       |          |
|         | 16 (i)    | 238                 | 1.13    | 269   |                     |         |       | 36       | 0.30    | 11    |           |         |       | 274                          | 1.02    | 280   | Probable |
|         | 17        | 3430                | 0.67    | 2298  |                     |         |       |          |         |       | 3430      | 0.67    | 2298  |                              |         |       |          |
|         | 18        | 2240                | 0.98    | 2195  |                     |         |       | 336      | 0.30    | 101   |           |         |       | 2576                         | 0.89    | 2296  | Possible |
|         | 19        | 1715                | 1.18    | 2024  |                     |         |       | 257      | 0.30    | 77    |           |         |       | 1972                         | 1.07    | 2101  | Probable |
|         | 20        | 980                 | 0.77    | 755   |                     |         |       |          |         |       | 980       | 0.77    | 755   |                              |         |       |          |
|         | 21 (i)    | 1036                | 0.67    | 694   |                     |         |       |          |         |       | 1036      | 0.67    | 694   |                              |         |       |          |
|         | 22 (i)    | 567                 | 0.66    | 374   |                     |         |       |          |         |       | 567       | 0.66    | 374   |                              |         |       |          |
|         | 23/26     | 10150               | 1.85    | 18778 |                     |         |       | 1523     | 0.30    | 457   |           |         |       | 11673                        | 1.65    | 19234 | Probable |
|         | 24 (i)    | 1701                | 0.34    | 1429  |                     |         |       | 255      | 0.30    | 77    |           |         |       | 1956                         | 0.77    | 1505  |          |
|         | 25 (i)    | 325                 | 0.45    | 146   |                     |         |       |          |         |       | 325       | 0.45    | 146   |                              |         |       |          |
|         | 27 (i)    | 1435                | 1.71    | 2454  |                     |         |       | 215      | 0.30    | 65    |           |         |       | 1650                         | 1.53    | 2518  | Possible |
|         | 28 (i)    | 1099                | 1.50    | 1649  |                     |         |       | 165      | 0.30    | 49    |           |         |       | 1264                         | 1.34    | 1698  | Possible |
|         | 29        | 2240                | 0.50    | 1120  |                     |         |       |          |         |       | 2240      | 0.50    | 1120  |                              |         |       |          |
|         | 30        | 1155                | 1.42    | 1640  |                     |         |       | 173      | 0.30    | 52    |           |         |       | 1328                         | 1.27    | 1592  | Possible |
|         | 31        | 3727                | 1.29    | 4808  | 3727                | 1.29    | 4808  |          |         |       |           |         |       |                              |         |       |          |
|         | 32 (i)    | 94                  | 0.76    | 71    | 94                  | 0.76    | 71    |          |         |       |           |         |       |                              |         |       |          |
|         | 33 (i)    | 378                 | 1.18    | 446   | 378                 | 1.18    | 446   |          |         |       |           |         |       |                              |         |       |          |
|         | 34 (i)    | 567                 | 0.45    | 255   | 567                 | 0.45    | 255   |          |         |       |           |         |       |                              |         |       |          |
|         | 35 (i)    | 259                 | 1.48    | 383   | 259                 | 1.48    | 383   |          |         |       |           |         |       |                              |         |       |          |
|         | 36 (i)    | 73                  | 0.43    | 31    |                     |         |       |          |         |       | 73        | 0.43    | 31    |                              |         |       |          |
|         | 37 (i)    | 651                 | 0.54    | 352   | 651                 | 0.54    | 352   |          |         |       |           |         |       |                              |         |       |          |
|         |           | 57512               | 1.27    | 73135 | 7575                | 1.03    | 7796  | 5585     | 0.30    | 1675  | 14662     | 0.66    | 9649  | 40861                        | 1.40    | 57365 |          |

|          |           | GEOLOGICAL RESOURCE |         |       | NON RECOVERABLE ORE |         |       | DILUTION |         |       | SUB - ORE |         |       | DILUTED MINEABLE RESERVES |         |       | CATEGORY |
|----------|-----------|---------------------|---------|-------|---------------------|---------|-------|----------|---------|-------|-----------|---------|-------|---------------------------|---------|-------|----------|
| Level    | Block No. | Tonnes              | Grade % | T x G | Tonnes              | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                    | Grade % | T x G |          |
| 620m RL  | 1         | 3745                | 0.78    | 2921  | 1124                | 0.78    | 876   |          |         |       | 2622      | 0.78    | 2045  |                           |         |       |          |
|          | 2/2A      | 5215                | 1.63    | 8500  |                     |         |       | 732      | 0.30    | 235   |           |         |       | 5997                      | 1.46    | 8735  | Probable |
|          | 3         | 3500                | 1.38    | 4830  |                     |         |       | 525      | 0.30    | 158   |           |         |       | 4025                      | 1.24    | 4983  |          |
|          | 4         | 945                 | 0.59    | 558   |                     |         |       |          |         |       | 945       | 0.59    | 558   |                           |         |       |          |
|          | 5 - 15    | 5355                | 1.40    | 7497  |                     |         |       | 803      | 0.30    | 241   |           |         |       | 6158                      | 1.26    | 7733  | Proven   |
|          | 16 (i)    | 77                  | 1.26    | 97    |                     |         |       | 12       | 0.30    | 3     |           |         |       | 89                        | 1.13    | 100   |          |
|          | 17/18     | 875                 | 0.79    | 691   |                     |         |       |          |         |       | 875       | 0.79    | 691   |                           |         |       |          |
|          | 19        | 700                 | 0.69    | 483   |                     |         |       |          |         |       | 700       | 0.69    | 483   |                           |         |       |          |
|          | 20        | 1645                | 1.70    | 2797  |                     |         |       | 247      | 0.30    | 74    |           |         |       | 1892                      | 1.52    | 2871  | Probable |
|          | 21        | 1680                | 0.47    | 790   |                     |         |       |          |         |       | 1680      | 0.47    | 790   |                           |         |       |          |
|          | 22/23     | 12600               | 0.94    | 11844 |                     |         |       | 1390     | 0.30    | 567   |           |         |       | 16490                     | 0.86    | 12411 | Probable |
|          | 24/25     | 3080                | 0.96    | 2957  |                     |         |       | 462      | 0.30    | 139   |           |         |       | 3542                      | 0.87    | 3095  |          |
|          | 26 (ii)   | 1722                | 1.62    | 2790  |                     |         |       | 258      | 0.30    | 77    |           |         |       | 1980                      | 1.45    | 2867  |          |
|          | 27        | 2012                | 1.11    | 2233  |                     |         |       | 302      | 0.30    | 91    |           |         |       | 2314                      | 1.00    | 2324  |          |
|          | 28        | 2590                | 0.66    | 1702  |                     |         |       |          |         |       | 2590      | 0.66    | 1709  |                           |         |       |          |
|          | 29        | 3995                | 2.06    | 18530 |                     |         |       | 1349     | 0.30    | 405   |           |         |       | 10344                     | 1.83    | 18934 | Probable |
|          | 30/31     | 4497                | 1.00    | 4497  |                     |         |       | 675      | 0.30    | 202   |           |         |       | 5172                      | 0.91    | 4699  |          |
|          | 32 - 35   | 3242                | 1.50    | 12363 |                     |         |       | 1236     | 0.30    | 371   |           |         |       | 9478                      | 1.34    | 12734 | Possible |
|          | 36        | 3797                | 0.50    | 1899  | 759                 | 0.50    | 380   |          |         |       | 3038      | 0.50    | 1519  |                           |         |       |          |
|          | 37 (i)    | 2068                | 0.62    | 1282  | 2068                | 0.62    | 1282  |          |         |       |           |         |       |                           |         |       |          |
|          | 38 (i)    | 161                 | 0.46    | 77    | 161                 | 0.48    | 77    |          |         |       |           |         |       |                           |         |       |          |
|          | 39        | 322                 | 0.92    | 756   | 322                 | 0.92    | 756   |          |         |       |           |         |       |                           |         |       |          |
|          | 40 (i)    | 1484                | 0.67    | 994   | 1484                | 0.67    | 994   |          |         |       |           |         |       |                           |         |       |          |
|          | 41        | 3237                | 0.52    | 1683  | 3237                | 0.52    | 1683  |          |         |       |           |         |       |                           |         |       |          |
|          | 42        | 1050                | 1.48    | 1554  | 1050                | 1.48    | 1554  |          |         |       |           |         |       |                           |         |       |          |
|          | 43 (i)    | 434                 | 0.62    | 269   | 434                 | 0.62    | 269   |          |         |       |           |         |       |                           |         |       |          |
|          | 44        | 647                 | 1.29    | 835   |                     |         |       | 97       | 0.30    | 194   |           |         |       | 744                       | 1.38    | 1029  | Possible |
| 45 (i)   | 1722      | 0.43                | 740     | 1722  | 0.43                | 740     |       |          |         |       |           |         |       |                           |         |       |          |
| 46 (i)   | 1204      | 0.51                | 614     | 1204  | 0.51                | 614     |       |          |         |       |           |         |       |                           |         |       |          |
| 47       | 1960      | 0.54                | 1058    | 1960  | 0.54                | 1058    |       |          |         |       |           |         |       |                           |         |       |          |
|          |           | -----               | -----   | ----- | -----               | -----   | ----- | -----    | -----   | ----- | -----     | -----   | ----- | -----                     | -----   | ----- |          |
|          |           | 36061               | 1.14    | 97849 | 16025               | 0.64    | 10285 | 3638     | 0.32    | 2756  | 12449     | 0.63    | 7794  | 56225                     | 1.25    | 82525 |          |
| 615 m RL | 1/2       | 3500                | 0.75    | 2625  | 2625                | 0.75    | 1969  |          |         |       | 875       | 0.75    | 656   |                           |         |       |          |
|          | 3/4       | 3465                | 1.50    | 5198  |                     |         |       | 520      | 0.30    | 156   |           |         |       | 3985                      | 1.34    | 5353  | Probable |
|          | 5         | 1207                | 0.59    | 712   |                     |         |       |          |         |       | 1207      | 0.59    | 712   |                           |         |       |          |
|          | 6 - 15    | 7507                | 1.42    | 10650 |                     |         |       | 1126     | 0.30    | 338   |           |         |       | 8633                      | 1.27    | 10998 | Proven   |
|          | 16 - 18   | 665                 | 1.33    | 884   |                     |         |       | 100      | 0.30    | 30    |           |         |       | 765                       | 1.20    | 914   |          |
|          | 19        | 1575                | 1.70    | 2678  | 866                 | 1.70    | 1473  | 106      | 0.30    | 32    |           |         |       | 815                       | 1.52    | 1237  | Probable |
|          | 20 (i)    | 437                 | 0.71    | 310   |                     |         |       |          |         |       | 437       | 0.71    | 310   |                           |         |       |          |
|          | 21        | 1995                | 0.56    | 1117  |                     |         |       |          |         |       | 1995      | 0.56    | 1117  |                           |         |       |          |
|          | 22/23     | 15522               | 1.06    | 16453 |                     |         |       | 2328     | 0.30    | 698   |           |         |       | 17850                     | 0.96    | 17152 | Probable |
|          | 24/25     | 6457                | 0.86    | 5553  |                     |         |       | 969      | 0.30    | 291   |           |         |       | 7426                      | 0.79    | 5844  |          |
|          | 26        | 4900                | 1.62    | 7938  |                     |         |       | 735      | 0.30    | 221   |           |         |       | 5635                      | 1.45    | 8159  | Probable |
|          | 27        | 2170                | 0.77    | 1671  |                     |         |       |          |         |       | 2170      | 0.77    | 1671  |                           |         |       |          |
|          | 28        | 3325                | 0.66    | 2195  |                     |         |       |          |         |       | 3325      | 0.66    | 2195  |                           |         |       |          |
|          | 29        | 8820                | 2.06    | 18169 |                     |         |       | 1323     | 0.30    | 397   |           |         |       | 10143                     | 1.83    | 18566 | Probable |
|          | 30/31     | 2222                | 1.44    | 3200  |                     |         |       | 333      | 0.30    | 106   |           |         |       | 2555                      | 1.29    | 3300  |          |
|          | 32/33     | 8242                | 1.75    | 14424 |                     |         |       | 1236     | 0.30    | 371   |           |         |       | 9478                      | 1.56    | 14794 | Possible |
|          | 34        | 4252                | 0.50    | 2126  | 4252                | 0.50    | 2126  |          |         |       |           |         |       |                           |         |       |          |
|          | 35        | 805                 | 1.87    | 1505  | 805                 | 1.87    | 1505  |          |         |       |           |         |       |                           |         |       |          |
| 36 (i)   | 1743      | 0.47                | 819     | 1743  | 0.47                | 819     |       |          |         |       |           |         |       |                           |         |       |          |
|          |           | -----               | -----   | ----- | -----               | -----   | ----- | -----    | -----   | ----- | -----     | -----   | ----- | -----                     | -----   | ----- |          |
|          |           | 78809               | 1.25    | 98237 | 10291               | 0.77    | 7892  | 8776     | 0.30    | 2633  | 17435     | 0.72    | 12505 | 59860                     | 1.34    | 80473 |          |

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| Level   | Block No.   | GEOLOGICAL RESOURCE |         |       | NON RECOVERABLE ORE |         |       | DILUTION |         |       | SUB - ORE |         |       | DILUTED MINEABLE RESERVES |         |       | CATEGORY |
|---------|-------------|---------------------|---------|-------|---------------------|---------|-------|----------|---------|-------|-----------|---------|-------|---------------------------|---------|-------|----------|
|         |             | Tonnes              | Grade % | T x G | Tonnes              | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                    | Grade % | T x G |          |
| 610m RL | 1           | 2870                | 0.69    | 1980  | 2870                | 0.69    | 1980  |          |         |       |           |         |       |                           |         |       |          |
|         | 2           | 2870                | 1.72    | 4936  |                     |         |       | 431      | 0.30    | 129   |           |         |       | 3301                      | 1.53    | 5066  | Probable |
|         | 3           | 1085                | 0.59    | 640   |                     |         |       |          |         |       | 1025      | 0.59    | 640   |                           |         |       |          |
|         | 4 - 14      | 7385                | 1.63    | 12038 |                     |         |       | 1108     | 0.30    | 332   |           |         |       | 8493                      | 1.46    | 12370 | Proven   |
|         | 15          | 1120                | 0.94    | 1053  |                     |         |       | 168      | 0.30    | 50    |           |         |       | 1286                      | 0.86    | 1103  |          |
|         | 16/17       | 8312                | 0.69    | 5735  | 2909                | 0.69    | 2007  |          |         |       | 5403      | 0.69    | 3728  |                           |         |       |          |
|         | 18          | 13055               | 1.11    | 14491 |                     |         |       | 1958     | 0.30    | 587   |           |         |       | 15013                     | 1.00    | 15079 | Probable |
|         | 19/20       | 3670                | 0.88    | 7454  |                     |         |       | 1271     | 0.30    | 381   |           |         |       | 9741                      | 0.80    | 7835  |          |
|         | 21          | 4200                | 1.62    | 6804  |                     |         |       | 630      | 0.30    | 189   |           |         |       | 4330                      | 1.45    | 6993  |          |
|         | 22(i)/23(i) | 1333                | 0.63    | 840   |                     |         |       |          |         |       | 1333      | 0.63    | 840   |                           |         |       |          |
|         | 23A         | 2345                | 0.74    | 1735  |                     |         |       |          |         |       | 2345      | 0.74    | 1735  |                           |         |       |          |
|         | 24          | 2502                | 0.66    | 1651  |                     |         |       |          |         |       | 2502      | 0.66    | 1651  |                           |         |       |          |
|         | 25          | 7822                | 2.06    | 16113 |                     |         |       | 1173     | 0.30    | 352   |           |         |       | 8995                      | 1.83    | 16465 | Probable |
|         | 26          | 1277                | 1.65    | 2107  |                     |         |       | 192      | 0.30    | 57    |           |         |       | 1469                      | 1.47    | 2155  |          |
|         | 27          | 5127                | 2.47    | 12664 |                     |         |       | 769      | 0.30    | 231   |           |         |       | 5896                      | 2.19    | 12894 |          |
|         | 28 (i)      | 434                 | 1.77    | 768   | 434                 | 1.77    | 768   |          |         |       |           |         |       |                           |         |       |          |
|         |             | 70207               | 1.30    | 91010 | 6213                | 0.77    | 4756  | 7699     | 0.30    | 2310  | 12668     | 0.68    | 8594  | 59025                     | 1.35    | 79969 |          |
| 605m RL | 1           | 3150                | 0.64    | 2016  | 3150                | 0.64    | 2016  |          |         |       |           |         |       |                           |         |       |          |
|         | 2 (i)       | 357                 | 0.80    | 286   | 357                 | 0.80    | 286   |          |         |       |           |         |       |                           |         |       |          |
|         | 3           | 2117                | 1.82    | 3853  |                     |         |       | 318      | 0.30    | 95    |           |         |       | 2435                      | 1.62    | 3948  | Probable |
|         | 4           | 1610                | 0.59    | 950   | 1610                | 0.59    | 950   |          |         |       |           |         |       |                           |         |       |          |
|         | 5 - 12      | 5285                | 1.77    | 9354  |                     |         |       | 793      | 0.30    | 238   |           |         |       | 6078                      | 1.58    | 9592  | Proven   |
|         | 13/14       | 1330                | 0.80    | 1064  |                     |         |       | 200      | 0.30    | 60    | 1530      | 0.73    | 1124  |                           |         |       |          |
|         | 15/16       | 10675               | 0.70    | 7473  | 5325                | 0.70    | 3728  |          |         |       | 3350      | 0.7     | 3745  |                           |         |       |          |
|         | 17/18       | 15172               | 1.04    | 15779 |                     |         |       | 2276     | 0.30    | 683   |           |         |       | 17448                     | 0.94    | 16462 | Probable |
|         | 19          | 6685                | 1.03    | 6886  |                     |         |       | 1003     | 0.30    | 301   |           |         |       | 7688                      | 0.93    | 7186  |          |
|         | 20          | 3237                | 1.62    | 5244  |                     |         |       | 486      | 0.30    | 146   |           |         |       | 3723                      | 1.45    | 5390  |          |
|         | 21          | 1505                | 1.77    | 2664  |                     |         |       | 226      | 0.30    | 68    |           |         |       | 1731                      | 1.58    | 2732  |          |
|         | 22/23       | 7402                | 0.66    | 4885  | 2575                | 0.66    | 1700  |          |         |       | 4827      | 0.66    | 3186  |                           |         |       |          |
|         | 24          | 2117                | 1.00    | 2117  |                     |         |       | 318      | 0.30    | 95    |           |         |       | 2435                      | 0.91    | 2212  | Probable |
| 25/26   | 4952        | 2.06                | 10201   |       |                     |         | 743   | 0.30     | 223     |       |           |         | 5695  | 1.83                      | 10424   |       |          |
| 27 (i)  | 910         | 0.99                | 901     | 910   | 0.99                | 901     |       |          |         |       |           |         |       |                           |         |       |          |
| 28 (i)  | 882         | 0.70                | 617     | 882   | 0.70                | 617     |       |          |         |       |           |         |       |                           |         |       |          |
|         |             | 67336               | 1.10    | 74289 | 14809               | 0.69    | 10197 | 6360     | 0.30    | 1908  | 11707     | 0.69    | 8055  | 47231                     | 1.23    | 57946 |          |

183056

| Level   | Block No. | GEOLOGICAL RESOURCE |         |       | NON RECOVERABLE ORE |         |       | DILUTION |         |       | SUB - ORE |         |       | DILUTED MINEABLE RESERVES |         |          | CATEGORY |  |
|---------|-----------|---------------------|---------|-------|---------------------|---------|-------|----------|---------|-------|-----------|---------|-------|---------------------------|---------|----------|----------|--|
|         |           | Tonnes              | Grade % | T x G | Tonnes              | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                    | Grade % | T x G    |          |  |
| 600m RL | 1         | 4077                | 0.64    | 2609  | 4077                | 0.64    | 2609  |          |         |       |           |         |       |                           |         |          |          |  |
|         | 2         | 1435                | 0.90    | 1148  | 1435                | 0.90    | 1148  |          |         |       |           |         |       |                           |         |          |          |  |
|         | 3 (i)     | 882                 | 0.56    | 494   | 882                 | 0.56    | 494   |          |         |       |           |         |       |                           |         |          |          |  |
|         | 4         | 1522                | 1.82    | 2770  | 1522                | 1.82    | 2770  |          |         |       |           |         |       |                           |         |          |          |  |
|         | 5         | 2677                | 0.66    | 1767  | 2677                | 0.66    | 1767  |          |         |       |           |         |       |                           |         |          |          |  |
|         | 6 (i)     | 1144                | 1.05    | 1201  | 1144                | 1.05    | 1201  |          |         |       |           |         |       |                           |         |          |          |  |
|         | 7/8       | 5810                | 0.72    | 4183  | 5810                | 0.72    | 4183  |          |         |       |           |         |       |                           |         |          |          |  |
|         | 9 (i)     | 2579                | 0.89    | 2295  | 2579                | 0.89    | 2295  |          |         |       |           |         |       |                           |         |          |          |  |
|         | 10 (i)    | 2600                | 0.78    | 2028  | 2600                | 0.78    | 2028  |          |         |       |           |         |       |                           |         |          |          |  |
|         | 11 (i)    | 2331                | 1.49    | 3473  |                     |         |       | 350      | 0.30    | 105   |           |         | 2681  | 1.33                      | 3578    | Probable |          |  |
|         | 12/13     | 16572               | 1.10    | 18229 |                     |         |       | 2436     | 0.30    | 746   |           |         | 19058 | 1.00                      | 18975   | "        |          |  |
|         | 14        | 7595                | 1.40    | 10633 |                     |         |       | 1139     | 0.30    | 342   |           |         | 8734  | 1.26                      | 10975   | "        |          |  |
|         | 15        | 2100                | 1.77    | 3717  | 2100                | 1.77    | 3717  |          |         |       |           |         |       |                           |         |          |          |  |
|         | 16        | 6685                | 0.67    | 4479  | 6685                | 0.67    | 4479  |          |         |       |           |         |       |                           |         |          |          |  |
|         | 17        | 5127                | 1.14    | 5845  |                     |         |       | 769      | 0.30    | 231   |           |         | 5896  | 1.03                      | 6075    | Probable |          |  |
|         | 18        | 2415                | 1.00    | 2415  | 2415                | 1.00    | 2415  |          |         |       |           |         |       |                           |         |          |          |  |
|         | 19 (i)    | 1526                | 2.77    | 4227  | 1526                | 2.77    | 4227  |          |         |       |           |         |       |                           |         |          |          |  |
|         | 20        | 1627                | 0.99    | 1611  | 1627                | 0.99    | 1611  |          |         |       |           |         |       |                           |         |          |          |  |
|         | 21        | 4060                | 0.70    | 2842  | 4060                | 0.70    | 2842  |          |         |       |           |         |       |                           |         |          |          |  |
|         |           |                     | 72764   | 1.04  | 75967               | 41139   | 0.92  | 37786    | 4744    | 0.30  | 1423      | 0       | 0.00  | 0                         | 36369   | 1.09     | 39603    |  |
|         | 595m RL   | 1                   | 7770    | 0.77  | 5983                | 7770    | 0.77  | 5983     |         |       |           |         |       |                           |         |          |          |  |
| 2       |           | 1172                | 0.80    | 938   | 1172                | 0.80    | 938   |          |         |       |           |         |       |                           |         |          |          |  |
| 3       |           | 1872                | 0.56    | 1048  | 1872                | 0.56    | 1048  |          |         |       |           |         |       |                           |         |          |          |  |
| 4 (i)   |           | 1225                | 0.49    | 600   | 1225                | 0.49    | 600   |          |         |       |           |         |       |                           |         |          |          |  |
| 5 (i)   |           | 382                 | 0.50    | 441   | 382                 | 0.50    | 441   |          |         |       |           |         |       |                           |         |          |          |  |
| 6/7     |           | 8995                | 0.80    | 7196  | 8995                | 0.80    | 7196  |          |         |       |           |         |       |                           |         |          |          |  |
| 8       |           | 4620                | 0.73    | 3373  | 4620                | 0.73    | 3373  |          |         |       |           |         |       |                           |         |          |          |  |
| 9       |           | 8312                | 0.89    | 7398  | 8312                | 0.89    | 7398  |          |         |       |           |         |       |                           |         |          |          |  |
| 10      |           | 3102                | 0.78    | 6320  | 3102                | 0.78    | 6320  |          |         |       |           |         |       |                           |         |          |          |  |
| 11      |           | 7245                | 0.78    | 5651  | 7245                | 0.78    | 5651  |          |         |       |           |         |       |                           |         |          |          |  |
| 12      |           | 6300                | 1.49    | 9387  |                     |         |       | 945      | 0.30    | 284   |           |         | 7245  | 1.33                      | 9671    | Probable |          |  |
| 13      |           | 7385                | 1.13    | 8345  | 15% 1108            | 1.13    | 1252  |          |         |       |           |         | 6277  | 1.13                      | 7093    | "        |          |  |
| 14      |           | 11777               | 1.07    | 12601 | 10% 1178            | 1.07    | 1260  |          |         |       |           |         | 10599 | 1.07                      | 11341   | "        |          |  |
| 15      |           | 7940                | 1.33    | 10427 |                     |         |       | 1176     | 0.30    | 353   |           |         | 9016  | 1.20                      | 10780   | "        |          |  |
| 16      |           | 6457                | 0.67    | 4326  | 6457                | 0.67    | 4326  |          |         |       |           |         |       |                           |         |          |          |  |
| 17      |           | 4410                | 1.14    | 5027  | 20% 882             | 1.14    | 1005  |          |         |       |           |         | 3528  | 1.14                      | 4022    | Probable |          |  |
| 18 (i)  |           | 1680                | 0.97    | 1630  | 1680                | 0.97    | 1630  |          |         |       |           |         |       |                           |         |          |          |  |
| 19 (i)  |           | 350                 | 0.51    | 179   | 350                 | 0.51    | 179   |          |         |       |           |         |       |                           |         |          |          |  |
| 20      |           | 1470                | 0.99    | 1455  | 1470                | 0.99    | 1455  |          |         |       |           |         |       |                           |         |          |          |  |
| 21      |           | 3202                | 0.70    | 2241  | 3202                | 0.70    | 2241  |          |         |       |           |         |       |                           |         |          |          |  |
|         |           |                     | 101066  | 0.94  | 94566               | 66521   | 0.79  | 52295    | 2121    | 0.30  | 636       | 0       | 0.00  | 0                         | 36666   | 1.17     | 42907    |  |

183057

| Level   | Block No. | GEOLOGICAL RESOURCE |         |       | NON RECOVERABLE ORE |         |       | DILUTION |         |       | SUB - ORE |         |       | DILUTED MINEABLE RESERVES |         |          |       |
|---------|-----------|---------------------|---------|-------|---------------------|---------|-------|----------|---------|-------|-----------|---------|-------|---------------------------|---------|----------|-------|
|         |           | Tonnes              | Grade % | T x G | Tonnes              | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                    | Grade % | T x G    |       |
| 590m RL | 1         | 3120                | 0.71    | 5765  | 8120                | 0.71    | 5765  |          |         |       |           |         |       |                           |         |          |       |
|         | 2         | 1400                | 0.59    | 826   | 1400                | 0.59    | 826   |          |         |       |           |         |       |                           |         |          |       |
|         | 3 (i)     | 409                 | 0.34    | 344   | 409                 | 0.34    | 344   |          |         |       |           |         |       |                           |         |          |       |
|         | 4 (i)     | 217                 | 0.52    | 113   | 217                 | 0.52    | 113   |          |         |       |           |         |       |                           |         |          |       |
|         | 5         | 1820                | 0.50    | 910   | 1820                | 0.50    | 910   |          |         |       |           |         |       |                           |         |          |       |
|         | 6 (i)     | 6762                | 1.50    | 10143 | 6762                | 1.50    | 10143 |          |         |       |           |         |       |                           |         |          |       |
|         | 7 (i)     | 178                 | 0.59    | 105   | 178                 | 0.59    | 105   |          |         |       |           |         |       |                           |         |          |       |
|         | 8         | 6475                | 0.46    | 2979  | 6475                | 0.46    | 2979  |          |         |       |           |         |       |                           |         |          |       |
|         | 9         | 2730                | 1.05    | 2867  | 2730                | 1.05    | 2867  |          |         |       |           |         |       |                           |         |          |       |
|         | 10 (i)    | 336                 | 0.71    | 239   | 336                 | 0.71    | 239   |          |         |       |           |         |       |                           |         |          |       |
|         | 11        | 4480                | 0.74    | 3315  | 4480                | 0.74    | 3315  |          |         |       |           |         |       |                           |         |          |       |
|         | 12        | 7035                | 0.39    | 6261  | 7035                | 0.39    | 6261  |          |         |       |           |         |       |                           |         |          |       |
|         | 13        | 2485                | 0.72    | 1938  | 2485                | 0.72    | 1938  |          |         |       |           |         |       |                           |         |          |       |
|         | 14/15     | 7420                | 1.53    | 11353 | 75%                 | 5565    | 1.53  | 8514     |         |       |           |         | 1855  | 1.53                      | 2838    | Probable |       |
|         | 16        | 4515                | 1.13    | 5102  | 14%                 | 632     | 1.13  | 714      |         |       |           |         | 3883  | 1.13                      | 4338    | .....    |       |
|         | 17        | 9905                | 1.07    | 10598 | 13%                 | 1288    | 1.07  | 1378     |         |       |           |         | 8617  | 1.07                      | 9221    | .....    |       |
|         | 18        | 2800                | 1.33    | 3724  | 10%                 | 255     | 1.33  | 372      |         |       |           |         | 2520  | 1.33                      | 3352    | .....    |       |
|         | 19        | 3482                | 1.14    | 3969  | 51%                 | 1776    | 1.14  | 2024     |         |       |           |         | 1706  | 1.14                      | 1945    | .....    |       |
|         | 20        | 3430                | 0.67    | 2298  |                     | 3430    | 0.67  | 2298     |         |       |           |         |       |                           |         |          |       |
|         | 21        | 1382                | 0.97    | 1341  |                     | 1382    | 0.97  | 1341     |         |       |           |         |       |                           |         |          |       |
|         | 22        | 2065                | 0.51    | 1053  |                     | 2065    | 0.51  | 1053     |         |       |           |         |       |                           |         |          |       |
|         | 23        | 1890                | 0.99    | 1871  |                     | 1890    | 0.99  | 1871     |         |       |           |         |       |                           |         |          |       |
|         | 24/25     | 2520                | 0.65    | 1632  |                     | 2520    | 0.65  | 1632     |         |       |           |         |       |                           |         |          |       |
|         | 26 (i)    | 119                 | 0.47    | 56    |                     | 119     | 0.47  | 56       |         |       |           |         |       |                           |         |          |       |
|         | 27 (i)    | 119                 | 0.47    | 56    |                     | 119     | 0.47  | 56       |         |       |           |         |       |                           |         |          |       |
|         |           |                     | 82094   | 0.96  | 78363               | 63513   | 0.90  | 57120    | 0       | 0.00  | 0         | 0       | 0.00  | 0                         | 18581   | 1.17     | 21743 |
|         | 585m RL   | 1 (i)               | 266     | 0.52  | 138                 | 266     | 0.52  | 138      |         |       |           |         |       |                           |         |          |       |
| 2/4     |           | 9572                | 0.67    | 6413  | 9572                | 0.67    | 6413  |          |         |       |           |         |       |                           |         |          |       |
| 3       |           | 1907                | 0.34    | 1602  | 1907                | 0.34    | 1602  |          |         |       |           |         |       |                           |         |          |       |
| 5 (i)   |           | 2537                | 0.71    | 1801  | 2537                | 0.71    | 1801  |          |         |       |           |         |       |                           |         |          |       |
| 6       |           | 4497                | 1.50    | 6746  | 4497                | 1.50    | 6746  |          |         |       |           |         |       |                           |         |          |       |
| 7       |           | 1592                | 0.59    | 939   | 1592                | 0.59    | 939   |          |         |       |           |         |       |                           |         |          |       |
| 8       |           | 4952                | 0.74    | 3664  | 4952                | 0.74    | 3664  |          |         |       |           |         |       |                           |         |          |       |
| 9       |           | 7000                | 1.59    | 11130 | 7000                | 1.59    | 11130 |          |         |       |           |         |       |                           |         |          |       |
| 10      |           | 5915                | 1.07    | 6329  | 5915                | 1.07    | 6329  |          |         |       |           |         |       |                           |         |          |       |
| 11      |           | 1575                | 1.13    | 1780  | 1575                | 1.13    | 1780  |          |         |       |           |         |       |                           |         |          |       |
| 12      |           | 3482                | 1.04    | 3621  | 3482                | 1.04    | 3621  |          |         |       |           |         |       |                           |         |          |       |
| 13 (i)  |           | 1148                | 0.47    | 540   | 1148                | 0.47    | 540   |          |         |       |           |         |       |                           |         |          |       |
| 14/15   |           | 6965                | 0.33    | 5781  | 6965                | 0.33    | 5781  |          |         |       |           |         |       |                           |         |          |       |
| 16/17   |           | 2030                | 0.57    | 1157  | 2030                | 0.57    | 1157  |          |         |       |           |         |       |                           |         |          |       |
| 18      |           | 3675                | 0.47    | 1727  | 3675                | 0.47    | 1727  |          |         |       |           |         |       |                           |         |          |       |
|         |           | 57113               | 0.93    | 53369 | 57113               | 0.93    | 53369 | 0        | 0.00    | 0     | 0         | 0.00    | 0     | 0                         | 0.00    | 0        |       |

Probable  
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183058

LYNCH MINING LIMITED

MT BISCHOFF TIN PROJECT

19 August 1993

TOTAL VOLUMES - ORE + WASTE

| Section:            | 1    | 2    | 3    | 4     | Totals |         |       |        |
|---------------------|------|------|------|-------|--------|---------|-------|--------|
| m RL                | Area | Area | Area | Area  | Area   | Average | Depth | Volume |
| ----                | m2   | m2   | m2   | m2    | m2     | m2      | m     | m3     |
| (a) In-Pit Volumes: |      |      |      |       |        |         |       |        |
| 595                 |      |      |      | 682   | 682    |         |       |        |
|                     |      |      |      |       |        | 1122    | 5     | 5610   |
| 600 (top)           |      |      |      | 1562  | 1562   |         |       |        |
| 600 (toe)           |      | 1080 |      | 2866  | 3946   |         |       |        |
|                     |      |      |      |       |        | 4676    | 5     | 23380  |
| 605 (top)           |      | 1326 |      | 4080  | 5406   |         |       |        |
| 605 (toe)           |      | 2250 |      | 4320  | 6600   |         |       |        |
|                     |      |      |      |       |        | 7276    | 5     | 36380  |
| 610 (top)           |      | 2584 |      | 5368  | 7952   |         |       |        |
| 610 (toe)           | 1500 | 3344 | 132  | 6468  | 11444  |         |       |        |
|                     |      |      |      |       |        | 12790   | 5     | 63950  |
| 615 (top)           | 2080 | 3684 | 752  | 7620  | 14136  |         |       |        |
| 615 (toe)           | 2080 | 3660 | 752  | 7800  | 14492  |         |       |        |
|                     |      |      |      |       |        | 15236   | 5     | 76180  |
| 620 (top)           | 2760 | 3690 | 650  | 8380  | 15980  |         |       |        |
| 620 (toe)           | 3616 | 4380 | 2616 | 10256 | 21068  |         |       |        |
|                     |      |      |      |       |        | 22024   | 5     | 110120 |
| 625 (top)           |      |      |      |       |        |         |       |        |
| 625 (toe)           | 4280 | 4560 | 2940 | 11200 | 22980  |         |       |        |
|                     |      |      |      |       |        | 20871   | 5     | 104355 |
| 630 (top)           | 4810 | 4130 | 1732 | 8090  | 18762  |         |       |        |
| 630 (toe)           | 4810 | 4180 | 2184 | 8090  | 19264  |         |       |        |
|                     |      |      |      |       |        | 16647   | 5     | 83235  |
| 635 (top)           | 5680 | 4060 | 1720 | 2570  | 14030  |         |       |        |
|                     |      |      |      |       |        |         |       | 503210 |

(b) Overburden:

|           |      |      |      |     |       |       |   |       |
|-----------|------|------|------|-----|-------|-------|---|-------|
| 635 (toe) | 7180 | 4690 | 1834 | 740 | 14444 |       |   |       |
|           |      |      |      |     |       | 14436 | 3 | 43308 |
| 638       | 7300 | 4810 | 1630 | 688 | 14428 |       |   |       |
|           |      |      |      |     |       | 13928 | 2 | 27356 |
| 640       | 7170 | 4620 | 1470 | 168 | 13428 |       |   |       |
|           |      |      |      |     |       | 13170 | 2 | 26340 |
| 642       | 6720 | 4900 | 1292 |     | 12912 |       |   |       |
|           |      |      |      |     |       | 12056 | 2 | 24112 |
| 644       | 6630 | 2640 | 1930 |     | 11200 |       |   |       |
|           |      |      |      |     |       | 8134  | 2 | 16268 |
| 646       | 4142 | 710  | 216  |     | 5068  |       |   |       |
|           |      |      |      |     |       | 4349  | 2 | 8698  |
| 648       | 3344 | 206  | 80   |     | 3630  |       |   |       |
|           |      |      |      |     |       | 3070  | 2 | 6140  |
| 650 (top) | 2390 | 90   | 30   |     | 2510  |       |   |       |
| 650 (toe) | 3120 | 90   | 30   |     | 3240  |       |   |       |
|           |      |      |      |     |       | 3017  | 2 | 6034  |
| 652       | 2754 | 40   |      |     | 2794  |       |   |       |
|           |      |      |      |     |       | 2417  | 2 | 4834  |
| 654       | 2040 |      |      |     | 2040  |       |   |       |
|           |      |      |      |     |       | 1800  | 2 | 3600  |
| 656       | 1560 |      |      |     | 1560  |       |   |       |
|           |      |      |      |     |       | 1455  | 2 | 2910  |
| 658       | 1350 |      |      |     | 1350  |       |   |       |
|           |      |      |      |     |       | 1250  | 2 | 2500  |
| 660       | 1150 |      |      |     | 1150  |       |   |       |
|           |      |      |      |     |       | 1022  | 2 | 2044  |
| 662       | 894  |      |      |     | 894   |       |   |       |
|           |      |      |      |     |       | 772   | 2 | 1544  |
| 664       | 650  |      |      |     | 650   |       |   |       |
|           |      |      |      |     |       | 587   | 2 | 1174  |
| 666       | 524  |      |      |     | 524   |       |   |       |
|           |      |      |      |     |       | 462   | 2 | 924   |
| 668       | 400  |      |      |     | 400   |       |   |       |
|           |      |      |      |     |       | 347   | 2 | 694   |
| 670       | 294  |      |      |     | 294   |       |   |       |
|           |      |      |      |     |       | 243   | 2 | 486   |
| 672       | 192  |      |      |     | 192   |       |   |       |
|           |      |      |      |     |       | 140   | 2 | 280   |
| 674       | 88   |      |      |     | 88    |       |   |       |
|           |      |      |      |     |       | 55    | 2 | 110   |
| 676       | 22   |      |      |     | 22    |       |   |       |
|           |      |      |      |     |       | 12    | 2 | 24    |
| 678       | 2    |      |      |     | 2     |       |   |       |

179880

Total Volume (m3): 683090  
 less ore (tonnes): 431007  
 @ SG 3.5 (m3): 123145  
 -----  
 559945  
 less waste (tonnes): 1595843  
 @ SG 2.85 (m3):  
 therefore:  
 w : o ratio (based on adj.tonnage factors) = 3.7

-----

ref: JELMTB

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TABLE 3A.  
Page 1.

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MT BISCHOFF TIN PROJECT

25 July, 1993

TOTAL VOLUMES - ORE + WASTE

| Section:                   | 1     | 2     | 3     | 4     | Totals |         |       |        |
|----------------------------|-------|-------|-------|-------|--------|---------|-------|--------|
| m RL                       | Area  | Area  | Area  | Area  | Area   | Average | Depth | Volume |
| ----                       | m2    | m2    | m2    | m2    | m2     | m2      | m     | m3     |
| <b>(a) In-Fit Volumes:</b> |       |       |       |       |        |         |       |        |
| -----                      |       |       |       |       |        |         |       |        |
| 590                        | 2480  |       |       |       | 2480   |         |       |        |
|                            |       |       |       |       |        | 3375    | 10    | 33750  |
| 600 (top)                  | 2720  | 1550  |       |       | 4270   |         |       |        |
| 600 (toe)                  | 3690  | 2560  |       |       | 6250   |         |       |        |
|                            |       |       |       |       |        | 7635    | 10    | 76350  |
| 610 (top)                  | 4340  | 2970  | 1710  |       | 9020   |         |       |        |
| 610 (toe)                  | 5120  | 5550  | 4470  |       | 15140  |         |       |        |
|                            |       |       |       |       |        | 16395   | 10    | 163950 |
| 620 (top)                  | 7010  | 6310  | 4330  |       | 17650  |         |       |        |
| 620 (toe)                  | 3060  | 7750  | 5760  | 1340  | 22910  |         |       |        |
|                            |       |       |       |       |        | 22175   | 10    | 221750 |
| 630 (top)                  | 5520  | 6250  | 6980  | 2690  | 21440  |         |       |        |
| 630 (toe)                  | 6460  | 6900  | 7300  | 3540  | 24200  |         |       |        |
|                            |       |       |       |       |        | 20385   | 10    | 203850 |
| 640 (top)                  | 6730  | 7250  |       | 2590  | 16570  |         |       |        |
|                            | 52130 | 47090 | 30550 | 10160 | 139930 | 69965   | 10    | 699650 |
| <b>(b) Overburden:</b>     |       |       |       |       |        |         |       |        |
| -----                      |       |       |       |       |        |         |       |        |
| 640 (toe)                  | 7700  | 7840  |       | 3550  | 19090  |         |       |        |
|                            |       |       |       |       |        | 14920   | 2     | 29840  |
| 642                        | 7410  |       |       | 3340  | 10750  |         |       |        |
|                            |       |       |       |       |        | 10250   | 2     | 20500  |
| 644                        | 7200  |       |       | 2550  | 9750   |         |       |        |
|                            |       |       |       |       |        | 7800    | 2     | 15600  |
| 646                        | 4110  |       |       | 1740  | 5850   |         |       |        |
|                            |       |       |       |       |        | 4950    | 2     | 9900   |
| 648                        | 3400  |       |       | 650   | 4050   |         |       |        |
|                            |       |       |       |       |        | 2660    | 2     | 5320   |
| 650                        | 840   |       |       | 430   | 1270   |         |       |        |
|                            |       |       |       |       |        | 925     | 10    | 9250   |
| 660                        | 580   |       |       |       | 580    |         |       |        |
|                            |       |       |       |       |        | 315     | 10    | 3150   |
| 670                        | 50    |       |       |       | 50     |         |       |        |
|                            | 31290 | 7840  | 0     | 12260 | 51390  | 41820   |       | 93560  |

183061

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MT BISCHOFF TIN PROJECT

TOTAL VOLUMES - ORE + WASTE

|                    |        |        |
|--------------------|--------|--------|
| Total Volume (m3): | 793210 |        |
| less ore (tonnes): |        | 498220 |
| @ SG 3.5 (m3):     | 142349 |        |

-----  
650861

|                      |  |         |
|----------------------|--|---------|
| less waste (tonnes): |  | 1854955 |
| @ SG 2.35 (m3):      |  |         |

therefore:

w : o ratio (based on adj. tonnage factors) = 3.7

=====

# A.J. MURPHY & ASSOCIATES

Consultant Mining Engineers

183062

*Mine Feasibility Studies  
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MT BISCHOFF TIN PROJECT  
TASMANIA

REVIEW

OF

ORE RESOURCE POTENTIAL

BASED ON

0.80% CUT-OFF GRADE

Prepared For: J E Lynch

Prepared By: A J Murphy

Date: 25 August, 1993 (amended 08 September, 1993)

ref: JELREP93

MT BISCHOFF TIN PROJECT  
TASMANIA

1. INTRODUCTION:

A J Murphy & Associates were commissioned by Lynch Mining Limited to assess the ore grade potential for mining a selected quantity of the Dolomite Sulphide Lode (DSL), located at the old Mt Bischoff Tin Mine, Tasmania, for possible sale to Renison Limited, as supplementary feedstock for their treatment plant located at Renison, Tasmania.

Base data selected for this assessment was available from a comprehensive set of ore reserve tables, previously calculated by Douglas McKenna & Partners (1982), using an 0.4% Sn cut-off grade. The base data was presented both in plan and in cross-section.

A J Murphy & Associates selected ore blocks from these tables at grades of 0.8% Sn or better.

The initial estimate based on the above criteria indicated a potential mineable resource of about 500,000 tonnes of DSL containing an average grade of about 1.21% Sn, as follows:

DILUTED MINEABLE ORE RESOURCE  
(Initial Assessment)

|                   |                           |
|-------------------|---------------------------|
| Measured          | 41,740 tonnes @ 1.34% Sn  |
| Indicated         | 396,525 tonnes @ 1.21% Sn |
|                   | -----                     |
| Sub-total         | 438,265 tonnes @ 1.23% Sn |
| Plus:             |                           |
| Inferred Resource | 59,955 tonnes @ 1.11% Sn  |

Following discussions with Renison staff in early August, 1993 it was agreed that the initial estimate would be reviewed, taking into account the apparent lower grade ore blocks located on the bottom levels of the proposed open pit. This resulted in a revised ore potential of about 430,000 tonnes of DSL containing an average grade of about 1.24% Sn, as follows:

DILUTED MINEABLE ORE RESOURCE  
(Revised Assessment)

|                   |                           |
|-------------------|---------------------------|
| Measured          | 41,740 tonnes @ 1.34% Sn  |
| Indicated         | 329,312 tonnes @ 1.25% Sn |
|                   | -----                     |
| Sub-total         | 371,052 tonnes @ 1.26% Sn |
| Plus:             |                           |
| Inferred Resource | 59,955 tonnes @ 1.11% Sn  |

Although there was a significant reduction in the overall pit volumes to be mined as a result of the review, viz: from about 793,000 bcm down to 683,000 bcm, the average waste to ore ratios (based on adjusted tonnages for ore and waste) remained unchanged at 3.7:1.0. Therefore, there would be no cost savings in the overall mining costs if the revised option was adopted, and there would certainly be a significant potential revenue loss to Lynch Mining at the lower available ore tonnage.

## 2. SUMMARY:

- Basic Assumptions - Ore will be mined over 5.0m benches by drilling & blasting.
- All blastholes will be sampled and assayed to provide more detailed grade information on ore blocks.
  - 15% dilution at an average grade of 0.3% Sn has been added to all selected ore blocks.
  - Ore blocks located outside the designed open pit have been classified in this assignment as non-recoverable ore; however, some of these may be accessible at a later date from underground development.
  - Ore blocks estimated to contain less than 0.8% Sn after the addition of the dilution factor have been classified as sub-ore.
  - Areas of known waste (e.g. dolomite) can be mined over 10m or 15m benches.
  - Final bench heights will range between 10m and 15m at batter angles of about 70 degrees. Safety berms on the final benches will be 5.0m wide.
  - Main haul road within the pit will be 12.0m wide on a gradient of 1 in 10.

## 2.1 Initial Assessment - refer attached Tables 1A,2A,3A

## 1) ORE RESOURCE ASSESSMENT

Extract - Table 1A

| Level          | Tonnes         | Grade % Sn  | T x G          |
|----------------|----------------|-------------|----------------|
| 655m RL        | 188            | 0.88        | 166            |
| 650m RL        | 2,120          | 0.88        | 1,873          |
| 645m RL        | 2,851          | 0.91        | 2,591          |
| 640m RL        | 4,619          | 0.89        | 4,131          |
| 635m RL        | 20,614         | 1.01        | 20,907         |
| 630m RL        | 35,798         | 1.20        | 42,909         |
| 625m RL        | 40,861         | 1.40        | 57,365         |
| 620m RL        | 66,225         | 1.25        | 82,525         |
| 615m RL        | 59,860         | 1.34        | 80,473         |
| 610m RL        | 59,025         | 1.35        | 79,969         |
| 605m RL        | 47,231         | 1.23        | 57,946         |
| 600m RL        | 47,597         | 1.13        | 53,898         |
| 595m RL        | 54,860         | 1.04        | 56,962         |
| 590m RL        | 36,670         | 1.08        | 39,532         |
| 585m RL        | 19,702         | 1.16        | 22,757         |
| <b>Totals:</b> | <b>498,220</b> | <b>1.21</b> | <b>604,006</b> |

## 11) OPEN PIT VOLUMES - ORE &amp; WASTE

Extract - Table 3A

|               |                  |             |
|---------------|------------------|-------------|
| Total Volume: |                  | 793,210 bcm |
| less ore:     | 498,220 tonnes   |             |
| @ SG 3.50     |                  | 142,349 bcm |
| Waste Volume: |                  | 650,861 bcm |
| @ SG 2.85     | 1,854,955 tonnes |             |

Therefore:

W : O ratio (based on adj.tonnage factors) = 3.7:1.0

2.2 Revised Assessment - refer attached Tables 1,2,3

1) ORE RESOURCE ASSESSMENT

Extract - Table 1

| Level   | Tonnes  | Grade % Sn | T x G   |
|---------|---------|------------|---------|
| 655m RL | 188     | 0.88       | 166     |
| 650m RL | 2,120   | 0.88       | 1,873   |
| 645m RL | 2,851   | 0.91       | 2,591   |
| 640m RL | 4,619   | 0.89       | 4,131   |
| 635m RL | 20,614  | 1.01       | 20,907  |
| 630m RL | 35,798  | 1.20       | 42,909  |
| 625m RL | 40,861  | 1.40       | 57,365  |
| 620m RL | 66,225  | 1.25       | 82,525  |
| 615m RL | 59,860  | 1.34       | 80,473  |
| 610m RL | 59,025  | 1.35       | 79,969  |
| 605m RL | 47,231  | 1.23       | 57,946  |
| 600m RL | 36,369  | 1.09       | 39,603  |
| 595m RL | 36,666  | 1.17       | 42,907  |
| 590m RL | 18,581  | 1.17       | 21,743  |
| 585m RL | 0       | 0.00       | 0       |
| Totals: | 431,007 | 1.24       | 535,109 |

11) OPEN PIT VOLUMES - ORE & WASTE

Extract - Table 3

|               |                  |             |
|---------------|------------------|-------------|
| Total Volume: |                  | 683,090 bcm |
| less ore:     | 431,007 tonnes   |             |
| @ SG 3.50     |                  | 123,145 bcm |
| Waste Volume: |                  | 559,945 bcm |
| @ SG 2.85     | 1,595,843 tonnes |             |

Therefore:  
W : O ratio (based on adj.tonnage factors) = 3.7:1.0  
=====

3. COMMENTS:

Because of the significant reduction in the potential cash flow if the revised option is adopted, Lynch Mining should continue to consider the initial ore resource assessment as the optimum option - ie ore availability of around 500,000 tonnes at about 1.21% Sn.

It will not be possible to commence shipping ore from Mt Bischoff until consistent ore supplies can be established from the 630m RL level and below.

5.

Ore produced during mining will be stockpiled in three separate areas to facilitate blending, based on the following categories:

(a) Initial Ore Resource Assessment:

|                    |        |            |                     |
|--------------------|--------|------------|---------------------|
| High Grade S'pile  | -      | >1.30% Sn  | 190,161t @ 1.57% Sn |
| Run of Mine S'pile | - 1.00 | - 1.19% Sn | 135,072t @ 1.11% Sn |
| Low Grade S'pile   | - 0.80 | - 0.99% Sn | 172,987t @ 0.90% Sn |
| Totals:            |        |            | 498,220 @ 1.21% Sn  |

---

(b) Revised Ore Resource Assessment:

|                    |        |            |                     |
|--------------------|--------|------------|---------------------|
| High Grade S'pile  | -      | >1.30% Sn  | 173,785t @ 1.58% Sn |
| Run of Mine S'pile | - 1.00 | - 1.19% Sn | 141,892t @ 1.11% Sn |
| Low Grade S'pile   | - 0.80 | - 0.99% Sn | 115,330t @ 0.89% Sn |
| Totals:            |        |            | 431,007t @ 1.24% Sn |

---

The adoption of an average dilution grade at 0.30% Sn is considered reasonable, in that dilution will be derived from three sources, viz:

|          |                                     |                             |
|----------|-------------------------------------|-----------------------------|
| DSL      | <del>at grades below 0.30% Sn</del> | (represents 34% of Pit Vol) |
| Porphyry | around 0.2-0.30% Sn                 | ( " " " 10% of Pit Vol)     |
| Dolomite | nil grade                           | ( " " " 56% of Pit Vol)     |

However, many of the ore blocks abut other ore grade blocks and low grade DSL.



A J MURPHY

AWASM (mining);FAusIMM;MMICA

183068

*APPENDIX 2*

**PROPOSED DEVELOPMENT BY OPEN PIT  
MINING OF ORE BLOCKS > 0.80% Sn**

*A.J. Murphy & Associates 6/10/93*

183069

A.J. MURPHY & ASSOCIATES  
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LYNCH MINING LIMITED

MT BISCHOFF TIN PROJECT  
TASMANIA

PROPOSED DEVELOPMENT

BY

OPEN PIT MINING

OF

ORE BLOCKS >0.80% Sn

INCLUDED IN ORE RESOURCE CALCULATIONS  
DERIVED BY DOUGLAS McKENNA & PARTNERS  
1982, USING AN 0.40% Sn CUT-OFF GRADE.

Prepared For: J E Lynch

Prepared By: A J Murphy

Date: 06 October, 1993

ref: JELREP93

MT BISCHOFF TIN PROJECT  
TASMANIATABLE OF CONTENTS

| <u>Section</u> |                            | <u>Page No.</u> |
|----------------|----------------------------|-----------------|
| 1.             | INTRODUCTION               | 1               |
| 2.             | COMMENTS ON KEY PARAMETERS | 2               |
| 3.             | CONCLUSIONS                | 5               |

ATTACHMENTS:

|   |  |
|---|--|
| 1 | Tables 1/1a - Ore Reserve Assessment   |
| 2 | Tables 2/2a - Total Volumes Ore/Waste  |
| 3 | Tables 3/3a - Distribution of Total Volumes<br>Ore/Waste - (Pits 1-3)                          |
| 4 | Tables 4/4a - Ore Resource Distribution  |
| 5 | Tables 5/6/7 - Ore/Waste Distribution<br>Pit Nos.1 - 3   |
| 6 | Tables 8/9/10/11 - Ore/Waste Distribution<br>By Category - Sediments;<br>DSL;Dolomite;Porphyry |
| 7 | Tables 12/12a - Measured;Indicated;Inferred<br>Resources - Pit Nos.1 - 3                       |

---

MT BISCHOFF TIN PROJECT  
TASMANIA

1. INTRODUCTION:

The previous report entitled "REVIEW OF ORE RESOURCE POTENTIAL BASED ON 0.80% CUT-OFF GRADE", dated 25 August, 1993 (amended 08 September, 1993) was prepared to assess the initial global resource as prepared by Douglas McKenna & Partners Pty Ltd (1982), and included the effect of deleting some of the low grade material identified on the lower benches.

A J Murphy & Associates have since redesigned the original open pit to segregate the three identified zones of known mineralisation, incorporating them into separate pits with alternative access into each pit. The rationale behind this design was to provide a better breakdown of ore and waste in each zone and to enable better scheduling of overburden removal, in conjunction with establishing an earlier cash-flow from mine production.

Although this redesign has slightly increased the overall pit volume, and caused a slight reduction in the available mineable resource compared to the original design, the beneficial effect of improved flexibility and generation of an earlier cash flow is expected to more than offset these changes.

Total volume of material to be mined and revised diluted mineable ore resource is as follows:

TABLE (A)

TOTAL VOLUME TO BE MINED  
(refer Tables 2/2a)

|                | <u>Bcms</u>    | <u>Density</u>    | <u>Tonnes</u>    |
|----------------|----------------|-------------------|------------------|
| Ore            | 136,171        | 3.50              | 476,598          |
| Waste          | 671,554        | 2.85              | 1,913,930        |
| <b>TOTALS:</b> | <u>807,725</u> | <u>          </u> | <u>2,390,528</u> |

Waste:Ore ratio (based on adj.tonnage factor) = 4.0:1.0

Ore blocks included in the current Diluted Mineable Ore Resource established for this study have been extracted from the 0.4% Sn cut-off grade ore reserves, previously calculated by Douglas McKenna & Partners (1982). They comprise those blocks >0.80% Sn, after dilution, contained within the designed open pit down to RL 585m.

TABLE (B)DILUTED MINEABLE ORE RESOURCE  
(refer Tables 12/12a)

|                   |                           |
|-------------------|---------------------------|
| Measured          | 41,740 tonnes @ 1.34% Sn  |
| Indicated         | 373,397 tonnes @ 1.22% Sn |
| Sub-total         | 415,137 tonnes @ 1.23% Sn |
| Plus:             |                           |
| Inferred Resource | 61,460 tonnes @ 1.11% Sn  |

Further studies included in this report have been carried out to establish certain mining and environmental considerations:

- : Table 1/1a - Ore Reserve Assessment (incl.dilution)
- : " " 3/3a - Distribution of Total Volumes - Ore and Waste (Pits 1 - 3)
- : " " 4/4a - Ore Resource Distribution - (Pits 1 - 3)
- : " " 5/6/7 - Ore/Waste Distribution per Bench, Open Pits (1 - 3)
- : " " 8/9/10 - Ore/Waste Distribution per Bench by Category (Sediments; DSL; Dolomite; Porphyry), Open Pits (1 - 3)
- : " " 11 - Summary of Ore/Waste Distribution per Bench by Category (Sediments; DSL; Dolomite; Porphyry), Open Pits (1 - 3)

2. COMMENTS ON KEY PARAMETERS:

- a) The three designated open pits can each be accessed by separate haul roads - this will assist mine scheduling by permitting mining to be carried out from at least two pits at the same time.
- b) Development of the eastern ore "lobe" - i.e ore located below the porphyry - in Pit No.2 should be commenced first. Although there is not a large quantity of ore to be won from this Pit (approx. 34,000 tonnes @ 1.50% Sn) it will only require removal of about 15,000 bcm of waste before some ore production becomes available. This ore should be stockpiled until sufficient ore becomes available to commence deliveries to Renison.

- c) It will require removal of 40,000 bcms of waste in Pit No.1 before ore production can commence - however, the average grade of ore from this first bench (635m RL) is only 1.06% Sn, refer Table 5, and will probably have to be blended with ore from Pit NO.2. Average ore grades improve from the 630m RL bench and are consistently high down to the 605m RL bench.

Approximately 188,000 tonnes of ore at an average grade of about 1.23% Sn can be produced from these levels, which should be capable of being exploited to maintain a steady flow of average grade ore to Renison while Pit No.3 is being developed.

- d) Pit No.3 has the most overburden to be removed before consistent ore production can be established, refer Table 7. Approx. 74,000 bcms of material will have to be mined to get down to the 640m RL bench - this includes about 10,000 tonnes of ore at an average grade of about 0.90% Sn. A further 30,500 bcms of material, containing about 10,000 tonnes of ore at an average grade of about 1.00% Sn, will then have to be mined on the 635m RL bench before "mill" grade ore is exposed.

From the 630m RL bench down to the 605m RL (drop-cut) there remains about 90,000 tonnes of ore at an average grade of about 1.36% Sn. This will require mining about 86,400 bcm of material, at a waste:ore ratio of about 2.0:1.0 (based on the adjusted tonnage factor).

Higher grade ore from Pit No.3 should be scheduled so that it can be blended with lower grade ore mined from the 600m RL bench down to the 585m RL (drop-cut) in Pit No.1.

- e) One of the important features of the proposed mining operations is related to the storage of DSL waste. I have attempted to differentiate between the known zones of waste within the designed pits - refer Tables 8/9/10 in order to assist the "Environmental Planning" for disposal of the different waste material.

Tables 11 provides an estimate on the distribution of the various categories of waste within the three designed open pits, viz:

|              | Tonnes  | % of Total |
|--------------|---------|------------|
|              | -----   | -----      |
| - Sediments: | 48,685  | 6.03       |
| - DSL :      | 218,912 | 27.10      |
| - Dolomite : | 360,166 | 44.59      |
| - Porphyry : | 43,790  | 5.42       |



5.

|   |   |         |         |
|---|---|---------|---------|
| <u>Pit No.3:</u>                                      |   |         |         |
| Total volume to be mined (bcm)                        | : | 190,932 |         |
| less ore to be mined (tonnes)                         | : |         | 110,155 |
| " " " " " " (bcm)                                     | : | 31,473  |         |
|   |   | -----   |         |
| Total waste to be mined (bcm)                         | : | 159,459 |         |
| " " " " " " (tonnes)                                  | : |         | 454,458 |
| W : O ratio (based on adj.tonnage factor) = 4.1 : 1.0 |   |         |         |

However; if most of the initial material removed above the main ore horizons in each pit is treated as overburden (and capitalised), waste:ore ratios during the actual production periods (operating costs) would be considerably reduced, viz:

|  | <u>Pit No.1</u> | <u>Pit No.2</u> | <u>Pit No.3</u> |
|--|-----------------|-----------------|-----------------|
| Total waste prodn.<br>each pit (bcm):  | 467,577         | 44,518          | 159,459         |
| Waste removed as<br>O'burden above RL: | 635m            | 635m            | 640m            |
| Waste removed as<br>overburden (bcm):  | 90,583          | 14,664          | 71,257          |
|  | -----           | -----           | -----           |
| Remaining waste to<br>be mined (bcm):  | 376,994         | 29,854          | 88,202          |
| i.e. waste bcms x<br>SG 2.85 (tonnes): | 1,074,433       | 85,084          | 251,376         |
| Remaining ore to<br>be mined (tonnes): | 323,717         | 32,134          | 100,376         |
|  | -----           | -----           | -----           |
| Waste:Ore ratio<br>during op.mining:   | 3.3:1.0         | 2.6:1.0         | 2.5:1.0         |

### 3. CONCLUSIONS:

Accepting the "base Data" as prepared by Douglas McKenna & Partners Pty Ltd (1982), we are quite confident that a potential exists at Mt Bischoff to mine around 450,000 - 500,000 tonnes of tin-bearing DSL mineralisation, with an average diluted mineable grade of about 1.20% Sn.

The ability to establish adequate levels of production at ore grades suitable for sale and delivery to the Renison Tin Mine, will be best achieved by scheduling development of Pits Nos.2 & 1 first. This will reduce the initial "up front" capital requirement for overburden removal.

It will be necessary to stockpile most of the early production from the upper levels of each pit, for blending with higher grade ore mined from below the 635m RL benches to maintain average ore grades "contracted" for delivery. The same requirement will be necessary when mining the lower benches in Pit No.1 - at this stage, higher grade ore should be available from Pit No.3 for blending.



A.J.MURPHY  
AWASM (mining);FAusAIMM;MMICA.

06 October, 1993

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183077

MT BISCHOFF TIN PROJECT

TABLES 1/1a

ORE RESERVE ASSESSMENT

## Mt BISCHOFF TIN PROJECT - ORE RESERVE ASSESSMENT SUMMARY

14 September, 1993

| Level   | Block No. | GEOLOGICAL RESOURCE |         |        | NON RECOVERABLE ORE |         |        | DILUTION |         |       | SUB - ORE |         |       | DILUTED MINEABLE RESERVES |         |        |
|---------|-----------|---------------------|---------|--------|---------------------|---------|--------|----------|---------|-------|-----------|---------|-------|---------------------------|---------|--------|
|         |           | Tonnes              | Grade % | T x G  | Tonnes              | Grade % | T x G  | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                    | Grade % | T x G  |
| 655m RL |           | 157                 | 1.00    | 157    | 0                   | 0.00    | 0      | 31       | 0.30    | 9     | 0         | 0.00    | 0     | 188                       | 0.88    | 166    |
| 650m RL |           | 1767                | 1.00    | 1767   | 0                   | 0.00    | 0      | 353      | 0.30    | 106   | 0         | 0.00    | 0     | 2120                      | 0.88    | 1873   |
| 645m RL |           | 4951                | 0.82    | 4035   | 0                   | 0.00    | 0      | 475      | 0.30    | 143   | 2575      | 0.62    | 1587  | 2851                      | 0.91    | 2591   |
| 640m RL |           | 17603               | 0.77    | 13637  | 0                   | 0.00    | 0      | 1341     | 0.30    | 402   | 14325     | 0.69    | 9908  | 4619                      | 0.89    | 4131   |
| 635m RL |           | 33547               | 0.95    | 32012  | 3220                | 0.99    | 3198   | 2959     | 0.30    | 888   | 12672     | 0.69    | 8795  | 20614                     | 1.01    | 20907  |
| 630m RL |           | 51146               | 1.16    | 59224  | 8347                | 1.08    | 8977   | 5304     | 0.30    | 1591  | 12305     | 0.73    | 8930  | 35798                     | 1.20    | 42909  |
| 625m RL |           | 57512               | 1.27    | 73135  | 6936                | 1.03    | 7117   | 5624     | 0.30    | 1687  | 15041     | 0.66    | 9945  | 41159                     | 1.40    | 57760  |
| 620m RL |           | 86061               | 1.14    | 97849  | 14012               | 0.60    | 8370   | 8796     | 0.32    | 2804  | 13412     | 0.62    | 8276  | 67433                     | 1.25    | 84127  |
| 615m RL |           | 78809               | 1.25    | 98237  | 8195                | 0.80    | 6564   | 8776     | 0.30    | 2633  | 19531     | 0.71    | 13833 | 59860                     | 1.34    | 80473  |
| 610m RL |           | 70207               | 1.30    | 91010  | 7030                | 0.76    | 5319   | 7699     | 0.30    | 2310  | 11852     | 0.68    | 8031  | 59025                     | 1.35    | 79969  |
| 605m RL |           | 67386               | 1.10    | 74289  | 9130                | 0.68    | 6235   | 6360     | 0.30    | 1908  | 17386     | 0.69    | 12016 | 47231                     | 1.23    | 57946  |
| 600m RL |           | 72764               | 1.04    | 75967  | 26964               | 0.99    | 26619  | 5338     | 0.30    | 1601  | 10213     | 0.72    | 7375  | 40926                     | 1.06    | 43574  |
| 595m RL |           | 101066              | 0.94    | 94566  | 58734               | 0.77    | 45405  | 5657     | 0.30    | 1697  | 4620      | 0.73    | 3373  | 43369                     | 1.09    | 47485  |
| 590m RL |           | 82094               | 0.96    | 78863  | 53972               | 0.82    | 44117  | 4218     | 0.30    | 1265  | 0         | 0.00    | 0     | 32340                     | 1.11    | 36012  |
| 585m RL |           | 57113               | 0.93    | 53369  | 40534               | 0.79    | 31957  | 2487     | 0.30    | 746   | 0         | 0.00    | 0     | 19066                     | 1.16    | 22158  |
|         |           | 782183              | 1.08    | 848117 | 237073              | 0.82    | 193878 | 65419    | 0.30    | 19791 | 133932    | 0.69    | 92069 | 476598                    | 1.22    | 582080 |

LYNCH MINING LIMITED  
Mt BISCHOFF TIN PROJECT - ORE RESERVE ASSESSMENT

TABLE 1.

14 September, 1993

| Level   | Block No. | GEOLOGICAL RESOURCE |         |       | NON RECOVERABLE ORE |         |       | DILUTION |         |       | SUB - ORE |         |       | DILUTED MINEABLE RESERVES |         |       | CATEGORY |
|---------|-----------|---------------------|---------|-------|---------------------|---------|-------|----------|---------|-------|-----------|---------|-------|---------------------------|---------|-------|----------|
|         |           | Tonnes              | Grade % | T x G | Tonnes              | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                    | Grade % | T x G |          |
| 655m    | 1 (i)     | 157                 | 1.00    | 157   |                     |         |       | 31       | 0.30    | 9     |           |         |       | 188                       | 0.88    | 166   | Possible |
| 650m    | 1         | 1767                | 1.00    | 1767  |                     |         |       | 353      | 0.30    | 106   |           |         |       | 2120                      | 0.88    | 1873  | Possible |
| 645m    | 1(i)      | 745                 | 0.55    | 410   |                     |         |       |          |         |       | 745       | 0.55    | 410   |                           |         |       |          |
|         | 2(i)      | 1470                | 0.63    | 926   |                     |         |       |          |         |       | 1470      | 0.63    | 926   |                           |         |       |          |
|         | 3         | 1575                | 1.00    | 1575  |                     |         |       | 315      | 0.30    | 95    |           |         |       | 1890                      | 0.88    | 1670  | Possible |
|         | 4 (i)     | 45                  | 0.96    | 43    |                     |         |       | 9        | 0.30    | 3     |           |         |       | 54                        | 0.85    | 46    | Probable |
|         | 5 (i)     | 700                 | 1.09    | 763   |                     |         |       | 140      | 0.30    | 42    |           |         |       | 840                       | 0.96    | 805   | Possible |
|         | 6 (i)     | 287                 | 0.77    | 221   |                     |         |       |          |         |       | 287       | 0.77    | 221   |                           |         |       |          |
|         | 7 (i)     | 56                  | 1.20    | 67    |                     |         |       | 11       | 0.30    | 3     |           |         |       | 67                        | 1.05    | 71    | Possible |
|         | 8 (i)     | 73                  | 0.41    | 30    |                     |         |       |          |         |       | 73        | 0.41    | 30    |                           |         |       |          |
|         |           | 4951                | 0.82    | 4035  |                     |         |       | 475      | 0.30    | 143   |           |         |       | 2575                      | 0.91    | 2591  |          |
| 640m RL | 1 (i)     | 882                 | 0.78    | 688   |                     |         |       |          |         |       | 882       | 0.78    | 688   |                           |         |       |          |
|         | 2         | 1032                | 0.55    | 568   |                     |         |       |          |         |       | 1032      | 0.55    | 568   |                           |         |       |          |
|         | 3 (i)     | 1575                | 0.77    | 1213  |                     |         |       |          |         |       | 1575      | 0.77    | 1213  |                           |         |       |          |
|         | 4/5       | 2380                | 0.75    | 1785  |                     |         |       |          |         |       | 2380      | 0.75    | 1785  |                           |         |       |          |
|         | 6         | 1102                | 0.97    | 1069  |                     |         |       | 220      | 0.30    | 66    |           |         |       | 1322                      | 0.86    | 1135  | Proven   |
|         | 7 (i)     | 693                 | 0.66    | 457   |                     |         |       |          |         |       | 693       | 0.66    | 457   |                           |         |       |          |
|         | 8         | 1645                | 0.38    | 1448  |                     |         |       | 329      | 0.30    | 99    |           |         |       | 1974                      | 0.78    | 1546  |          |
|         | 9 (i)     | 1512                | 0.90    | 1361  |                     |         |       | 302      | 0.30    | 91    |           |         |       | 1814                      | 0.80    | 1452  | Probable |
|         | 10 (i)    | 1078                | 0.49    | 528   |                     |         |       |          |         |       | 1078      | 0.49    | 528   |                           |         |       |          |
|         | 11 (i)    | 1176                | 0.48    | 564   |                     |         |       |          |         |       | 1176      | 0.48    | 564   |                           |         |       |          |
|         | 12        | 1540                | 0.77    | 1186  |                     |         |       |          |         |       | 1540      | 0.77    | 1186  |                           |         |       |          |
|         | 13 (i)    | 1211                | 0.89    | 1078  |                     |         |       | 242      | 0.30    | 73    |           |         |       | 1453                      | 0.79    | 1150  |          |
|         | 14 (i)    | 588                 | 1.18    | 694   |                     |         |       | 118      | 0.30    | 35    |           |         |       | 706                       | 1.03    | 729   | Possible |
|         | 15        | 647                 | 1.20    | 776   |                     |         |       | 129      | 0.30    | 39    |           |         |       | 776                       | 1.05    | 815   |          |
|         | 16        | 542                 | 0.41    | 222   |                     |         |       |          |         |       | 542       | 0.41    | 222   |                           |         |       |          |
|         |           | 17603               | 0.77    | 13637 |                     |         |       | 1341     | 0.30    | 402   |           |         |       | 14325                     | 0.69    | 9908  |          |

| Level  | Block No. | GEOLOGICAL RESOURCE |         |       | NON RECOVERABLE ORE |         |       | DILUTION |         |       | SUB - ORE |         |       | DILUTED MINEABLE RESERVES |         |       | CATEGORY |          |          |  |
|--------|-----------|---------------------|---------|-------|---------------------|---------|-------|----------|---------|-------|-----------|---------|-------|---------------------------|---------|-------|----------|----------|----------|--|
|        |           | Tonnes              | Grade % | T x G | Tonnes              | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                    | Grade % | T x G |          |          |          |  |
| 635m   | 1         | 2555                | 0.78    | 1993  |                     |         |       |          |         |       |           |         | 2555  | 0.78                      | 1993    |       |          |          |          |  |
|        | 2         | 805                 | 0.55    | 443   |                     |         |       |          |         |       |           |         | 805   | 0.55                      | 443     |       |          |          |          |  |
|        | 3/4       | 2940                | 1.15    | 3381  |                     |         |       | 441      | 0.30    | 132   |           |         |       |                           |         | 3381  | 1.04     | 3513     | Possible |  |
|        | 5         | 2222                | 1.11    | 2466  |                     |         |       | 333      | 0.30    | 100   |           |         |       |                           |         | 2555  | 1.00     | 2566     | Probable |  |
|        | 6/7/8     | 1820                | 1.15    | 2093  |                     |         |       | 273      | 0.30    | 82    |           |         |       |                           |         | 2093  | 1.04     | 2175     | Proven   |  |
|        | 9 (i)     | 45                  | 0.72    | 32    |                     |         |       |          |         |       |           |         |       | 45                        | 0.72    | 32    |          |          |          |  |
|        | 10        | 2310                | 0.66    | 1525  |                     |         |       |          |         |       |           |         |       | 2310                      | 0.66    | 1525  |          |          |          |  |
|        | 11        | 1610                | 0.64    | 1030  |                     |         |       |          |         |       |           |         |       | 1610                      | 0.64    | 1030  |          |          |          |  |
|        | 12        | 1732                | 0.90    | 1559  |                     |         |       | 260      | 0.30    | 78    |           |         |       |                           |         | 1992  | 0.82     | 1637     | Probable |  |
|        | 13 (i)    | 73                  | 0.42    | 31    |                     |         |       |          |         |       |           |         |       | 73                        | 0.42    | 31    |          |          |          |  |
|        | 14 (i)    | 1802                | 0.82    | 1478  |                     |         |       | 270      | 0.30    | 81    |           |         |       | 2072                      | 0.75    | 1559  |          |          |          |  |
|        | 15 (i)    | 87                  | 0.98    | 85    |                     |         |       | 13       | 0.30    | 4     |           |         |       |                           |         | 100   | 0.89     | 89       | Possible |  |
|        | 16        | 2415                | 0.77    | 1860  |                     |         |       |          |         |       |           |         |       | 2415                      | 0.77    | 1860  |          |          |          |  |
|        | 17        | 3990                | 0.89    | 3551  |                     |         |       | 599      | 0.30    | 180   |           |         |       |                           |         | 4589  | 0.81     | 3731     | Possible |  |
|        | 18 (i)    | 1281                | 2.06    | 2639  |                     |         |       | 192      | 0.30    | 58    |           |         |       |                           |         | 1473  | 1.83     | 2697     | Probable |  |
|        | 19        | 980                 | 1.18    | 1156  |                     |         |       | 147      | 0.30    | 44    |           |         |       |                           |         | 1127  | 1.07     | 1201     | Possible |  |
|        | 20        | 1330                | 1.20    | 1596  |                     |         |       | 200      | 0.30    | 60    |           |         |       |                           |         | 1530  | 1.08     | 1656     | Possible |  |
|        | 21        | 787                 | 0.41    | 323   |                     |         |       |          |         |       |           |         |       | 787                       | 0.41    | 323   |          |          |          |  |
|        | 22 (i)    | 1543                | 1.02    | 1574  |                     |         |       | 231      | 0.30    | 69    |           |         |       |                           |         | 1774  | 0.93     | 1643     | Possible |  |
|        | 23 (i)    | 2163                | 0.55    | 1190  | 2163                | 0.55    | 1190  |          |         |       |           |         |       |                           |         |       |          |          |          |  |
|        | 24 (i)    | 1057                | 1.90    | 2008  | 1057                | 1.90    | 2008  |          |         |       |           |         |       |                           |         |       |          |          |          |  |
|        |           |                     | 33547   | 0.95  | 32012               | 3220    | 0.99  | 3198     | 2959    | 0.30  | 888       |         |       | 12672                     | 0.69    | 8795  | 20614    | 1.01     | 20907    |  |
|        | 630m      | 1                   | 3325    | 0.78  | 2594                |         |       |          |         |       |           |         |       | 3325                      | 0.78    | 2594  |          |          |          |  |
|        |           | 2                   | 5897    | 1.54  | 9081                |         |       |          | 885     | 0.30  | 265       |         |       |                           |         | 6782  | 1.38     | 9547     | Probable |  |
| 3      |           | 2397                | 1.38    | 3308  |                     |         |       | 360      | 0.30    | 108   |           |         |       |                           | 2757    | 1.24  | 3416     | Possible |          |  |
| 4 - 7  |           | 2485                | 1.58    | 3926  |                     |         |       | 373      | 0.30    | 112   |           |         |       |                           | 2858    | 1.41  | 4038     | Proven   |          |  |
| 8      |           | 332                 | 0.72    | 239   |                     |         |       |          |         |       |           |         | 332   | 0.72                      | 239     |       |          |          |          |  |
| 9/10   |           | 3377                | 0.87    | 2938  |                     |         |       | 507      | 0.30    | 152   |           |         |       |                           | 3884    | 0.80  | 3090     | Possible |          |  |
| 11     |           | 962                 | 0.64    | 616   |                     |         |       |          |         |       |           |         |       | 962                       | 0.64    | 616   |          |          |          |  |
| 12 (i) |           | 252                 | 0.50    | 126   |                     |         |       |          |         |       |           |         |       | 252                       | 0.50    | 126   |          |          |          |  |
| 13     |           | 1330                | 0.42    | 559   | 1330                | 0.42    | 559   |          |         |       |           |         |       |                           |         |       |          |          |          |  |
| 14 (i) |           | 1022                | 0.49    | 501   |                     |         |       |          |         |       |           |         |       | 1022                      | 0.49    | 501   |          |          |          |  |
| 15 (i) |           | 38                  | 0.67    | 25    |                     |         |       |          |         |       |           |         |       | 38                        | 0.67    | 25    |          |          |          |  |
| 16     |           | 1557                | 0.82    | 1277  |                     |         |       | 234      | 0.30    | 70    |           |         |       | 1791                      | 0.75    | 1347  |          |          |          |  |
| 17 (i) |           | 2205                | 0.98    | 2161  |                     |         |       | 331      | 0.30    | 99    |           |         |       |                           |         | 2536  | 0.89     | 2260     | Possible |  |
| 18     |           | 840                 | 0.83    | 697   |                     |         |       | 126      | 0.30    | 38    |           |         |       | 966                       | 0.76    | 735   |          |          |          |  |
| 19     |           | 1505                | 0.77    | 1159  |                     |         |       |          |         |       |           |         |       | 1505                      | 0.77    | 1159  |          |          |          |  |
| 20     |           | 1802                | 0.90    | 1622  |                     |         |       | 270      | 0.30    | 81    |           |         |       |                           |         | 2072  | 0.82     | 1703     | Probable |  |
| 21     |           | 4252                | 0.89    | 3784  |                     |         |       | 638      | 0.30    | 191   |           |         |       |                           |         | 4890  | 0.81     | 3976     | Possible |  |
| 22     |           | 6072                | 1.98    | 12023 |                     |         |       | 911      | 0.30    | 273   |           |         |       |                           |         | 6983  | 1.76     | 12246    | Probable |  |
| 23     |           | 1837                | 0.82    | 1506  |                     |         |       | 276      | 0.30    | 83    |           |         |       | 2113                      | 0.75    | 1589  |          |          |          |  |
| 24     |           | 997                 | 0.99    | 987   |                     |         |       | 150      | 0.30    | 45    |           |         |       |                           |         | 1147  | 0.90     | 1042     | Possible |  |
| 25     |           | 1645                | 1.02    | 1678  |                     |         |       | 247      | 0.30    | 74    |           |         |       |                           |         | 1892  | 0.93     | 1742     | Possible |  |
| 26     |           | 3640                | 0.55    | 2002  | 3640                | 0.55    | 2002  |          |         |       |           |         |       |                           |         |       |          |          |          |  |
| 27     |           | 3377                | 1.90    | 6416  | 3377                | 1.90    | 6416  |          |         |       |           |         |       |                           |         |       |          |          |          |  |
|        |           |                     | 51146   | 1.16  | 59224               | 8347    | 1.08  | 8977     | 5304    | 0.30  | 1591      |         |       | 12305                     | 0.73    | 8930  | 35798    | 1.20     | 42903    |  |

| Level   | Block No. | GEOLOGICAL RESOURCE |         |       | NON RECOVERABLE ORE |         |       | DILUTION |         |       | SUB - ORE |         |       | DILUTED MINEABLE RESERVES |         |       | CATEGORY |
|---------|-----------|---------------------|---------|-------|---------------------|---------|-------|----------|---------|-------|-----------|---------|-------|---------------------------|---------|-------|----------|
|         |           | Tonnes              | Grade % | T x G | Tonnes              | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                    | Grade % | T x G |          |
| 625m RL | 1         | 3797                | 0.78    | 2962  | 1519                | 0.78    | 1185  |          |         |       | 2278      | 0.78    | 1777  |                           |         |       |          |
|         | 2/4A      | 8435                | 1.61    | 13580 |                     |         |       | 1265     | 0.30    | 380   |           |         |       | 9700                      | 1.44    | 13960 | Probable |
|         | 3         | 2992                | 1.38    | 4129  |                     |         |       | 449      | 0.30    | 135   |           |         |       | 3441                      | 1.24    | 4264  | Probable |
|         | 4 - 8     | 3447                | 1.62    | 5584  |                     |         |       | 517      | 0.30    | 155   |           |         |       | 3964                      | 1.45    | 5739  | Proven   |
|         | 9         | 560                 | 0.70    | 392   |                     |         |       |          |         |       | 560       | 0.70    | 392   |                           |         |       |          |
|         | 10        | 2625                | 1.32    | 3465  |                     |         |       | 394      | 0.30    | 118   |           |         |       | 3019                      | 1.19    | 3583  | Probable |
|         | 11        | 245                 | 0.72    | 176   |                     |         |       |          |         |       | 245       | 0.72    | 176   |                           |         |       |          |
|         | 12 (i)    | 140                 | 0.50    | 70    |                     |         |       |          |         |       | 140       | 0.50    | 70    |                           |         |       |          |
|         | 13 (i)    | 175                 | 0.58    | 102   |                     |         |       |          |         |       | 175       | 0.58    | 102   |                           |         |       |          |
|         | 14 (i)    | 133                 | 0.60    | 80    |                     |         |       |          |         |       | 133       | 0.60    | 80    |                           |         |       |          |
|         | 15 (i)    | 903                 | 0.47    | 424   |                     |         |       |          |         |       | 903       | 0.47    | 424   |                           |         |       |          |
|         | 16 (i)    | 238                 | 1.13    | 269   |                     |         |       | 36       | 0.30    | 11    |           |         |       | 274                       | 1.02    | 280   | Probable |
|         | 17        | 3430                | 0.67    | 2298  |                     |         |       |          |         |       | 3430      | 0.67    | 2298  |                           |         |       |          |
|         | 18        | 2240                | 0.98    | 2195  |                     |         |       | 336      | 0.30    | 101   |           |         |       | 2576                      | 0.89    | 2296  | Possible |
|         | 19        | 1715                | 1.18    | 2024  |                     |         |       | 257      | 0.30    | 77    |           |         |       | 1972                      | 1.07    | 2101  | Probable |
|         | 20        | 980                 | 0.77    | 755   |                     |         |       |          |         |       | 980       | 0.77    | 755   |                           |         |       |          |
|         | 21 (i)    | 1036                | 0.67    | 694   |                     |         |       |          |         |       | 1036      | 0.67    | 694   |                           |         |       |          |
|         | 22 (i)    | 567                 | 0.66    | 374   |                     |         |       |          |         |       | 567       | 0.66    | 374   |                           |         |       |          |
|         | 23/26     | 10150               | 1.85    | 18778 |                     |         |       | 1523     | 0.30    | 457   |           |         |       | 11673                     | 1.65    | 19234 | Probable |
|         | 24 (i)    | 1701                | 0.84    | 1429  |                     |         |       | 255      | 0.30    | 77    |           |         |       |                           |         |       |          |
|         | 25 (i)    | 325                 | 0.45    | 146   |                     |         |       |          |         |       | 1956      | 0.77    | 1505  |                           |         |       |          |
|         | 27 (i)    | 1435                | 1.71    | 2454  |                     |         |       |          |         |       | 325       | 0.45    | 146   |                           |         |       |          |
|         | 28 (i)    | 1099                | 1.50    | 1649  |                     |         |       | 215      | 0.30    | 65    |           |         |       | 1650                      | 1.53    | 2518  | Possible |
|         | 29        | 2240                | 0.50    | 1120  |                     |         |       | 165      | 0.30    | 49    |           |         |       | 1264                      | 1.34    | 1698  | Possible |
|         | 30        | 1155                | 1.42    | 1640  |                     |         |       |          |         |       | 2240      | 0.50    | 1120  |                           |         |       |          |
|         | 31        | 3727                | 1.29    | 4808  | 3727                | 1.29    | 4808  | 173      | 0.30    | 52    |           |         |       | 1328                      | 1.27    | 1692  | Possible |
|         | 32 (i)    | 94                  | 0.76    | 71    | 94                  | 0.76    | 71    |          |         |       |           |         |       |                           |         |       |          |
|         | 33 (i)    | 378                 | 1.18    | 446   | 378                 | 1.18    | 446   |          |         |       |           |         |       |                           |         |       |          |
|         | 34 (i)    | 567                 | 0.45    | 255   | 567                 | 0.45    | 255   |          |         |       |           |         |       |                           |         |       |          |
|         | 35 (i)    | 259                 | 1.48    | 383   |                     |         |       | 39       | 0.30    | 12    |           |         |       | 298                       | 1.33    | 395   | Possible |
|         | 36 (i)    | 73                  | 0.43    | 31    |                     |         |       |          |         |       | 73        | 0.43    | 31    |                           |         |       |          |
|         | 37 (i)    | 651                 | 0.54    | 352   | 651                 | 0.54    | 352   |          |         |       |           |         |       |                           |         |       |          |
|         |           | 57512               | 1.27    | 73135 | 6936                | 1.03    | 7117  | 5624     | 0.30    | 1687  | 15041     | 0.66    | 9945  | 41159                     | 1.40    | 57760 |          |

| Level   | Block No. | GEOLOGICAL RESOURCE |         |       | NON RECOVERABLE ORE |         |       | DILUTION |         |       | SUB - ORE |         |       | DILUTED MINEABLE RESERVES |         |       | CATEGORY |          |
|---------|-----------|---------------------|---------|-------|---------------------|---------|-------|----------|---------|-------|-----------|---------|-------|---------------------------|---------|-------|----------|----------|
|         |           | Tonnes              | Grade % | T x G | Tonnes              | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                    | Grade % | T x G |          |          |
| 620m RL | 1         | 3745                | 0.78    | 2921  | 1124                | 0.78    | 876   |          |         |       | 2622      | 0.78    | 2045  |                           |         |       |          |          |
|         | 2/2A      | 5215                | 1.63    | 8500  |                     |         |       | 782      | 0.30    | 235   |           |         |       | 5997                      | 1.46    | 8735  | Probable |          |
|         | 3         | 3500                | 1.38    | 4830  |                     |         |       | 525      | 0.30    | 158   |           |         |       | 4025                      | 1.24    | 4988  | Probable |          |
|         | 4         | 945                 | 0.59    | 558   |                     |         |       |          |         |       | 945       | 0.59    | 558   |                           |         |       |          |          |
|         | 5 - 15    | 5355                | 1.40    | 7497  |                     |         |       | 803      | 0.30    | 241   |           |         |       | 6158                      | 1.26    | 7738  | Proven   |          |
|         | 16 (i)    | 77                  | 1.26    | 97    |                     |         |       | 12       | 0.30    | 3     |           |         |       | 89                        | 1.13    | 100   | Proven   |          |
|         | 17/18     | 875                 | 0.79    | 691   |                     |         |       |          |         |       | 875       | 0.79    | 691   |                           |         |       |          |          |
|         | 19        | 700                 | 0.69    | 483   |                     |         |       |          |         |       | 700       | 0.69    | 483   |                           |         |       |          |          |
|         | 20        | 1645                | 1.70    | 2797  |                     |         |       | 247      | 0.30    | 74    |           |         |       | 1892                      | 1.52    | 2871  | Probable |          |
|         | 21        | 1680                | 0.47    | 790   |                     |         |       |          |         |       | 1680      | 0.47    | 790   |                           |         |       |          |          |
|         | 22/23     | 12600               | 0.94    | 11844 |                     |         |       | 1890     | 0.30    | 567   |           |         |       | 14490                     | 0.86    | 12411 | Probable |          |
|         | 24/25     | 3080                | 0.96    | 2957  |                     |         |       | 462      | 0.30    | 139   |           |         |       | 3542                      | 0.87    | 3095  | Probable |          |
|         | 26 (i)    | 1722                | 1.62    | 2790  |                     |         |       | 258      | 0.30    | 77    |           |         |       | 1980                      | 1.45    | 2867  | Probable |          |
|         | 27        | 2012                | 1.11    | 2233  |                     |         |       | 302      | 0.30    | 91    |           |         |       | 2314                      | 1.00    | 2324  | Probable |          |
|         | 28        | 2590                | 0.66    | 1709  |                     |         |       |          |         |       | 2590      | 0.66    | 1709  |                           |         |       |          |          |
|         | 29        | 8995                | 2.06    | 18530 |                     |         |       | 1349     | 0.30    | 405   |           |         |       | 10344                     | 1.83    | 18934 | Probable |          |
|         | 30/31     | 4497                | 1.00    | 4497  |                     |         |       | 675      | 0.30    | 202   |           |         |       | 5172                      | 0.91    | 4699  | Probable |          |
|         | 32 - 35   | 8242                | 1.50    | 12363 |                     |         |       | 1236     | 0.30    | 371   |           |         |       | 9478                      | 1.34    | 12734 | Possible |          |
|         | 36        | 3797                | 0.50    | 1899  | 1519                | 0.50    | 759   |          |         |       | 2278      | 0.50    | 1139  |                           |         |       |          |          |
|         | 37 (i)    | 2068                | 0.62    | 1282  | 2068                | 0.62    | 1282  |          |         |       |           |         |       |                           |         |       |          |          |
|         | 38 (i)    | 161                 | 0.48    | 77    | 161                 | 0.48    | 77    |          |         |       |           |         |       |                           |         |       |          |          |
|         | 39        | 822                 | 0.92    | 756   | 822                 | 0.92    | 756   |          |         |       |           |         |       |                           |         |       |          |          |
|         | 40 (i)    | 1484                | 0.67    | 994   | 1484                | 0.67    | 994   |          |         |       |           |         |       |                           |         |       |          |          |
|         | 41        | 3237                | 0.52    | 1683  | 3237                | 0.52    | 1683  |          |         |       |           |         |       |                           |         |       |          |          |
|         | 42        | 1050                | 1.48    | 1554  |                     |         |       | 158      | 0.30    | 47    |           |         |       | 1208                      | 1.33    | 1601  | Possible |          |
|         | 43 (i)    | 434                 | 0.62    | 269   | 434                 | 0.62    | 269   |          |         |       |           |         |       | 744                       | 1.38    | 1029  | Possible |          |
|         | 44        | 647                 | 1.29    | 835   |                     |         |       | 97       | 0.30    | 194   |           |         |       |                           |         |       |          |          |
|         | 45 (i)    | 1722                | 0.43    | 740   |                     |         |       |          |         |       | 1722      | 0.50    | 861   |                           |         |       |          |          |
|         | 46 (i)    | 1204                | 0.51    | 614   | 1204                | 0.51    | 614   |          |         |       |           |         |       |                           |         |       |          |          |
|         | 47        | 1960                | 0.54    | 1058  | 1960                | 0.54    | 1058  |          |         |       |           |         |       |                           |         |       |          |          |
|         |           |                     | -----   | ----- | -----               | -----   | ----- | -----    | -----   | ----- | -----     | -----   | ----- | -----                     | -----   | ----- | -----    | -----    |
|         |           |                     | 86061   | 1.14  | 97849               | 14012   | 0.60  | 8370     | 8796    | 0.32  | 2804      | 13412   | 0.62  | 8276                      | 67433   | 1.25  | 84127    |          |
|         | 615 m RL  | 1/2                 | 3500    | 0.75  | 2625                | 1400    | 0.75  | 1050     |         |       |           | 2100    | 0.75  | 1575                      |         |       |          |          |
|         |           | 3/4                 | 3465    | 1.50  | 5198                |         |       |          | 520     | 0.30  | 156       |         |       |                           | 3985    | 1.34  | 5353     | Probable |
|         |           | 5                   | 1207    | 0.59  | 712                 |         |       |          |         |       |           | 1207    | 0.59  | 712                       |         |       |          |          |
|         |           | 6 - 15              | 7507    | 1.42  | 10660               |         |       |          | 1126    | 0.30  | 338       |         |       |                           | 8633    | 1.27  | 10998    | Proven   |
|         |           | 16 - 18             | 665     | 1.33  | 884                 |         |       |          | 100     | 0.30  | 30        |         |       |                           | 765     | 1.20  | 914      | Proven   |
|         |           | 19                  | 1575    | 1.70  | 2678                | 866     | 1.70  | 1473     | 106     | 0.30  | 32        |         |       |                           | 815     | 1.52  | 1237     | Probable |
|         |           | 20 (i)              | 437     | 0.71  | 310                 |         |       |          |         |       |           | 437     | 0.71  | 310                       |         |       |          |          |
|         |           | 21                  | 1995    | 0.56  | 1117                |         |       |          |         |       |           | 1995    | 0.56  | 1117                      |         |       |          |          |
|         |           | 22/23               | 15522   | 1.06  | 16453               |         |       |          | 2328    | 0.30  | 698       |         |       |                           | 17850   | 0.96  | 17152    | Probable |
|         |           | 24/25               | 6457    | 0.86  | 5553                |         |       |          | 969     | 0.30  | 291       |         |       |                           | 7426    | 0.79  | 5844     | Probable |
|         |           | 26                  | 4900    | 1.62  | 7938                |         |       |          | 735     | 0.30  | 221       |         |       |                           | 5635    | 1.45  | 8159     | Probable |
|         |           | 27                  | 2170    | 0.77  | 1671                |         |       |          |         |       |           | 2170    | 0.77  | 1671                      |         |       |          |          |
|         |           | 28                  | 3325    | 0.66  | 2195                |         |       |          |         |       |           | 3325    | 0.66  | 2195                      |         |       |          |          |
|         |           | 29                  | 8820    | 2.06  | 18169               |         |       |          | 1323    | 0.30  | 397       |         |       |                           | 10143   | 1.83  | 18566    | Probable |
|         |           | 30/31               | 2222    | 1.44  | 3200                |         |       |          | 333     | 0.30  | 100       |         |       |                           | 2555    | 1.29  | 3300     | Probable |
| 32/33   |           | 8242                | 1.75    | 14424 |                     |         |       | 1236     | 0.30    | 371   |           |         |       | 9478                      | 1.56    | 14794 | Possible |          |
| 34      |           | 4252                | 0.50    | 2126  | 4252                | 0.50    | 2126  |          |         |       |           |         |       |                           |         |       |          |          |
| 35      | 805       | 1.87                | 1505    | 805   | 1.87                | 1505    |       |          |         |       |           |         |       |                           |         |       |          |          |
| 36 (i)  | 1743      | 0.47                | 819     | 872   | 0.47                | 410     |       |          |         | 872   | 0.47      | 410     |       |                           |         |       |          |          |
|         |           | -----               | -----   | ----- | -----               | -----   | ----- | -----    | -----   | ----- | -----     | -----   | ----- | -----                     | -----   | ----- | -----    |          |
|         |           | 78809               | 1.25    | 98237 | 8195                | 0.80    | 6564  | 8776     | 0.30    | 2633  | 19531     | 0.71    | 13833 | 59860                     | 1.34    | 80473 |          |          |

| Level      | Block No.   | GEOLOGICAL RESOURCE |         |       | NON RECOVERABLE ORE |         |       | DILUTION |         |       | SUB - ORE |         |       | DILUTED MINEABLE RESERVES |         |       | CATEGORY |
|------------|-------------|---------------------|---------|-------|---------------------|---------|-------|----------|---------|-------|-----------|---------|-------|---------------------------|---------|-------|----------|
|            |             | Tonnes              | Grade % | T x G | Tonnes              | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                    | Grade % | T x G |          |
| 610m RL    | 1           | 2870                | 0.69    | 1980  | 2440                | 0.59    | 1683  |          |         |       | 431       | 0.69    | 297   |                           |         |       |          |
|            | 2           | 2870                | 1.72    | 4936  |                     |         |       | 431      | 0.30    | 129   |           |         |       | 3301                      | 1.53    | 5066  | Probable |
|            | 3           | 1085                | 0.59    | 640   |                     |         |       |          |         |       | 1085      | 0.59    | 640   |                           |         |       |          |
|            | 4 - 14      | 7385                | 1.63    | 12038 |                     |         |       | 1108     | 0.30    | 332   |           |         |       | 8493                      | 1.46    | 12370 | Proven   |
|            | 15          | 1120                | 0.94    | 1053  |                     |         |       | 168      | 0.30    | 50    |           |         |       | 1288                      | 0.86    | 1103  | "        |
|            | 16/17       | 8312                | 0.69    | 5735  | 4156                | 0.69    | 2868  |          |         |       | 4156      | 0.69    | 2868  |                           |         |       |          |
|            | 18          | 13055               | 1.11    | 14491 |                     |         |       | 1958     | 0.30    | 587   |           |         |       | 15013                     | 1.00    | 15079 | Probable |
|            | 19/20       | 8470                | 0.88    | 7454  |                     |         |       | 1271     | 0.30    | 381   |           |         |       | 9741                      | 0.80    | 7835  | "        |
|            | 21          | 4200                | 1.62    | 6804  |                     |         |       | 630      | 0.30    | 189   |           |         |       | 4830                      | 1.45    | 6993  | "        |
|            | 22(i)/23(i) | 1333                | 0.63    | 840   |                     |         |       |          |         |       | 1333      | 0.63    | 840   |                           |         |       |          |
|            | 23A         | 2345                | 0.74    | 1735  |                     |         |       |          |         |       | 2345      | 0.74    | 1735  |                           |         |       |          |
|            | 24          | 2502                | 0.66    | 1651  |                     |         |       |          |         |       | 2502      | 0.66    | 1651  |                           |         |       |          |
|            | 25          | 7822                | 2.06    | 16113 |                     |         |       | 1173     | 0.30    | 352   |           |         |       | 8995                      | 1.83    | 16465 | Probable |
|            | 26          | 1277                | 1.65    | 2107  |                     |         |       | 192      | 0.30    | 57    |           |         |       | 1469                      | 1.47    | 2165  | "        |
|            | 27          | 5127                | 2.47    | 12664 |                     |         |       | 769      | 0.30    | 231   |           |         |       | 5896                      | 2.19    | 12894 | "        |
| 28 (i) *** | 434         | 1.77                | 768     | 434   | 1.77                | 768     |       |          |         |       |           |         |       |                           |         |       |          |
|            |             | 70207               | 1.30    | 91010 | 7030                | 0.76    | 5319  | 7699     | 0.30    | 2310  | 11852     | 0.68    | 8031  | 59025                     | 1.35    | 79969 |          |
| 605m RL    | 1           | 3150                | 0.64    | 2016  | 3150                | 0.64    | 2016  |          |         |       |           |         |       |                           |         |       |          |
|            | 2 (i)       | 357                 | 0.80    | 286   | 357                 | 0.80    | 286   |          |         |       |           |         |       |                           |         |       |          |
|            | 3           | 2117                | 1.82    | 3853  |                     |         |       | 318      | 0.30    | 95    |           |         |       | 2435                      | 1.62    | 3948  | Probable |
|            | 4           | 1610                | 0.59    | 950   | 1610                | 0.59    | 950   |          |         |       |           |         |       |                           |         |       |          |
|            | 5 - 12      | 5285                | 1.77    | 9354  |                     |         |       | 793      | 0.30    | 238   |           |         |       | 6078                      | 1.58    | 9592  | Proven   |
|            | 13/14       | 1330                | 0.80    | 1064  |                     |         |       | 200      | 0.30    | 60    | 1530      | 0.73    | 1124  |                           |         |       |          |
|            | 15/16       | 10675               | 0.70    | 7473  |                     |         |       |          |         |       | 10675     | 0.70    | 7473  |                           |         |       |          |
|            | 17/18       | 15172               | 1.04    | 15779 |                     |         |       | 2276     | 0.30    | 683   |           |         |       | 17448                     | 0.94    | 16462 | Probable |
|            | 19          | 6685                | 1.03    | 6886  |                     |         |       | 1003     | 0.30    | 301   |           |         |       | 7688                      | 0.93    | 7186  | "        |
|            | 20          | 3237                | 1.62    | 5244  |                     |         |       | 486      | 0.30    | 146   |           |         |       | 3723                      | 1.45    | 5390  | "        |
|            | 21 ***      | 1505                | 1.77    | 2664  |                     |         |       | 226      | 0.30    | 68    |           |         |       | 1731                      | 1.58    | 2732  | "        |
|            | 22/23       | 7402                | 0.66    | 4885  | 2221                | 0.66    | 1466  |          |         |       | 5161      | 0.66    | 3420  |                           |         |       |          |
|            | 24          | 2117                | 1.00    | 2117  |                     |         |       | 318      | 0.30    | 95    |           |         |       | 2435                      | 0.91    | 2212  | Probable |
| 25/26      | 4952        | 2.06                | 10201   |       |                     |         | 743   | 0.30     | 223     |       |           |         | 5695  | 1.83                      | 10424   | "     |          |
| 27 (i)     | 910         | 0.99                | 901     | 910   | 0.99                | 901     |       |          |         |       |           |         |       |                           |         |       |          |
| 28 (i)     | 882         | 0.70                | 617     | 882   | 0.70                | 617     |       |          |         |       |           |         |       |                           |         |       |          |
|            |             | 67386               | 1.10    | 74289 | 9130                | 0.68    | 6235  | 6360     | 0.30    | 1908  | 17386     | 0.69    | 12016 | 47231                     | 1.23    | 57946 |          |

| Level   | Block No. | GEOLOGICAL RESOURCE |         |       | NON RECOVERABLE ORE |         |       | DILUTION |         |       | SUB - ORE |         |       | DILUTED MINEABLE RESERVES |         |       | CATEGORY |  |
|---------|-----------|---------------------|---------|-------|---------------------|---------|-------|----------|---------|-------|-----------|---------|-------|---------------------------|---------|-------|----------|--|
|         |           | Tonnes              | Grade % | T x G | Tonnes              | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                    | Grade % | T x G |          |  |
| 600m RL | 1         | 4077                | 0.64    | 2609  | 4077                | 0.64    | 2609  |          |         |       |           |         |       |                           |         |       |          |  |
|         | 2         | 1435                | 0.80    | 1148  | 1435                | 0.80    | 1148  |          |         |       |           |         |       |                           |         |       |          |  |
|         | 3 (i)     | 882                 | 0.56    | 494   | 882                 | 0.56    | 494   |          |         |       |           |         |       |                           |         |       |          |  |
|         | 4         | 1522                | 1.82    | 2770  | 1522                | 1.82    | 2770  |          |         |       |           |         |       |                           |         |       |          |  |
|         | 5         | 2677                | 0.66    | 1767  | 2677                | 0.66    | 1767  |          |         |       |           |         |       |                           |         |       |          |  |
|         | 6 (i)     | 1144                | 1.05    | 1201  | 1144                | 1.05    | 1201  |          |         |       |           |         |       |                           |         |       |          |  |
|         | 7/8       | 5810                | 0.72    | 4183  | 872                 | 0.72    | 627   |          |         |       | 4939      | 0.72    | 3556  |                           |         |       |          |  |
|         | 9 (i)     | 2579                | 0.89    | 2295  | 1032                | 0.89    | 918   | 232      | 0.30    | 70    |           |         |       | 1780                      | 0.81    | 1447  | Probable |  |
|         | 10 (i)    | 2600                | 0.78    | 2028  |                     |         |       |          |         |       | 2660      | 0.78    | 2028  |                           |         |       |          |  |
|         | 11 (i)    | 2331                | 1.49    | 3473  |                     |         |       | 350      | 0.30    | 105   |           |         |       | 2681                      | 1.33    | 3578  | Probable |  |
|         | 12/13     | 16572               | 1.10    | 18229 |                     |         |       | 2486     | 0.30    | 746   |           |         |       | 19058                     | 1.00    | 18975 | • • •    |  |
|         | 14        | 7595                | 1.40    | 10633 |                     |         |       | 1139     | 0.30    | 342   |           |         |       | 8734                      | 1.26    | 10975 | • • •    |  |
|         | 15 ***    | 2100                | 1.77    | 3717  | 2100                | 1.77    | 3717  |          |         |       |           |         |       |                           |         |       |          |  |
|         | 16        | 6685                | 0.67    | 4479  | 4011                | 0.67    | 2687  |          |         |       | 2674      | 0.67    | 1792  |                           |         |       |          |  |
|         | 17        | 5127                | 1.14    | 5845  |                     |         |       | 769      | 0.30    | 231   |           |         |       | 5896                      | 1.03    | 6075  | Probable |  |
|         | 18        | 2415                | 1.00    | 2415  |                     |         |       | 362      | 0.30    | 109   |           |         |       | 2777                      | 0.91    | 2524  | • • •    |  |
|         | 19 (i)    | 1526                | 2.77    | 4227  | 1526                | 2.77    | 4227  |          |         |       |           |         |       |                           |         |       |          |  |
|         | 20        | 1627                | 0.99    | 1611  | 1627                | 0.99    | 1611  |          |         |       |           |         |       |                           |         |       |          |  |
|         | 21        | 4060                | 0.70    | 2842  | 4060                | 0.70    | 2842  |          |         |       |           |         |       |                           |         |       |          |  |
|         |           |                     | 72764   | 1.04  | 75967               | 26964   | 0.99  | 26619    | 5338    | 0.30  | 1601      | 10213   | 0.72  | 7375                      | 40926   | 1.06  | 43574    |  |
|         | 595m RL   | 1                   | 7770    | 0.77  | 5983                | 7770    | 0.77  | 5983     |         |       |           |         |       |                           |         |       |          |  |
| 2       |           | 1172                | 0.80    | 938   | 1172                | 0.80    | 938   |          |         |       |           |         |       |                           |         |       |          |  |
| 3       |           | 1872                | 0.56    | 1048  | 1872                | 0.56    | 1048  |          |         |       |           |         |       |                           |         |       |          |  |
| 4 (i)   |           | 1225                | 0.49    | 600   | 1225                | 0.49    | 600   |          |         |       |           |         |       |                           |         |       |          |  |
| 5 (i)   |           | 882                 | 0.50    | 441   | 882                 | 0.50    | 441   |          |         |       |           |         |       |                           |         |       |          |  |
| 6/7     |           | 8995                | 0.80    | 7196  | 8995                | 0.80    | 7196  |          |         |       |           |         |       |                           |         |       |          |  |
| 8       |           | 4620                | 0.73    | 3373  |                     |         |       |          |         |       | 4620      | 0.73    | 3373  |                           |         |       |          |  |
| 9       |           | 8312                | 0.89    | 7398  | 8312                | 0.89    | 7398  |          |         |       |           |         |       |                           |         |       |          |  |
| 10      |           | 8102                | 0.78    | 6320  | 8102                | 0.78    | 6320  |          |         |       |           |         |       |                           |         |       |          |  |
| 11      |           | 7245                | 0.78    | 5651  | 7245                | 0.78    | 5651  |          |         |       |           |         |       |                           |         |       |          |  |
| 12      |           | 6300                | 1.49    | 9387  |                     |         |       | 945      | 0.30    | 284   |           |         |       | 7245                      | 1.33    | 9671  | Probable |  |
| 13      |           | 7385                | 1.13    | 8345  |                     |         |       | 1108     | 0.30    | 332   |           |         |       | 8493                      | 1.02    | 8677  | • • •    |  |
| 14      |           | 11777               | 1.07    | 12601 |                     |         |       | 1767     | 0.30    | 530   |           |         |       | 13544                     | 0.97    | 13131 | • • •    |  |
| 15      |           | 7840                | 1.33    | 10427 |                     |         |       | 1176     | 0.30    | 353   |           |         |       | 9016                      | 1.20    | 10780 | • • •    |  |
| 16      |           | 6457                | 0.67    | 4326  | 6457                | 0.67    | 4326  |          |         |       |           |         |       |                           |         |       |          |  |
| 17      |           | 4410                | 1.14    | 5027  |                     |         |       | 662      | 0.30    | 198   |           |         |       | 5072                      | 1.03    | 5226  | Probable |  |
| 18 (i)  |           | 1680                | 0.97    | 1630  | 1680                | 0.97    | 1630  |          |         |       |           |         |       |                           |         |       |          |  |
| 19 (i)  |           | 350                 | 0.51    | 179   | 350                 | 0.51    | 179   |          |         |       |           |         |       |                           |         |       |          |  |
| 20      |           | 1470                | 0.99    | 1455  | 1470                | 0.99    | 1455  |          |         |       |           |         |       |                           |         |       |          |  |
| 21      |           | 3202                | 0.70    | 2241  | 3202                | 0.70    | 2241  |          |         |       |           |         |       |                           |         |       |          |  |
|         |           |                     | 101066  | 0.94  | 94566               | 58734   | 0.77  | 45405    | 5657    | 0.30  | 1697      | 4620    | 0.73  | 3373                      | 43369   | 1.09  | 47485    |  |

| Level   | Block No. | GEOLOGICAL RESOURCE |         |       | NON RECOVERABLE ORE |         |       | DILUTION |         |       | SUB - ORE |         |       | DILUTED MINEABLE RESERVES |         |       | CATEGORY |  |
|---------|-----------|---------------------|---------|-------|---------------------|---------|-------|----------|---------|-------|-----------|---------|-------|---------------------------|---------|-------|----------|--|
|         |           | Tonnes              | Grade % | T x G | Tonnes              | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes                    | Grade % | T x G |          |  |
| 590m RL | 1         | 8120                | 0.71    | 5765  | 3120                | 0.71    | 5765  |          |         |       |           |         |       |                           |         |       |          |  |
|         | 2         | 1400                | 0.59    | 326   | 1400                | 0.59    | 326   |          |         |       |           |         |       |                           |         |       |          |  |
|         | 3 (i)     | 409                 | 0.84    | 344   | 409                 | 0.84    | 344   |          |         |       |           |         |       |                           |         |       |          |  |
|         | 4 (i)     | 217                 | 0.52    | 113   | 217                 | 0.52    | 113   |          |         |       |           |         |       |                           |         |       |          |  |
|         | 5         | 1820                | 0.50    | 910   | 1820                | 0.50    | 910   |          |         |       |           |         |       |                           |         |       |          |  |
|         | 6 (i)     | 6762                | 1.50    | 10143 | 6762                | 1.50    | 10143 |          |         |       |           |         |       |                           |         |       |          |  |
|         | 7 (i)     | 178                 | 0.59    | 105   | 178                 | 0.59    | 105   |          |         |       |           |         |       |                           |         |       |          |  |
|         | 8         | 6475                | 0.46    | 2979  | 6475                | 0.46    | 2979  |          |         |       |           |         |       |                           |         |       |          |  |
|         | 9         | 2730                | 1.05    | 2867  | 2730                | 1.05    | 2867  |          |         |       |           |         |       |                           |         |       |          |  |
|         | 10 (i)    | 336                 | 0.71    | 239   | 336                 | 0.71    | 239   |          |         |       |           |         |       |                           |         |       |          |  |
|         | 11        | 4480                | 0.74    | 3315  | 4480                | 0.74    | 3315  |          |         |       |           |         |       |                           |         |       |          |  |
|         | 12        | 7035                | 0.89    | 6261  | 7035                | 0.89    | 6261  |          |         |       |           |         |       |                           |         |       |          |  |
|         | 13        | 2485                | 0.78    | 1938  | 2485                | 0.78    | 1938  |          |         |       |           |         |       |                           |         |       |          |  |
|         | 14/15     | 7420                | 1.53    | 11353 |                     |         |       | 1113     | 0.30    | 334   |           |         |       | 8533                      | 1.37    | 11687 | Probable |  |
|         | 16        | 4515                | 1.13    | 5102  |                     |         |       | 677      | 0.30    | 203   |           |         |       | 5192                      | 1.02    | 5305  | .....    |  |
|         | 17        | 9905                | 1.07    | 10598 |                     |         |       | 1486     | 0.30    | 446   |           |         |       | 11391                     | 0.97    | 11064 | .....    |  |
|         | 18        | 2800                | 1.33    | 3724  |                     |         |       | 420      | 0.30    | 126   |           |         |       | 3220                      | 1.20    | 3850  | .....    |  |
|         | 19        | 3482                | 1.14    | 3969  |                     |         |       | 522      | 0.30    | 157   |           |         |       | 4004                      | 1.03    | 4126  | .....    |  |
|         | 20        | 3430                | 0.67    | 2298  | 3430                | 0.67    | 2298  |          |         |       |           |         |       |                           |         |       |          |  |
|         | 21        | 1382                | 0.97    | 1341  | 1382                | 0.97    | 1341  |          |         |       |           |         |       |                           |         |       |          |  |
|         | 22        | 2065                | 0.51    | 1053  | 2065                | 0.51    | 1053  |          |         |       |           |         |       |                           |         |       |          |  |
|         | 23        | 1890                | 0.99    | 1871  | 1890                | 0.99    | 1871  |          |         |       |           |         |       |                           |         |       |          |  |
|         | 24/25     | 2520                | 0.65    | 1638  | 2520                | 0.65    | 1638  |          |         |       |           |         |       |                           |         |       |          |  |
|         | 26 (i)    | 119                 | 0.47    | 56    | 119                 | 0.47    | 56    |          |         |       |           |         |       |                           |         |       |          |  |
|         | 27 (i)    | 119                 | 0.47    | 56    | 119                 | 0.47    | 56    |          |         |       |           |         |       |                           |         |       |          |  |
|         |           |                     | 82094   | 0.96  | 78863               | 53972   | 0.82  | 44117    | 4218    | 0.30  | 1265      | 0       | 0.00  | 0                         | 32340   | 1.11  | 34012    |  |
|         | 585m RL   | 1 (i)               | 266     | 0.52  | 138                 | 266     | 0.52  | 138      |         |       |           |         |       |                           |         |       |          |  |
| 2/4     |           | 9572                | 0.67    | 6413  | 9572                | 0.67    | 6413  |          |         |       |           |         |       |                           |         |       |          |  |
| 3       |           | 1907                | 0.84    | 1602  | 1907                | 0.84    | 1602  |          |         |       |           |         |       |                           |         |       |          |  |
| 5 (i)   |           | 2537                | 0.71    | 1801  | 2537                | 0.71    | 1801  |          |         |       |           |         |       |                           |         |       |          |  |
| 6       |           | 4497                | 1.50    | 6746  | 4497                | 1.50    | 6746  |          |         |       |           |         |       |                           |         |       |          |  |
| 7       |           | 1592                | 0.59    | 939   | 1592                | 0.59    | 939   |          |         |       |           |         |       |                           |         |       |          |  |
| 8       |           | 4952                | 0.74    | 3664  | 4952                | 0.74    | 3664  |          |         |       |           |         |       |                           |         |       |          |  |
| 9       |           | 7000                | 1.59    | 11130 |                     |         |       | 1050     | 0.30    | 315   |           |         |       | 3050                      | 1.42    | 11445 | Probable |  |
| 10      |           | 5915                | 1.07    | 6329  |                     |         |       | 887      | 0.30    | 266   |           |         |       | 6802                      | 0.97    | 6595  | .....    |  |
| 11      |           | 1575                | 1.13    | 1780  |                     |         |       | 236      | 0.30    | 71    |           |         |       | 1811                      | 1.02    | 1851  | .....    |  |
| 12      |           | 3482                | 1.04    | 3621  | 1393                | 1.04    | 1449  | 313      | 0.30    | 94    |           |         |       | 2403                      | 0.94    | 2267  | .....    |  |
| 13 (i)  |           | 1148                | 0.47    | 540   | 1148                | 0.47    | 540   |          |         |       |           |         |       |                           |         |       |          |  |
| 14/15   |           | 6965                | 0.83    | 5781  | 6965                | 0.83    | 5781  |          |         |       |           |         |       |                           |         |       |          |  |
| 16/17   |           | 2030                | 0.57    | 1157  | 2030                | 0.57    | 1157  |          |         |       |           |         |       |                           |         |       |          |  |
| 18      |           | 3675                | 0.47    | 1727  | 3675                | 0.47    | 1727  |          |         |       |           |         |       |                           |         |       |          |  |
|         |           |                     | 57113   | 0.93  | 53369               | 40534   | 0.79  | 31957    | 2487    | 0.30  | 746       | 0       | 0.00  | 0                         | 19066   | 1.16  | 22158    |  |

183080

MT BISCHOFF TIN PROJECT

TABLES 2/2a

TOTAL VOLUMES - ORE + WASTE

ref: JELMTBS

LYNCH MINING LIMITED

TABLE 2a.

MT BISCHOFF TIN PROJECT

14 September, 1993

## SUMMARY OF TOTAL VOLUMES - ORE + WASTE

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| PITS 1 - 3                                    |         |
|---|---------|
| Total Volume (m3):                            | 807725  |
| less ore (tonnes):                            | 476598  |
| @ SG 3.5 (m3):                                | 136171  |
|   | -----   |
|   | 671554  |
| less waste (tonnes):                          | 1913930 |
| @ SG 2.85 (m3):                               |         |
| therefore:                                    |         |
| w : o ratio (based on adj. tonnage factors) = | 4.0     |

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(b) Overburden:

Page 2.

|           |      |      |      |      |       |       |   |       |
|-----------|------|------|------|------|-------|-------|---|-------|
| 635 (toe) | 3634 | 8396 | 1722 | 5970 | 19722 |       |   |       |
|           |      |      |      |      |       | 18362 | 3 | 55146 |
| 638       | 594  | 8588 | 1600 | 6160 | 17042 |       |   |       |
|           |      |      |      |      |       | 16546 | 2 | 33092 |
| 640       | 168  | 8272 | 1460 | 6150 | 16050 |       |   |       |
|           |      |      |      |      |       | 15672 | 2 | 31344 |
| 642       |      | 7850 | 1308 | 6136 | 15294 |       |   |       |
|           |      |      |      |      |       | 14020 | 2 | 28160 |
| 644       |      | 5976 | 816  | 6074 | 12866 |       |   |       |
|           |      |      |      |      |       | 9687  | 2 | 19374 |
| 646       |      | 1946 | 370  | 4192 | 6508  |       |   |       |
|           |      |      |      |      |       | 5556  | 2 | 11112 |
| 648       |      | 990  | 234  | 3380 | 4604  |       |   |       |
|           |      |      |      |      |       | 3903  | 2 | 7806  |
| 650 (top) |      | 724  | 86   | 2392 | 3202  |       |   |       |
| 650 (toe) |      | 724  | 86   | 3076 | 3886  |       |   |       |
|           |      |      |      |      |       | 3275  | 2 | 6550  |
| 652       |      | 0    | 20   | 2644 | 2664  |       |   |       |
|           |      |      |      |      |       | 2317  | 2 | 4634  |
| 654       |      |      | 0    | 1970 | 1970  |       |   |       |
|           |      |      |      |      |       | 1795  | 2 | 3590  |
| 656       |      |      |      | 1620 | 1620  |       |   |       |
|           |      |      |      |      |       | 1433  | 2 | 2866  |
| 658       |      |      |      | 1246 | 1246  |       |   |       |
|           |      |      |      |      |       | 1125  | 2 | 2250  |
| 660       |      |      |      | 1004 | 1004  |       |   |       |
|           |      |      |      |      |       | 894   | 2 | 1788  |
| 662       |      |      |      | 784  | 784   |       |   |       |
|           |      |      |      |      |       | 698   | 2 | 1396  |
| 664       |      |      |      | 612  | 612   |       |   |       |
|           |      |      |      |      |       | 582   | 2 | 1164  |
| 666       |      |      |      | 552  | 552   |       |   |       |
|           |      |      |      |      |       | 480   | 2 | 960   |
| 668       |      |      |      | 408  | 408   |       |   |       |
|           |      |      |      |      |       | 364   | 2 | 728   |
| 670       |      |      |      | 320  | 320   |       |   |       |
|           |      |      |      |      |       | 245   | 2 | 490   |
| 672       |      |      |      | 170  | 170   |       |   |       |
|           |      |      |      |      |       | 133   | 2 | 266   |
| 674       |      |      |      | 96   | 96    |       |   |       |
|           |      |      |      |      |       | 52    | 2 | 104   |
| 676       |      |      |      | 8    | 8     |       |   |       |
|           |      |      |      |      |       | 5     | 2 | 10    |
| 678       |      |      |      | 2    | 2     |       |   |       |

212830

183000

MT BISCHOFF TIN PROJECT

TABLES 3/3a  
DISTRIBUTION OF TOTAL VOLUMES  
ORE + WASTE - (PITS 1-3)

18300

LYNCH MINING LIMITED

TABLE 3a.

MT BISCHOFF TIN PROJECT

14 September, 1993

SUMMARY DISTRIBUTION OF TOTAL VOLUMES - ORE + WASTE (PITS 1 - 3)

|   | PIT No.1 | PIT No.2 | PIT No.3 |
|---|----------|----------|----------|
| Total Volume (m3):                            | 562587   | 54206    | 190932   |
| less ore (tonnes):                            | 332535   | 33908    | 110155   |
| @ SG 3.5 (m3):                                | 95010    | 9688     | 31473    |
|   | 467577   | 44518    | 159459   |
| less waste (tonnes):                          | 1332595  | 126877   | 454458   |
| @ SG 2.85 (m3):                               |          |          |          |
| therefore:                                    |          |          |          |
| w : o ratio (based on adj. tonnage factors) = | 4.0      | 3.7      | 4.1      |

183092

MT BISCHOFF TIN PROJECT

14 September, 1993

DISTRIBUTION OF TOTAL VOLUMES - ORE + WASTE (PITS 1 - 3)

|                     |      | PIT No.1 |        |         |       |           | PIT No.2  |      |         |       |           | PIT No.3  |      |         |       |        |
|---------------------|------|----------|--------|---------|-------|-----------|-----------|------|---------|-------|-----------|-----------|------|---------|-------|--------|
| Section:            | 1    | 2        | Totals |         |       | Section 3 |           |      |         |       | Section 4 |           |      |         |       |        |
| m RL                | Area | Area     | Area   | Average | Depth | Volume    | m RL      | Area | Average | Depth | Volume    | m RL      | Area | Average | Depth | Volume |
| ----                | m2   | m2       | m2     | m2      | m     | m3        | ----      | m2   | m2      | m     | m3        | ----      | m2   | m2      | m     | m3     |
| (a) In-Pit Volumes: |      |          |        |         |       |           |           |      |         |       |           |           |      |         |       |        |
| 585                 | 1005 |          | 1005   |         |       |           | 585       |      |         |       |           | 585       |      |         |       |        |
| 590 (top)           | 1635 |          | 1635   |         |       |           | 590 (top) |      |         |       |           | 590 (top) |      |         |       |        |
| 590 (toe)           | 2330 |          | 2330   |         |       |           | 590 (toe) |      |         |       |           | 590 (toe) |      |         |       |        |
|                     |      |          |        | 2882    | 5     | 14410     |           |      |         |       |           |           |      |         |       |        |
| 595 (top)           | 3434 |          | 3434   |         |       |           | 595 (top) |      |         |       |           | 595 (top) |      |         |       |        |
| 595 (toe)           | 3650 |          | 3650   |         |       |           | 595 (toe) |      |         |       |           | 595 (toe) |      |         |       |        |
|                     |      |          |        | 4230    | 5     | 21150     |           |      |         |       |           |           |      |         |       |        |
| 600 (top)           | 4810 |          | 4810   |         |       |           | 600 (top) |      |         |       |           | 600 (top) |      |         |       |        |
| 600 (toe)           | 5070 |          | 5070   |         |       |           | 600 (toe) |      |         |       |           | 600 (toe) |      |         |       |        |
|                     |      |          |        | 5695    | 5     | 28475     |           |      |         |       |           |           |      |         |       |        |
| 605 (top)           | 6320 |          | 6320   |         |       |           | 605 (top) |      |         |       |           | 605 (top) |      |         |       |        |
| 605 (toe)           | 8206 |          | 8206   |         |       |           | 605 (toe) |      |         |       |           | 605 (toe) | 410  |         |       |        |
|                     |      |          |        | 3903    | 5     | 44515     |           |      |         |       |           |           |      | 584     | 5     | 2920   |
| 610 (top)           | 5940 | 3660     | 9600   |         |       |           | 610 (top) |      |         |       |           | 610 (top) | 758  |         |       |        |
| 610 (toe)           | 6434 | 4180     | 10614  |         |       |           | 610 (toe) | 232  |         |       |           | 610 (toe) | 1490 |         |       |        |
|                     |      |          |        | 11295   | 5     | 56475     |           |      | 508     | 5     | 2540      |           |      | 1770    | 5     | 8850   |
| 615 (top)           | 6896 | 5080     | 11976  |         |       |           | 615 (top) | 784  |         |       |           | 615 (top) | 2050 |         |       |        |
| 615 (toe)           | 7350 | 5080     | 12430  |         |       |           | 615 (toe) | 1084 |         |       |           | 615 (toe) | 2050 |         |       |        |
|                     |      |          |        | 13125   | 5     | 65625     |           |      | 1397    | 5     | 6985      |           |      | 2412    | 5     | 12060  |
| 620 (top)           | 7350 | 5970     | 13320  |         |       |           | 620 (top) | 1710 |         |       |           | 620 (top) | 2774 |         |       |        |
| 620 (toe)           | 9172 | 7130     | 16302  |         |       |           | 620 (toe) | 2268 |         |       |           | 620 (toe) | 3560 |         |       |        |
|                     |      |          |        | 17002   | 5     | 85010     |           |      | 2369    | 5     | 11845     |           |      | 3752    | 5     | 18760  |
| 625 (top)           | 9620 | 8082     | 17702  |         |       |           | 625 (top) | 2470 |         |       |           | 625 (top) | 3944 |         |       |        |
| 625 (toe)           | 9620 | 8082     | 17702  |         |       |           | 625 (toe) | 2470 |         |       |           | 625 (toe) | 3944 |         |       |        |
|                     |      |          |        | 16435   | 5     | 82175     |           |      | 2058    | 5     | 10290     |           |      | 4167    | 5     | 20835  |
| 630 (top)           | 7912 | 7256     | 15168  |         |       |           | 630 (top) | 1646 |         |       |           | 630 (top) | 4390 |         |       |        |
| 630 (toe)           | 7912 | 7256     | 15168  |         |       |           | 630 (toe) | 1646 |         |       |           | 630 (toe) | 4390 |         |       |        |
|                     |      |          |        | 13010   | 5     | 65050     |           |      | 1475    | 5     | 7375      |           |      | 4590    | 5     | 22950  |
| 635 (top)           | 3634 | 7218     | 10852  |         |       |           | 635 (top) | 1304 |         |       |           | 635 (top) | 4790 |         |       |        |
|                     |      |          |        |         |       | 469485    |           |      |         |       | 39035     |           |      |         |       | 86375  |

| PIT No. 1       |         |         |         |            |         |           | PIT No. 2       |         |            |         |           | PIT No. 3       |         |            |         |           |
|-----------------|---------|---------|---------|------------|---------|-----------|-----------------|---------|------------|---------|-----------|-----------------|---------|------------|---------|-----------|
| Section:        | 1       | 2       | Totals  |            |         |           | Section 3       |         |            |         |           | Section 4       |         |            |         |           |
| m RL            | Area m2 | Area m2 | Area m2 | Average m2 | Depth m | Volume m3 | m RL            | Area m2 | Average m2 | Depth m | Volume m3 | m RL            | Area m2 | Average m2 | Depth m | Volume m3 |
| (b) Overburden: |         |         |         |            |         |           | (b) Overburden: |         |            |         |           | (b) Overburden: |         |            |         |           |
| 635 (toe)       | 3634    | 8396    | 12030   |            |         |           | 635 (toe)       | 1722    |            |         |           | 635 (toe)       | 5970    |            |         |           |
|                 |         |         |         | 10656      | 3       | 31968     |                 |         | 1661       | 3       | 4983      |                 |         | 6065       | 3       | 18195     |
| 638             | 694     | 8588    | 9282    | 8861       | 2       | 17722     | 638             | 1600    |            |         |           | 638             | 6160    |            |         |           |
|                 |         |         |         |            |         |           |                 |         | 1530       | 2       | 3060      |                 |         | 6155       | 2       | 12310     |
| 640             | 168     | 8272    | 8440    | 8145       | 2       | 16290     | 640             | 1460    |            |         |           | 640             | 6150    |            |         |           |
|                 |         |         |         |            |         |           |                 |         | 1384       | 2       | 2768      |                 |         | 6143       | 2       | 12286     |
| 642             |         | 7850    | 7850    | 6913       | 2       | 13826     | 642             | 1308    |            |         |           | 642             | 6136    |            |         |           |
|                 |         |         |         |            |         |           |                 |         | 1062       | 2       | 2124      |                 |         | 6105       | 2       | 12210     |
| 644             |         | 5976    | 5976    | 3961       | 2       | 7922      | 644             | 816     |            |         |           | 644             | 6074    |            |         |           |
|                 |         |         |         |            |         |           |                 |         | 593        | 2       | 1186      |                 |         | 5133       | 2       | 10266     |
| 646             |         | 1946    | 1946    | 1468       | 2       | 2936      | 646             | 370     |            |         |           | 646             | 4192    |            |         |           |
|                 |         |         |         |            |         |           |                 |         | 302        | 2       | 604       |                 |         | 3786       | 2       | 7572      |
| 648             |         | 990     | 990     | 857        | 2       | 1714      | 648             | 234     |            |         |           | 648             | 3380    |            |         |           |
|                 |         |         |         |            |         |           |                 |         | 160        | 2       | 320       |                 |         | 2886       | 2       | 5772      |
| 650 (top)       |         | 724     | 724     |            |         |           | 650 (top)       | 86      |            |         |           | 650 (top)       | 2392    |            |         |           |
| 650 (toe)       |         | 724     | 724     |            |         |           | 650 (toe)       | 86      |            |         |           | 650 (toe)       | 3076    |            |         |           |
|                 |         |         |         | 362        | 2       | 724       |                 |         | 53         | 2       | 106       |                 |         | 2860       | 2       | 5720      |
| 652             |         | 0       | 0       |            |         |           | 652             | 20      |            |         |           | 652             | 2644    |            |         |           |
|                 |         |         |         |            |         |           |                 |         | 10         | 2       | 20        |                 |         | 2307       | 2       | 4614      |
| 654             |         |         |         |            |         |           | 654             | 0       |            |         |           | 654             | 1970    |            |         |           |
|                 |         |         |         |            |         |           |                 |         |            |         |           |                 |         | 1795       | 2       | 3590      |
| 656             |         |         |         |            |         |           | 656             |         |            |         |           | 656             | 1620    |            |         |           |
|                 |         |         |         |            |         |           |                 |         |            |         |           |                 |         | 1433       | 2       | 2866      |
| 658             |         |         |         |            |         |           | 658             |         |            |         |           | 658             | 1246    |            |         |           |
|                 |         |         |         |            |         |           |                 |         |            |         |           |                 |         | 1125       | 2       | 2250      |
| 660             |         |         |         |            |         |           | 660             |         |            |         |           | 660             | 1004    |            |         |           |
|                 |         |         |         |            |         |           |                 |         |            |         |           |                 |         | 894        | 2       | 1788      |
| 662             |         |         |         |            |         |           | 662             |         |            |         |           | 662             | 784     |            |         |           |
|                 |         |         |         |            |         |           |                 |         |            |         |           |                 |         | 698        | 2       | 1396      |
| 664             |         |         |         |            |         |           | 664             |         |            |         |           | 664             | 612     |            |         |           |
|                 |         |         |         |            |         |           |                 |         |            |         |           |                 |         | 582        | 2       | 1164      |
| 666             |         |         |         |            |         |           | 666             |         |            |         |           | 666             | 552     |            |         |           |
|                 |         |         |         |            |         |           |                 |         |            |         |           |                 |         | 480        | 2       | 960       |
| 668             |         |         |         |            |         |           | 668             |         |            |         |           | 668             | 408     |            |         |           |
|                 |         |         |         |            |         |           |                 |         |            |         |           |                 |         | 364        | 2       | 728       |
| 670             |         |         |         |            |         |           | 670             |         |            |         |           | 670             | 320     |            |         |           |
|                 |         |         |         |            |         |           |                 |         |            |         |           |                 |         | 245        | 2       | 490       |
| 672             |         |         |         |            |         |           | 672             |         |            |         |           | 672             | 170     |            |         |           |
|                 |         |         |         |            |         |           |                 |         |            |         |           |                 |         | 133        | 2       | 266       |
| 674             |         |         |         |            |         |           | 674             |         |            |         |           | 674             | 96      |            |         |           |
|                 |         |         |         |            |         |           |                 |         |            |         |           |                 |         | 52         | 2       | 104       |
| 676             |         |         |         |            |         |           | 676             |         |            |         |           | 676             | 8       |            |         |           |
|                 |         |         |         |            |         |           |                 |         |            |         |           |                 |         | 5          | 2       | 10        |
| 678             |         |         |         |            |         |           | 678             |         |            |         |           | 678             | 2       |            |         |           |
|                 |         |         |         |            |         |           |                 |         |            |         |           |                 |         |            |         |           |
|                 |         |         |         |            |         | 93102     |                 |         |            |         | 15171     |                 |         |            |         | 104557    |

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MT BISCHOFF TIN PROJECT

TABLES 4/4a  
ORE RESOURCE DISTRIBUTION  
(PITS 1-3)

183000

ref: JELMTB3

TABLE 4a.

LYNCH MINING LIMITED

MT BISCHOFF TIN PROJECT

SUMMARY OF ORE RESOURCE DISTRIBUTION --- PITS 1 - 3

17 September, 1993

| Level   | DILUTED MINEABLE RESERVES |         |        | Pit No.1 |         |        | Pit No.2 |         |       | Pit No.3 |         |        |
|---------|---------------------------|---------|--------|----------|---------|--------|----------|---------|-------|----------|---------|--------|
|         | Tonnes                    | Grade % | T x G  | Tonnes   | Grade % | T x G  | Tonnes   | Grade % | T x G | Tonnes   | Grade % | T x G  |
| 655m RL | 188                       | 0.88    | 166    | 0        |         | 0      | 0        |         | 0     | 188      | 0.88    | 166    |
| 650m RL | 2120                      | 0.88    | 1873   | 0        |         | 0      | 0        |         | 0     | 2120     | 0.88    | 1873   |
| 645m RL | 2851                      | 0.91    | 2591   | 0        |         | 0      | 0        |         | 0     | 2851     | 0.91    | 2591   |
| 640m RL | 4619                      | 0.89    | 4131   | 0        |         | 0      | 0        |         | 0     | 4619     | 0.89    | 4131   |
| 635m RL | 20614                     | 1.01    | 20907  | 8818     | 1.06    | 9373   | 1774     | 0.93    | 1643  | 10021    | 0.99    | 9891   |
| 630m RL | 35798                     | 1.20    | 42909  | 16481    | 1.23    | 20234  | 3038     | 0.92    | 2784  | 16279    | 1.22    | 19891  |
| 625m RL | 41159                     | 1.40    | 57760  | 16792    | 1.45    | 24306  | 4242     | 1.39    | 5908  | 20124    | 1.37    | 27546  |
| 620m RL | 67433                     | 1.25    | 84127  | 39793    | 1.18    | 46961  | 9478     | 1.34    | 12734 | 18161    | 1.35    | 24432  |
| 615m RL | 59860                     | 1.34    | 80473  | 36184    | 1.30    | 47176  | 9478     | 1.56    | 14794 | 14198    | 1.30    | 18502  |
| 610m RL | 59025                     | 1.35    | 79969  | 40048    | 1.21    | 48536  | 5896     | 2.19    | 12894 | 13081    | 1.42    | 18539  |
| 605m RL | 47231                     | 1.23    | 57946  | 38718    | 1.15    | 44405  | 0        |         | 0     | 8512     | 1.59    | 13540  |
| 600m RL | 40926                     | 1.06    | 43574  | 40926    | 1.06    | 43574  | 0        |         | 0     | 0        |         | 0      |
| 595m RL | 43369                     | 1.09    | 47485  | 43369    | 1.09    | 47485  | 0        |         | 0     | 0        |         | 0      |
| 590m RL | 32340                     | 1.11    | 36012  | 32340    | 1.11    | 36012  | 0        |         | 0     | 0        |         | 0      |
| 585m RL | 19066                     | 1.16    | 22158  | 19066    | 1.16    | 22158  | 0        |         | 0     | 0        |         | 0      |
|         | 476598                    | 1.22    | 582080 | 332535   | 1.17    | 390220 | 33908    | 1.50    | 50758 | 110155   | 1.28    | 141102 |

## MT BISCHOFF TIN PROJECT

## ORE RESOURCE DISTRIBUTION --- PITS 1 - 3

17 September, 1993

| Level   | Block No. | DILUTED MINEABLE RESERVES |         |       | PIT No.1 |         |       | PIT No.2 |         |       | PIT No.3 |         |       |
|---------|-----------|---------------------------|---------|-------|----------|---------|-------|----------|---------|-------|----------|---------|-------|
|         |           | Tonnes                    | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes   | Grade % | T x G |
| 655m    | 1 (i)     | 188                       | 0.88    | 166   | 0        | 0.00    | 0     | 0        | 0.00    | 0     | 188      | 0.88    | 166   |
| 650m    | 1         | 2120                      | 0.88    | 1873  | 0        | 0.00    | 0     | 0        | 0.00    | 0     | 2120     | 0.88    | 1873  |
| 645m    | 1(i)      |                           |         |       |          |         |       |          |         |       |          |         |       |
|         | 2(i)      |                           |         |       |          |         |       |          |         |       |          |         |       |
|         | 3         | 1890                      | 0.88    | 1670  |          |         |       |          |         |       | 1890     | 0.88    | 1670  |
|         | 4 (i)     | 54                        | 0.85    | 46    |          |         |       |          |         |       | 54       | 0.85    | 46    |
|         | 5 (i)     | 840                       | 0.96    | 805   |          |         |       |          |         |       | 840      | 0.96    | 805   |
|         | 6 (i)     |                           |         |       |          |         |       |          |         |       |          |         |       |
|         | 7 (i)     | 67                        | 1.05    | 71    |          |         |       |          |         |       | 67       | 1.05    | 71    |
|         | 8 (i)     |                           |         |       |          |         |       |          |         |       |          |         |       |
|         |           | 2851                      | 0.91    | 2591  | 0        | 0.00    | 0     | 0        | 0.00    | 0     | 2851     | 0.91    | 2591  |
| 640m RL | 1 (i)     |                           |         |       |          |         |       |          |         |       |          |         |       |
|         | 2         |                           |         |       |          |         |       |          |         |       |          |         |       |
|         | 3 (i)     |                           |         |       |          |         |       |          |         |       |          |         |       |
|         | 4/5       |                           |         |       |          |         |       |          |         |       |          |         |       |
|         | 6         | 1322                      | 0.86    | 1135  |          |         |       |          |         |       | 1322     | 0.86    | 1135  |
|         | 7 (i)     |                           |         |       |          |         |       |          |         |       |          |         |       |
|         | 8         |                           |         |       |          |         |       |          |         |       |          |         |       |
|         | 9 (i)     | 1814                      | 0.80    | 1452  |          |         |       |          |         |       | 1814     | 0.80    | 1452  |
|         | 10 (i)    |                           |         |       |          |         |       |          |         |       |          |         |       |
|         | 11 (i)    |                           |         |       |          |         |       |          |         |       |          |         |       |
|         | 12        |                           |         |       |          |         |       |          |         |       |          |         |       |
|         | 13 (i)    |                           |         |       |          |         |       |          |         |       |          |         |       |
|         | 14 (i)    | 706                       | 1.03    | 729   |          |         |       |          |         |       | 706      | 1.03    | 729   |
|         | 15        | 776                       | 1.05    | 815   |          |         |       |          |         |       | 776      | 1.05    | 815   |
|         | 16        |                           |         |       |          |         |       |          |         |       |          |         |       |
|         |           | 4619                      | 0.89    | 4131  | 0        | 0.00    | 0     | 0        | 0.00    | 0     | 4619     | 0.89    | 4131  |

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| DILUTED MINEABLE RESERVES |           |        |         | PIT No.1 |        |         | PIT No.2 |        |         | PIT No.3 |        |         | Page 2. |       |
|---------------------------|-----------|--------|---------|----------|--------|---------|----------|--------|---------|----------|--------|---------|---------|-------|
| Level                     | Block No. | Tonnes | Grade % | T x G    | Tonnes | Grade % | T x G    | Tonnes | Grade % | T x G    | Tonnes | Grade % | T x G   |       |
| 635m                      | 1         |        |         |          |        |         |          |        |         |          |        |         |         |       |
|                           | 2         |        |         |          |        |         |          |        |         |          |        |         |         |       |
|                           | 3/4       | 3381   | 1.04    | 3513     |        |         |          |        |         |          | 3381   | 1.04    | 3513    |       |
|                           | 5         | 2555   | 1.00    | 2566     |        |         |          |        |         |          | 2555   | 1.00    | 2566    |       |
|                           | 5/7/8     | 2093   | 1.04    | 2175     |        |         |          |        |         |          | 2093   | 1.04    | 2175    |       |
|                           | 9 (i)     |        |         |          |        |         |          |        |         |          |        |         |         |       |
|                           | 10        |        |         |          |        |         |          |        |         |          |        |         |         |       |
|                           | 11        |        |         |          |        |         |          |        |         |          |        |         |         |       |
|                           | 12        | 1992   | 0.82    | 1637     |        |         |          |        |         |          | 1992   | 0.82    | 1637    |       |
|                           | 13 (i)    |        |         |          |        |         |          |        |         |          |        |         |         |       |
|                           | 14 (i)    |        |         |          |        |         |          |        |         |          |        |         |         |       |
|                           | 15 (i)    | 100    | 0.89    | 89       | 100    | 0.89    | 89       |        |         |          |        |         |         |       |
|                           | 16        |        |         |          |        |         |          |        |         |          |        |         |         |       |
|                           | 17        | 4589   | 0.81    | 3731     | 4589   | 0.81    | 3731     |        |         |          |        |         |         |       |
|                           | 18 (i)    | 1473   | 1.83    | 2697     | 1473   | 1.83    | 2697     |        |         |          |        |         |         |       |
|                           | 19        | 1127   | 1.07    | 1201     | 1127   | 1.07    | 1201     |        |         |          |        |         |         |       |
|                           | 20        | 1530   | 1.08    | 1656     | 1530   | 1.08    | 1656     |        |         |          |        |         |         |       |
|                           | 21        |        |         |          |        |         |          |        |         |          |        |         |         |       |
|                           | 22 (i)    | 1774   | 0.93    | 1643     |        |         |          | 1774   | 0.93    | 1643     |        |         |         |       |
|                           | 23 (i)    |        |         |          |        |         |          |        |         |          |        |         |         |       |
|                           | 24 (i)    |        |         |          |        |         |          |        |         |          |        |         |         |       |
|                           |           |        | -----   | -----    | -----  | -----   | -----    | -----  | -----   | -----    | -----  | -----   | -----   | ----- |
|                           |           |        | 20614   | 1.01     | 20907  | 8818    | 1.06     | 9373   | 1774    | 0.93     | 1643   | 10021   | 0.99    | 9891  |
|                           | 630m      | 1      |         |          |        |         |          |        |         |          |        |         |         |       |
| 2                         |           | 6782   | 1.38    | 9347     |        |         |          |        |         |          | 6782   | 1.38    | 9347    |       |
| 3                         |           | 2757   | 1.24    | 3416     |        |         |          |        |         |          | 2757   | 1.24    | 3416    |       |
| 4 - 7                     |           | 2858   | 1.41    | 4038     |        |         |          |        |         |          | 2858   | 1.41    | 4038    |       |
| 8                         |           |        |         |          |        |         |          |        |         |          |        |         |         |       |
| 9/10                      |           | 3884   | 0.80    | 3090     |        |         |          |        |         |          | 3884   | 0.80    | 3090    |       |
| 11                        |           |        |         |          |        |         |          |        |         |          |        |         |         |       |
| 12 (i)                    |           |        |         |          |        |         |          |        |         |          |        |         |         |       |
| 13                        |           |        |         |          |        |         |          |        |         |          |        |         |         |       |
| 14 (i)                    |           |        |         |          |        |         |          |        |         |          |        |         |         |       |
| 15 (i)                    |           |        |         |          |        |         |          |        |         |          |        |         |         |       |
| 16                        |           |        |         |          |        |         |          |        |         |          |        |         |         |       |
| 17 (i)                    |           | 2536   | 0.89    | 2260     | 2536   | 0.89    | 2260     |        |         |          |        |         |         |       |
| 18                        |           |        |         |          |        |         |          |        |         |          |        |         |         |       |
| 19                        |           |        |         |          |        |         |          |        |         |          |        |         |         |       |
| 20                        |           | 2072   | 0.82    | 1703     | 2072   | 0.82    | 1703     |        |         |          |        |         |         |       |
| 21                        |           | 4890   | 0.81    | 3976     | 4890   | 0.81    | 3976     |        |         |          |        |         |         |       |
| 22                        | 6983      | 1.76   | 12296   | 6983     | 1.76   | 12296   |          |        |         |          |        |         |         |       |
| 23                        |           |        |         |          |        |         |          |        |         |          |        |         |         |       |
| 24                        | 1147      | 0.90   | 1032    |          |        |         | 1147     | 0.90   | 1032    |          |        |         |         |       |
| 25                        | 1892      | 0.93   | 1752    |          |        |         | 1892     | 0.93   | 1752    |          |        |         |         |       |
| 26                        |           |        |         |          |        |         |          |        |         |          |        |         |         |       |
| 27                        |           |        |         |          |        |         |          |        |         |          |        |         |         |       |
|                           |           | -----  | -----   | -----    | -----  | -----   | -----    | -----  | -----   | -----    | -----  | -----   | -----   |       |
|                           |           | 35798  | 1.20    | 42909    | 16481  | 1.23    | 20234    | 3038   | 0.92    | 2784     | 16279  | 1.22    | 19891   |       |

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| Level   | Block No. | DILUTED MINEABLE RESERVES |         |       | PIT No.1 |         |       | PIT No.2 |         |       | PIT No.3 |         |       | Page 3. |
|---------|-----------|---------------------------|---------|-------|----------|---------|-------|----------|---------|-------|----------|---------|-------|---------|
|         |           | Tonnes                    | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes   | Grade % | T x G | Tonnes   | Grade % | T x G |         |
| 625m RL | 1         |                           |         |       |          |         |       |          |         |       |          |         |       |         |
|         | 2/4A      | 9700                      | 1.44    | 13960 |          |         |       |          |         |       |          |         |       |         |
|         | 3         | 3441                      | 1.24    | 4264  |          |         |       |          |         |       |          |         |       |         |
|         | 4 - 8     | 3964                      | 1.45    | 5739  |          |         |       |          |         |       |          |         |       |         |
|         | 9         |                           |         |       |          |         |       |          |         |       |          |         |       |         |
|         | 10        | 3019                      | 1.19    | 3583  |          |         |       |          |         |       |          |         |       |         |
|         | 11        |                           |         |       |          |         |       |          |         |       |          |         |       |         |
|         | 12 (i)    |                           |         |       |          |         |       |          |         |       |          |         |       |         |
|         | 13 (i)    |                           |         |       |          |         |       |          |         |       |          |         |       |         |
|         | 14 (i)    |                           |         |       |          |         |       |          |         |       |          |         |       |         |
|         | 15 (i)    |                           |         |       |          |         |       |          |         |       |          |         |       |         |
|         | 16 (i)    | 274                       | 1.02    | 280   | 274      | 1.02    | 280   |          |         |       |          |         |       |         |
|         | 17        |                           |         |       |          |         |       |          |         |       |          |         |       |         |
|         | 18        | 2576                      | 0.89    | 2296  | 2576     | 0.89    | 2296  |          |         |       |          |         |       |         |
|         | 19        | 1972                      | 1.07    | 2101  | 1972     | 1.07    | 2101  |          |         |       |          |         |       |         |
|         | 20        |                           |         |       |          |         |       |          |         |       |          |         |       |         |
|         | 21 (i)    |                           |         |       |          |         |       |          |         |       |          |         |       |         |
|         | 22 (i)    |                           |         |       |          |         |       |          |         |       |          |         |       |         |
|         | 23/26     | 11673                     | 1.65    | 19234 | 11673    | 1.65    | 19234 |          |         |       |          |         |       |         |
|         | 24 (i)    |                           |         |       |          |         |       |          |         |       |          |         |       |         |
|         | 25 (i)    |                           |         |       |          |         |       |          |         |       |          |         |       |         |
|         | 27 (i)    | 1650                      | 1.53    | 2518  |          |         |       | 1650     | 1.53    | 2518  |          |         |       |         |
|         | 28 (i)    | 1264                      | 1.34    | 1698  |          |         |       | 1264     | 1.34    | 1698  |          |         |       |         |
|         | 29        |                           |         |       |          |         |       |          |         |       |          |         |       |         |
|         | 30        | 1328                      | 1.27    | 1692  |          |         |       | 1328     | 1.27    | 1692  |          |         |       |         |
|         | 31        |                           |         |       |          |         |       |          |         |       |          |         |       |         |
|         | 32 (i)    |                           |         |       |          |         |       |          |         |       |          |         |       |         |
|         | 33 (i)    |                           |         |       |          |         |       |          |         |       |          |         |       |         |
|         | 34 (i)    |                           |         |       |          |         |       |          |         |       |          |         |       |         |
|         | 35 (i)    | 298                       | 1.33    | 395   | 298      | 1.33    | 395   |          |         |       |          |         |       |         |
|         | 36 (i)    |                           |         |       |          |         |       |          |         |       |          |         |       |         |
|         | 37 (i)    |                           |         |       |          |         |       |          |         |       |          |         |       |         |
|         |           | -----                     | -----   | ----- | -----    | -----   | ----- | -----    | -----   | ----- | -----    | -----   | ----- |         |
|         |           | 41159                     | 1.40    | 57760 | 16792    | 1.45    | 24306 | 4242     | 1.39    | 5908  | 20124    | 1.37    | 27546 |         |

181010

| DILUTED MINEABLE RESERVES |           |         |         | PIT No.1 |        |         | PIT No.2 |        |         | PIT No.3 |        |         | Page 4. |      |  |
|---------------------------|-----------|---------|---------|----------|--------|---------|----------|--------|---------|----------|--------|---------|---------|------|--|
| Level                     | Block No. | Tonnes  | Grade % | T x G    | Tonnes | Grade % | T x G    | Tonnes | Grade % | T x G    | Tonnes | Grade % | T x G   |      |  |
| 620m RL                   | 1         |         |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           | 2/2A      | 5997    | 1.46    | 8735     |        |         |          |        |         |          | 5997   | 1.46    | 8735    |      |  |
|                           |           | 3       | 4025    | 1.24     | 4988   |         |          |        |         |          |        | 4025    | 1.24    | 4988 |  |
|                           |           | 4       |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           |           | 5 - 15  | 6158    | 1.26     | 7738   |         |          |        |         |          |        | 6158    | 1.26    | 7738 |  |
|                           |           | 16 (i)  | 89      | 1.13     | 100    |         |          |        |         |          |        | 89      | 1.13    | 100  |  |
|                           |           | 17/18   |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           |           | 19      |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           |           | 20      | 1892    | 1.52     | 2871   |         |          |        |         |          |        | 1892    | 1.52    | 2871 |  |
|                           |           | 21      |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           |           | 22/23   | 14490   | 0.86     | 12411  | 14490   | 0.86     | 12411  |         |          |        |         |         |      |  |
|                           |           | 24/25   | 3542    | 0.87     | 3095   | 3542    | 0.87     | 3095   |         |          |        |         |         |      |  |
|                           |           | 26 (i)  | 1980    | 1.45     | 2867   | 1980    | 1.45     | 2867   |         |          |        |         |         |      |  |
|                           |           | 27      | 2314    | 1.00     | 2324   | 2314    | 1.00     | 2324   |         |          |        |         |         |      |  |
|                           |           | 28      |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           |           | 29      | 10344   | 1.83     | 18934  | 10344   | 1.83     | 18934  |         |          |        |         |         |      |  |
|                           |           | 30/31   | 5172    | 0.91     | 4699   | 5172    | 0.91     | 4699   |         |          |        |         |         |      |  |
|                           |           | 32 - 35 | 9478    | 1.34     | 12734  |         |          |        | 9478    | 1.34     | 12734  |         |         |      |  |
|                           |           | 36      |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           |           | 37 (i)  |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           |           | 38 (i)  |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           |           | 39      |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           |           | 40 (i)  |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           |           | 41      |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           |           | 42      | 1208    | 1.33     | 1601   | 1208    | 1.33     | 1601   |         |          |        |         |         |      |  |
|                           |           | 43 (i)  |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           |           | 44      | 744     | 1.38     | 1029   | 744     | 1.38     | 1029   |         |          |        |         |         |      |  |
|                           | 45 (i)    |         |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           | 46 (i)    |         |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           | 47        |         |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           |           | -----   | -----   | -----    | -----  | -----   | -----    | -----  | -----   | -----    | -----  | -----   | -----   |      |  |
|                           |           | 67433   | 1.25    | 84127    | 39793  | 1.18    | 46961    | 9478   | 1.34    | 12734    | 18161  | 1.35    | 24432   |      |  |
| 615 m RL                  | 1/2       |         |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           | 3/4       | 3985    | 1.34    | 5353     |        |         |          |        |         |          | 3985   | 1.34    | 5353    |      |  |
|                           | 5         |         |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           | 6 - 15    | 8633    | 1.27    | 10998    |        |         |          |        |         |          | 8633   | 1.27    | 10998   |      |  |
|                           | 16 - 18   | 765     | 1.20    | 914      |        |         |          |        |         |          | 765    | 1.20    | 914     |      |  |
|                           | 19        | 815     | 1.52    | 1237     |        |         |          |        |         |          | 815    | 1.52    | 1237    |      |  |
|                           | 20 (i)    |         |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           | 21        |         |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           | 22/23     | 17850   | 0.96    | 17152    | 17850  | 0.96    | 17152    |        |         |          |        |         |         |      |  |
|                           | 24/25     |         |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           | 26        | 5635    | 1.45    | 8159     | 5635   | 1.45    | 8159     |        |         |          |        |         |         |      |  |
|                           | 27        |         |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           | 28        |         |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           | 29        | 10143   | 1.83    | 18566    | 10143  | 1.83    | 18566    |        |         |          |        |         |         |      |  |
|                           | 30/31     | 2555    | 1.29    | 3300     | 2555   | 1.29    | 3300     |        |         |          |        |         |         |      |  |
| 32/33                     | 9478      | 1.56    | 14794   |          |        |         | 9478     | 1.56   | 14794   |          |        |         |         |      |  |
| 34                        |           |         |         |          |        |         |          |        |         |          |        |         |         |      |  |
| 35                        |           |         |         |          |        |         |          |        |         |          |        |         |         |      |  |
| 36 (i)                    |           |         |         |          |        |         |          |        |         |          |        |         |         |      |  |
|                           |           | -----   | -----   | -----    | -----  | -----   | -----    | -----  | -----   | -----    | -----  | -----   | -----   |      |  |
|                           |           | 59860   | 1.34    | 80473    | 36184  | 1.30    | 47176    | 9478   | 1.56    | 14794    | 14198  | 1.30    | 18502   |      |  |



# 183101

| DILUTED MINEABLE RESERVES |           |        |         | PIT No.1 |        |         | PIT No.2 |        |         | PIT No.3 |        |         | Page 6. |
|---------------------------|-----------|--------|---------|----------|--------|---------|----------|--------|---------|----------|--------|---------|---------|
| Level                     | Block No. | Tonnes | Grade % | T x G    | Tonnes | Grade % | T x G    | Tonnes | Grade % | T x G    | Tonnes | Grade % | T x G   |
| 600m RL                   | 1         |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 2         |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 3 (i)     |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 4         |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 5         |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 6 (i)     |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 7/8       |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 9 (i)     |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 10 (i)    | 1780   | 0.81    | 1447     | 1780   | 0.81    | 1447     |        |         |          |        |         |         |
|                           | 11 (i)    | 2681   | 1.33    | 3578     | 2681   | 1.33    | 3578     |        |         |          |        |         |         |
|                           | 12/13     | 19058  | 1.00    | 18975    | 19058  | 1.00    | 18975    |        |         |          |        |         |         |
|                           | 14        | 8734   | 1.26    | 10975    | 8734   | 1.26    | 10975    |        |         |          |        |         |         |
|                           | 15        | ***    |         |          |        |         |          |        |         |          |        |         |         |
|                           | 16        |        |         |          |        |         |          |        |         |          |        |         |         |
| 17                        |           |        |         |          |        |         |          |        |         |          |        |         |         |
| 18                        | 5896      | 1.03   | 6075    | 5896     | 1.03   | 6075    |          |        |         |          |        |         |         |
| 19 (i)                    | 2777      | 0.91   | 2524    | 2777     | 0.91   | 2524    |          |        |         |          |        |         |         |
| 20                        |           |        |         |          |        |         |          |        |         |          |        |         |         |
| 21                        |           |        |         |          |        |         |          |        |         |          |        |         |         |
|                           |           | -----  | -----   | -----    | -----  | -----   | -----    | -----  | -----   | -----    | -----  | -----   | -----   |
|                           |           | 40926  | 1.06    | 43574    | 40926  | 1.06    | 43574    | 0      | 0.00    | 0        | 0      | 0.00    | 0       |
| 595m RL                   | 1         |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 2         |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 3         |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 4 (i)     |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 5 (i)     |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 6/7       |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 8         |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 9         |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 10        |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 11        |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 12        | 7245   | 1.33    | 9671     | 7245   | 1.33    | 9671     |        |         |          |        |         |         |
|                           | 13        | 8493   | 1.02    | 8677     | 8493   | 1.02    | 8677     |        |         |          |        |         |         |
|                           | 14        | 13544  | 0.97    | 13131    | 13544  | 0.97    | 13131    |        |         |          |        |         |         |
|                           | 15        | 9016   | 1.20    | 10780    | 9016   | 1.20    | 10780    |        |         |          |        |         |         |
| 16                        |           |        |         |          |        |         |          |        |         |          |        |         |         |
| 17                        |           |        |         |          |        |         |          |        |         |          |        |         |         |
| 18 (i)                    | 5072      | 1.03   | 5226    | 5072     | 1.03   | 5226    |          |        |         |          |        |         |         |
| 19 (i)                    |           |        |         |          |        |         |          |        |         |          |        |         |         |
| 20                        |           |        |         |          |        |         |          |        |         |          |        |         |         |
| 21                        |           |        |         |          |        |         |          |        |         |          |        |         |         |
|                           |           | -----  | -----   | -----    | -----  | -----   | -----    | -----  | -----   | -----    | -----  | -----   | -----   |
|                           |           | 43369  | 1.09    | 47485    | 43369  | 1.09    | 47485    | 0      | 0.00    | 0        | 0      | 0.00    | 0       |

| DILUTED MINEABLE RESERVES |           |        |         | PIT No.1 |        |         | PIT No.2 |        |         | PIT No.3 |        |         | Page 7. |
|---------------------------|-----------|--------|---------|----------|--------|---------|----------|--------|---------|----------|--------|---------|---------|
| Level                     | Block No. | Tonnes | Grade % | T x G    | Tonnes | Grade % | T x G    | Tonnes | Grade % | T x G    | Tonnes | Grade % | T x G   |
| 590m RL                   | 1         |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 2         |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 3 (i)     |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 4 (i)     |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 5         |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 6 (i)     |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 7 (i)     |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 8         |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 9         |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 10 (i)    |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 11        |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 12        |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 13        |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 14/15     | 8533   | 1.37    | 11687    | 8533   | 1.37    | 11687    |        |         |          |        |         |         |
|                           | 16        | 5192   | 1.02    | 5305     | 5192   | 1.02    | 5305     |        |         |          |        |         |         |
|                           | 17        | 11391  | 0.97    | 11044    | 11391  | 0.97    | 11044    |        |         |          |        |         |         |
|                           | 18        | 3220   | 1.20    | 3850     | 3220   | 1.20    | 3850     |        |         |          |        |         |         |
|                           | 19        | 4004   | 1.03    | 4126     | 4004   | 1.03    | 4126     |        |         |          |        |         |         |
|                           | 20        |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 21        |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 22        |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 23        |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 24/25     |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 26 (i)    |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 27 (i)    |        |         |          |        |         |          |        |         |          |        |         |         |
|                           |           | -----  | -----   | -----    | -----  | -----   | -----    | -----  | -----   | -----    | -----  | -----   | -----   |
|                           |           | 32340  | 1.11    | 36012    | 32340  | 1.11    | 36012    | 0      | 0.00    | 0        | 0      | 0.00    | 0       |
| 585m RL                   | 1 (i)     |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 2/4       |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 3         |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 5 (i)     |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 6         |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 7         |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 8         |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 9         | 8050   | 1.42    | 11445    | 8050   | 1.42    | 11445    |        |         |          |        |         |         |
|                           | 10        | 6802   | 0.97    | 6595     | 6802   | 0.97    | 6595     |        |         |          |        |         |         |
|                           | 11        | 1811   | 1.02    | 1851     | 1811   | 1.02    | 1851     |        |         |          |        |         |         |
|                           | 12        | 2403   | 0.94    | 2267     | 2403   | 0.94    | 2267     |        |         |          |        |         |         |
|                           | 13 (i)    |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 14/15     |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 16/17     |        |         |          |        |         |          |        |         |          |        |         |         |
|                           | 18        |        |         |          |        |         |          |        |         |          |        |         |         |
|                           |           | -----  | -----   | -----    | -----  | -----   | -----    | -----  | -----   | -----    | -----  | -----   | -----   |
|                           |           | 19066  | 1.16    | 22158    | 19066  | 1.16    | 22158    | 0      | 0.00    | 0        | 0      | 0.00    | 0       |

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MT BISCHOFF TIN PROJECT

TABLES 5/6/7  
ORE - WASTE DISTRIBUTION PER BENCH  
PIT Nos.1 - 3

ref: JELMTB3

LYNCH MINING LIMITED

TABLE 5.

Page 1.

MT BISCHOFF TIN PROJECT

ORE - WASTE DISTRIBUTION PER BENCH --- No.1 OPEN PIT

19 September, 1993

| Level - mRL      | VOLUMES | DILUTED MINEABLE RESERVES |         |       | ORE  | WASTE | WASTE  | W : O |
|------------------|---------|---------------------------|---------|-------|------|-------|--------|-------|
|                  | Bcm     | Tonnes                    | Grade % | T x G | Bcm  | Bcm   | Tonnes | Ratio |
| -----            |         |                           |         |       |      |       |        |       |
| (a) Overburden:  |         |                           |         |       |      |       |        |       |
| -----            |         |                           |         |       |      |       |        |       |
| 678 - 676        | 0       | 0                         | 0.00    | 0     | 0    | 0     | 0      | 0.00  |
| 676 - 674        | 0       | 0                         | 0.00    | 0     | 0    | 0     | 0      | 0.00  |
| 674 - 672        | 0       | 0                         | 0.00    | 0     | 0    | 0     | 0      | 0.00  |
| 672 - 670        | 0       | 0                         | 0.00    | 0     | 0    | 0     | 0      | 0.00  |
| 670 - 668        | 0       | 0                         | 0.00    | 0     | 0    | 0     | 0      | 0.00  |
| 668 - 666        | 0       | 0                         | 0.00    | 0     | 0    | 0     | 0      | 0.00  |
| 666 - 664        | 0       | 0                         | 0.00    | 0     | 0    | 0     | 0      | 0.00  |
| 664 - 662        | 0       | 0                         | 0.00    | 0     | 0    | 0     | 0      | 0.00  |
| 662 - 660        | 0       | 0                         | 0.00    | 0     | 0    | 0     | 0      | 0.00  |
| 660 - 658        | 0       | 0                         | 0.00    | 0     | 0    | 0     | 0      | 0.00  |
| 658 - 650        | 724     | 0                         | 0.00    | 0     | 0    | 724   | 2063   | 0.00  |
|                  |         |                           |         |       |      |       |        |       |
| (b) Ore/Waste:   |         |                           |         |       |      |       |        |       |
| -----            |         |                           |         |       |      |       |        |       |
| 1) - above Pit   |         |                           |         |       |      |       |        |       |
| -----            |         |                           |         |       |      |       |        |       |
| 650 - 645        | 8611    |                           |         |       |      |       |        |       |
|                  |         |                           |         |       |      |       |        |       |
| sub-totals:      | 8611    | 0                         | 0.00    | 0     | 0    | 8611  | 24541  | 0.00  |
|                  |         |                           |         |       |      |       |        |       |
| 645 - 640        | 34077   |                           |         |       |      |       |        |       |
|                  |         |                           |         |       |      |       |        |       |
| sub-totals:      | 34077   | 0                         | 0.00    | 0     | 0    | 34077 | 97119  | 0.00  |
|                  |         |                           |         |       |      |       |        |       |
| 11) - within Pit |         |                           |         |       |      |       |        |       |
| -----            |         |                           |         |       |      |       |        |       |
| 640 - 635        | 49690   | 100                       | 0.89    | 89    |      |       |        |       |
|                  |         | 4589                      | 0.81    | 3731  |      |       |        |       |
|                  |         | 1473                      | 1.83    | 2697  |      |       |        |       |
|                  |         | 1127                      | 1.07    | 1201  |      |       |        |       |
|                  |         | 1530                      | 1.08    | 1656  |      |       |        |       |
|                  |         |                           |         |       |      |       |        |       |
| sub-totals:      | 49690   | 8818                      | 1.06    | 9373  | 2519 | 47171 | 134436 | 15.25 |
|                  |         |                           |         |       |      |       |        |       |
| 635 - 630        | 65050   | 2536                      | 0.89    | 2260  |      |       |        |       |
|                  |         | 2072                      | 0.82    | 1703  |      |       |        |       |
|                  |         | 4890                      | 0.81    | 3976  |      |       |        |       |
|                  |         | 6983                      | 1.76    | 12296 |      |       |        |       |
|                  |         |                           |         |       |      |       |        |       |
| sub-totals:      | 65050   | 16481                     | 1.23    | 20234 | 4709 | 60341 | 171973 | 10.43 |

ORE - WASTE DISTRIBUTION PER BENCH --- No.1 OPEN PIT

| Level - mRL | VOLUMES |        |         | DILUTED MINEABLE RESERVES |       |       | ORE    | WASTE | WASTE | W : O |
|-------------|---------|--------|---------|---------------------------|-------|-------|--------|-------|-------|-------|
|             | Bcm     | Tonnes | Grade % | T x G                     | Bcm   | Bcm   | Tonnes | Ratio |       |       |
| 630 - 625   | 32175   | 274    | 1.02    | 280                       |       |       |        |       |       |       |
|             |         | 2576   | 0.89    | 2296                      |       |       |        |       |       |       |
|             |         | 1972   | 1.07    | 2101                      |       |       |        |       |       |       |
|             |         | 11673  | 1.65    | 19234                     |       |       |        |       |       |       |
|             |         | 298    | 1.33    | 395                       |       |       |        |       |       |       |
| sub-totals: | 82175   | 16792  | 1.45    | 24306                     | 4798  | 77377 | 220525 | 13.13 |       |       |
| 625 - 620   | 35010   | 14490  | 0.86    | 12411                     |       |       |        |       |       |       |
|             |         | 3542   | 0.87    | 3095                      |       |       |        |       |       |       |
|             |         | 1980   | 1.45    | 2867                      |       |       |        |       |       |       |
|             |         | 2314   | 1.00    | 2324                      |       |       |        |       |       |       |
|             |         | 10344  | 1.23    | 18934                     |       |       |        |       |       |       |
|             |         | 5172   | 0.91    | 4699                      |       |       |        |       |       |       |
|             |         | 1208   | 1.33    | 1601                      |       |       |        |       |       |       |
|             |         | 744    | 1.38    | 1029                      |       |       |        |       |       |       |
| sub-totals: | 85010   | 39793  | 1.18    | 46961                     | 11370 | 73640 | 209875 | 5.27  |       |       |
| 620 - 615   | 65625   | 17850  |         | 17152                     |       |       |        |       |       |       |
|             |         | 5635   |         | 3159                      |       |       |        |       |       |       |
|             |         | 10143  |         | 16566                     |       |       |        |       |       |       |
|             |         | 2555   |         | 3300                      |       |       |        |       |       |       |
| sub-totals: | 65625   | 36184  | 1.30    | 47176                     | 10338 | 55287 | 157567 | 4.35  |       |       |
| 615 - 610   | 56475   | 15013  |         | 15079                     |       |       |        |       |       |       |
|             |         | 9741   |         | 7835                      |       |       |        |       |       |       |
|             |         | 4830   |         | 6993                      |       |       |        |       |       |       |
|             |         | 8995   |         | 16465                     |       |       |        |       |       |       |
|             |         | 1469   |         | 2165                      |       |       |        |       |       |       |
| sub-totals: | 56475   | 40048  | 1.21    | 48536                     | 11442 | 45033 | 128344 | 3.20  |       |       |
| 610 - 605   | 44515   | 17448  |         | 16462                     |       |       |        |       |       |       |
|             |         | 7688   |         | 7186                      |       |       |        |       |       |       |
|             |         | 3723   |         | 5390                      |       |       |        |       |       |       |
|             |         | 1731   |         | 2732                      |       |       |        |       |       |       |
|             |         | 2435   |         | 2212                      |       |       |        |       |       |       |
|             |         | 5695   |         | 10424                     |       |       |        |       |       |       |
| sub-totals: | 44515   | 38718  | 1.15    | 44405                     | 11062 | 33453 | 95340  | 2.46  |       |       |
| 605 - 600   | 28475   | 1780   |         | 1447                      |       |       |        |       |       |       |
|             |         | 2681   |         | 3578                      |       |       |        |       |       |       |
|             |         | 19058  |         | 18975                     |       |       |        |       |       |       |
|             |         | 8734   |         | 10975                     |       |       |        |       |       |       |
|             |         | 5896   |         | 6075                      |       |       |        |       |       |       |
|             |         | 2777   |         | 2524                      |       |       |        |       |       |       |
| sub-totals: | 28475   | 40926  | 1.06    | 43574                     | 11693 | 16782 | 47829  | 1.17  |       |       |

183106

## ORE - WASTE DISTRIBUTION PER BENCH --- No.1 OPEN PIT

Page 3.

| Level - mRL | VOLUMES | DILUTED MINEABLE RESERVES |         |        | ORE   | WASTE  |         | W : O |
|-------------|---------|---------------------------|---------|--------|-------|--------|---------|-------|
|             | Bcm     | Tonnes                    | Grade % | T x G  | Bcm   | Bcm    | Tonnes  | Ratio |
| 600 - 595   | 21150   | 7245                      |         | 9671   |       |        |         |       |
|             |         | 8493                      |         | 8677   |       |        |         |       |
|             |         | 13544                     |         | 13131  |       |        |         |       |
|             |         | 9016                      |         | 10780  |       |        |         |       |
|             |         | 5072                      |         | 5226   |       |        |         |       |
| sub-totals: | 21150   | 43369                     | 1.09    | 47485  | 12391 | 8759   | 24963   | 0.58  |
| 595 - 590   | 14410   | 8533                      |         | 11687  |       |        |         |       |
|             |         | 5192                      |         | 5305   |       |        |         |       |
|             |         | 11391                     |         | 11044  |       |        |         |       |
|             |         | 3220                      |         | 3850   |       |        |         |       |
|             |         | 4004                      |         | 4126   |       |        |         |       |
| sub-totals: | 14410   | 32340                     | 1.11    | 36012  | 9240  | 5170   | 14734   | 0.46  |
| 590 - 585   | 6600    | 8050                      |         | 11445  |       |        |         |       |
|             |         | 6802                      |         | 6595   |       |        |         |       |
|             |         | 1811                      |         | 1851   |       |        |         |       |
|             |         | 2403                      |         | 2267   |       |        |         |       |
| sub-totals: | 6600    | 19066                     | 1.16    | 22158  | 5447  | 1153   | 3285    | 0.17  |
| TOTALS:     | 56257   | 332535                    | 1.17    | 390220 | 95010 | 467577 | 1332595 | 4.01  |

183107

ref: JELMTB5

LYNCH MINING LIMITED

TABLE 7.

Page 1.

MT BISCHOFF TIN PROJECT

ORE - WASTE DISTRIBUTION PER BENCH --- No.3 OPEN PIT

19 September, 1993

| Level - mRL      | VOLUMES | DILUTED MINEABLE RESERVES |         |       | ORE  | WASTE | WASTE  | W : O  |
|------------------|---------|---------------------------|---------|-------|------|-------|--------|--------|
|                  | Bcm     | Tonnes                    | Grade % | T x G | Bcm  | Bcm   | Tonnes | Ratio  |
| (a) Overburden:  |         |                           |         |       |      |       |        |        |
| 676 - 676        | 10      | 0                         | 0.00    | 0     | 0    | 10    | 29     | 0.00   |
| 676 - 674        | 104     | 0                         | 0.00    | 0     | 0    | 104   | 296    | 0.00   |
| 674 - 672        | 266     | 0                         | 0.00    | 0     | 0    | 266   | 758    | 0.00   |
| 672 - 670        | 490     | 0                         | 0.00    | 0     | 0    | 490   | 1397   | 0.00   |
| 670 - 668        | 728     | 0                         | 0.00    | 0     | 0    | 728   | 2075   | 0.00   |
| 668 - 666        | 960     | 0                         | 0.00    | 0     | 0    | 960   | 2736   | 0.00   |
| 666 - 664        | 1164    | 0                         | 0.00    | 0     | 0    | 1164  | 3317   | 0.00   |
| 664 - 662        | 1396    | 0                         | 0.00    | 0     | 0    | 1396  | 3979   | 0.00   |
| 662 - 660        | 1788    | 0                         | 0.00    | 0     | 0    | 1788  | 5096   | 0.00   |
| 660 - 655        | 6911    | 188                       | 0.28    | 166   | 54   | 6857  | 19543  | 103.73 |
| 655 - 650        | 12129   | 2120                      | 0.33    | 1273  | 606  | 11523 | 32841  | 15.49  |
| (b) Ore/Waste:   |         |                           |         |       |      |       |        |        |
| 1) - above Pit   |         |                           |         |       |      |       |        |        |
| 650 - 645        | 18477   | 1890                      | 0.09    | 1670  |      |       |        |        |
|                  |         | 54                        | 0.25    | 46    |      |       |        |        |
|                  |         | 340                       | 0.96    | 305   |      |       |        |        |
|                  |         | 67                        | 1.05    | 71    |      |       |        |        |
| sub-totals:      | 18477   | 2851                      | 0.91    | 2591  | 815  | 17662 | 50338  | 17.65  |
| 645 - 640        | 29629   | 1322                      | 0.36    | 1135  |      |       |        |        |
|                  |         | 1814                      | 0.80    | 1452  |      |       |        |        |
|                  |         | 706                       | 1.03    | 729   |      |       |        |        |
|                  |         | 776                       | 1.05    | 815   |      |       |        |        |
| sub-totals:      | 29629   | 4619                      | 0.89    | 4131  | 1320 | 28309 | 80682  | 17.47  |
| 11) - within Pit |         |                           |         |       |      |       |        |        |
| 640 - 635        | 30505   | 3381                      | 1.04    | 3513  |      |       |        |        |
|                  |         | 2555                      | 1.00    | 2566  |      |       |        |        |
|                  |         | 2093                      | 1.04    | 2175  |      |       |        |        |
|                  |         | 1992                      | 0.82    | 1637  |      |       |        |        |
| sub-totals:      | 30505   | 10021                     | 0.99    | 9891  | 2863 | 27642 | 78779  | 7.86   |
| 635 - 630        | 22950   | 6782                      | 1.36    | 9347  |      |       |        |        |
|                  |         | 2757                      | 1.24    | 3416  |      |       |        |        |
|                  |         | 2858                      | 1.41    | 4038  |      |       |        |        |
|                  |         | 3884                      | 0.80    | 3090  |      |       |        |        |
| sub-totals:      | 22950   | 16279                     | 1.22    | 19891 | 4651 | 18299 | 52151  | 3.20   |

## ORE - WASTE DISTRIBUTION PER BENCH --- No.3 OPEN PIT

Page 2.

| Level - mRL | VOLUMES<br>3cm | DILUTED MINEABLE RESERVES |         |       | ORE<br>Bcm | WASTE |        | W : O<br>Ratio |
|-------------|----------------|---------------------------|---------|-------|------------|-------|--------|----------------|
|             |                | Tonnes                    | Grade % | T x G |            | Bcm   | Tonnes |                |
| 630 - 625   | 20835          | 9700                      | 1.44    | 13960 |            |       |        |                |
|             |                | 3441                      | 1.24    | 4264  |            |       |        |                |
|             |                | 3964                      | 1.45    | 5739  |            |       |        |                |
|             |                | 3019                      | 1.19    | 3583  |            |       |        |                |
| sub-totals: | 20835          | 20124                     | 1.37    | 27546 | 5750       | 15085 | 42993  | 2.14           |
| 625 - 620   | 18760          | 5997                      | 1.46    | 8735  |            |       |        |                |
|             |                | 4025                      | 1.24    | 4988  |            |       |        |                |
|             |                | 6158                      | 1.26    | 7738  |            |       |        |                |
|             |                | 89                        | 1.13    | 100   |            |       |        |                |
|             |                | 1892                      | 1.52    | 2871  |            |       |        |                |
| sub-totals: | 18760          | 18161                     | 1.35    | 24432 | 5189       | 13571 | 38678  | 2.13           |
| 620 - 615   | 12060          | 3985                      | 1.34    | 5353  |            |       |        |                |
|             |                | 8633                      | 1.27    | 10998 |            |       |        |                |
|             |                | 765                       | 1.20    | 914   |            |       |        |                |
|             |                | 815                       | 1.52    | 1237  |            |       |        |                |
| sub-totals: | 12060          | 14198                     | 1.30    | 18502 | 4056       | 8004  | 22810  | 1.61           |
| 615 - 610   | 8850           | 3301                      | 1.53    | 5066  |            |       |        |                |
|             |                | 8493                      | 1.46    | 12370 |            |       |        |                |
|             |                | 1288                      | 0.86    | 1103  |            |       |        |                |
| sub-totals: | 8850           | 13081                     | 1.42    | 18539 | 3738       | 5113  | 14571  | 1.11           |
| 610 - 605   | 2920           | 2435                      | 1.62    | 3948  |            |       |        |                |
|             |                | 6078                      | 1.58    | 9592  |            |       |        |                |
| sub-totals: | 2920           | 8512                      | 1.59    | 13540 | 2432       | 487   | 1389   | 0.16           |
| 605 - 600   | 0              |                           |         |       |            |       |        |                |
| sub-totals: | 0              | 0                         | 0.00    | 0     | 0          | 0     | 0      | 0.00           |

## ORE - WASTE DISTRIBUTION PER BENCH --- No.3 OPEN PIT

Page 3.

| Level - mRL | VOLUMES | DILUTED MINEABLE RESERVES |         |        | ORE   | WASTE  | WASTE  | W : O |
|-------------|---------|---------------------------|---------|--------|-------|--------|--------|-------|
|             | Bcm     | Tonnes                    | Grade % | T x G  | Bcm   | Bcm    | Tonnes | Ratio |
| 600 - 595   | 0       |                           |         |        |       |        |        |       |
| sub-totals: | 0       | 0                         | 0.00    | 0      | 0     | 0      | 0      | 0.00  |
| 595 - 590   | 0       |                           |         |        |       |        |        |       |
| sub-totals: | 0       | 0                         | 0.00    | 0      | 0     | 0      | 0      | 0.00  |
| 590 - 585   | 0       |                           |         |        |       |        |        |       |
| sub-totals: | 0       | 0                         | 0.00    | 0      | 0     | 0      | 0      | 0.00  |
| TOTALS:     | 190932  | 110155                    | 1.28    | 141102 | 31473 | 159459 | 454457 | 4.13  |

183110

ref: JELMTB3

LYNCH MINING LIMITED

TABLE 6.

Page 1.

MT BISCHOFF TIN PROJECT

ORE - WASTE DISTRIBUTION PER BENCH --- No.2 OPEN PIT

19 September, 1993

| Level - mRL      | VOLUMES |        | DILUTED MINEABLE RESERVES |       |     | ORE  | WASTE  | WASTE | W : O |
|------------------|---------|--------|---------------------------|-------|-----|------|--------|-------|-------|
|                  | Bcm     | Tonnes | Grade %                   | T x G | Bcm | Bcm  | Tonnes | Ratio |       |
| (a) Overburden:  |         |        |                           |       |     |      |        |       |       |
| 678 - 676        | 0       | 0      | 0.00                      | 0     | 0   | 0    | 0      | 0.00  |       |
| 676 - 674        | 0       | 0      | 0.00                      | 0     | 0   | 0    | 0      | 0.00  |       |
| 674 - 672        | 0       | 0      | 0.00                      | 0     | 0   | 0    | 0      | 0.00  |       |
| 672 - 670        | 0       | 0      | 0.00                      | 0     | 0   | 0    | 0      | 0.00  |       |
| 670 - 668        | 0       | 0      | 0.00                      | 0     | 0   | 0    | 0      | 0.00  |       |
| 668 - 666        | 0       | 0      | 0.00                      | 0     | 0   | 0    | 0      | 0.00  |       |
| 666 - 664        | 0       | 0      | 0.00                      | 0     | 0   | 0    | 0      | 0.00  |       |
| 664 - 662        | 0       | 0      | 0.00                      | 0     | 0   | 0    | 0      | 0.00  |       |
| 662 - 660        | 0       | 0      | 0.00                      | 0     | 0   | 0    | 0      | 0.00  |       |
| 660 - 655        | 0       | 0      | 0.00                      | 0     | 0   | 0    | 0      | 0.00  |       |
| 655 - 650        | 126     | 0      | 0.00                      | 0     | 0   | 126  | 359    | 0.00  |       |
| (b) Ore/Waste:   |         |        |                           |       |     |      |        |       |       |
| 1) - above Pit   |         |        |                           |       |     |      |        |       |       |
| 650 - 645        | 1517    |        |                           |       |     |      |        |       |       |
| -----            |         |        |                           |       |     |      |        |       |       |
| sub-totals:      | 1517    | 0      | 0.00                      | 0     | 0   | 1517 | 4323   | 0.00  |       |
| 645 - 640        | 5485    |        |                           |       |     |      |        |       |       |
| -----            |         |        |                           |       |     |      |        |       |       |
| sub-totals:      | 5485    | 0      | 0.00                      | 0     | 0   | 5485 | 15632  | 0.00  |       |
| 11) - within Pit |         |        |                           |       |     |      |        |       |       |
| 640 - 635        | 8043    | 1774   | 0.93                      | 1643  |     |      |        |       |       |
| -----            |         |        |                           |       |     |      |        |       |       |
| sub-totals:      | 8043    | 1774   | 0.93                      | 1643  | 507 | 7536 | 21478  | 12.10 |       |
| 635 - 630        | 7375    | 1147   | 0.90                      | 1032  |     |      |        |       |       |
|                  |         | 1892   | 0.93                      | 1752  |     |      |        |       |       |
| -----            |         |        |                           |       |     |      |        |       |       |
| sub-totals:      | 7375    | 3038   | 0.92                      | 2784  | 868 | 6507 | 18545  | 6.10  |       |

183111

ORE - WASTE DISTRIBUTION PER BENCH --- No.2 OPEN PIT

| Level - mRL | VOLUMES | DILUTED MINEABLE RESERVES |         |       | ORE  | WASTE | WASTE  | W : O |
|-------------|---------|---------------------------|---------|-------|------|-------|--------|-------|
|             | Bcm     | Tonnes                    | Grade % | T x G | Bcm  | Bcm   | Tonnes | Ratio |
| 630 - 625   | 10290   | 1650                      | 1.53    | 2518  |      |       |        |       |
|             |         | 1264                      | 1.34    | 1698  |      |       |        |       |
|             |         | 1328                      | 1.27    | 1692  |      |       |        |       |
| sub-totals: | 10290   | 4242                      | 1.39    | 5908  | 1212 | 9078  | 25872  | 6.10  |
| 625 - 620   | 11845   | 9478                      | 1.34    | 12734 |      |       |        |       |
| sub-totals: | 11845   | 9478                      | 1.34    | 12734 | 2708 | 9137  | 26040  | 2.75  |
| 620 - 615   | 6985    | 9478                      | 1.56    | 14794 |      |       |        |       |
| sub-totals: | 6985    | 9478                      | 1.56    | 14794 | 2708 | 4277  | 12189  | 1.29  |
| 615 - 610   | 2540    | 5896                      | 2.19    | 12894 |      |       |        |       |
| sub-totals: | 2540    | 5896                      | 2.19    | 12894 | 1625 | 855   | 2438   | 0.41  |
| 610 - 605   | 0       | 0                         | 0.00    | 0     | 0    | 0     | 0      | 0.00  |
| sub-totals: | 0       | 0                         | 0.00    | 0     | 0    | 0     | 0      | 0.00  |
| 605 - 600   | 0       |                           |         |       |      |       |        |       |
| sub-totals: | 0       | 0                         | 0.00    | 0     | 0    | 0     | 0      | 0.00  |

183112

ORE - WASTE DISTRIBUTION PER BENCH --- No.2 OPEN PIT

| Level - mRL | VOLUMES | DILUTED MINEABLE RESERVES |         |       | ORE  | WASTE | WASTE  | W : O |
|-------------|---------|---------------------------|---------|-------|------|-------|--------|-------|
|             | Bcm     | Tonnes                    | Grade % | T x G | Bcm  | Bcm   | Tonnes | Ratio |
| 600 - 595   | 0       |                           |         |       |      |       |        |       |
| sub-totals: | 0       | 0                         | 0.00    | 0     | 0    | 0     | 0      | 0.00  |
| 595 - 590   | 0       |                           |         |       |      |       |        |       |
| sub-totals: | 0       | 0                         | 0.00    | 0     | 0    | 0     | 0      | 0.00  |
| 590 - 585   | 0       |                           |         |       |      |       |        |       |
| sub-totals: | 0       | 0                         | 0.00    | 0     | 0    | 0     | 0      | 0.00  |
| TOTALS:     | 54206   | 33908                     | 1.50    | 50758 | 9688 | 44518 | 126877 | 3.74  |

182113

# MT BISCHOFF TIN PROJECT

TABLES 8/9/10/11  
ORE - WASTE DISTRIBUTION PER BENCH  
BY CATEGORY - SEDIMENTS;DSL;DOLOMITE;PORPHYRY

183114

ref: JELMTB3

LYNCH MINING LIMITED

TABLE 8.

Page 1.

MT BISCHOFF TIN PROJECT

ORE - WASTE DISTRIBUTION PER BENCH --- No.1 OPEN PIT

22 September, 1993

BY CATEGORY -- SEDIMENTS; DSL; DOLOMITE; PORPHYRY

| Level - mRL      | TOTAL   | ORE    |       | SEDIMENTS | DSL    | DOLOMITE | PORPHYRY | TOTALS |
|------------------|---------|--------|-------|-----------|--------|----------|----------|--------|
|                  | VOLUMES | Tonnes | Bcm   | Bcm       | Bcm    | Bcm      | Bcm      | Bcm    |
| (a) Overburden:  |         |        |       |           |        |          |          |        |
| 678 - 670        | 0       | 0      | 0     |           |        |          |          |        |
| 670 - 665        | 0       | 0      | 0     |           |        |          |          |        |
| 665 - 660        | 0       | 0      | 0     |           |        |          |          |        |
| 660 - 655        | 0       | 0      | 0     |           |        |          |          |        |
| 655 - 650        | 724     | 0      | 0     | 273       | 451    |          |          | 724    |
| (b) Ore/Waste:   |         |        |       |           |        |          |          |        |
| ii) - above Pit  |         |        |       |           |        |          |          |        |
| 650 - 645        | 5611    | 0      | 0     | 1788      | 5998   | 825      |          | 8611   |
| 645 - 640        | 34077   | 0      | 0     | 4308      | 15264  | 14505    |          | 34077  |
| ii) - within Pit |         |        |       |           |        |          |          |        |
| 640 - 635        | 49690   | 3818   | 2519  | 5357      | 12185  | 29628    |          | 49690  |
| 635 - 630        | 65050   | 16481  | 4709  | 4666      | 10013  | 45662    |          | 65050  |
| 630 - 625        | 82175   | 16792  | 4798  | 4503      | 9869   | 63005    |          | 82175  |
| 625 - 620        | 85010   | 39793  | 11370 | 5171      | 13381  | 49642    | 5446     | 85010  |
| 620 - 615        | 65625   | 36184  | 10338 | 2468      | 10921  | 39390    | 2508     | 65625  |
| 615 - 610        | 56475   | 40045  | 11442 | 951       | 13912  | 26804    | 3365     | 56475  |
| 610 - 605        | 44515   | 38718  | 11062 |           | 12741  | 17533    | 3179     | 44515  |
| 605 - 600        | 28475   | 40926  | 11693 |           | 8514   | 7203     | 1065     | 28475  |
| 600 - 595        | 21150   | 43369  | 12391 |           | 2580   | 5516     | 663      | 21150  |
| 595 - 590        | 14410   | 32340  | 9240  |           | 921    | 2421     | 1828     | 14410  |
| 590 - 585        | 6600    | 19066  | 5447  |           | 553    | 300      | 300      | 6600   |
|                  | 562587  | 332535 | 95010 | 29487     | 117303 | 302433   | 18355    | 562587 |

183116

ref: JELMTB3

LYNCH MINING LIMITED

TABLE 9.

Page 1.

MT BISCHOFF TIN PROJECT

ORE - WASTE DISTRIBUTION PER BENCH --- No.2 OPEN PIT

22 September, 1993

BY CATEGORY -- SEDIMENTS; DSL; DOLOMITE; PORPHYRY

| Level - mRL             | TOTAL   | ORE    |      | SEDIMENTS | DSL  | DOLOMITE | PORPHYRY | TOTALS |
|-------------------------|---------|--------|------|-----------|------|----------|----------|--------|
|                         | VOLUMES |        |      |           |      |          |          |        |
|                         | Bcm     | Tonnes | Bcm  | Bcm       | Bcm  | Bcm      | Bcm      | Bcm    |
| <b>(a) Overburden:</b>  |         |        |      |           |      |          |          |        |
| 678 - 670               | 0       | 0      | 0    |           |      |          |          | 0      |
| 670 - 665               | 0       | 0      | 0    |           |      |          |          | 0      |
| 665 - 660               | 0       | 0      | 0    |           |      |          |          | 0      |
| 660 - 655               | 0       | 0      | 0    |           |      |          |          | 0      |
| 655 - 650               | 126     | 0      | 0    | 126       |      |          |          | 126    |
| <b>(b) Ore/Waste:</b>   |         |        |      |           |      |          |          |        |
| <b>1) - above Pit</b>   |         |        |      |           |      |          |          |        |
| 650 - 645               | 1517    | 0      | 0    | 633       |      |          | 384      | 1517   |
| 645 - 640               | 5485    | 0      | 0    | 1048      |      |          | 4437     | 5485   |
| <b>11) - within Pit</b> |         |        |      |           |      |          |          |        |
| 640 - 635               | 8043    | 1774   | 507  | 1017      | 1523 | 251      | 4746     | 8043   |
| 635 - 630               | 7375    | 3038   | 868  | 170       | 2520 | 796      | 3020     | 7375   |
| 630 - 625               | 10290   | 4242   | 1212 | 620       | 3111 | 930      | 4418     | 10290  |
| 625 - 620               | 11845   | 9478   | 2708 | 1058      | 1981 | 868      | 5230     | 11845  |
| 620 - 615               | 6985    | 9478   | 2708 | 374       | 725  | 533      | 2644     | 6985   |
| 615 - 610               | 2540    | 5896   | 1685 | 425       | 110  | 265      | 55       | 2540   |
| 610 - 605               | 0       | 0      | 0    |           |      |          |          | 0      |
| 605 - 600               | 0       | 0      | 0    |           |      |          |          | 0      |
| 600 - 595               | 0       | 0      | 0    |           |      |          |          | 0      |
| 595 - 590               | 0       | 0      | 0    |           |      |          |          | 0      |
| 590 - 585               | 0       | 0      | 0    |           |      |          |          | 0      |
|                         | 54206   | 33908  | 9688 | 5471      | 9970 | 3642     | 25435    | 54206  |

## MT BISCHOFF TIN PROJECT

ORE - WASTE DISTRIBUTION PER BENCH --- No.3 OPEN PIT

22 September, 1993

BY CATEGORY -- SEDIMENTS; DSL; DOLOMITE; PORPHYRY

| Level - mRL            | TOTAL<br>VOLUMES | ORE    |       | SEDIMENTS | DSL   | DOLOMITE | PORPHYRY | TOTALS |
|------------------------|------------------|--------|-------|-----------|-------|----------|----------|--------|
|                        | Bcm              | Tonnes | Bcm   | Bcm       | Bcm   | Bcm      | Bcm      | Bcm    |
| <b>(a) Overburden:</b> |                  |        |       |           |       |          |          |        |
| 678 - 670              | 870              | 0      | 0     | 870       |       |          |          | 870    |
| 670 - 665              | 2270             | 0      | 0     | 2270      |       |          |          | 2270   |
| 665 - 660              | 3766             | 0      | 0     | 2287      | 1479  |          |          | 3766   |
| 660 - 655              | 6911             | 188    | 54    | 2068      | 4789  |          |          | 6911   |
| 655 - 650              | 12129            | 2120   | 606   | 2093      | 9431  |          |          | 12129  |
| <b>(b) Ore/Waste:</b>  |                  |        |       |           |       |          |          |        |
| 1) - above Pit         |                  |        |       |           |       |          |          |        |
| 650 - 645              | 18477            | 2851   | 815   | 659       | 13301 | 3702     |          | 18477  |
| 645 - 640              | 29629            | 4619   | 1320  | 542       | 17136 | 10632    |          | 29629  |
| 11) - within Pit       |                  |        |       |           |       |          |          |        |
| 640 - 635              | 30505            | 10021  | 2863  | 655       | 14156 | 12831    |          | 30505  |
| 635 - 630              | 22950            | 16279  | 4651  | 171       | 7325  | 10803    |          | 22950  |
| 630 - 625              | 20835            | 20124  | 5750  | 961       | 3987  | 10137    |          | 20835  |
| 625 - 620              | 18760            | 18161  | 5189  | 1052      | 8419  | 4071     |          | 18760  |
| 620 - 615              | 12060            | 14198  | 4056  | 70        | 6294  | 1640     |          | 12060  |
| 615 - 610              | 8850             | 13081  | 3738  |           | 4836  | 276      |          | 8850   |
| 610 - 605              | 2920             | 8512   | 2432  |           | 487   |          |          | 2920   |
| 605 - 600              | 0                | 0      | 0     |           |       |          |          | 0      |
| 600 - 595              | 0                | 0      | 0     |           |       |          |          | 0      |
| 595 - 590              | 0                | 0      | 0     |           |       |          |          | 0      |
| 590 - 585              | 0                | 0      | 0     |           |       |          |          | 0      |
|                        | 190932           | 110155 | 31473 | 13728     | 91639 | 54092    | 0        | 190932 |

183117

ref: JELMT83

LYNCH MINING LIMITED

TABLE 11.

Page 1.

MT BISCHOFF TIN PROJECT

SUMMARY OF ORE - WASTE DISTRIBUTION PER OPEN PIT --- Nos.1; 2 & 3

28 September, 1993

BY CATEGORY -- SEDIMENTS; DSL; DOLOMITE; PORPHYRY

| Level - mRL     | TOTAL<br>VOLUMES<br>Bcm | ORE    |        | SEDIMENTS |        | DSL    | DOLOMITE | PORPHYRY | TOTALS |
|-----------------|-------------------------|--------|--------|-----------|--------|--------|----------|----------|--------|
|                 |                         | Tonnes | Bcm    | Bcm       | Bcm    | Bcm    | Bcm      | Bcm      | Bcm    |
| Total (Table 8) | 562587                  | 332535 | 95010  | 29487     | 117303 | 302433 | 18355    | 562587   |        |
| % of Totals:    | 100.00                  |        | 16.89  | 5.24      | 20.85  | 53.76  | 3.26     | 100.00   |        |
| " " (Table 9)   | 54206                   | 33908  | 9688   | 5471      | 9970   | 3642   | 25435    | 54206    |        |
| % of Totals:    | 100.00                  |        | 17.37  | 10.09     | 18.39  | 6.72   | 46.92    | 100.00   |        |
| " " (Table 10)  | 190932                  | 110155 | 31473  | 13722     | 91639  | 54092  | 0        | 190932   |        |
| % of Totals:    | 100.00                  |        | 16.42  | 7.19      | 48.00  | 28.33  | 0.00     | 100.00   |        |
| TOTALS:         | 307725                  | 476598 | 136171 | 45685     | 218912 | 360166 | 43790    | 307725   |        |
| % of Totals:    | 100.00                  |        | 16.36  | 6.03      | 27.10  | 44.59  | 5.42     | 100.00   |        |

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MT BISCHOFF TIN PROJECT

TABLES 12/12a  
MEASURED;INDICATED & INFERRED RESOURCE  
PIT Nos.1 - 3

188119

ref: JELMTB3

LYNCH MINING LIMITED

TABLE 12a.

MT BISCHOFF TIN PROJECT

14 September, 1993

SUMMARY OF RESOURCE CATEGORIES - MEASURED, INDICATED, INFERRED

| Level     | MEASURED     |             |              | INDICATED     |             |               | INFERRED     |             |              |
|-----------|--------------|-------------|--------------|---------------|-------------|---------------|--------------|-------------|--------------|
|           | Tonnes       | Grade %     | T x G        | Tonnes        | Grade %     | T x G         | Tonnes       | Grade %     | T x G        |
| 655m RL   | 0            | 0.00        | 0            | 0             | 0.00        | 0             | 188          | 0.88        | 166          |
| 650m RL   | 0            | 0.00        | 0            | 0             | 0.00        | 0             | 2120         | 0.88        | 1873         |
| 645m RL   | 0            | 0.00        | 0            | 54            | 0.85        | 46            | 2797         | 0.91        | 2545         |
| 640m RL   | 1322         | 0.86        | 1135         | 1814          | 0.80        | 1452          | 1482         | 1.04        | 1544         |
| 635m RL   | 2093         | 1.04        | 2175         | 6020          | 1.15        | 6900          | 12501        | 0.95        | 11833        |
| 630m RL   | 2858         | 1.41        | 4038         | 18593         | 1.44        | 26761         | 14347        | 0.84        | 12110        |
| 625m RL   | 3964         | 1.45        | 5739         | 30078         | 1.44        | 43421         | 7116         | 1.21        | 8599         |
| 620m RL   | 6247         | 1.25        | 7838         | 49756         | 1.22        | 60924         | 11430        | 1.34        | 15364        |
| 615m RL   | 9398         | 1.27        | 11912        | 40953         | 1.31        | 53766         | 9478         | 1.56        | 14794        |
| 610m RL   | 9781         | 1.38        | 13473        | 49244         | 1.35        | 66496         | 0            | 0.00        | 0            |
| 605m RL   | 6078         | 1.58        | 9592         | 41153         | 1.17        | 48354         | 0            | 0.00        | 0            |
| 600m RL   | 0            | 0.00        | 0            | 40926         | 1.06        | 43574         | 0            | 0.00        | 0            |
| 595m RL   | 0            | 0.00        | 0            | 43369         | 1.09        | 47485         | 0            | 0.00        | 0            |
| 590m RL   | 0            | 0.00        | 0            | 32340         | 1.11        | 36012         | 0            | 0.00        | 0            |
| 585m RL   | 0            | 0.00        | 0            | 19066         | 1.16        | 22158         | 0            | 0.00        | 0            |
|           | <u>41740</u> | <u>1.34</u> | <u>55903</u> | <u>373397</u> | <u>1.22</u> | <u>457348</u> | <u>61460</u> | <u>1.12</u> | <u>68829</u> |
| Summary:  |              |             |              |               |             |               |              |             |              |
|           | Tonnes       | Grade %     | T x G        |               |             |               |              |             |              |
| Measured  | 41740        | 1.34        | 55903        |               |             |               |              |             |              |
| Indicated | 373397       | 1.22        | 457348       |               |             |               |              |             |              |
| Inferred  | 61460        | 1.12        | 68829        |               |             |               |              |             |              |
| TOTALS:   | 476598       | 1.22        | 582080       |               |             |               |              |             |              |

108120

ref: JELMTBS

LYNCH MINING LIMITED

TABLE 12.

Page 1.

MT BISCHOFF TIN PROJECT - MEASURED, INDICATED AND INFERRED RESOURCES

14 September, 1993

| Level   | Block No. | MEASURED |         |       | INDICATED |         |       | INFERRED |         |       |
|---------|-----------|----------|---------|-------|-----------|---------|-------|----------|---------|-------|
|         |           | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes   | Grade % | T x G |
| 655m    | 1 (i)     | -----    | -----   | ----- | -----     | -----   | ----- | 188      | 0.88    | 166   |
| 650m    | 1         | -----    | -----   | ----- | -----     | -----   | ----- | 2120     | 0.88    | 1873  |
| 645m    | 1(i)      |          |         |       |           |         |       | 1890     | 0.88    | 1670  |
|         | 2(1)      |          |         |       |           |         |       |          |         |       |
|         | 3         |          |         |       |           |         |       |          |         |       |
|         | 4 (i)     |          |         |       | 54        | 0.85    | 46    |          |         |       |
|         | 5 (i)     |          |         |       |           |         |       | 840      | 0.96    | 805   |
|         | 6 (i)     |          |         |       |           |         |       |          |         |       |
|         | 7 (i)     |          |         |       |           |         |       | 67       | 1.05    | 71    |
|         | 8 (i)     | -----    | -----   | ----- | -----     | -----   | ----- | -----    | -----   | ----- |
|         |           |          |         | 54    | 0.85      | 46      |       | 2797     | 0.91    | 2545  |
| 640m RL | 1 (i)     |          |         |       |           |         |       |          |         |       |
|         | 2         |          |         |       |           |         |       |          |         |       |
|         | 3 (i)     |          |         |       |           |         |       |          |         |       |
|         | 4/5       |          |         |       |           |         |       |          |         |       |
|         | 6         | 1322     | 0.86    | 1135  |           |         |       |          |         |       |
|         | 7 (i)     |          |         |       |           |         |       |          |         |       |
|         | 8         |          |         |       |           |         |       |          |         |       |
|         | 9 (i)     |          |         |       | 1814      | 0.80    | 1452  |          |         |       |
|         | 10 (i)    |          |         |       |           |         |       |          |         |       |
|         | 11 (i)    |          |         |       |           |         |       |          |         |       |
|         | 12        |          |         |       |           |         |       |          |         |       |
|         | 13 (i)    |          |         |       |           |         |       |          |         |       |
|         | 14 (i)    |          |         |       |           |         |       | 706      | 1.03    | 729   |
|         | 15        |          |         |       |           |         |       | 776      | 1.05    | 815   |
|         | 16        | -----    | -----   | ----- | -----     | -----   | ----- | -----    | -----   | ----- |
|         |           |          | 1322    | 0.86  | 1135      | 1814    | 0.80  | 1452     | 1482    | 1.04  |

| Level  | Block No. | MEASURED |         |       | INDICATED |         |       | INFERRED |         |       |       |
|--------|-----------|----------|---------|-------|-----------|---------|-------|----------|---------|-------|-------|
|        |           | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes   | Grade % | T x G |       |
| 635m   | 1         |          |         |       |           |         |       |          |         |       |       |
|        | 2         |          |         |       |           |         |       |          |         |       |       |
|        | 3/4       |          |         |       |           |         |       | 3381     | 1.04    | 3513  |       |
|        | 5         |          |         |       | 2555      | 1.00    | 2566  |          |         |       |       |
|        | 6/7/8     | 2093     | 1.04    | 2175  |           |         |       |          |         |       |       |
|        | 9 (i)     |          |         |       |           |         |       |          |         |       |       |
|        | 10        |          |         |       |           |         |       |          |         |       |       |
|        | 11        |          |         |       |           |         |       |          |         |       |       |
|        | 12        |          |         |       | 1992      | 0.82    | 1637  |          |         |       |       |
|        | 13 (i)    |          |         |       |           |         |       |          |         |       |       |
|        | 14 (i)    |          |         |       |           |         |       |          |         |       |       |
|        | 15 (i)    |          |         |       |           |         |       | 100      | 0.89    | 89    |       |
|        | 16        |          |         |       |           |         |       |          |         |       |       |
|        | 17        |          |         |       |           |         |       | 4589     | 0.81    | 3731  |       |
|        | 18 (i)    |          |         |       | 1473      | 1.83    | 2697  |          |         |       |       |
|        | 19        |          |         |       |           |         |       | 1127     | 1.07    | 1201  |       |
|        | 20        |          |         |       |           |         |       | 1530     | 1.08    | 1656  |       |
|        | 21        |          |         |       |           |         |       |          |         |       |       |
|        | 22 (i)    |          |         |       |           |         |       | 1774     | 0.93    | 1643  |       |
|        | 23 (i)    |          |         |       |           |         |       |          |         |       |       |
|        | 24 (i)    |          |         |       |           |         |       |          |         |       |       |
|        |           |          | -----   | ----- | -----     | -----   | ----- | -----    | -----   | ----- |       |
|        |           |          | 2093    | 1.04  | 2175      | 6020    | 1.15  | 6900     | 12501   | 0.95  | 11333 |
|        | 630m      | 1        |         |       |           |         |       |          |         |       |       |
| 2      |           |          |         |       | 6782      | 1.38    | 9347  |          |         |       |       |
| 3      |           |          |         |       | 2757      | 1.24    | 3416  |          |         |       |       |
| 4 - 7  |           | 2858     | 1.41    | 4038  |           |         |       |          |         |       |       |
| 8      |           |          |         |       |           |         |       |          |         |       |       |
| 9/10   |           |          |         |       |           |         |       | 3884     | 0.80    | 3090  |       |
| 11     |           |          |         |       |           |         |       |          |         |       |       |
| 12 (i) |           |          |         |       |           |         |       |          |         |       |       |
| 13     |           |          |         |       |           |         |       |          |         |       |       |
| 14 (i) |           |          |         |       |           |         |       |          |         |       |       |
| 15 (i) |           |          |         |       |           |         |       |          |         |       |       |
| 16     |           |          |         |       |           |         |       |          |         |       |       |
| 17 (i) |           |          |         |       |           |         |       | 2536     | 0.89    | 2260  |       |
| 18     |           |          |         |       |           |         |       |          |         |       |       |
| 19     |           |          |         |       |           |         |       |          |         |       |       |
| 20     |           |          |         |       | 2072      | 0.82    | 1703  |          |         |       |       |
| 21     |           |          |         |       |           |         |       | 4890     | 0.81    | 3976  |       |
| 22     |           |          |         | 6983  | 1.76      | 12296   |       |          |         |       |       |
| 23     |           |          |         |       |           |         |       |          |         |       |       |
| 24     |           |          |         |       |           |         | 1147  | 0.90     | 1032    |       |       |
| 25     |           |          |         |       |           |         | 1892  | 0.93     | 1752    |       |       |
| 26     |           |          |         |       |           |         |       |          |         |       |       |
| 27     |           |          |         |       |           |         |       |          |         |       |       |
|        |           | -----    | -----   | ----- | -----     | -----   | ----- | -----    | -----   |       |       |
|        |           | 2858     | 1.41    | 4038  | 18593     | 1.44    | 26761 | 14347    | 0.84    | 12110 |       |

| Level   | Block No. | MEASURED |         |       | INDICATED |         |       | INFERRED |         |       |
|---------|-----------|----------|---------|-------|-----------|---------|-------|----------|---------|-------|
|         |           | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes   | Grade % | T x G |
| 625m RL | 1         |          |         |       |           |         |       |          |         |       |
|         | 2/4A      |          |         |       | 9700      | 1.44    | 13960 |          |         |       |
|         | 3         |          |         |       | 3441      | 1.24    | 4264  |          |         |       |
|         | 4 - 8     | 3964     | 1.45    | 5739  |           |         |       |          |         |       |
|         | 9         |          |         |       |           |         |       |          |         |       |
|         | 10        |          |         |       | 3019      | 1.19    | 3583  |          |         |       |
|         | 11        |          |         |       |           |         |       |          |         |       |
|         | 12 (i)    |          |         |       |           |         |       |          |         |       |
|         | 13 (i)    |          |         |       |           |         |       |          |         |       |
|         | 14 (i)    |          |         |       |           |         |       |          |         |       |
|         | 15 (i)    |          |         |       |           |         |       |          |         |       |
|         | 16 (i)    |          |         |       | 274       | 1.02    | 280   |          |         |       |
|         | 17        |          |         |       |           |         |       |          |         |       |
|         | 18        |          |         |       |           |         |       | 2576     | 0.89    | 2296  |
|         | 19        |          |         |       | 1972      | 1.07    | 2101  |          |         |       |
|         | 20        |          |         |       |           |         |       |          |         |       |
|         | 21 (i)    |          |         |       |           |         |       |          |         |       |
|         | 22 (i)    |          |         |       |           |         |       |          |         |       |
|         | 23/26     |          |         |       | 11673     | 1.65    | 19234 |          |         |       |
|         | 24 (i)    |          |         |       |           |         |       |          |         |       |
|         | 25 (i)    |          |         |       |           |         |       |          |         |       |
|         | 27 (i)    |          |         |       |           |         |       | 1650     | 1.53    | 2518  |
|         | 28 (i)    |          |         |       |           |         |       | 1264     | 1.34    | 1698  |
|         | 29        |          |         |       |           |         |       |          |         |       |
|         | 30        |          |         |       |           |         |       | 1328     | 1.27    | 1692  |
|         | 31        |          |         |       |           |         |       |          |         |       |
|         | 32 (i)    |          |         |       |           |         |       |          |         |       |
|         | 33 (i)    |          |         |       |           |         |       |          |         |       |
|         | 34 (i)    |          |         |       |           |         |       |          |         |       |
|         | 35 (i)    |          |         |       |           |         |       | 298      | 1.33    | 395   |
|         | 36 (i)    |          |         |       |           |         |       |          |         |       |
|         | 37 (i)    |          |         |       |           |         |       |          |         |       |
|         |           | -----    | -----   | ----- | -----     | -----   | ----- | -----    | -----   | ----- |
|         |           | 3964     | 1.45    | 5739  | 30078     | 1.44    | 43421 | 7116     | 1.21    | 8599  |

| Level    | Block No. | MEASURED |         |       | INDICATED |         |       | INFERRED |         |       |
|----------|-----------|----------|---------|-------|-----------|---------|-------|----------|---------|-------|
|          |           | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes   | Grade % | T x G |
| 620m RL  | 1         |          |         |       |           |         |       |          |         |       |
|          | 2/2A      |          |         |       | 5997      | 1.46    | 8735  |          |         |       |
|          | 3         |          |         |       | 4025      | 1.24    | 4988  |          |         |       |
|          | 4         |          |         |       |           |         |       |          |         |       |
|          | 5 - 15    | 6158     | 1.26    | 7738  |           |         |       |          |         |       |
|          | 16 (i)    | 89       | 1.13    | 100   |           |         |       |          |         |       |
|          | 17/18     |          |         |       |           |         |       |          |         |       |
|          | 19        |          |         |       |           |         |       |          |         |       |
|          | 20        |          |         |       | 1892      | 1.52    | 2871  |          |         |       |
|          | 21        |          |         |       |           |         |       |          |         |       |
|          | 22/23     |          |         |       | 14490     | 0.86    | 12411 |          |         |       |
|          | 24/25     |          |         |       | 3542      | 0.87    | 3095  |          |         |       |
|          | 26 (i)    |          |         |       | 1980      | 1.45    | 2867  |          |         |       |
|          | 27        |          |         |       | 2314      | 1.00    | 2324  |          |         |       |
|          | 28        |          |         |       |           |         |       |          |         |       |
|          | 29        |          |         |       | 10344     | 1.83    | 18934 |          |         |       |
|          | 30/31     |          |         |       | 5172      | 0.91    | 6699  |          |         |       |
|          | 32 - 35   |          |         |       |           |         |       | 9478     | 1.34    | 12734 |
|          | 36        |          |         |       |           |         |       |          |         |       |
|          | 37 (i)    |          |         |       |           |         |       |          |         |       |
| 38 (i)   |           |          |         |       |           |         |       |          |         |       |
| 39       |           |          |         |       |           |         |       |          |         |       |
| 40 (i)   |           |          |         |       |           |         |       |          |         |       |
| 41       |           |          |         |       |           |         |       |          |         |       |
| 42       |           |          |         |       |           |         |       |          |         |       |
| 43 (i)   |           |          |         |       |           |         | 1208  | 1.33     | 1601    |       |
| 44       |           |          |         |       |           |         | 744   | 1.38     | 1029    |       |
| 45 (i)   |           |          |         |       |           |         |       |          |         |       |
| 46 (i)   |           |          |         |       |           |         |       |          |         |       |
| 47       |           |          |         |       |           |         |       |          |         |       |
|          |           | -----    | -----   | ----- | -----     | -----   | ----- | -----    | -----   |       |
|          |           | 6247     | 1.25    | 7838  | 49756     | 1.22    | 60924 | 11430    | 1.34    | 15364 |
| 615 m RL | 1/2       |          |         |       |           |         |       |          |         |       |
|          | 3/4       |          |         |       | 3985      | 1.34    | 5353  |          |         |       |
|          | 5         |          |         |       |           |         |       |          |         |       |
|          | 6 - 15    | 8633     | 1.27    | 10998 |           |         |       |          |         |       |
|          | 16 - 18   | 765      | 1.20    | 914   |           |         |       |          |         |       |
|          | 19        |          |         |       | 815       | 1.52    | 1237  |          |         |       |
|          | 20 (i)    |          |         |       |           |         |       |          |         |       |
|          | 21        |          |         |       |           |         |       |          |         |       |
|          | 22/23     |          |         |       | 17850     | 0.96    | 17152 |          |         |       |
|          | 24/25     |          |         |       |           |         |       |          |         |       |
|          | 26        |          |         |       | 5635      | 1.45    | 8159  |          |         |       |
|          | 27        |          |         |       |           |         |       |          |         |       |
|          | 28        |          |         |       |           |         |       |          |         |       |
|          | 29        |          |         |       | 10143     | 1.83    | 18566 |          |         |       |
| 30/31    |           |          |         | 2555  | 1.29      | 3300    |       |          |         |       |
| 32/33    |           |          |         |       |           |         | 9478  | 1.56     | 14794   |       |
| 34       |           |          |         |       |           |         |       |          |         |       |
| 35       |           |          |         |       |           |         |       |          |         |       |
| 36 (i)   |           |          |         |       |           |         |       |          |         |       |
|          |           | -----    | -----   | ----- | -----     | -----   | ----- | -----    | -----   |       |
|          |           | 9398     | 1.27    | 11912 | 40983     | 1.31    | 53766 | 9478     | 1.56    | 14794 |

| Level   | Block No.   | MEASURED |         |       | INDICATED |         |       | INFERRED |         |       |
|---------|-------------|----------|---------|-------|-----------|---------|-------|----------|---------|-------|
|         |             | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes   | Grade % | T x G |
| 610m RL | 1           |          |         |       |           |         |       |          |         |       |
|         | 2           |          |         |       | 3301      | 1.53    | 5066  |          |         |       |
|         | 3           |          |         |       |           |         |       |          |         |       |
|         | 4 - 14      | 8493     | 1.46    | 12370 |           |         |       |          |         |       |
|         | 15          | 1288     | 0.86    | 1103  |           |         |       |          |         |       |
|         | 16/17       |          |         |       |           |         |       |          |         |       |
|         | 18          |          |         |       | 15013     | 1.00    | 15079 |          |         |       |
|         | 19/20       |          |         |       | 9741      | 0.80    | 7835  |          |         |       |
|         | 21          |          |         |       | 4830      | 1.45    | 6993  |          |         |       |
|         | 22(i)/23(i) |          |         |       |           |         |       |          |         |       |
|         | 23A         |          |         |       |           |         |       |          |         |       |
|         | 24          |          |         |       |           |         |       |          |         |       |
|         | 25          |          |         |       | 8995      | 1.83    | 16465 |          |         |       |
|         | 26          |          |         |       | 1469      | 1.47    | 2165  |          |         |       |
| 27      |             |          |         | 5896  | 2.19      | 12894   |       |          |         |       |
| 28 (i)  |             |          |         |       |           |         |       |          |         |       |
|         |             | -----    | -----   | ----- | -----     | -----   | ----- | -----    | -----   | ----- |
|         |             | 9781     | 1.38    | 13473 | 49244     | 1.35    | 66496 | 0        |         | 0     |
| 605m RL | 1           |          |         |       |           |         |       |          |         |       |
|         | 2 (i)       |          |         |       |           |         |       |          |         |       |
|         | 3           |          |         |       | 2435      | 1.62    | 3948  |          |         |       |
|         | 4           |          |         |       |           |         |       |          |         |       |
|         | 5 - 12      | 6078     | 1.58    | 9592  |           |         |       |          |         |       |
|         | 13/14       |          |         |       |           |         |       |          |         |       |
|         | 15/16       |          |         |       |           |         |       |          |         |       |
|         | 17/18       |          |         |       | 17448     | 0.94    | 16462 |          |         |       |
|         | 19          |          |         |       | 7688      | 0.93    | 7186  |          |         |       |
|         | 20          |          |         |       | 3723      | 1.45    | 5390  |          |         |       |
|         | 21          |          |         |       | 1731      | 1.58    | 2732  |          |         |       |
|         | 22/23       |          |         |       |           |         |       |          |         |       |
|         | 24          |          |         |       | 2435      | 0.91    | 2212  |          |         |       |
|         | 25/26       |          |         |       | 5695      | 1.83    | 10424 |          |         |       |
| 27 (i)  |             |          |         |       |           |         |       |          |         |       |
| 28 (i)  |             |          |         |       |           |         |       |          |         |       |
|         |             | -----    | -----   | ----- | -----     | -----   | ----- | -----    | -----   | ----- |
|         |             | 6078     | 1.58    | 9592  | 41153     | 1.17    | 48354 | 0        |         | 0     |

| Level   | Block No. | MEASURED |         |       | INDICATED |         |       | INFERRED |         |       |   |
|---------|-----------|----------|---------|-------|-----------|---------|-------|----------|---------|-------|---|
|         |           | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes   | Grade % | T x G |   |
| 600m RL | 1         |          |         |       |           |         |       |          |         |       |   |
|         | 2         |          |         |       |           |         |       |          |         |       |   |
|         | 3 (i)     |          |         |       |           |         |       |          |         |       |   |
|         | 4         |          |         |       |           |         |       |          |         |       |   |
|         | 5         |          |         |       |           |         |       |          |         |       |   |
|         | 6 (i)     |          |         |       |           |         |       |          |         |       |   |
|         | 7/8       |          |         |       |           |         |       |          |         |       |   |
|         | 9 (i)     |          |         |       | 1780      | 0.81    | 1447  |          |         |       |   |
|         | 10 (i)    |          |         |       |           |         |       |          |         |       |   |
|         | 11 (i)    |          |         |       | 2681      | 1.33    | 3578  |          |         |       |   |
|         | 12/13     |          |         |       | 19058     | 1.00    | 18975 |          |         |       |   |
|         | 14        |          |         |       | 8734      | 1.26    | 10975 |          |         |       |   |
|         | 15        |          |         |       |           |         |       |          |         |       |   |
|         | 16        |          |         |       |           |         |       |          |         |       |   |
|         | 17        |          |         |       | 5896      | 1.03    | 6075  |          |         |       |   |
|         | 18        |          |         |       | 2777      | 0.91    | 2524  |          |         |       |   |
|         | 19 (i)    |          |         |       |           |         |       |          |         |       |   |
|         | 20        |          |         |       |           |         |       |          |         |       |   |
|         | 21        |          |         |       |           |         |       |          |         |       |   |
|         |           |          | 0       |       | 0         | 40926   | 1.06  | 43574    | 0       |       | 0 |
|         | 595m RL   | 1        |         |       |           |         |       |          |         |       |   |
| 2       |           |          |         |       |           |         |       |          |         |       |   |
| 3       |           |          |         |       |           |         |       |          |         |       |   |
| 4 (i)   |           |          |         |       |           |         |       |          |         |       |   |
| 5 (i)   |           |          |         |       |           |         |       |          |         |       |   |
| 6/7     |           |          |         |       |           |         |       |          |         |       |   |
| 8       |           |          |         |       |           |         |       |          |         |       |   |
| 9       |           |          |         |       |           |         |       |          |         |       |   |
| 10      |           |          |         |       |           |         |       |          |         |       |   |
| 11      |           |          |         |       |           |         |       |          |         |       |   |
| 12      |           |          |         |       | 7245      | 1.33    | 9671  |          |         |       |   |
| 13      |           |          |         |       | 8493      | 1.02    | 8677  |          |         |       |   |
| 14      |           |          |         |       | 13544     | 0.97    | 13131 |          |         |       |   |
| 15      |           |          |         |       | 9016      | 1.20    | 10780 |          |         |       |   |
| 16      |           |          |         |       |           |         |       |          |         |       |   |
| 17      |           |          |         |       | 5072      | 1.03    | 5226  |          |         |       |   |
| 18 (i)  |           |          |         |       |           |         |       |          |         |       |   |
| 19 (i)  |           |          |         |       |           |         |       |          |         |       |   |
| 20      |           |          |         |       |           |         |       |          |         |       |   |
| 21      |           |          |         |       |           |         |       |          |         |       |   |
|         |           |          | 0       |       | 0         | 43369   | 1.09  | 47485    | 0       |       | 0 |

100100

| Level   | Block No. | MEASURED |         |       | INDICATED |         |       | INFERRED |         |       |       |
|---------|-----------|----------|---------|-------|-----------|---------|-------|----------|---------|-------|-------|
|         |           | Tonnes   | Grade % | T x G | Tonnes    | Grade % | T x G | Tonnes   | Grade % | T x G |       |
| 590m RL | 1         |          |         |       |           |         |       |          |         |       |       |
|         | 2         |          |         |       |           |         |       |          |         |       |       |
|         | 3 (i)     |          |         |       |           |         |       |          |         |       |       |
|         | 4 (i)     |          |         |       |           |         |       |          |         |       |       |
|         | 5         |          |         |       |           |         |       |          |         |       |       |
|         | 6 (i)     |          |         |       |           |         |       |          |         |       |       |
|         | 7 (i)     |          |         |       |           |         |       |          |         |       |       |
|         | 8         |          |         |       |           |         |       |          |         |       |       |
|         | 9         |          |         |       |           |         |       |          |         |       |       |
|         | 10 (i)    |          |         |       |           |         |       |          |         |       |       |
|         | 11        |          |         |       |           |         |       |          |         |       |       |
|         | 12        |          |         |       |           |         |       |          |         |       |       |
|         | 13        |          |         |       |           |         |       |          |         |       |       |
|         | 14/15     |          |         |       |           | 8533    | 1.37  | 11687    |         |       |       |
|         | 16        |          |         |       |           | 5192    | 1.02  | 5305     |         |       |       |
|         | 17        |          |         |       |           | 11391   | 0.97  | 11044    |         |       |       |
|         | 18        |          |         |       |           | 3220    | 1.20  | 3850     |         |       |       |
|         | 19        |          |         |       |           | 4004    | 1.03  | 4126     |         |       |       |
|         | 20        |          |         |       |           |         |       |          |         |       |       |
|         | 21        |          |         |       |           |         |       |          |         |       |       |
|         | 22        |          |         |       |           |         |       |          |         |       |       |
|         | 23        |          |         |       |           |         |       |          |         |       |       |
|         | 24/25     |          |         |       |           |         |       |          |         |       |       |
|         | 26 (i)    |          |         |       |           |         |       |          |         |       |       |
|         | 27 (i)    |          |         |       |           |         |       |          |         |       |       |
|         |           |          | -----   | ----- | -----     | -----   | ----- | -----    | -----   | ----- | ----- |
|         |           |          | 0       |       | 0         | 32340   | 1.11  | 36012    | 0       |       | 0     |
| 585m RL | 1 (i)     |          |         |       |           |         |       |          |         |       |       |
|         | 2/4       |          |         |       |           |         |       |          |         |       |       |
|         | 3         |          |         |       |           |         |       |          |         |       |       |
|         | 5 (i)     |          |         |       |           |         |       |          |         |       |       |
|         | 6         |          |         |       |           |         |       |          |         |       |       |
|         | 7         |          |         |       |           |         |       |          |         |       |       |
|         | 8         |          |         |       |           |         |       |          |         |       |       |
|         | 9         |          |         |       |           | 8050    | 1.42  | 11445    |         |       |       |
|         | 10        |          |         |       |           | 6802    | 0.97  | 6595     |         |       |       |
|         | 11        |          |         |       |           | 1811    | 1.02  | 1851     |         |       |       |
|         | 12        |          |         |       |           | 2403    | 0.94  | 2267     |         |       |       |
|         | 13 (i)    |          |         |       |           |         |       |          |         |       |       |
|         | 14/15     |          |         |       |           |         |       |          |         |       |       |
|         | 16/17     |          |         |       |           |         |       |          |         |       |       |
|         | 18        |          |         |       |           |         |       |          |         |       |       |
|         |           |          | -----   | ----- | -----     | -----   | ----- | -----    | -----   | ----- | ----- |
|         |           |          | 0       |       | 0         | 19066   | 1.16  | 22158    | 0       |       | 0     |

**APPENDIX 3****RESULTS OF IN HOUSE REVIEW**

- *Initial Estimate of DSL Mineable Reserves, Mt. Bischoff Tin Project*
- *Workings for Global Ore Loss and Dilution Calculation*
- *Close Spaced Drilling*
- *Density of DSL Ore, Mt. Bischoff*

TO: J. LYNCH  
CC: T. KNIGHT  
  
FROM: S. SULLIVAN  
  
DATE: 20/9/93

183128

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INITIAL ESTIMATE OF DSL MINEABLE RESERVES.  
MT BISCHOFF TIN PROJECT

A pit design by A.J. Murphy and Associates has indicated a total mineable reserve of 431,000t @ 1.24% Sn for a design to 590 RL. The ore blocks used in calculating this reserve have now been used to simulate extraction using supervised grade control procedures. For this simulation, 1:500 scale cross sections were used and the following assumptions have been made:

- only ore blocks or portions of ore blocks that lay within the bounds of the pit design were used.
- mining of ore on 2.5m high benches.
- drill and blast spacing/sampling at 3 x 3m centres.
- visible contact between massive sulphide and porphyry.
- dilution assigned a grade of 0.3%
- continuity of ore between sections as per original work by Douglas McKenna and Partners (1982)
- S.G. of 3.5 g/cc for all DSL ore
- ore bearing DSL indistinguishable in pit from non-ore DSL.
- minimum mining unit dimensions: 2.5m high x 3m wide x 3m long (except where constrained by obvious geological boundaries).

On the 1:500 scale cross sections ore blocks grading greater than 0.8% Sn using a 0.4% Sn cutoff were gridded using 2.5m level spacing and 3m blasthole sample spacing. A mineable ore outline was then established by considering the grade of each small grid block within and adjacent to the interpreted ore outline. This was achieved by assigning the average ore block grade to each grid block, and modifying its grade by dilution at 0.3% Sn where applicable. Grid blocks with grade greater than 0.8% Sn were deemed ore, the others waste. This process generated an enclosed outline which surrounded the geological ore outline and simulated ore recovery during a selective mining operation. The "as mined" outline allowed estimation of both ore loss from the geological reserve and also dilution added during the mining operation.

A diluted tonnage and grade was calculated for each ore block. The data was tabulated adjacent to Douglas McKenna and Partners original ore blocks for comparison, and summed maintaining their ore reserve categories. The total mineable ore reserves using this technique were:

|          | tonnes       | tonnes x grade | grade (% Sn) |
|----------|--------------|----------------|--------------|
| Proven   | 36907        | 50680          | 1.37         |
| Probable | 325607       | 420157         | 1.29         |
| Possible | <u>53743</u> | <u>59386</u>   | <u>1.10</u>  |
| Total    | 416257       | 530223         | 1.27         |

Comparison with A.J. Murphy estimate:

|  |        |        |      |
|--|--------|--------|------|
|  | 431000 | 534449 | 1.24 |
|--|--------|--------|------|

The average ore loss calculated for this simulation was 4.5% whilst average dilution was 9%. These proportions are far less than Renison estimates due to:

- 1) generally large size of cross sectional ore blocks relative to a 2.5m high bench.
- 2) numerous ore blocks having common boundaries.
- 3) ease of geological recognition of DSL/porphyry boundary.

In addition to the mineable reserves outlined above, an estimate was attempted for recoverable reserves from original ore blocks which averaged 0.6-0.8% Sn using a 0.4% Sn cut off. A total of 65600t @ 0.68% Sn occurred within the geological reserve. Adding dilution and ore loss percentages as calculated above have a total reserve of 68300t @ 0.65% Sn. Thus combining the two mineable ore reserves:

|                      |                          |
|----------------------|--------------------------|
| > 0.8% ore blocks:   | 416300t @ 1.27% Sn       |
| 0.6-0.8% ore blocks: | <u>68300t @ 0.65% Sn</u> |
|                      | 484600t @ 1.18% Sn       |

This cross sectional approach has not quite reached the target of 500,000t @ 1.2% Sn. This may be attained by addition of ore beneath the 590 RL floor, as per A.J. Murphy's original pit design, albeit at lower grade. Another possibility for increasing tonnage, but not grade, is the recalculation of reserves using the actual measured S.G. values were available instead of using the global assumption of 3.5 g/cc. A trial substitution for the 0.6-0.8% Sn ore blocks resulted in an increase in mineable tonnage from 68300t to 71000t.

In addition, simulation of grade control on a plan basis needs to be done in order to check the correlation between cross sections. This should be done using the same assumptions as for the cross-sectional analysis.

TO: T. KNIGHT  
FROM: S. SULLIVAN  
DATE: 20/9/93

Hi,

Explanatory diagrams and tables to accompany initial cross section ore reserve estimation of DSL ore, Mt Bischoff.

2 diagrams, 960E and 1040E, show method used for evaluating ore loss and dilution for each ore block during mining.

WORKINGS FOR GLOBAL ORE LOSS AND DILUTION CALCULATION

Calculated Results:

Mineable reserve 416257t @ 1.27% Sn (530223% t)  
Geological reserve 398434t @ 1.37% Sn (544036% t)

Calculate ore loss and dilution by solving the following two simultaneous equations 1 and 2.

Equation 1

tonnes (mined) = tonnes (geological) - tonnes (ore loss) + tonnes (dilution)  
 $tm = tg - tol + td$   
ie conservation of mass.

Equation 2

tonnes x grade (mined) = tonnes x grade (geol) - tonnes x grade (ore loss) + tonnes x grade (dil)  
 $tm.gm = tg.gg - tol.gol + td.gd$   
ie conservation of metal content.

Now input known values into equation 1...  $416257 = 398434 - tol + td$   
Now input known values into equation 2...  $530223 = 544036 - tol \times 1.37 + td \times 0.3$

(assuming grade of ore loss is at same average grade as geol. reserve)

Equation 1...  $tol = td - 17823$   
Equation 2...  $1.37 tol = 0.3td + 13813$

Multiply equation 1 by 1.37 and subtract from equation 2

Therefore:  $1.07 td = 38231$   
 $td = 35729t$   
Input td into equation 1  $tol = 17906t$

Global ore loss =  $\frac{tol}{tg} = \frac{17906}{398434} = 4.5\%$

Global dilution =  $\frac{td}{tg} = \frac{35729}{398434} = 9\%$

183132

TO: J.LYNCH  
CC: T. KNIGHT  
  
FROM: S. SULLIVAN  
  
DATE: 21/9/93

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Close spaced drilling of the DSL mineralisation at Mt Bischoff indicates that between 970E and 990E high grade reserves occur beneath the floor of the "current" pit design. This Sn mineralisation does not continue past 960E as the receptive DSL host terminates near here, but it is possible that this tin mineralisation occurs between drillholes on section 1000E. I have to reduce close spaced drill sections (now at 1:200) to 1:500 to directly overlay other sections for further interpretation.

I have included 1:200 sections (reduced to A4 for faxing) indicating pit design, potential ore reserves and average block grades for these reserves, for your inspection and comment. It should be possible to at least get a 5m good-bye gouge to recover some of these reserves, or even a slight modification to pit design to extract more (based on economics) will send additional interpretations when ready.

183133

TO: J. LYNCH  
CC: T. KNIGHT  
  
FROM: S. SULLIVAN  
  
DATE: 24/9/93

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DENSITY OF DSL ORE, MT BISCHOFF

In contrast to our conversation on 22/9/93, there appears to be quite a deal of work done to assess an appropriate S.G. for the DSL ore. I have found the following pages amongst the data I retrieved from the visit to Melbourne. How do the numbers calculated here correlate with Renison's S.G.'s ?

**APPENDIX 4****MINE SCHEDULING**

|       |     |   |
|-------|-----|---|
| Table | A1  | <i>Ore &amp; Waste Schedule</i>   |
|       | A2  | <i>Mine Production Schedule - Sediments</i>                                     |
|       | A3  | <i>Mine Production Schedule - DSL Subgrade Ore (0.40-0.80% Sn)</i>              |
|       | A4  | <i>Mine Production Schedule - DSL Waste (&lt;0.4% Sn)</i>                       |
|       | A5  | <i>Mine Production Schedule - Dolomite</i>                                      |
|       | A6  | <i>Mine Production Schedule - Porphyry</i>                                      |
|       | A7  | <i>Mine Production Schedule - Low Grade Tin Ore (0.80-1.10% Sn)</i>             |
|       | A8  | <i>Mine Production Schedule - Medium Grade Tin Ore (1.10-1.30% Sn)</i>          |
|       | A9  | <i>Mine Production Schedule - High Grade Tin Ore (&gt;1.30% Sn)</i>             |
|       | A10 | <i>Mine Production Schedule - T x G, Low Grade Tin Ore (0.80-1.10% Sn)</i>      |
|       | A11 | <i>Mine Production Schedule - T x G, Medium Grade Tin Ore (1.10 - 1.30% Sn)</i> |
|       | A12 | <i>Mine Production Schedule - T x G, High Grade Tin Ore (&gt;1.30% Sn)</i>      |
|       | A13 | <i>Mine Production Schedule and Stockpile Summary</i>                           |

TABLE A1 ORE & WASTE SCHEDULE

| Period       | PIT 1         |              | PIT 2        |             | PIT 3        |              | TOTALS        |              | TOTALS         |               | GRAND TOTAL    | CAPACITY       | DAYS       | TIPPER FLEET | ADT FLEET | STRIP RATIO |
|--------------|---------------|--------------|--------------|-------------|--------------|--------------|---------------|--------------|----------------|---------------|----------------|----------------|------------|--------------|-----------|-------------|
|              | WASTE BCM     | ORE BCM      | WASTE BCM    | ORE BCM     | WASTE BCM    | ORE BCM      | WASTE BCM     | ORE BCM      | WASTE TONNES   | ORE TONNES    | TOTAL TONNES   | TOTAL TONNES   |            | t/day        | t/day     |             |
| 2            | 39449         | 0            | 14665        | 507         | 0            | 0            | 54114         | 507          | 154225         | 1775          | 155999         | 156000         | 20         | 3000         | 4800      | 86.9        |
| 3            | 41711         | 2520         | 15586        | 2081        | 0            | 0            | 57297         | 4601         | 163296         | 16104         | 179400         | 179400         | 23         | 3000         | 4800      | 10.1        |
| 4            | 39228         | 4709         | 9137         | 2708        | 0            | 0            | 48365         | 7417         | 137840         | 25960         | 163800         | 163800         | 21         | 3000         | 4800      | 5.3         |
| 5            | 45890         | 400          | 0            | 0           | 13763        | 54           | 59653         | 454          | 170011         | 1589          | 171600         | 171600         | 22         | 3000         | 4800      | 107.0       |
| 6            | 38159         | 1500         | 0            | 0           | 0            | 0            | 38159         | 1500         | 108753         | 5250          | 114003         | 114004         | 22         | 3000         | 2182      | 20.7        |
| 7            | 6278          | 2898         | 0            | 0           | 11524        | 606          | 17802         | 3504         | 50736          | 12264         | 63000          | 63000          | 21         | 3000         |           | 4.1         |
| 8            | 0             | 0            | 4276         | 2708        | 15608        | 815          | 19884         | 3523         | 56669          | 12331         | 69000          | 69000          | 23         | 3000         |           | 4.6         |
| 9            | 8017          | 0            | 855          | 1685        | 10596        | 1320         | 19468         | 3005         | 55484          | 10518         | 66001          | 66000          | 22         | 3000         |           | 5.3         |
| 10           | 16333         | 4700         | 0            | 0           | 0            | 0            | 16333         | 4700         | 46549          | 16450         | 62999          | 63000          | 21         | 3000         |           | 2.8         |
| 11           | 18921         | 3450         | 0            | 0           | 0            | 0            | 18921         | 3450         | 53925          | 12075         | 66000          | 66000          | 22         | 3000         |           | 4.5         |
| 12           | 18151         | 3220         | 0            | 0           | 0            | 0            | 18151         | 3220         | 51730          | 11270         | 63000          | 63000          | 21         | 3000         |           | 4.6         |
| <b>TOTAL</b> | <b>272137</b> | <b>23397</b> | <b>44519</b> | <b>9689</b> | <b>51491</b> | <b>2795</b>  | <b>368147</b> | <b>35881</b> | <b>1049219</b> | <b>125584</b> | <b>1174802</b> | <b>1174804</b> | <b>238</b> | <b>3000</b>  |           | <b>8.4</b>  |
| 13           | 18246         | 4000         | 0            | 0           | 0            | 0            | 18246         | 4000         | 52001          | 14000         | 66001          | 66000          | 22         | 3000         |           | 3.7         |
| 14           | 14026         | 3000         | 0            | 0           | 3342         | 0            | 17368         | 3000         | 49499          | 10500         | 59999          | 60000          | 20         | 3000         |           | 4.7         |
| 15           | 7014          | 3338         | 0            | 0           | 11255        | 1500         | 18269         | 4838         | 52067          | 16933         | 69000          | 69000          | 23         | 3000         |           | 3.1         |
| 16           | 14208         | 0            | 0            | 0           | 5171         | 1363         | 19379         | 1363         | 55230          | 4771          | 60001          | 60000          | 20         | 3000         |           | 11.6        |
| 17           | 20649         | 2900         | 0            | 0           | 0            | 0            | 20649         | 2900         | 58850          | 10150         | 69000          | 69000          | 23         | 3000         |           | 5.8         |
| 18           | 18614         | 3700         | 0            | 0           | 0            | 0            | 18614         | 3700         | 53050          | 12950         | 66000          | 66000          | 22         | 3000         |           | 4.1         |
| 19           | 17561         | 3700         | 0            | 0           | 0            | 0            | 17561         | 3700         | 50049          | 12950         | 62999          | 63000          | 21         | 3000         |           | 3.9         |
| 20           | 19123         | 4143         | 0            | 0           | 0            | 0            | 19123         | 4143         | 54501          | 14501         | 69001          | 69000          | 23         | 3000         |           | 3.8         |
| 21           | 15105         | 5700         | 0            | 0           | 0            | 0            | 15105         | 5700         | 43049          | 19950         | 62999          | 63000          | 21         | 3000         |           | 2.2         |
| 22           | 0             | 0            | 0            | 0           | 23158        | 0            | 23158         | 0            | 66000          | 0             | 66000          | 66000          | 22         | 3000         |           | 0.0         |
| 23           | 17801         | 4362         | 0            | 0           | 0            | 0            | 17801         | 4362         | 50733          | 15267         | 66000          | 66000          | 22         | 3000         |           | 3.3         |
| 24           | 11955         | 2900         | 0            | 0           | 4484         | 0            | 16439         | 2900         | 46851          | 10150         | 57001          | 57000          | 19         | 3000         |           | 4.6         |
| <b>TOTAL</b> | <b>174302</b> | <b>37743</b> | <b>0</b>     | <b>0</b>    | <b>47410</b> | <b>2863</b>  | <b>221712</b> | <b>40606</b> | <b>631879</b>  | <b>142121</b> | <b>774000</b>  | <b>774000</b>  | <b>258</b> | <b>3000</b>  |           | <b>4.4</b>  |
| Q1           | 6057          | 8682         | 0            | 0           | 33384        | 10402        | 39441         | 19084        | 112407         | 66794         | 179201         | 179200         | 64         | 2800         |           | 1.7         |
| Q2           | 13929         | 19743        | 0            | 0           | 14331        | 9245         | 28260         | 28988        | 80541          | 101458        | 181999         | 182000         | 65         | 2800         |           | 0.8         |
| Q3           | 1153          | 5447         | 0            | 0           | 12846        | 6170         | 13999         | 11617        | 39897          | 40660         | 80557          | 184800         | 66         | 2800         |           | 1.0         |
| Q4           | 0             | 0            | 0            | 0           | 0            | 0            | 0             | 0            | 0              | 0             | 0              | 179200         | 64         | 2800         |           | 0.0         |
| <b>TOTAL</b> | <b>21139</b>  | <b>33872</b> | <b>0</b>     | <b>0</b>    | <b>60561</b> | <b>25817</b> | <b>81700</b>  | <b>59689</b> | <b>232845</b>  | <b>208912</b> | <b>441757</b>  | <b>725200</b>  | <b>259</b> | <b>2800</b>  |           | <b>1.1</b>  |
| Q1           | 0             | 0            | 0            | 0           | 0            | 0            | 0             | 0            | 0              | 0             | 0              | 176400         | 63         | 2800         |           | 0.0         |
| Q2           | 0             | 0            | 0            | 0           | 0            | 0            | 0             | 0            | 0              | 0             | 0              | 182000         | 65         | 2800         |           | 0.0         |
| Q3           | 0             | 0            | 0            | 0           | 0            | 0            | 0             | 0            | 0              | 0             | 0              | 184800         | 66         | 2800         |           | 0.0         |
| Q4           | 0             | 0            | 0            | 0           | 0            | 0            | 0             | 0            | 0              | 0             | 0              | 179200         | 64         | 2800         |           | 0.0         |
| <b>TOTAL</b> | <b>0</b>      | <b>0</b>     | <b>0</b>     | <b>0</b>    | <b>0</b>     | <b>0</b>     | <b>0</b>      | <b>0</b>     | <b>0</b>       | <b>0</b>      | <b>0</b>       | <b>722400</b>  | <b>258</b> | <b>2800</b>  |           | <b>0.0</b>  |



TABLE A3 MINE PRODUCTION SCHEDULE - DSL SUBGRADE ORE ( 0.4 %Sn - 0.8 %Sn)

| Level - mRL    | Period No.    | 2      | 3    | 4    | 5    | 6    | 7    | 8     | 9    | 10   | 11   | 12   | TOTAL | 13   | 14   | 15    | 16   | 17 | 18   | 19   | 20   | 21   | 22 | 23   | 24    | TOTAL | Q1    | Q2   | Q3    | Q4   | TOTAL | Q1    | Q2 | Q3 | Q4 | TOTAL |   |   |   |
|----------------|---------------|--------|------|------|------|------|------|-------|------|------|------|------|-------|------|------|-------|------|----|------|------|------|------|----|------|-------|-------|-------|------|-------|------|-------|-------|----|----|----|-------|---|---|---|
| No. 1 OPEN PIT |               |        |      |      |      |      |      |       |      |      |      |      |       |      |      |       |      |    |      |      |      |      |    |      |       |       |       |      |       |      |       |       |    |    |    |       |   |   |   |
| 655 - 650      | TOTAL VOLUMES | 0      | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 650 - 645      |               | 0      | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 645 - 640      |               | 1395   | 1995 | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 1894  | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 640 - 635      |               | 5347   | 5347 | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 5347  | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 635 - 630      |               | 5322   | 0    | 5322 | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 5322  | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 630 - 625      |               | 9270   | 0    | 0    | 0    | 4182 | 5088 | 0     | 0    | 0    | 0    | 0    | 9270  | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 625 - 620      |               | 5992   | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 1500 | 2500 | 1992 | 5992  | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 620 - 615      |               | 16224  | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 16224 | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 16224 | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     |   |   |   |
| 615 - 610      |               | 10336  | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 10336 | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 10336 | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 610 - 605      |               | 15856  | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 15856 | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 15856 | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 605 - 600      |               | 10213  | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 10213 | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 10213 | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 600 - 595      |               | 4620   | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 4620  | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 4620  | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 595 - 590      |               | 0      | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 590 - 585      |               | 0      | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| No. 2 OPEN PIT |               |        |      |      |      |      |      |       |      |      |      |      |       |      |      |       |      |    |      |      |      |      |    |      |       |       |       |      |       |      |       |       |    |    |    |       |   |   |   |
| 655 - 650      | TOTAL VOLUMES | 0      | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 650 - 645      |               | 0      | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 | 0 |   |
| 645 - 640      |               | 0      | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 | 0 | 0 |
| 640 - 635      |               | 0      | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 | 0 | 0 |
| 635 - 630      |               | 2113   | 0    | 2113 | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 2113  | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 | 0 |   |
| 630 - 625      |               | 2240   | 0    | 2240 | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 2240  | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 625 - 620      |               | 2278   | 0    | 0    | 2278 | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 2278  | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 620 - 615      |               | 0      | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 615 - 610      |               | 0      | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| No. 3 OPEN PIT |               |        |      |      |      |      |      |       |      |      |      |      |       |      |      |       |      |    |      |      |      |      |    |      |       |       |       |      |       |      |       |       |    |    |    |       |   |   |   |
| 675 - 670      | TOTAL VOLUMES | 0      | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 670 - 665      |               | 0      | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 | 0 |   |
| 665 - 660      |               | 1479   | 0    | 0    | 0    | 1479 | 0    | 0     | 0    | 0    | 0    | 0    | 1479  | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 | 0 |   |
| 660 - 655      |               | 4789   | 0    | 0    | 0    | 4789 | 0    | 0     | 0    | 0    | 0    | 0    | 4789  | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 | 0 |   |
| 655 - 650      |               | 9431   | 0    | 0    | 0    | 0    | 9431 | 0     | 0    | 0    | 0    | 0    | 9431  | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 | 0 |   |
| 650 - 645      |               | 10726  | 0    | 0    | 0    | 0    | 0    | 10726 | 0    | 0    | 0    | 0    | 10726 | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 | 0 |   |
| 645 - 640      |               | 4806   | 0    | 0    | 0    | 0    | 0    | 0     | 3000 | 0    | 0    | 0    | 4806  | 1183 | 623  | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 1808  | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 640 - 635      |               | 8631   | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 8631  | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 635 - 630      |               | 2454   | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 2454  | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 630 - 625      |               | 456    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 456   | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 625 - 620      |               | 3277   | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 3277  | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 620 - 615      |               | 2987   | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 2987  | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 615 - 610      |               | 3321   | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 3321  | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| 610 - 605      |               | -1042  | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | -1042 | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| No. 1 OPEN PIT |               | 45176  | 1995 | 5347 | 5322 | 0    | 4182 | 5088  | 0    | 1500 | 2500 | 1992 | 27826 | 0    | 0    | 9809  | 6415 | 0  | 3850 | 6486 | 5115 | 7000 | 0  | 3741 | 10213 | 52629 | 0     | 4620 | 0     | 0    | 4620  | 0     | 0  | 0  | 0  | 0     |   |   |   |
| No. 2 OPEN PIT |               | 6631   | 0    | 4353 | 2278 | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 6631  | 0    | 0    | 0     | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 0    | 0     | 0     | 0     | 0    | 0     | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |   |
| No. 3 OPEN PIT |               | 42126  | 0    | 0    | 0    | 0    | 0    | 2575  | 5000 | 0    | 0    | 0    | 7575  | 0    | 2159 | 5171  | 0    | 0  | 0    | 0    | 0    | 0    | 0  | 7325 | 0     | 0     | 14655 | 8402 | 5462  | 6033 | 0     | 19897 | 0  | 0  | 0  | 0     |   |   |   |
| TOTAL          |               | 133932 | 1995 | 9700 | 7800 | 0    | 4182 | 5088  | 2575 | 5000 | 1500 | 2500 | 42132 | 0    | 2159 | 14980 | 6415 | 0  | 3850 | 6486 | 5115 | 7000 | 0  | 7325 | 3741  | 10213 | 67284 | 8402 | 10082 | 6033 | 0     | 24517 | 0  | 0  | 0  |       |   |   |   |

TABLE A5 MINE PRODUCTION SCHEDULE - DOLOMITE

| Level - mRL           | Period No. | 2     | 3     | 4     | 5     | 6     | 7   | 8    | 9     | 10   | 11   | 12    | TOTAL  | 13    | 14    | 15 | 16   | 17    | 18    | 19   | 20    | 21   | 22 | 23    | 24   | TOTAL  | Q1    | Q2    | Q3  | Q4 | TOTAL | Q1 | Q2 | Q3 | Q4 | TOTAL |   |   |
|-----------------------|------------|-------|-------|-------|-------|-------|-----|------|-------|------|------|-------|--------|-------|-------|----|------|-------|-------|------|-------|------|----|-------|------|--------|-------|-------|-----|----|-------|----|----|----|----|-------|---|---|
| <b>No. 1 OPEN PIT</b> |            |       |       |       |       |       |     |      |       |      |      |       |        |       |       |    |      |       |       |      |       |      |    |       |      |        |       |       |     |    |       |    |    |    |    |       |   |   |
| 655 - 650             | 0          | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 0      | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 650 - 645             | 825        | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 825    | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 645 - 640             | 14500      | 10542 | 3963  | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 14500  | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 640 - 635             | 29628      | 0     | 20268 | 9422  | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 29628  | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 635 - 630             | 45662      | 0     | 0     | 15126 | 30536 | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 45662  | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 630 - 625             | 63005      | 0     | 0     | 0     | 15354 | 29474 | 251 | 0    | 8017  | 9568 | 0    | 0     | 63005  | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 625 - 620             | 48642      | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 9475 | 10363 | 48642  | 18246 | 11558 | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 29804 | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     |   |   |
| 620 - 615             | 39390      | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 39390  | 0     | 0     | 0  | 7793 | 20649 | 10948 | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 29390 | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     |   |   |
| 615 - 610             | 25804      | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 25804  | 0     | 0     | 0  | 0    | 0     | 0     | 6999 | 14624 | 5171 | 0  | 0     | 0    | 0      | 26804 | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     |   |   |
| 610 - 605             | 17533      | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 17533  | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 14060 | 1229 | 17533  | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     |   |   |
| 605 - 600             | 7203       | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 7203   | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 1146   | 1146  | 6057  | 0   | 0  | 0     | 0  | 0  | 0  | 0  |       |   |   |
| 600 - 595             | 5616       | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 5616   | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 595 - 590             | 2421       | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 2421   | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 590 - 585             | 300        | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 300    | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| <b>No. 2 OPEN PIT</b> |            |       |       |       |       |       |     |      |       |      |      |       |        |       |       |    |      |       |       |      |       |      |    |       |      |        |       |       |     |    |       |    |    |    |    |       |   |   |
| 655 - 650             | 0          | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 0      | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 650 - 645             | 0          | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 0      | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 | 0 |
| 645 - 640             | 0          | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 0      | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 | 0 |
| 640 - 635             | 251        | 251   | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 251    | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 | 0 |
| 635 - 630             | 796        | 0     | 796   | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 796    | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 | 0 |
| 630 - 625             | 930        | 0     | 930   | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 930    | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 | 0 |
| 625 - 620             | 868        | 0     | 0     | 868   | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 868    | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 | 0 |
| 620 - 615             | 532        | 0     | 0     | 0     | 0     | 0     | 0   | 532  | 0     | 0    | 0    | 0     | 532    | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 615 - 610             | 255        | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 255   | 0    | 0    | 0     | 255    | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 | 0 |
| <b>No. 3 OPEN PIT</b> |            |       |       |       |       |       |     |      |       |      |      |       |        |       |       |    |      |       |       |      |       |      |    |       |      |        |       |       |     |    |       |    |    |    |    |       |   |   |
| 678 - 670             | 0          | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 0      | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 670 - 665             | 0          | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 0      | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 | 0 |
| 665 - 660             | 0          | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 0      | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 | 0 |
| 660 - 655             | 0          | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 0      | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 | 0 |
| 655 - 650             | 0          | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 0      | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 | 0 |
| 650 - 645             | 3792       | 0     | 0     | 0     | 0     | 0     | 0   | 1648 | 2054  | 0    | 0    | 0     | 3792   | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 | 0 |
| 645 - 640             | 12632      | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 12632  | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 | 0 |
| 640 - 635             | 12031      | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 12031  | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 | 0 |
| 635 - 630             | 10803      | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 10803  | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 | 0 |
| 630 - 625             | 10137      | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 10137  | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 | 0 |
| 625 - 620             | 4071       | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 4071   | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 | 0 |
| 620 - 615             | 1640       | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 1640   | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 615 - 610             | 276        | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 276    | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 610 - 605             | 0          | 0     | 0     | 0     | 0     | 0     | 0   | 0    | 0     | 0    | 0    | 0     | 0      | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| <b>No. 1 OPEN PIT</b> | 302433     | 11367 | 24169 | 24548 | 45680 | 29474 | 581 | 0    | 8017  | 9569 | 9475 | 10363 | 173463 | 18246 | 11558 | 0  | 7793 | 20649 | 10948 | 6999 | 14634 | 7415 | 0  | 14060 | 2375 | 114677 | 6057  | 7937  | 300 | 0  | 14294 | 0  | 0  | 0  | 0  | 0     |   |   |
| <b>No. 2 OPEN PIT</b> | 3642       | 251   | 1726  | 868   | 0     | 0     | 0   | 533  | 265   | 0    | 0    | 0     | 3643   | 0     | 0     | 0  | 0    | 0     | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 0      | 0     | 0     | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| <b>No. 3 OPEN PIT</b> | 54162      | 0     | 0     | 0     | 0     | 0     | 0   | 1648 | 2054  | 0    | 0    | 0     | 3792   | 0     | 0     | 0  | 5461 | 5171  | 0     | 0    | 0     | 0    | 0  | 0     | 0    | 8347   | 4464  | 12831 | 0   | 0  | 0     | 0  | 0  | 0  | 0  | 0     |   |   |
| <b>TOTAL</b>          | 380166     | 11618 | 25895 | 25416 | 45680 | 29474 | 581 | 2181 | 10336 | 9569 | 9475 | 10363 | 100008 | 18246 | 11558 | 54 |      |       |       |      |       |      |    |       |      |        |       |       |     |    |       |    |    |    |    |       |   |   |

TABLE A7 MINE PRODUCTION SCHEDULE - LOW GRADE TIN ORE ( 0.80 % Sn - 1.10 % Sn )

| Level - mRL           | Period No.   | 2    | 3    | 4    | 5   | 6   | 7    | 8   | 9    | 10   | 11   | 12   | TOTAL | 13   | 14   | 15   | 16   | 17   | 18   | 19   | 20   | 21   | 22 | 23   | 24  | TOTAL | Q1   | Q2    | Q3   | Q4 | TOTAL | Q1 | Q2 | Q3 | Q4 | TOTAL |   |   |
|-----------------------|--------------|------|------|------|-----|-----|------|-----|------|------|------|------|-------|------|------|------|------|------|------|------|------|------|----|------|-----|-------|------|-------|------|----|-------|----|----|----|----|-------|---|---|
| <b>No. 1 OPEN PIT</b> |              |      |      |      |     |     |      |     |      |      |      |      |       |      |      |      |      |      |      |      |      |      |    |      |     |       |      |       |      |    |       |    |    |    |    |       |   |   |
| 655 - 650             | 0            | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 650 - 645             | 0            | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 645 - 640             | 0            | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 640 - 635             | 0            | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 635 - 630             | 2099         | 2099 | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 2099  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 630 - 625             | 2714         | 0    | 2714 | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 2714  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 625 - 620             | 1376         | 0    | 0    | 0    | 400 | 500 | 478  | 0   | 0    | 0    | 0    | 0    | 1376  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 620 - 615             | 7291         | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 3200 | 2150 | 1941 | 7291  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 615 - 610             | 5100         | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 5100  | 2100 | 1500 | 1500 | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 5100 | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     |   |   |
| 610 - 605             | 7072         | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 7072  | 0    | 0    | 0    | 0    | 0    | 2500 | 2000 | 2100 | 472  | 0  | 0    | 0   | 7072  | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 605 - 600             | 7877         | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 7877  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 2500 | 3300 | 0  | 0    | 0   | 7877  | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     |   |   |
| 600 - 595             | 8432         | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 8432  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 8432  | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     |   |   |
| 595 - 590             | 7745         | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 7745  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 7745  | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     |   |   |
| 590 - 585             | 5882         | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 5882  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 5882  | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     |   |   |
| 585 - 580             | 3147         | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 3147  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 3147  | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     |   |   |
| <b>No. 2 OPEN PIT</b> |              |      |      |      |     |     |      |     |      |      |      |      |       |      |      |      |      |      |      |      |      |      |    |      |     |       |      |       |      |    |       |    |    |    |    |       |   |   |
| 655 - 650             | 0            | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 650 - 645             | 0            | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 645 - 640             | 0            | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 | 0 |
| 640 - 635             | 507          | 507  | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 507   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 | 0 |
| 635 - 630             | 868          | 0    | 868  | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 868   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 630 - 625             | 0            | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 625 - 620             | 0            | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 620 - 615             | 0            | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 615 - 610             | 0            | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| <b>No. 3 OPEN PIT</b> |              |      |      |      |     |     |      |     |      |      |      |      |       |      |      |      |      |      |      |      |      |      |    |      |     |       |      |       |      |    |       |    |    |    |    |       |   |   |
| 678 - 670             | 0            | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 670 - 665             | 0            | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 665 - 660             | 0            | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 | 0 |
| 660 - 655             | 54           | 0    | 0    | 0    | 54  | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 54    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 655 - 650             | 606          | 0    | 0    | 0    | 0   | 0   | 606  | 0   | 0    | 0    | 0    | 0    | 606   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 650 - 645             | 815          | 0    | 0    | 0    | 0   | 0   | 0    | 815 | 0    | 0    | 0    | 0    | 815   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 645 - 640             | 1320         | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 1320 | 0    | 0    | 0    | 1320  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     | 0 |   |
| 640 - 635             | 2983         | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 2983  | 0    | 0    | 1500 | 1363 | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 2983 | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     |   |   |
| 635 - 630             | 1110         | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 1110  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 1110  | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     |   |   |
| 630 - 625             | 0            | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     |   |   |
| 625 - 620             | 0            | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     |   |   |
| 620 - 615             | 0            | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     |   |   |
| 615 - 610             | 368          | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 368   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 368  | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     |   |   |
| 610 - 605             | 0            | 0    | 0    | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     |   |   |
| <b>No. 1 OPEN PIT</b> | <b>58737</b> | 0    | 2099 | 2714 | 400 | 500 | 478  | 0   | 0    | 3200 | 2150 | 1941 | 13482 | 7100 | 1500 | 1500 | 0    | 2500 | 2000 | 2100 | 2973 | 3700 | 0  | 3077 | 638 | 21688 | 8682 | 11739 | 3147 | 0  | 23568 | 0  | 0  | 0  | 0  | 0     |   |   |
| <b>No. 2 OPEN PIT</b> | <b>1375</b>  | 507  | 868  | 0    | 0   | 0   | 0    | 0   | 0    | 0    | 0    | 0    | 1375  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 0     | 0    | 0     | 0    | 0  | 0     | 0  | 0  | 0  | 0  | 0     |   |   |
| <b>No. 3 OPEN PIT</b> | <b>7135</b>  | 0    | 0    | 0    | 54  | 0   | 606  | 815 | 1320 | 0    | 0    | 0    | 2795  | 0    | 0    | 1500 | 1363 | 0    | 0    | 0    | 0    | 0    | 0  | 0    | 0   | 2983  | 1110 | 0     | 368  | 0  | 1478  | 0  | 0  | 0  | 0  | 0     |   |   |
| <b>TOTAL</b>          | <b>67248</b> | 507  | 2967 | 2714 | 454 | 500 | 1084 | 815 | 1320 | 3200 | 2150 | 1941 | 17652 |      |      |      |      |      |      |      |      |      |    |      |     |       |      |       |      |    |       |    |    |    |    |       |   |   |

TABLE A9 MINE PRODUCTION SCHEDULE - HIGH GRADE TIN ORE (> 1.30 % Sn)

| Level - mRL    | Period No | 2 | 3    | 4    | 5 | 6    | 7    | 8    | 9    | 10   | 11   | 12   | TOTAL | 13   | 14   | 15   | 16 | 17  | 18   | 19   | 20   | 21   | 22 | 23  | 24  | TOTAL | Q1 | Q2   | Q3   | Q4   | TOTAL | Q1    | Q2 | Q3 | Q4 | TOTAL |   |   |
|----------------|-----------|---|------|------|---|------|------|------|------|------|------|------|-------|------|------|------|----|-----|------|------|------|------|----|-----|-----|-------|----|------|------|------|-------|-------|----|----|----|-------|---|---|
| TOTAL VOLUMES  |           |   |      |      |   |      |      |      |      |      |      |      |       |      |      |      |    |     |      |      |      |      |    |     |     |       |    |      |      |      |       |       |    |    |    |       |   |   |
| No. 1 OPEN PIT |           |   |      |      |   |      |      |      |      |      |      |      |       |      |      |      |    |     |      |      |      |      |    |     |     |       |    |      |      |      |       |       |    |    |    |       |   |   |
| 655 - 650      | 0         | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 650 - 645      | 0         | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 645 - 640      | 0         | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 640 - 635      | 421       | 0 | 421  | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 421   | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 635 - 630      | 1995      | 0 | 0    | 1995 | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1995  | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 630 - 625      | 3420      | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 3420  | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 625 - 620      | 4079      | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 4079  | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 620 - 615      | 4508      | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 4508  | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 615 - 610      | 4370      | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 4370  | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 610 - 605      | 3185      | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 3185  | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 605 - 600      | 788       | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 788   | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 600 - 595      | 2070      | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 2070  | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 595 - 590      | 2438      | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 2438  | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 590 - 585      | 2300      | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 2300  | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| No. 2 OPEN PIT |           |   |      |      |   |      |      |      |      |      |      |      |       |      |      |      |    |     |      |      |      |      |    |     |     |       |    |      |      |      |       |       |    |    |    |       |   |   |
| 655 - 650      | 0         | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 650 - 645      | 0         | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 645 - 640      | 0         | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 | 0 |
| 640 - 635      | 0         | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 | 0 |
| 635 - 630      | 0         | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 | 0 |
| 630 - 625      | 533       | 0 | 533  | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 533   | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 625 - 620      | 2708      | 0 | 0    | 2708 | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 2708  | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 620 - 615      | 2708      | 0 | 0    | 0    | 0 | 0    | 0    | 2708 | 0    | 0    | 0    | 0    | 2708  | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 615 - 610      | 1685      | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 1685 | 0    | 0    | 0    | 1685  | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| No. 3 OPEN PIT |           |   |      |      |   |      |      |      |      |      |      |      |       |      |      |      |    |     |      |      |      |      |    |     |     |       |    |      |      |      |       |       |    |    |    |       |   |   |
| 675 - 670      | 0         | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 670 - 665      | 0         | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 665 - 660      | 0         | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 660 - 655      | 0         | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 655 - 650      | 0         | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 650 - 645      | 0         | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 645 - 640      | 0         | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 640 - 635      | 0         | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 635 - 630      | 2754      | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 2754  | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 630 - 625      | 3904      | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 3904  | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 625 - 620      | 2254      | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 2254  | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 620 - 615      | 1371      | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1371  | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     |   |   |
| 615 - 610      | 3370      | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 3370  | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| 610 - 605      | 2432      | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 2432  | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     |   |   |
| No. 1 OPEN PIT | 29562     | 0 | 421  | 1995 | 0 | 1000 | 2420 | 0    | 0    | 1500 | 1300 | 1279 | 9015  | 1500 | 1500 | 1508 | 0  | 400 | 1700 | 1500 | 1170 | 2400 | 0  | 285 | 766 | 12829 | 0  | 4508 | 2300 | 0    | 8808  | 0     | 0  | 0  | 0  | 0     |   |   |
| No. 2 OPEN PIT | 7933      | 0 | 833  | 2708 | 0 | 0    | 0    | 2708 | 1685 | 0    | 0    | 0    | 7934  | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| No. 3 OPEN PIT | 16085     | 0 | 0    | 0    | 0 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0  | 0   | 0    | 0    | 0    | 0    | 0  | 0   | 0   | 0     | 0  | 0    | 0    | 0    | 0     | 0     | 0  | 0  | 0  | 0     | 0 |   |
| TOTAL          | 53570     | 0 | 1254 | 4703 | 0 | 1000 | 2420 | 2708 | 1685 | 1500 | 1300 | 1279 | 17849 | 1500 | 1500 | 1508 | 0  | 400 | 1700 | 1500 | 1170 | 2400 | 0  | 285 | 766 | 12829 | 0  | 6658 | 8133 | 8102 | 0     | 22893 | 0  | 0  | 0  | 0     |   |   |

TABLE A10 MINE PRODUCTION SCHEDULE - T x G, LOW GRADE TIN ORE (0.80 % Sn - 1.10 % Sn)



TABLE A13 MINE PRODUCTION SCHEDULE AND STOCKPILE SUMMARY

183142

|   | Period No. | 2    | 3     | 4     | 5     | 6    | 7     | 8     | 9     | 10    | 11    | 12    | TOTAL  | 13    | 14    | 15    | 16   | 17    | 18    | 19    | 20    | 21    | 22   | 23    | 24    | TOTAL  | Q1    | Q2     | Q3     | Q4      | TOTAL | Q1     | Q2    | Q3   | Q4   | TOTAL |      |
|---|------------|------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|------|-------|-------|-------|-------|-------|------|-------|-------|--------|-------|--------|--------|---------|-------|--------|-------|------|------|-------|------|
| <b>LOW GRADE ORE MINED ( 0.80 %Sn - 1.10 %Sn )</b>    |            |      |       |       |       |      |       |       |       |       |       |       |        |       |       |       |      |       |       |       |       |       |      |       |       |        |       |        |        |         |       |        |       |      |      |       |      |
| ORE t   | 245362     | 1775 | 10365 | 9499  | 1588  | 1750 | 3794  | 2653  | 4620  | 11200 | 7525  | 6794  | 51782  | 7390  | 5250  | 10500 | 4771 | 8750  | 7000  | 7350  | 10406 | 11550 | 0    | 10770 | 2233  | 85929  | 34272 | 41087  | 12983  | 0       | 87661 | 0      | 0     | 0    | 0    | 0     |      |
| ORE bcm   | 67246      | 507  | 2967  | 2714  | 454   | 500  | 1064  | 915   | 1320  | 3700  | 2150  | 1941  | 17652  | 2100  | 1500  | 3000  | 1363 | 2500  | 2000  | 2100  | 2973  | 3300  | 0    | 3077  | 638   | 24561  | 9792  | 11739  | 3515   | 0       | 25046 | 0      | 0     | 0    | 0    | 0     |      |
| % Sn  | 0.94       | 0.93 | 0.91  | 0.84  | 0.96  | 0.97 | 0.92  | 0.81  | 0.89  | 0.88  | 0.88  | 0.88  | 0.89   | 0.96  | 0.98  | 0.97  | 0.99 | 0.93  | 0.93  | 0.93  | 0.94  | 0.94  | 0.00 | 0.95  | 0.96  | 0.95   | 0.95  | 1.00   | 0.96   | 0.00    | 0.98  | 0.00   | 0.00  | 0.00 | 0.00 | 0.00  |      |
| G x T   | 222.83     | 1643 | 9461  | 7940  | 1525  | 1697 | 3495  | 2592  | 4132  | 9889  | 6644  | 5998  | 59017  | 7067  | 5045  | 10227 | 4709 | 8099  | 6460  | 6804  | 9740  | 10834 | 0    | 10761 | 2196  | 81455  | 33086 | 40919  | 11814  | 0       | 85799 | 0      | 0     | 0    | 0    | 0     |      |
| <b>MEDIUM GRADE ORE MINED ( 1.10 %Sn - 1.30 %Sn )</b> |            |      |       |       |       |      |       |       |       |       |       |       |        |       |       |       |      |       |       |       |       |       |      |       |       |        |       |        |        |         |       |        |       |      |      |       |      |
| ORE t   | 53740      | 0    | 1330  | 0     | 0     | 0    | 0     | 0     | 0     | 0     | 0     | 0     | 1330   | 1400  | 0     | 1155  | 0    | 0     | 0     | 0     | 0     | 0     | 0    | 0     | 3500  | 5236   | 11291 | 9219   | 31906  | 0       | 0     | 41125  | 0     | 0    | 0    | 0     | 0    |
| ORE bcm   | 15354      | 0    | 350   | 0     | 0     | 0    | 0     | 0     | 0     | 0     | 0     | 0     | 360    | 400   | 0     | 330   | 0    | 0     | 0     | 0     | 0     | 0     | 0    | 0     | 1000  | 1496   | 3226  | 2634   | 9116   | 0       | 0     | 11750  | 0     | 0    | 0    | 0     | 0    |
| % Sn  | 1.24       | 0.00 | 1.27  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 1.27   | 1.29  | 0.00  | 1.29  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 1.26  | 1.26   | 1.25  | 1.22   | 1.23   | 0.00    | 0.00  | 1.23   | 0.00  | 0.00 | 0.00 | 0.00  |      |
| G x T   | 65997      | 0    | 1694  | 0     | 0     | 0    | 0     | 0     | 0     | 0     | 0     | 0     | 1694   | 1808  | 0     | 1491  | 0    | 0     | 0     | 0     | 0     | 0     | 0    | 0     | 4398  | 6579   | 14276 | 11266  | 39369  | 0       | 0     | 50635  | 0     | 0    | 0    | 0     | 0    |
| <b>HIGH GRADE ORE MINED ( +1.30 %Sn )</b>             |            |      |       |       |       |      |       |       |       |       |       |       |        |       |       |       |      |       |       |       |       |       |      |       |       |        |       |        |        |         |       |        |       |      |      |       |      |
| ORE t   | 187496     | 0    | 4368  | 16461 | 0     | 3502 | 8470  | 9478  | 5809  | 5250  | 4550  | 4477  | 62472  | 5250  | 5250  | 6278  | 0    | 1400  | 5950  | 5500  | 4095  | 8400  | 0    | 998   | 2681  | 44902  | 23303 | 26565  | 29357  | 0       | 0     | 50126  | 0     | 0    | 0    | 0     | 0    |
| ORE bcm   | 53570      | 0    | 1264  | 4703  | 0     | 1000 | 2420  | 2706  | 1686  | 1500  | 1300  | 1279  | 17849  | 1500  | 1500  | 1808  | 0    | 400   | 1700  | 1600  | 1170  | 2400  | 0    | 285   | 766   | 12629  | 6556  | 8133   | 8102   | 0       | 0     | 22893  | 0     | 0    | 0    | 0     | 0    |
| % Sn  | 1.96       | 0.00 | 1.58  | 1.52  | 0.00  | 1.64 | 1.56  | 1.56  | 1.59  | 1.71  | 1.71  | 1.71  | 1.66   | 1.69  | 1.69  | 1.69  | 0.00 | 1.68  | 1.68  | 1.68  | 1.67  | 1.66  | 0.00 | 1.66  | 1.66  | 1.66   | 1.66  | 1.66   | 1.66   | 1.66    | 0.00  | 0.00   | 1.66  | 0.00 | 0.00 | 0.00  | 0.00 |
| G x T   | 293221     | 0    | 6916  | 25029 | 0     | 5739 | 13859 | 14794 | 12998 | 8985  | 7787  | 7061  | 103697 | 8992  | 8992  | 8940  | 0    | 2346  | 9969  | 9362  | 6840  | 13974 | 0    | 1659  | 3579  | 74472  | 33063 | 39661  | 42420  | 0       | 0     | 115067 | 0     | 0    | 0    | 0     | 0    |
| <b>TOTAL ALL ORE MINED</b>                            |            |      |       |       |       |      |       |       |       |       |       |       |        |       |       |       |      |       |       |       |       |       |      |       |       |        |       |        |        |         |       |        |       |      |      |       |      |
| ORE t   | 478598     | 1775 | 16104 | 25960 | 1598  | 5250 | 12264 | 12331 | 10518 | 16450 | 12075 | 11270 | 125564 | 14000 | 10500 | 16933 | 4771 | 10150 | 12950 | 12950 | 14501 | 19950 | 0    | 15267 | 10150 | 142121 | 86794 | 101458 | 40690  | 0       | 0     | 208912 | 0     | 0    | 0    | 0     | 0    |
| ORE bcm   | 136171     | 507  | 4601  | 7417  | 454   | 1500 | 3504  | 3523  | 3005  | 4700  | 3450  | 3220  | 35881  | 4000  | 3000  | 4838  | 1363 | 2900  | 3700  | 3700  | 4143  | 5700  | 0    | 4362  | 2900  | 40608  | 19084 | 20898  | 11617  | 0       | 0     | 59680  | 0     | 0    | 0    | 0     | 0    |
| % Sn  | 1.22       | 0.93 | 1.12  | 1.27  | 0.96  | 1.42 | 1.42  | 1.41  | 1.52  | 1.15  | 1.20  | 1.21  | 1.28   | 1.27  | 1.33  | 1.22  | 0.99 | 1.03  | 1.07  | 1.07  | 1.07  | 1.07  | 0.00 | 1.07  | 1.07  | 1.20   | 1.16  | 1.16   | 1.33   | 0.00    | 0.00  | 1.20   | 0.00  | 0.00 | 0.00 | 0.00  |      |
| G x T   | 582080     | 1643 | 18071 | 32968 | 1525  | 7437 | 17365 | 17356 | 17030 | 19873 | 14431 | 13659 | 160408 | 17763 | 13937 | 20658 | 4709 | 10445 | 16448 | 16186 | 16580 | 24807 | 0    | 16316 | 12354 | 170203 | 77415 | 119639 | 64237  | 0       | 0     | 251491 | 0     | 0    | 0    | 0     | 0    |
| <b>STOCKPILES</b>                                     |            |      |       |       |       |      |       |       |       |       |       |       |        |       |       |       |      |       |       |       |       |       |      |       |       |        |       |        |        |         |       |        |       |      |      |       |      |
| <b>LOW GRADE ORE ( 0.80 %Sn - 1.10 %Sn )</b>          |            |      |       |       |       |      |       |       |       |       |       |       |        |       |       |       |      |       |       |       |       |       |      |       |       |        |       |        |        |         |       |        |       |      |      |       |      |
| ORE t   |            | 1775 | 5878  | 9469  | 5190  | 273  | 0     | 1     | 1     | 3466  | 3458  | 2822  | 2822   | 2277  | 0     | 2281  | 1    | 1014  | 314   | 1     | 2706  | 6556  | 1    | 3955  | 3269  | 3269   | 20541 | 44127  | 52430  | 32930   | 32930 | 13450  | -1    | -1   | -1   | -1    |      |
| ORE bcm   |            | 507  | 1079  | 2705  | 1471  | 76   | 0     | 0     | 0     | 991   | 968   | 806   | 806    | 651   | 0     | 652   | 0    | 290   | 90    | 0     | 773   | 1873  | 0    | 1132  | 834   | 834    | 5868  | 12508  | 14892  | 8408    | 8408  | 3837   | 0     | 0    | 0    | 0     |      |
| % Sn  |            | 0.93 | 0.91  | 0.87  | 0.88  | 0.90 | 0.92  | 0.91  | 0.89  | 0.88  | 0.88  | 0.88  | 0.88   | 0.94  | 0.95  | 0.97  | 0.98 | 0.93  | 0.93  | 0.93  | 0.94  | 0.94  | 0.94 | 0.96  | 0.96  | 0.96   | 0.96  | 0.96   | 0.96   | 0.98    | 0.98  | 0.98   | 0.98  | 0.98 | 0.98 |       |      |
| G x T   |            | 1643 | 5368  | 8195  | 4527  | 246  | 0     | 0     | 0     | 3062  | 3063  | 2482  | 2482   | 2128  | 0     | 2222  | 0    | 908   | 290   | 0     | 2533  | 6147  | 1    | 3758  | 3150  | 3150   | 19816 | 43488  | 51382  | 32272   | 32272 | 13161  | 0     | 0    | 0    | 0     |      |
| <b>MEDIUM GRADE ORE ( 1.10 %Sn - 1.30 %Sn )</b>       |            |      |       |       |       |      |       |       |       |       |       |       |        |       |       |       |      |       |       |       |       |       |      |       |       |        |       |        |        |         |       |        |       |      |      |       |      |
| ORE t   |            | 0    | 0     | 0     | 0     | 0    | 0     | 0     | 0     | 0     | 0     | 0     | 1400   | 400   | 1655  | 0     | 0    | 0     | 0     | 0     | 0     | 0     | 0    | 0     | 1600  | 436    | 436   | 9655   | 41561  | 9661    | 9661  | 9661   | 9661  | 0    | 0    | 0     | 0    |
| ORE bcm   |            | 0    | 0     | 0     | 0     | 0    | 0     | 0     | 0     | 0     | 0     | 0     | 400    | 114   | 444   | 0     | 0    | 0     | 0     | 0     | 0     | 0     | 0    | 0     | 457   | 125    | 125   | 2756   | 11875  | 2732    | 2732  | 2732   | 2732  | 0    | 0    | 0     | 0    |
| % Sn  |            | 0.00 | 1.27  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 1.29   | 1.29  | 1.29  | 1.29  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 1.26  | 1.26   | 1.26  | 1.22   | 1.23   | 1.23    | 1.23  | 1.23   | 1.23  | 1.23 | 1.23 | 1.23  |      |
| G x T   |            | 0    | 0     | 0     | 0     | 0    | 0     | 0     | 0     | 0     | 0     | 0     | 1808   | 517   | 2008  | 0     | 0    | 0     | 0     | 0     | 0     | 0     | 0    | 0     | 2010  | 548    | 548   | 11614  | 51182  | 11774   | 11774 | 11774  | 11774 | 0    | 0    | 0     | 0    |
| <b>HIGH GRADE ORE ( +1.30 %Sn )</b>                   |            |      |       |       |       |      |       |       |       |       |       |       |        |       |       |       |      |       |       |       |       |       |      |       |       |        |       |        |        |         |       |        |       |      |      |       |      |
| ORE t   |            | 0    | 0     | 10369 | 4277  | 2404 | 2541  | 3071  | 1788  | 2771  | 2808  | 2762  | 2762   | 3807  | 5684  | 7181  | 3787 | 924   | 2574  | 2637  | 3632  | 7732  | 2267 | 0     | 0     | 0      | 4303  | 14269  | 42625  | 26126   | 26126 | 9626   | -1    | -1   | -1   | -1    |      |
| ORE bcm   |            | 0    | 0     | 2962  | 1222  | 667  | 640   | 934   | 511   | 792   | 815   | 789   | 789    | 1116  | 1524  | 2062  | 1082 | 264   | 735   | 1096  | 1039  | 2209  | 653  | 0     | 0     | 0      | 1229  | 4077   | 12179  | 7464    | 7464  | 2750   | 0     | 0    | 0    | 0     |      |
| % Sn  |            | 0.00 | 1.58  | 1.52  | 1.52  | 1.57 | 1.63  | 1.58  | 1.97  | 1.78  | 1.74  | 1.72  | 1.72   | 1.70  | 1.70  | 1.70  | 1.70 | 1.69  | 1.66  | 1.66  | 1.67  | 1.67  | 1.67 | 1.67  | 1.67  | 1.67   | 1.33  | 1.33   | 1.46   | 1.46    | 1.46  | 1.46   | 1.46  | 1.46 | 1.46 | 1.46  |      |
| G x T   |            | 0    | 0     | 15786 | 6503  | 3784 | 4779  | 5155  | 3521  | 4924  | 4958  | 4753  | 4753   | 6693  | 9649  | 12177 | 6121 | 1561  | 4517  | 6430  | 6076  | 12864 | 3610 | 0     | 0     | 0      | 6109  | 19882  | 62305  | 36187   | 36187 | 14069  | -1    | -1   | -1   | -1    |      |
| <b>TOTAL ALL ORE STOCKPILED</b>                       |            |      |       |       |       |      |       |       |       |       |       |       |        |       |       |       |      |       |       |       |       |       |      |       |       |        |       |        |        |         |       |        |       |      |      |       |      |
| ORE t   |            | 1775 | 5878  | 19338 | 9427  | 2677 | 2341  | 3271  | 1788  | 3239  | 6314  | 6584  | 6584   | 7584  | 6584  | 11017 | 3787 | 1957  | 2687  | 3837  | 6336  | 14260 | 2266 | 5955  | 3705  | 3705   | 34489 | 99907  | 104616 | 68616   | 68616 | 32616  | -1    | -1   | -1   | -1    |      |
| ORE bcm   |            | 507  | 1079  | 5668  | 2693  | 765  | 840   | 930   | 511   | 1782  | 1804  | 1595  | 1595   | 2167  | 1738  | 3148  | 1082 | 553   | 825   | 1096  | 1811  | 4082  | 654  | 1587  | 1058  | 1058   | 9657  | 28559  | 29890  | 19605   | 19605 | 9319   | 0     | 0    | 0    | 0     |      |
| % Sn  |            | 0.93 | 0.91  | 1.21  | 1.17  | 1.51 | 1.63  | 1.58  | 1.97  | 1.23  | 1.27  | 1.30  | 1.30   | 1.30  | 1.30  | 1.30  | 1.30 | 1.29  | 1.60  | 1.66  | 1.66  | 1.66  | 1.66 | 1.66  | 1.66  | 1.66   | 1.33  | 1.33   | 1.46   | 1.46    | 1.46  | 1.46   | 1.46  | 1.46 | 1.46 |       |      |
| G x T   |            | 1643 | 5368  | 23960 | 11029 | 4030 | 4779  | 5155  | 3521  | 7985  | 8011  | 7244  | 7244   | 10890 | 12156 | 16407 | 6422 | 2499  | 4827  | 6430  | 6609  | 19031 | 3611 | 5778  | 3698  | 3698   | 37739 | 114553 | 125462 | 82233   | 82233 | 39005  | -1    | -1   | -1   | -1    |      |
| <b>BLENDING</b>                                       |            |      |       |       |       |      |       |       |       |       |       |       |        |       |       |       |      |       |       |       |       |       |      |       |       |        |       |        |        |         |       |        |       |      |      |       |      |
| <b>LOW GRADE ORE ( 0.80 %Sn - 1.10 %Sn )</b>          |            |      |       |       |       |      |       |       |       |       |       |       |        |       |       |       |      |       |       |       |       |       |      |       |       |        |       |        |        |         |       |        |       |      |      |       |      |
| ORE t   | 235362     |      | 6281  | 5908  | 5908  | 8627 | 4067  | 2652  | 4620  | 7733  | 7535  | 7429  | 58060  | 7895  | 7527  | 8219  | 7051 | 7737  | 7700  | 7683  | 7700  | 7700  | 6555 | 6816  | 2919  | 85482  | 17000 | 17500  | 4000   | 19500</ |       |        |       |      |      |       |      |

**APPENDIX 5**

**SAMPLING BISCHOFF D.S.L. ORE  
PROCESSED IN THE RENISON MILL**

*Esker Milling and Processing 25/9/93*

Registered Office:  
C/- Atkinson, Gibson,  
Norton-Smith

30 Marine Terrace  
Burnie 7320

5 Wentworth Street  
SOUTH HOBART  
Tasmania 7004  
Australia  
Telephone: (002) 23 3502  
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**Memorandum**

TO: John Lynch  
AT: Lynch Mining, Brisbane  
FROM: Nick Moony  
AT: Almaty  
C.C. T. Knight  
SUBJECT: **Sampling Bischoff D.S.L. ore processed in the  
Renison Mill**  
DATE: 25th September, 1993

Basic Assumptions:

- Lynch Mining will supply 140,000 to 160,000 tonnes of Bischoff ore per year. This ore will assay  $1.20\% \pm 0.05\%$  Sn and  $23\%S \pm 3\%S$ . At present this is complimentary to Renison because the Renison mill was designed for a sulphur content in the feed of 19%S to 22%S. But current sulphur content is 18%S and dropping. The Bischoff ore will address this difficulty.
- The work index for Bischoff is slightly lower.
- The MgO content for Bischoff is higher (Mg is not necessarily talc).
- The arsenic content for all Renison ores are higher grade.
- The carbonate content for most Renison ores is higher.
- The tin content for all Renison ores except Upper Federal ore is higher.

## Sampling

### Aim

It is proposed that Renison and Bischoff ores are treated together in the Renison mill. Before the two ores are mixed or blended they must be sampled and assayed separately. This system must sample both ores precisely and accurately. It must also be carried out in such a way that neither party is disadvantaged by negative reconciliation, i.e. all losses and shortfalls are distributed to one party by difference.

### Method

To allow Bischoff ore to be sampled separately the Renison crushing circuit must be modified. At present Renison crush to 90% passing 19mm. At this point in the circuit it is mandatory to sample Bischoff and Renison ores separately for metal content, moisture etc.. If there are no changes made to the crushing circuit the sampled Bischoff ore can be stored in the larger HMS sink bin. This bin holds about 600 live tonnes and the changes required to make this alteration are minimal. The cost is about \$75,000. Using this flowsheet (Flowsheet A) Bischoff ore would require crushing four times per week. It is preferable to crush both ores to 90% passing 9.4 mm using either Flowsheet B or C because of the enormous flexibility allowed. This reduction in crushed feed size has been scheduled at Renison for the last 12 years. To do this the three preliminary flowsheets, given below, indicate how the ores can be sampled, weighed, assayed and monitored separately. The indicative cost for each of the new crushing circuits is given below.

Flowsheet B estimated capital \$680,000 - new Quaternary crusher  
Flowsheet C estimated capital \$550,000 - closed circuit  
Flowsheet D estimated capital \$350,000 - closed circuit Quaternary crusher

Any of the above crushing circuits will ensure a rod mill feed at 90% passing 9.4mm and allow the mill to treat at least 100 tph. Flowsheet A only diverts the 19mm ore to the large HMS skins bin. Flowsheet D. is very difficult to install.

### Bischoff Sampling System

Assuming that any of the above flowsheets are installed the following steps must be taken to ensure the Bischoff ore is sampled precisely and as accurately as possible.

1. Lynch Mining would ensure a 5,000 stockpile  $\pm$ 1,500 tonnes of coarse ore stockpile at Renison Bell.
2. All trucks would be weighed before leaving Bischoff and on arrival at Renison Bell.
3. The Bischoff coarse ore stockpile at Renison Bell would be surveyed before each sampling campaign.
4. It is expected that Bischoff ore could be crushed 3 or 4 times a week depending on which flowsheet is used. Live storage in both sink bins is about 900 tonnes.
5. The FOB feed conveyer would be sampled every 30 minutes. A correct sample would be taken using a parallel stainless steel plate sample as shown below. The total weight of the composite sample must weight at least 50kg for a 19mm crush and 20kg for a 9.4mm crush.
6. The composite sample jaw crushed to 6mm in the laboratory and then would be riffled into 12 lots (Figure 5)
7. Sampling Method: One lot called Lot A would then be weighed wet, dried and re-weighed. This moisture would be used to calculate the water content of the Bischoff ore. Lot B would be dried, crushed down to 100% passing 1.7mm rolled, mixed and re-slit in the divider into approximately 600 gram lots if larger. One lot would be bagged and held in the freezer. Two other 800 gram lots would be pulverised to 100% passing 300 $\mu$ m and divided into 200gram lots for tin assay and elemental and mineral analysis. The average tin assay would be used by Renison as an indication of grade. Each of the assayed lots, Lot B1 and Lot B2 would be composited separately on a weighted basis. At the end of each week (12pm Tuesday) the weighted composites of Lot B1 and Lot B2 would be assayed by Renison and an independent laboratory would assay for Sn, Fe, S, SiO<sub>2</sub>, MgO etc. The tin assay average would be issued for payment by Renison to Lynch Mining if the tin assays from both laboratories are within 0.10%Sn of each other (a splitting limit of 0.10%Sn). If the parties disagree on tin analysis all disputed lots will be sent to an umpire. The umpire's assay will be final.
8. To ensure positive reconciliation the weightometer on the conveyer in the crushing circuit would be checked with the chain before crushing Bischoff ore. The tonnage of Bischoff ore crushed and stored in the sink bins would be recorded and used to determine the

wet tonnes crushed. This wet tonnage would be used for payment purposes between Renison and Lynch Mining and checked against the weigh bridge. A check tonnage system could be used at the sink bins discharge. It is also recommended that the sink bins discharge product be assayed on a shift basis and reconciled with the payment sample on a period basis.

To allow a positive reconciliation to be undertaken at Renison Bell mine during the period that Bischoff is being treated at Renison the Renison ore must be treated in exactly the same way as Bischoff.

9. The final metallurgical balance at Renison would require the following samples:
- Bischoff crusher product from conveyer 211B - taken every 30 minutes when crushing.
  - Bischoff sink bins discharge - from conveyor 221K taken every 120 minutes when crushing.
  - Renison crusher product from conveyor 211B when crushing - sample every 120 minutes.
  - Renison FOB discharge from conveyor 221C - sampling every 120 minutes.
  - New flotation feed - sampled as now.

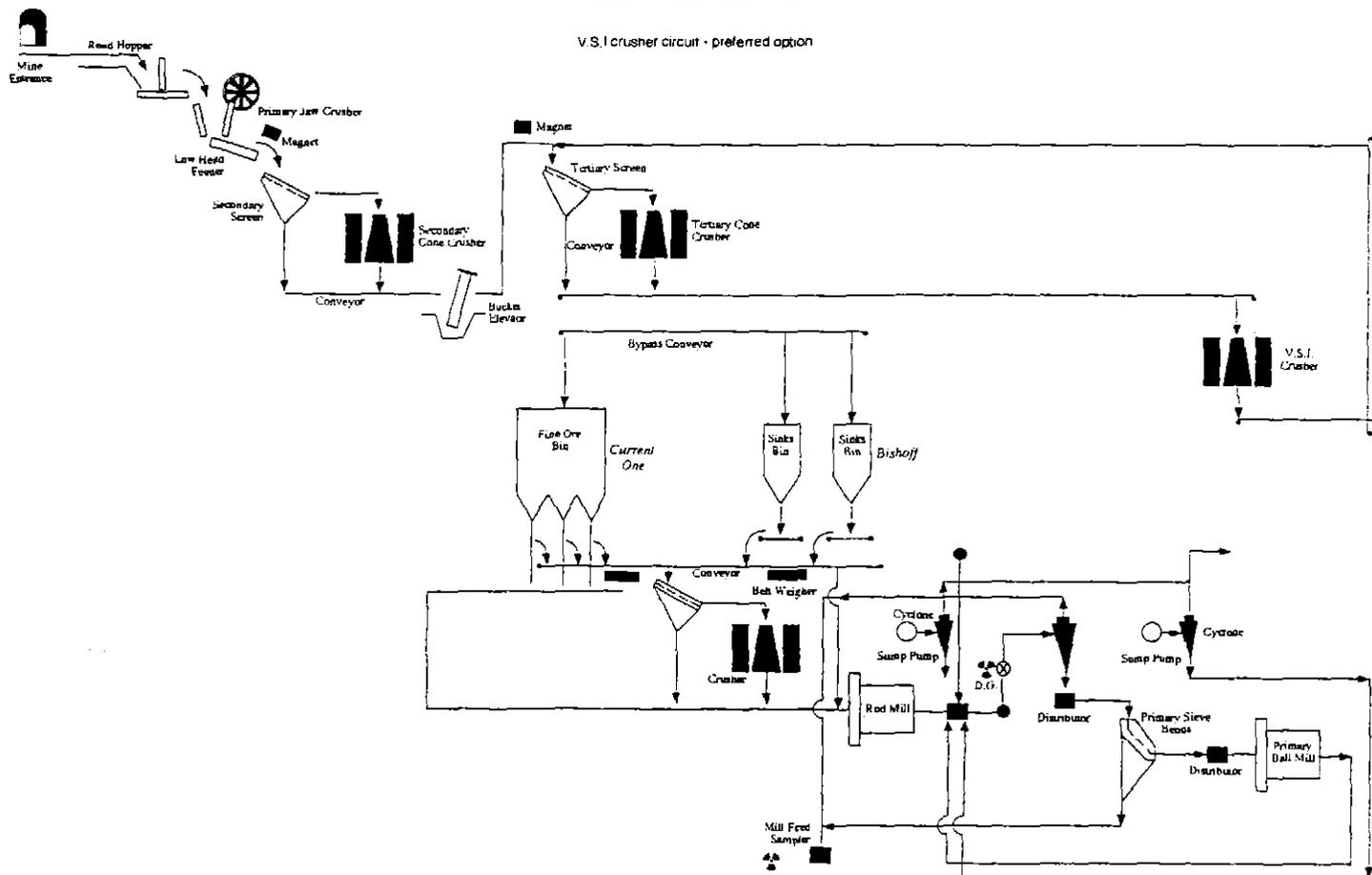


Flowsheet B

To feed the rod mill at 90% passing 9.4mm in the simplest way requires the installation of a Barmac or V.S.I. crusher. This crusher would be installed at the end of the crusher transfer tower. It would be fed by the secondary crusher discharge and would run in closed circuit with the tertiary crusher screens. These screens would be re-set at 9.4mm. The tertiary crushers could be used to further reduce the -9.4mm undersize or made redundant. The HMS crusher would also be made redundant. This is the preferred option.

**FLOW SHEET - B**

V.S.I crusher circuit - preferred option



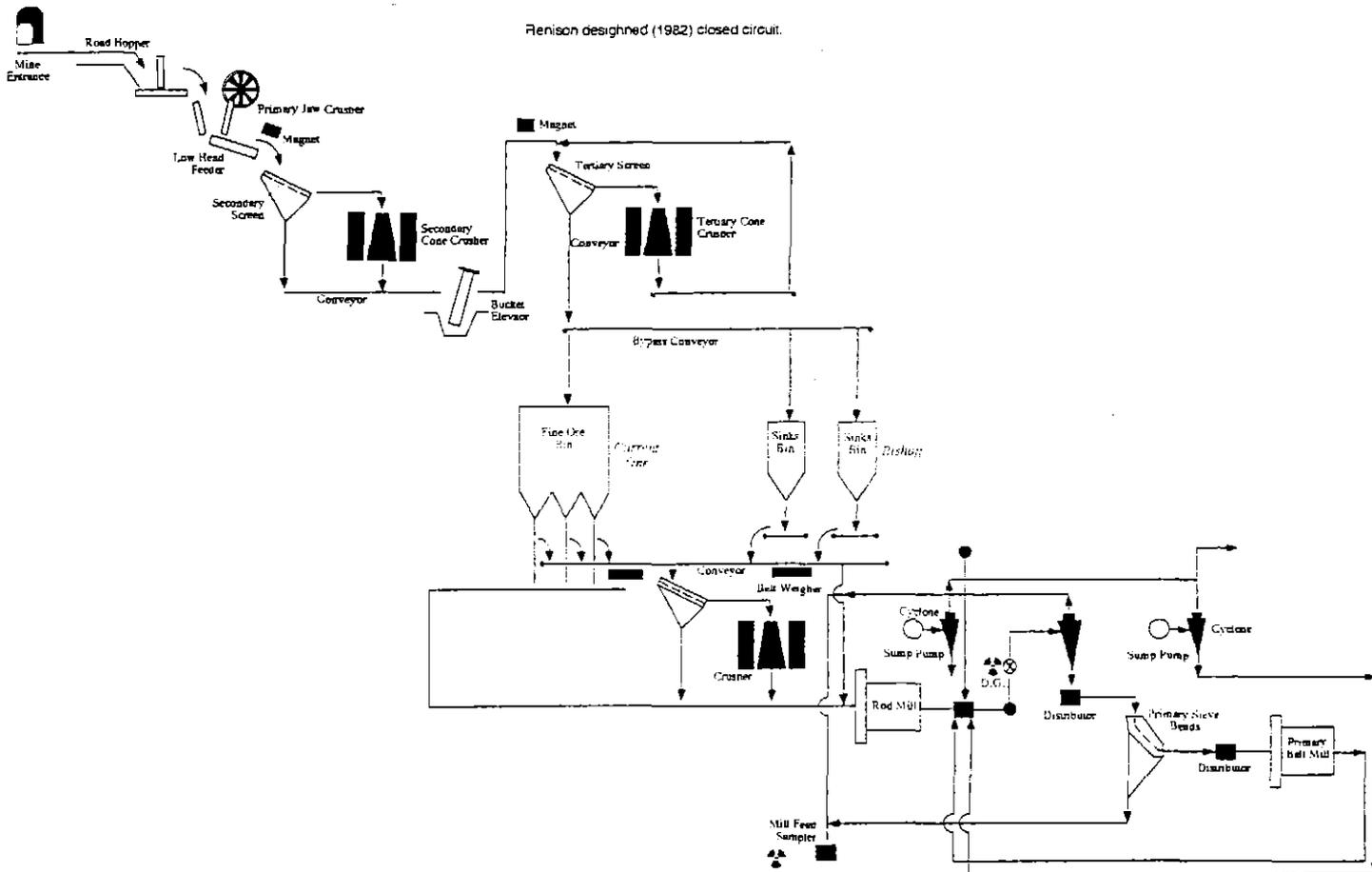
Open Circuit Crushing  
Cyclone / screen exit to ball mill closed circuit.

Flowsheet C

This circuit runs the present tertiary crusher in closed circuit and was designed by R. Le Roi and Ian White of Renison in 1982. The only difficulty with this circuit is the transfer of the screen U/S.

**FLOW SHEET - C**

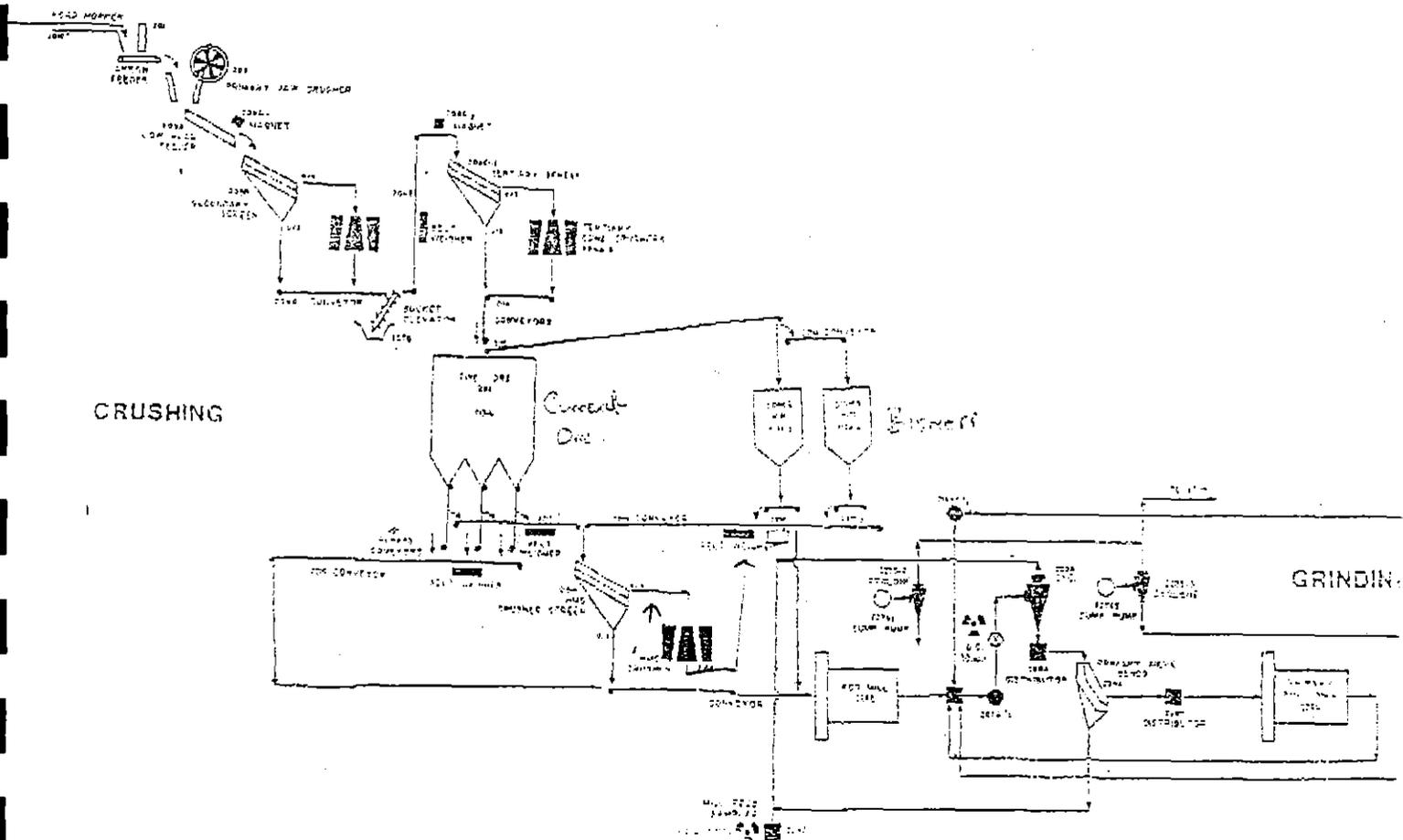
Renison designed (1982) closed circuit.



Open Circuit Crushing  
Cyclone / screen exit to ball mill closed circuit.

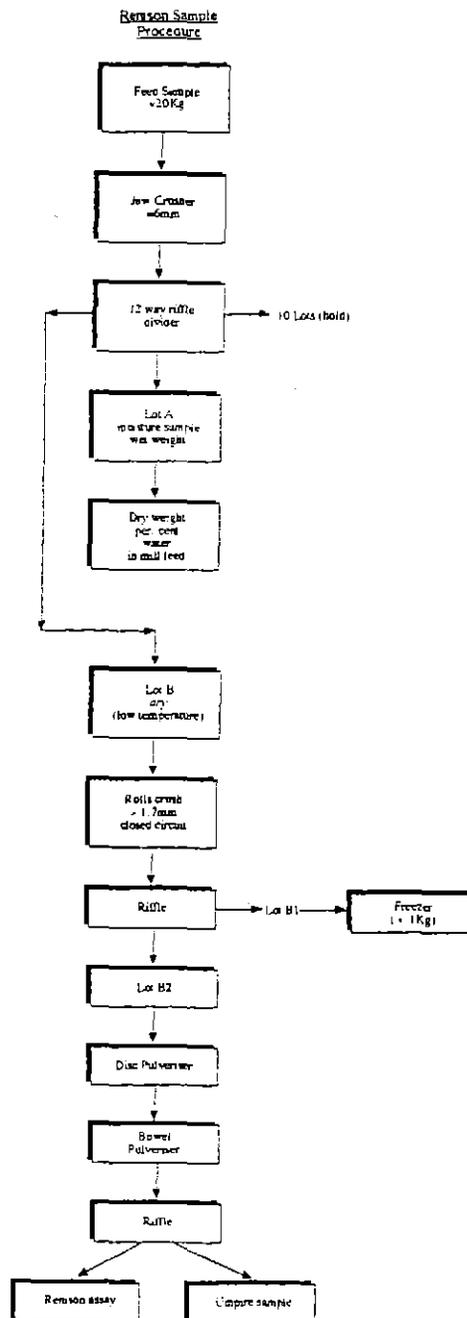
Flowsheet D

This circuit required re-routing the HMS crusher discharge directly to the rod mill. It looks simple but does not allow an increase in rod mill throughput. Also the engineering of this circuit may be difficult.



### Correct Sampling

For this study it is accepted that a 19mm crushed sample for either Bischoff or Renison type ore will give a satisfactory sample if sufficient quantity is taken. Considering the size of 211B belt and the requirements of the belt sampler at least 40kg of sample needs to be processed for each sampling campaign, i.e. sampling every 30 minutes for 2 hours. If the FOB feed is reduced to 9.4mm the size of this sample can be reduced to  $\pm 15$ kg. Refer Figure 5 below.



183153

*APPENDIX 6*

*WATER QUALITY*



# LYNCH MINING

## LIMITED

A.C.N. 010 728 908

September 1, 1993  
JC:ce

Colonial Mutual Building,  
Level 8,  
300 Queen Street,  
Brisbane, Qld. 4000  
G.P.O. Box 444,  
Brisbane, Qld. 4001  
Telephone: (07) 221 3044  
Facsimile: (07) 221 5816

Ms Isobel Stanley  
Manager  
Industrial Operations  
Department of Environment and  
Land Management  
GPO Box 1396P  
HOBART TAS 7001

Dear Ms Stanley,

RE: MT BISCHOFF

As you would be aware from previous discussions Lynch Mining Pty Ltd proposes to establish an open cut tin mine at Mt Bischoff.

The existing Metals Exploration Mining Tenements are in the process of being transferred to Lynch Mining Pty Ltd and a development proposal is being prepared. We envisage a new Mining Lease of approximately 40 hectares will replace the small existing Mining Lease. As previously mentioned, ore will be transported by road to Renison for treatment.

I met Bill Bourke, your Development Control Officer on site in mid August to discuss various aspects of the development. It is clear from work done in 1981/82 by Jim Stevens and recent water assays and site observation that the "Acid Mine Drainage" problem (which has come about due to historical mining of tin dating back to 1873) is by far the most important issue in regard to the background environment and directly or indirectly affects many other issues such as metal mobilisation, revegetation and site aesthetics.

An indication of current water quality in the adit system is shown from assay results of "South Adit" waters which drain into Waratah River. The graphics and data show little variation in the water quality in a twelve year period (see attached). There is no significant variation in any of the assay parameters with the exception of SO<sub>4</sub> which appears to be rising. (700 ppm in 1981 to ~2000 ppm in 1993).

Current discharges from the existing disturbance constantly exceed Environmental Protection (Water Pollution) Regulations 1974. e.g -

Fe - over 900 times maximum  
Pb - 25 times the maximum  
As - 70 times the maximum  
Cd - 12 to 15 times the maximum  
Zn - 4 to 5 times the maximum  
SO<sub>4</sub> - 10 times the maximum  
Cu - 3 to 5 times the maximum  
F - 30 times the maximum  
Adit water pH is 2.5 to 2.6

Using existing technology eradicating AMD would be impossible regardless of available funds, and control of AMD will be difficult and require some development decisions which are economically not the most attractive option available. Guidelines for the preparation of a "Development Proposal and Environmental Management Plan" are I believe currently being drawn up by your Department.

Lynch Mining Pty Ltd is concerned that operation of the mine will of necessity commence with discharges which are illegal and clearly in breach of the Environmental Protection Regulations. The company would not want to be exposed to a liability potential larger than the resource value.

For our proposal for development to proceed we would require the Department to acknowledge the extremely degraded state of water quality within the proposed project area and give us some assurance regarding liability. This may need to take the form of an exemption or an environmental agreement in regard to discharge quality taking into account the sites present condition.

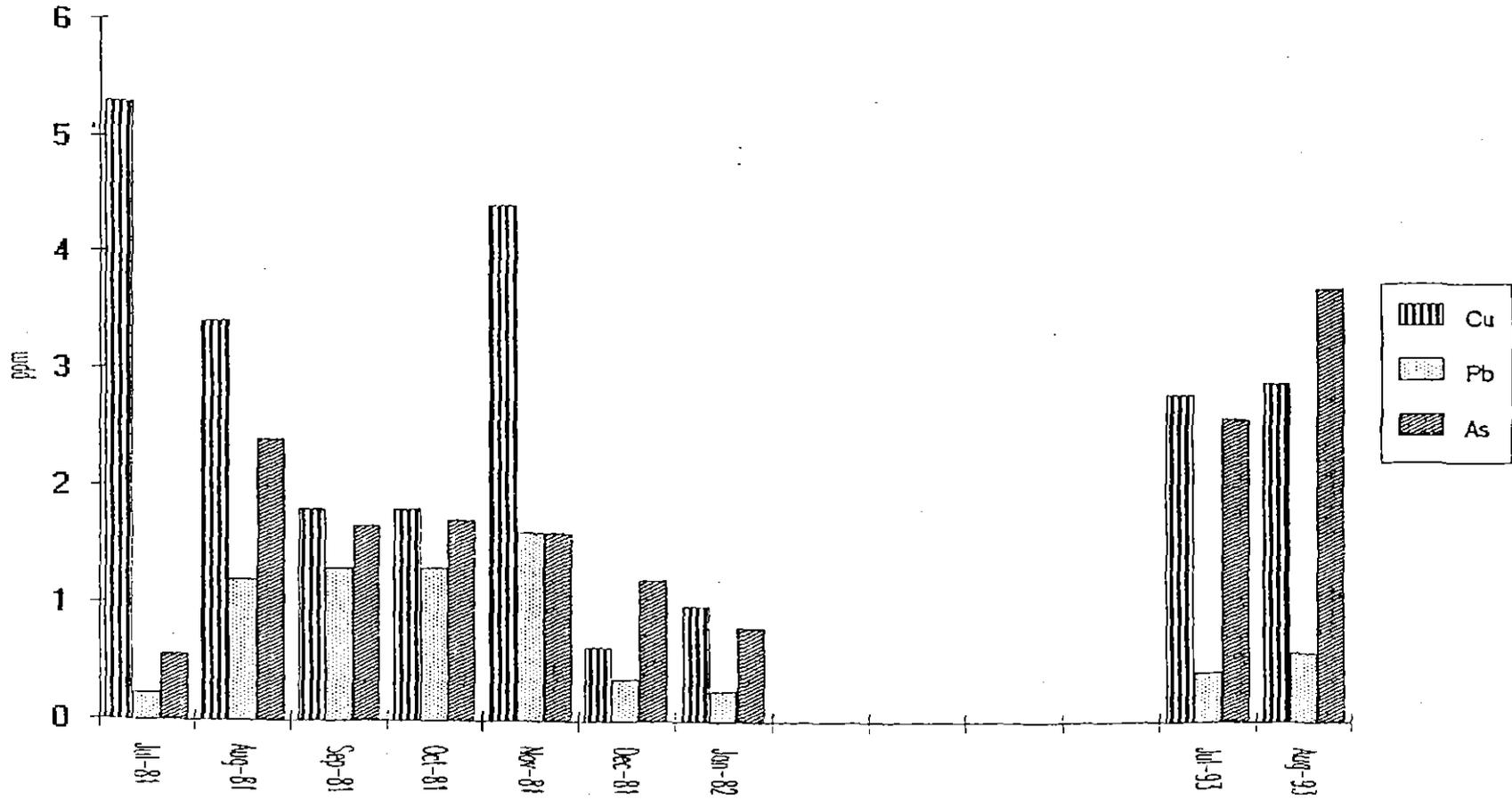
Could you please advise the Department's policy in this regard.

Yours faithfully,  
LYNCH MINING PTY LTD



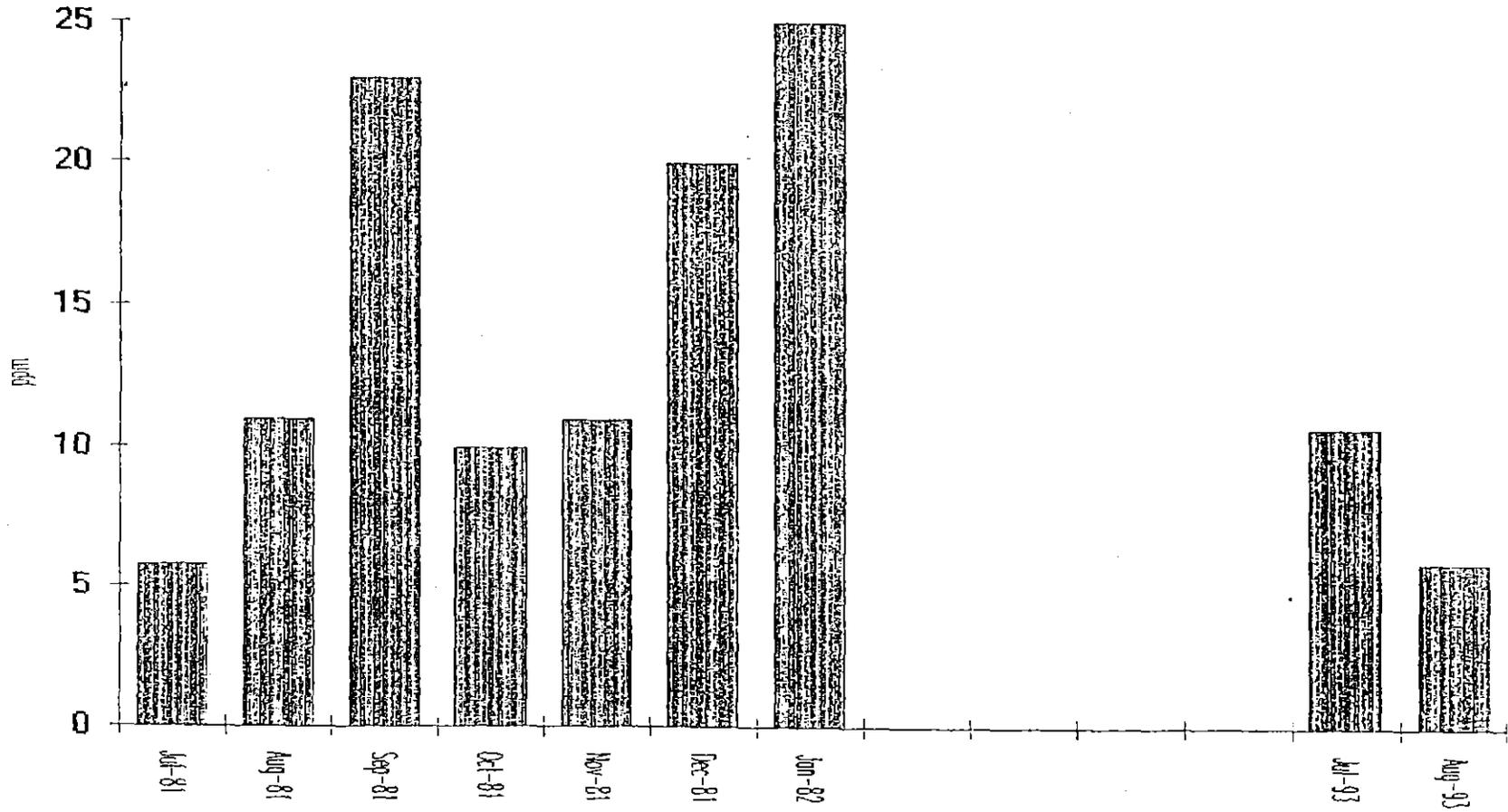
JIM CHICK  
Environmental Manager

MT. BISCHOFF South Adit



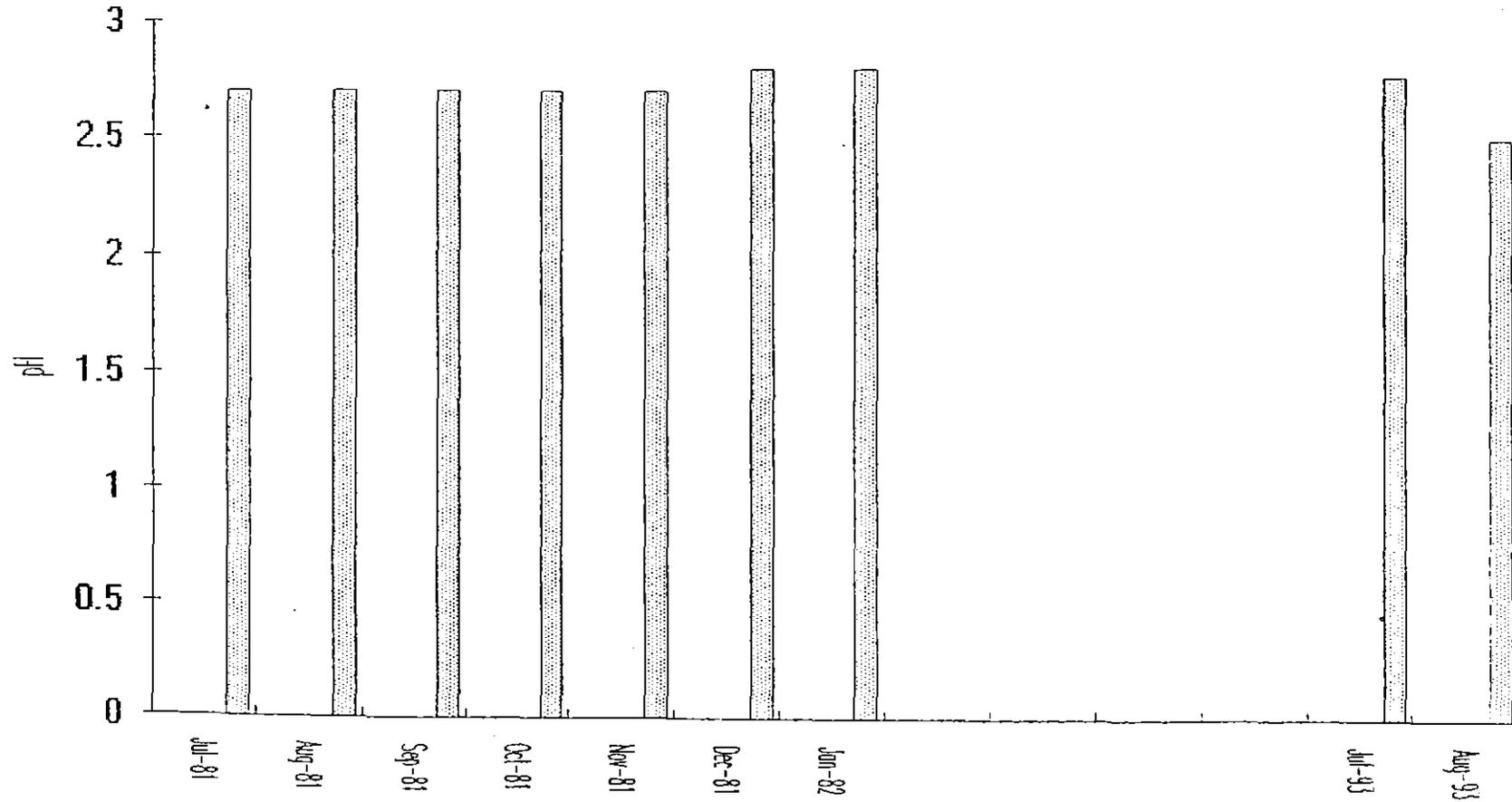
183456

MT. BISCHOFF South Adit Mn



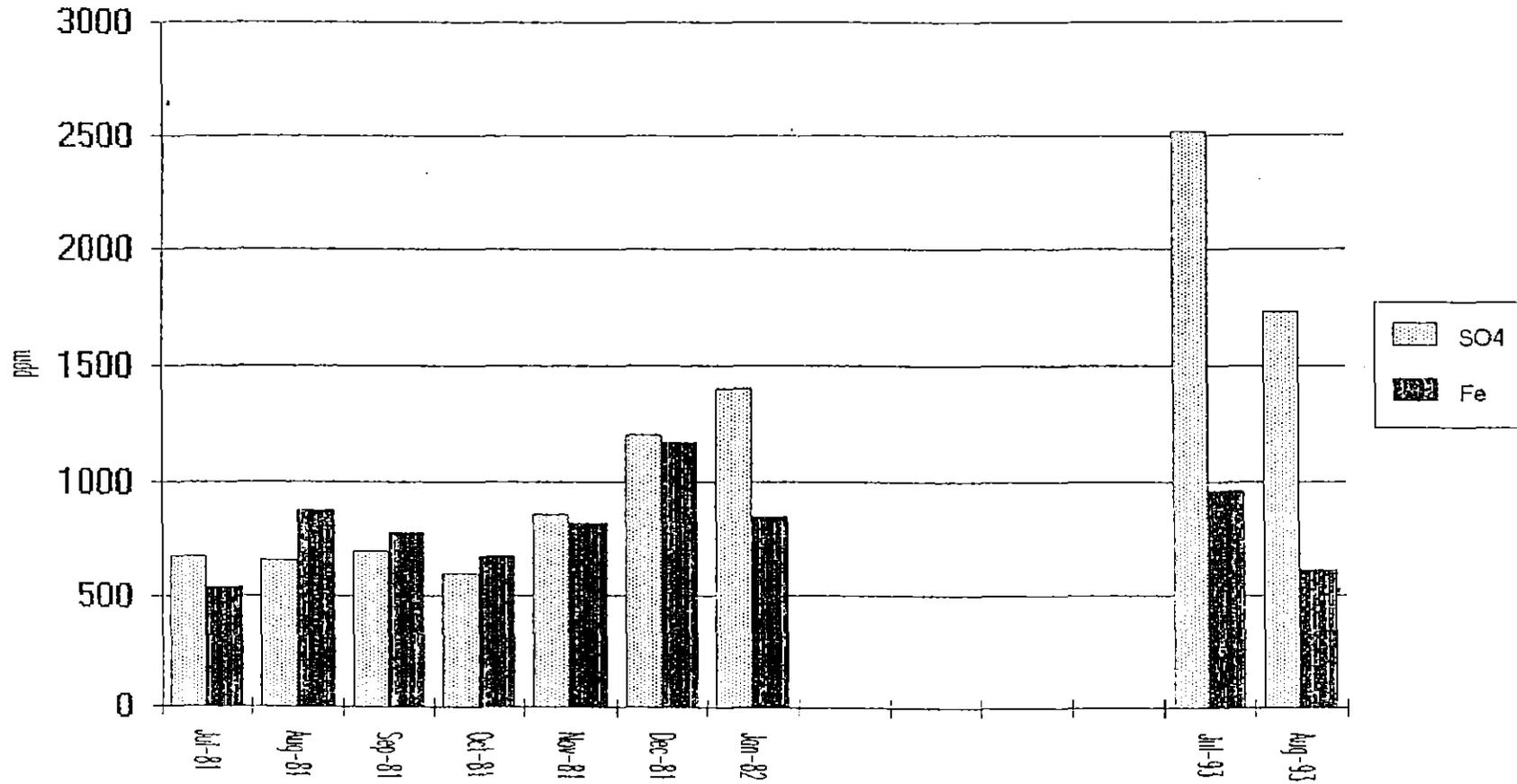
103157

MT. BISCHOFF South Adit



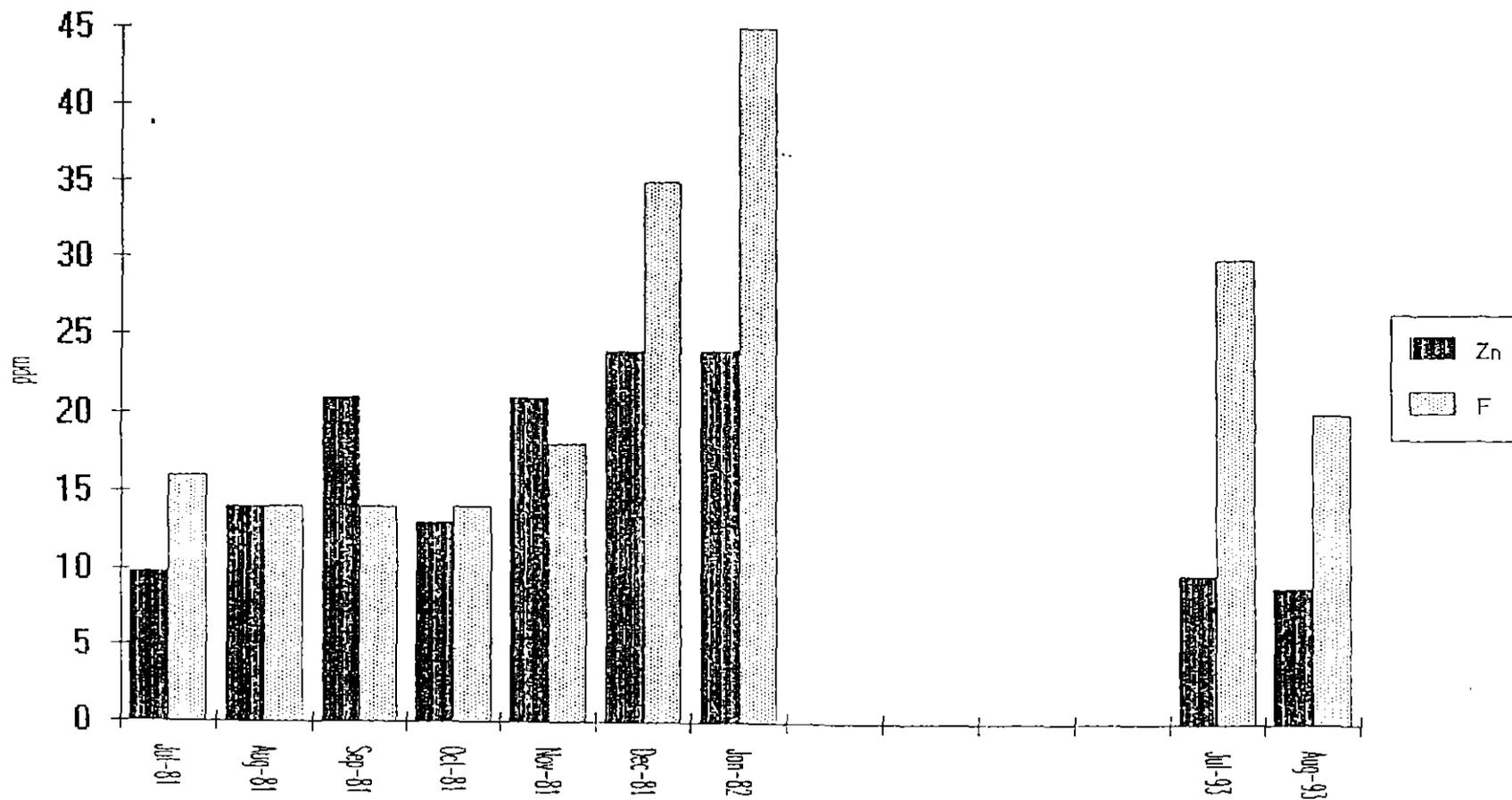
183153

### MT.BISCHOFF South Adit



188153

MT. BISCHOFF South Adit



188160

SAMPLE DESCRIPTION SHEET

183161

MT. BISCHOFF

| DATE    | ORDER NO. | SAMPLES   | NO.   | RESULTS                            |
|---------|-----------|---|-------|------------------------------------|
| 12/8/93 | D 9378    | Water sample<br>site collected data.  | HBEV4 | Rensselaer Lab. 23/8/93<br>Zeehan  |
|         |           | flow 0.2 l/s  |       |                                    |
|         |           | Temp 7.7°C  |       |                                    |
|         |           | pH 4.3  |       |                                    |
|         |           | Cond. < 100 uS/cm   |       |                                    |
|         |           | Small outlet on the North<br>Side (Haul of Surface Water<br>North Sample Point) |       |                                    |
|         |           | Water sample  | MBEV5 | Rensselaer Lab. 23/8/93<br>Zeehan. |
|         |           | Surface drainage<br>North side of Mt. Bischoff<br>(Surface Water North)         |       | Site Collected data.               |
|         |           |   |       | flow 7 l/s                         |
|         |           |   |       | Temp 9.5°C                         |
|         |           |   |       | pH 4.2                             |
|         |           |   |       | cond. < 200 uS/cm                  |
|         |           | Water Sample  | MBEV6 | Rensselaer Lab. 23/8/93<br>Zeehan. |
|         |           | South Adit.   |       | Site Collected data                |
|         |           |   |       | flow 1.5 l/s                       |
|         |           |   |       | Temp 7.9°C                         |
|         |           |   |       | pH 2.5                             |
|         |           |   |       | Cond 2700 uS/cm                    |



188163

RENISON LIMITED  
ANALYTICAL and ENVIRONMENTAL SERVICES



Renison Bell, Tasmania  
P.O. Box 20, Zeehan, Tas. 7459  
Tel. (004) 731203 Fax (004) 731033

WATER ANALYSIS RESULTS

LYNCH MINING SAMPLES

DATE SAMPLED: 13.08.93

| PARAMETER    | METHOD | D.L.   | MBEV 4 | MBEV 5 | MBEV 6 |
|--------------|--------|--------|--------|--------|--------|
| pH           | W001   |        | 3.7    | 3.4    | 2.5    |
| Conductivity | W004   |        | 53.0   | 121    | 2730   |
| TSS          | W005   | 1      | 2      | 5      | 4      |
| Fe           | W011   | D 0.05 | 0.42   | 1.77   | 615    |
| Mn           | W011   | D 0.02 | 0.05   | 0.10   | 5.92   |
| Mg           | W010   | D 0.1  | 0.8    | 1.1    | 75     |
| Fe           | W011C  | E 0.05 | 0.49   | 2.04   | 610    |
| Mn           | W011C  | E 0.02 | <0.02  | 0.06   | 6.00   |
| Cu(ppb)      | W011C  | E 4    | 16     | 76     | 2920   |
| Pb(ppb)      | W011C  | E 20   | 110    | <20    | 580    |
| Zn(ppb)      | W011C  | E 5    | 9      | 100    | 8990   |
| Cd(ppb)      | W011C  | E 1    | <1     | <1     | 80     |
| As           | W014   | T 1    | 0.024  | 0.054  | 3.72   |
| Sulphate     | W020   | D 1    | 2      | 17     | 1730   |
| Fluoride     | W022   | D 0.1  | <0.1   | 0.2    | 20.1   |

All results in mg/L unless otherwise indicated (except pH)

Conductivity in uS/cm

Methods as per Schedule of Costs (W:V1.01)

nd = not determined

D.L. = detection limit

D = dissolved, T = total E = acid extractable

Authorised Signatory:

*J.M. Bell*

Date: 23/8/93



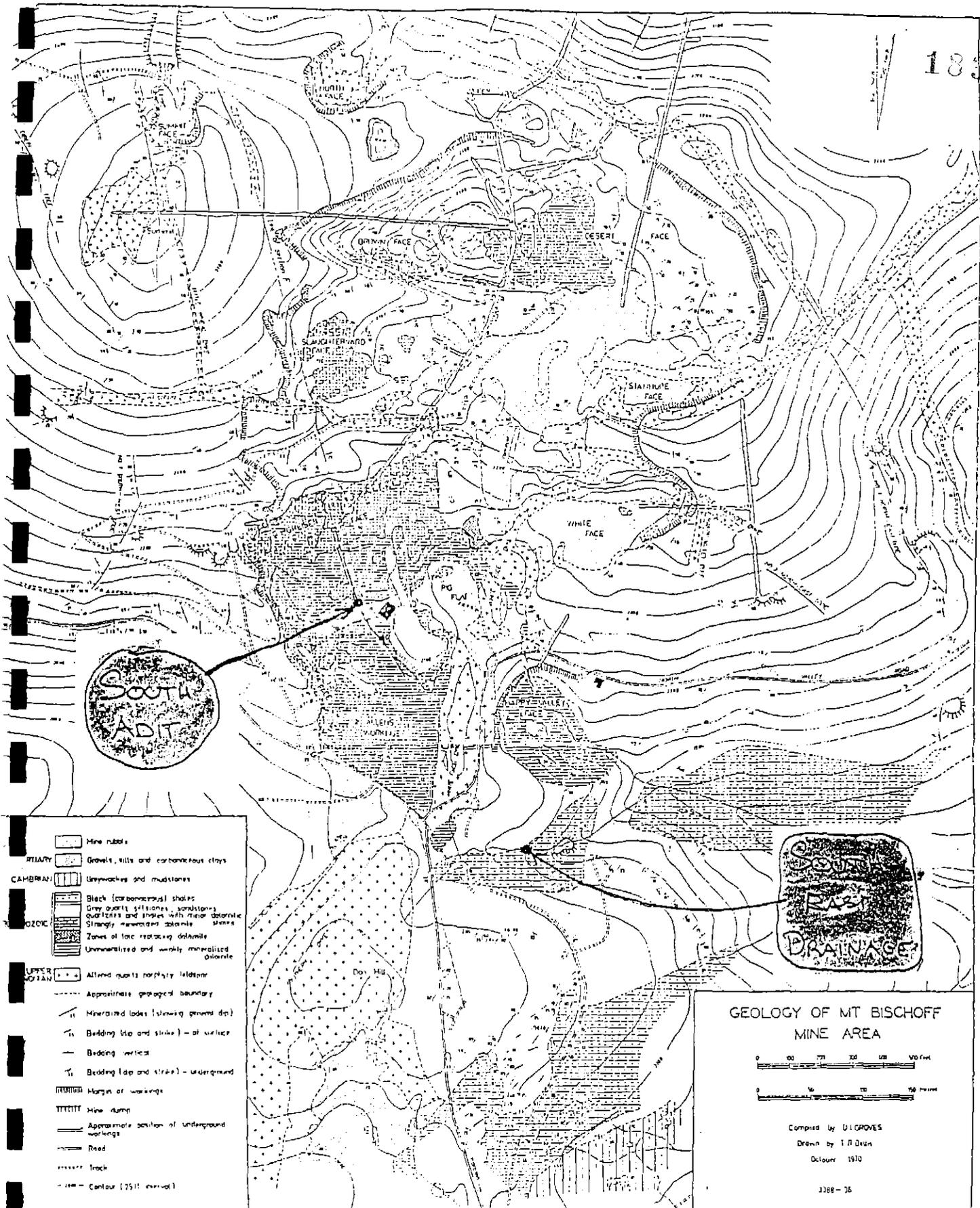
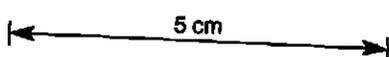


Figure 47.

Geol. Surv. Trans. 54





183166  
16 AUG 1993

ANALYTICAL REPORT

LYNCH MINING LTD  
GPO BOX 444  
BRISBANE  
QLD  
ATTENTION  
MR J CHICK  
ORDER-NO  
D 9368

4001

SAMPLE-TYPE  
WATER

Page 1 of 1

ENVIRONMENTAL  
Batch-no: 5842  
Sub-batch: 0  
No. samples: 2  
Received: 27/07/93  
Completed: 12/08/93

| Method  | Analysis description         | Units  | LOD   | M B EV1 | M B EV2 |
|---------|------------------------------|--------|-------|---------|---------|
| J05     | pH Value                     |        | 0.01  | 2.51    | 2.77    |
| A-010   | Conductivity @ 25°C          | US/cm  | 1     | 2720    | 3460    |
| EA-015  | Total Dissolved Solids (TDS) | mg/L   | 1     | 2840    | 4280    |
| EA-045  | Turbidity                    | NTU    | 0.1   | 12.0    | 2.9     |
| A-065   | Total Hardness as CaCO3      | mg/L   | 1     | 414     | 619     |
| EA-080  | Resistivity at 25°C          | ohm-cm | 0.001 | 368     | 289     |
| ED-010F | Magnesium - Filtered         | mg/L   | 1     | 80      | 123     |
| ED-037  | Alkalinity as CaCO3          | mg/L   | 1     | <1      | <1      |
| ED-040F | Sulphate - Filtered          | mg/L   | 1     | 1670    | 2520    |
| EG-005F | Cadmium - Filtered           | mg/L   | 0.005 | 0.080   | 0.075   |
| EG-005F | Copper - Filtered            | mg/L   | 0.01  | 2.84    | 2.80    |
| EG-005F | Iron - Filtered              | mg/L   | 0.1   | 607     | 962     |
| EG-005F | Manganese - Filtered         | mg/L   | 0.01  | 7.01    | 10.7    |
| EG-005F | Lead - Filtered              | mg/L   | 0.01  | 0.33    | 0.43    |
| EG-005F | Zinc - Filtered              | mg/L   | 0.01  | 8.80    | 9.76    |
| EG-030F | Arsenic - Filtered           | mg/L   | 0.1   | 1.3     | 2.6     |
| EK-040  | Fluoride                     | mg/L   | 1     | 20      | 30      |



No. 100

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SAMPLES ANALYSED AS RECEIVED

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Fax: (07) 352 5109

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Fax: (02) 899 3200

**MELBOURNE**  
Phone: (03) 853 5299  
Fax: (03) 853 0730

**PERTH**  
Phone: (09) 249 2988  
Fax: (09) 249 2942



183167

ANALYTICAL REPORT

LYNCH MINING LTD  
 GPO BOX 444  
 BRISBANE  
 QLD  
 ATTENTION  
 MR J CHICK  
 ORDER-NO  
 D 9368

4001

SAMPLE-TYPE  
 WATER

Page 1 of 1

ENVIRONMENTAL  
 Batch-no: 5842  
 Sub-batch: 1  
 No. samples: 1  
 Received: 27/07/93  
 Completed: 12/08/93

| Method  | Analysis description         | Units  | LOD   | M B EV3 |
|---------|------------------------------|--------|-------|---------|
| J05     | pH Value                     |        | 0.01  | 6.19    |
| EA-010  | Conductivity @ 25°C          | uS/cm  | 1     | 43      |
| EA-015  | Total Dissolved Solids (TDS) | mg/L   | 1     | 22      |
| EA-045  | Turbidity                    | NTU    | 0.1   | 1.2     |
| EA-065  | Total Hardness as CaCO3      | mg/L   | 1     | 12      |
| EA-080  | Resistivity at 25°C          | ohm-cm | 0.001 | 23300   |
| ED-010F | Magnesium - Filtered         | mg/L   | 1     | 1       |
| ED-037  | Alkalinity as CaCO3          | mg/L   | 1     | 5       |
| ED-040F | Sulphate - Filtered          | mg/L   | 1     | 3       |
| EG-005F | Cadmium - Filtered           | mg/L   | 0.005 | <0.005  |
| EG-005F | Copper - Filtered            | mg/L   | 0.01  | 0.01    |
| EG-005F | Iron - Filtered              | mg/L   | 0.1   | 0.2     |
| EG-005F | Manganese - Filtered         | mg/L   | 0.01  | 0.01    |
| EG-005F | Lead - Filtered              | mg/L   | 0.01  | <0.01   |
| EG-005F | Zinc - Filtered              | mg/L   | 0.01  | <0.01   |
| EG-030F | Arsenic - Filtered           | mg/L   | 0.01  | <0.01   |
| EK-040  | Fluoride                     | mg/L   | 0.1   | <0.1    |



No. 215

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SAMPLES ANALYSED AS RECEIVED

AUSTRALIAN LABORATORY SERVICES P/L

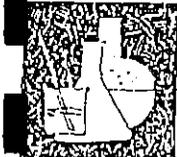
A.C.N. 009 936 029

BRISBANE  
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 Fax: (07) 352 5109

SYDNEY  
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 Fax: (03) 853 0730

PERTH  
 Phone: (09) 249 2988  
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# ALLISON LABORATORIES

4 WARWICK STREET, HOBART TASMANIA 7000  
TELEPHONE: (002) 34 7631

- APPLIED RESEARCH AND DEVELOPMENT
- INDUSTRIAL AND AGRICULTURAL ANALYSIS
- TANK AND CARGO SURVEYS
- EFFLUENT ANALYSIS

183168

Mr J R Stephens  
9 Sherwin Court  
ROSETTA 7010

REPORT 8789, ISSUED 24 February 1982

The six water samples received on 22 January 1982 and listed hereunder

- Lab Ref 27586: (1) Waratah River below Falls 21/1, 1045  
 27587: (2) Waratah River below Workings 21/1, 1145  
 27588: (3) Tinstone Creek 21/1, 0900  
 27589: (4) Surface Water North 21/1, 1130  
 27590: (5) North Adit 21/1, 940 am  
 27591: (6) South Adit 21/1, 1.15 pm

were analysed by methods essentially in accord with the following references:

- 1) *Standard Methods for the Examination of Water and Wastewater*, APHA 14th Ed. (1975): -  
 pH - method 424  
 Fluoride - 414 D  
 Suspended Solids (Nonfilterable Residue) - 208 D  
 Metals by Atomic Absorption Spectrophotometry method 301 A et seq,  
 vide: Cadmium - 305 A                      Lead - 311 A  
          Chromium - 307 A                    Manganese - 314 A  
          Copper - 308 A                        Zinc - 323 A  
          Iron - 310 B
- 2) *Soil Sci. & Plant Anal.* 2(5) 363-374 (1971), B Wolf - Boron
- 3) *Vogel 3rd Ed.* (1971) XII - Sulphate - method J, p 850 (Spect. finish)
- 4) *Food Anal., Varian Techtron* (1973) - Antimony
- 5) *Priv. Comm. BCL/4, Dept. Envir., Hobart* - Arsenic

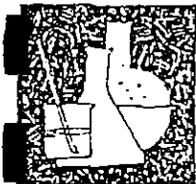
The results of these analyses were:

| SAMPLE                                   | (1)    | (2)                 | (3)                | (4)    | (5)   | (6)                 |
|--|--------|---------------------|--------------------|--------|-------|---------------------|
| pH                                       | 7.1    | 6.6 <sup>high</sup> | 3.2                | 3.6    | 2.4   | 2.8                 |
| All following results expressed in mgm/L |        |                     |                    |        |       |                     |
| Suspended Solids                         | 3.0    | 4.4 <sup>low</sup>  | 65                 | 0.1    | 2.5   | 51                  |
| Cu                                       | 0.004  | 0.009               | 0.066              | 0.15   | 7.7   | 0.98                |
| Zn                                       | 0.02   | 0.07                | 20                 | 0.25   | 14    | 24                  |
| Fe                                       | 1.5    | 1.9                 | 310                | 0.72   | 370   | 350                 |
| Mn                                       | 0.10   | 0.31                | 18                 | 0.16   | 0.92  | 25                  |
| Sb                                       | 0.07   | 0.07                | 0.26               | 0.08   | 0.26  | 0.47                |
| Cd                                       | 0.003  | 0.003               | 0.048              | 0.003  | 0.11  | 0.058               |
| Pb                                       | 0.044  | 0.046               | 0.21               | 0.054  | 0.14  | 0.26                |
| Cr                                       | 0.003  | 0.002               | 0.016              | 0.001  | 0.058 | 0.032               |
| F  | 0.2    | 0.35                | 30 <sup>high</sup> | 0.3    | 9     | 45 <sup>high</sup>  |
| B  | 0.16   | 0.08                | 0.15               | 0.04   | 0.61  | 0.68                |
| As                                       | <0.005 | <0.005              | <0.005             | <0.005 | 0.9   | 0.8 <sup>high</sup> |
| SO <sub>4</sub>                          | 2      | 11                  | 480                | 27     | 770   | 1400                |

G F ALLISON  
CHARTERED CHEMIST (AUSTRALIA)



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**ALLISON LABORATORIES**4 WARWICK STREET, HOBART TASMANIA 71  
TELEPHONE: (002) 34 71

- APPLIED RESEARCH AND DEVELOPMENT
- INDUSTRIAL AND AGRICULTURAL ANALYSIS
- TANK AND CARGO SURVEYS
- EFFLUENT ANALYSIS

21 January 1982

Mr J R Stephens  
9 Sherwin Court  
ROSETTA 7010

ERRATA: Report 8764, issued 11 January 1982

Please note that one result reported for manganese is high by a factor of ten and hence should read

Lab Ref 27434: (1) Waratah River below falls 0.092 mgm/L

Please amend your copy accordingly.

G F ALLISON  
CHARTERED CHEMIST (AUSTRALIA)

- APPLIED RESEARCH AND DEVELOPMENT
- INDUSTRIAL AND AGRICULTURAL ANALYSIS
- TANK AND CARGO SURVEYS
- EFFLUENT ANALYSIS

Mr J R Stephens  
9 Sherwin Court  
ROSETTA 7010

REPORT 8764, ISSUED 11 January 1982

The six water samples received on 23 December 1981 and listed hereunder

- Lab Ref 27434: (1) Waratah River below Falls 21/12, 9.40 am  
 27435: (2) Waratah River below Workings 21/12, 11.35 am  
 27436: (3) Tinstone Creek 21/12, 1.35 pm  
 27437: (4) Surface Water North, 21/12, 11.15 am  
 27438: (5) North Adit, 21/12, 9.05 am  
 27439: (6) South Adit, 21/12, 11.55 am

were analysed by methods essentially in accord with the following references:

- 1) *Standard Methods for the Examination of Water and Wastewater*, APHA 14th Ed. (1975):-  
 pH - method 424  
 Fluoride - 414 D  
 Suspended Solids (Nonfilterable Residue) - 208 D  
 Metals by Atomic Absorption Spectrophotometry method 301A et seq,  
 vide: Cadmium - 305 A                      Lead - 311 A  
       Chromium - 307 A                     Manganese - 314 A  
       Copper - 308 A                        Zinc - 323 A  
       Iron - 310 B
- 2) *Soil Sci. & Plant Anal.* 2(5)363-374 (1971), B Wolf - Doron
- 3) *Vogel 3rd Ed. (1971) XII - Sulphate - method 3, p 850 (Spect. finish)*
- 4) *Food Anal., Varian Techtron (1973) - Antimony*
- 5) *Priv. Comm. BCL/4, Dept. Envir., Hobart - Arsenic*

The results of these analyses were:

| SAMPLE                                   | (1)   | (2)   | (3)   | (4)   | (5)  | (6)   |
|--|-------|-------|-------|-------|------|-------|
| pH                                       | 6.8   | 6.9   | 3.0   | 3.6   | 2.4  | 2.8   |
| All following results expressed in mgm/L |       |       |       |       |      |       |
| Suspended Solids                         | 2     | 5     | 160   | 1     | 1    | 160   |
| Cu                                       | 0.002 | 0.024 | 0.071 | 0.11  | 10   | 0.63  |
| Zn                                       | 0.008 | 0.094 | 20    | 0.26  | 16   | 24    |
| Fe                                       | 0.99  | 2.1   | 320   | 2.9   | 590  | 1170  |
| Mn                                       | 0.92  | 0.27  | 16    | 0.19  | 1.1  | 20    |
| Sb                                       | 0.04  | 0.02  | 0.17  | 0.04  | 0.3  | 0.5   |
| F  | 0.3   | 0.2   | 16    | 0.2   | 8    | 35    |
| B  | 0.01  | 0.02  | 0.25  | 0.01  | 1.8  | 1.4   |
| SO <sub>4</sub>                          | 2     | 10    | 420   | 19    | 960  | 1200  |
| Cd                                       | 0.005 | 0.005 | 0.047 | 0.005 | 0.12 | 0.075 |
| Pb                                       | 0.005 | 0.010 | 0.13  | 0.013 | 0.20 | 0.36  |
| As                                       | 0.005 | 0.005 | 0.40  | 0.005 | 2.6  | 1.2   |
| Cr                                       | 0.005 | 0.005 | 0.06  | 0.005 | 0.12 | 0.14  |

  
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 CHARTERED CHEMIST (AUSTRALIA)



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- INDUSTRIAL AND AGRICULTURAL ANALYSIS
- TANK AND CARGO SURVEYS
- EFFLUENT ANALYSIS

Mr J R Stephens  
9 Sherwin Court  
ROSETTA 7010

REPORT 8728, ISSUED 30 NOVEMBER 1981

The fourteen water samples received on 19 November 1981 and listed hereunder

- |                |   |
|----------------|---|
| Lab Ref 27238: | (1) Waratah River below Falls 13/11, 1020 am  |
| 27239:         | (2) Waratah River below workings 13/11, 2.35 pm   |
| 27240:         | (3) Tinstone Creek 13/11, 3.50 pm   |
| 27241:         | (4) Surface Water North 13/11, 11.05 am   |
| 27242:         | (5) North Adit 13/11, 9.00 am   |
| 27243:         | (6) South Adit 13/11, 9.30 am   |
| 27244:         | (i) Waratah Dam above the Junction of Tinstone Creek<br>13/11, 3.25 pm                  |
| 27245:         | (ii) No 5 16/11, 2.10 pm  |
| 27246:         | (iv) 16/11, 1.35 pm   |
| 27247:         | (v) Tinstone Creek above the Junction with the<br>Arthur River 16/11, 10.10 am          |
| 27248:         | (vi) Arthur River above the Junction 16/11, 9.55 am                                     |
| 27249:         | (vii) Arthur River and Tinstone Creek at the Junction<br>16/11, 10.20 am                |
| 27250:         | (viii) Waratah River above the Junction of the Flow<br>of the North Adit 13/11, 1.30 pm |
| 27251:         | (ix) Waratah River below the Junction of the Flow<br>of the North Adit 13/11, 1.55 pm   |

were analysed by methods essentially in accord with the following references:

- 1) *Standard Methods for the Examination of Water & Wastewater*, APHA 14th Ed. (1975):  
 pH - method 424  
 Fluoride - 414 D  
 Suspended Solids (Nonfilterable Residue) - 208 D  
 Metals by Atomic Absorption Spectrophotometry method 301 et seq,  
 vide: Cadmium - 305 A                      Lead - 311 A  
          Chromium - 307 A                    Manganese - 314 A  
          Copper - 308 A                        Zinc - 323 A  
          Iron - 310 B
- 2) *Soil Sci. & Plant Anal.* 2(5)363-374 (1971), B Wolf - Boron
- 3) *Vogel 3rd Ed. (1971) XII - Sulphate - method 3, p 850 (Spect. finish)*
- 4) *Food Anal., Varian Techtron (1973) - Antimony*
- 5) *Priv. Comm. BCL/4, Dept. Envir., Hobart - Arsenic*

The results of these analyses are appended.... (page 2)

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- EFFLUENT ANALYSIS

Mr J R Stephens: RESULTS OF WATER ANALYSIS - REPORT 8728, NOVEMBER 1981

page 2

| Lab Ref                                  | 27238  | 27239  | 27240 | 27241  | 27242 | 27243 | 27244  | 27245  | 27246 | 27247 | 27248  | 27249 | 27250  | 27251 |
|--|--------|--------|-------|--------|-------|-------|--------|--------|-------|-------|--------|-------|--------|-------|
| Sample                                   | (1)    | (2)    | (3)   | (4)    | (5)   | (6)   | (i)    | (ii)   | (iv)  | (v)   | (vi)   | (vii) | (viii) | (ix)  |
| pH                                       | 6.9    | 4.6    | 3.4   | 3.6    | 2.5   | 2.7   | 5.9    | 4.0    | 3.2   | 3.3   | 6.5    | 4.3   | 3.8    | 3.4   |
| All following results expressed in mgm/L |        |        |       |        |       |       |        |        |       |       |        |       |        |       |
| Suspended Solids                         | /1     | 10     | 60    | 2      | /1    | 4     | 2      | /1     | 4     | 90    | /1     | 21    | 15     | 27    |
| Cu                                       | 0.14   | 0.064  | 0.14  | 0.13   | 11    | 4.4   | 0.005  | 0.038  | 0.29  | 0.099 | 0.001  | 0.026 | 1.5    | 0.74  |
| Zn                                       | 0.08   | 0.09   | 5.4   | 0.19   | 5.6   | 21    | 0.08   | 0.64   | 24    | 8.0   | 0.01   | 3.2   | 0.13   | 0.47  |
| Fe                                       | 0.42   | 2.9    | 92    | 3.4    | 380   | 820   | 0.59   | 1.4    | 370   | 140   | 0.31   | 35    | 6.9    | 29    |
| Mn                                       | 0.05   | 0.15   | 4.6   | 0.07   | 0.73  | 11    | 0.06   | 1.0    | 19    | 6.4   | 0.01   | 1.7   | 0.08   | 0.13  |
| Cr                                       | /0.005 | /0.005 | 0.022 | 0.004  | 0.053 | 0.060 | 0.005  | /0.005 | 0.029 | 0.026 | /0.005 | 0.007 | 0.006  | 0.014 |
| Sb                                       | 0.05   | 0.06   | 0.08  | 0.005  | 0.24  | 0.28  | 0.04   | 0.03   | 0.20  | 0.10  | 0.03   | 0.04  | 0.03   | 0.05  |
| F  | 0.6    | 0.1    | 6     | 0.1    | 10    | 18    | 0.15   | 0.5    | 35    | 9     | 0.2    | 2.5   | 0.15   | 0.3   |
| B  | 0.07   | 0.05   | 0.45  | 0.17   | 2.2   | 2.4   | 0.29   | 0.10   | 1.0   | 0.77  | 0.07   | 0.19  | 0.01   | 0.03  |
| SO <sub>4</sub>                          | /1     | 5      | 110   | 13     | 520   | 860   | 3      | 16     | 470   | 180   | 2      | 45    | 12     | 42    |
| Cd                                       | /0.005 | /0.005 | 0.017 | /0.005 | 0.056 | 0.15  | /0.005 | /0.005 | 0.072 | 0.027 | /0.005 | 0.006 | /0.005 | 0.006 |
| Pb                                       | 0.040  | 0.042  | 0.11  | 0.046  | 0.84  | 1.6   | 0.058  | 0.059  | 0.64  | 0.12  | 0.019  | 0.063 | 0.049  | 0.079 |
| As                                       | 0.011  | 0.005  | 0.15  | /0.005 | 1.2   | 1.6   | /0.005 | 0.007  | 0.7   | 0.15  | /0.005 | 0.04  | 0.02   | 0.06  |

*G F Allison*  
 G F ALLISON  
 CHARTERED CHEMIST (AUSTRALIA)

1 DECEMBER 1981



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*G F Allison*  
 1/12/81

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- ANALYSIS OF SOIL AND DEVELOPMENT
- METALS AND WATER ANALYSIS
- ENVIRONMENTAL CHEMISTRY
- CHEMICAL ANALYSIS

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ROSETTA 7010

## REPORT 8701, ISSUED 20 OCTOBER 1981

The six water samples received on 13 October 1981 and listed hereunder

|                |                               |       |         |
|----------------|-------------------------------|-------|---------|
| Lab Ref 27113: | (1) Waratah River below falls | 7/10, | 2 pm    |
| 27114:         | (2) Waratah River below mine  | 7/10, | 3.10 pm |
| 27115:         | (3) Tinstone Creek            | 8/10, | 8.35 am |
| 27116:         | (4) Surface Water North       | 7/10, | 2.50 pm |
| 27117:         | (5) North Adit                | 8/10, | 9.05 am |
| 27118:         | (6) South Adit                | 8/10, | 9.35 am |

were analysed by methods essentially in accord with the following references:

- 1) *Standard Methods for the Examination of Water and Wastewater*, APHA 14th Ed. (1975):-  
 pH - method 424  
 Fluoride - 414 D  
 Suspended Solids (Nonfilterable Residue) - 208 D  
 Metals by Atomic Absorption Spectrophotometry method 301 A et seq,  
 vide: Cadmium - method 305 A      Lead - method 311 A  
      Chromium - 307 A                Manganese - 314 A  
      Copper - 308 A                    Zinc - 123 A  
      Iron - 310 B
- 2) *Soil Sci. & Plant Anal.* 2(5)363-374 (1971), B Wolf - Boron
- 3) *Vogel 3rd Ed.* (1971) XII - Sulphate - method 3, p 850 (Spect. Finish)
- 4) *Food Anal., Varian Techtron* (1973) - Antimony
- 5) *Priv. Comm. BCL/4, Dept. Envir., Hobart* - Arsenic

The results of these analyses were:

| Sample                                   | (1)   | (2)   | (3)   | (4)   | (5)   | (6)   |
|--|-------|-------|-------|-------|-------|-------|
| pH                                       | 6.2   | 3.9   | 3.4   | 3.7   | 2.5   | 2.7   |
| All following results expressed in mgm/L |       |       |       |       |       |       |
| Suspended Solids                         | 0.2   | 12    | 21    | 1.4   | 0.2   | 0.4   |
| Cu                                       | 0.002 | 0.08  | 0.07  | 0.07  | 9.0   | 1.8   |
| Zn                                       | 0.006 | 0.13  | 4.3   | 0.09  | 5.2   | 13    |
| Fe                                       | 0.43  | 4.4   | 76    | 1.6   | 420   | 680   |
| Mn                                       | 0.03  | 0.17  | 3.6   | 0.05  | 0.84  | 10    |
| Cr                                       | N D   | 0.014 | 0.018 | N D   | 0.058 | 0.050 |
| Sb                                       | 0.02  | 0.02  | 0.14  | 0.06  | 0.50  | 0.60  |
| F  | 0.1   | 0.2   | 4     | 0.3   | 8     | 14    |
| B  | 0.05  | 0.12  | 0.21  | 0.10  | 0.88  | 0.78  |
| SO <sub>4</sub>                          | 1     | 7     | 86    | 4     | 560   | 600   |
| Cd                                       | N D   | 0.002 | 0.013 | N D   | 0.054 | 0.11  |
| Pb                                       | 0.02  | 0.04  | 0.10  | 0.03  | 0.85  | 1.3   |
| As                                       | 0.007 | 0.033 | 0.11  | 0.028 | 1.63  | 1.71  |

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- TANK AND CARGO SURVEY
- REFLUXED ANALYSIS

183174

Mr J R Stephens  
9 Sherwin Court  
ROSETTA 7010

## ADDENDA

Omitted from Report 8701 of 20/10/81 were the following results:

| Sample | (1)   | (2)   | (3)  | (4)   | (5) | (6) |
|--------|-------|-------|------|-------|-----|-----|
| As     | 0.007 | 0.033 | 0.11 | 0.028 | 1.6 | 1.7 |

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CHARTERED CHEMIST (AUSTRALIA)

26 October 1981

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- TANK AND CALIBRATED SURVEYS
- STATISTICAL ANALYSIS

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 9 Sherwin Court  
 ROSETTA 7010

REPORT RC64 ISSUED 15 SEPTEMBER 1981

The six water samples received on 10 September 1981 and listed hereunder

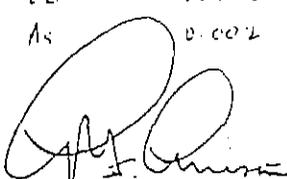
Lab Ref 26981: (1) Waratah River below falls 8/9, 1205  
 26982: (2) Waratah River below workings 8/9, 1125  
 26983: (3) Tinstone Creek 8/9, 9.45  
 26984: (4) Surface Water North 8/9, 1100  
 26985: (5) Adit North 8/9, 9.03  
 26986: (6) South Adit 8/9, 0830

were analysed by methods essentially in accord with the following references:

- 1) *Standard Methods for the Examination of Water and Wastewater*, APHA 17th Ed. (1975):-  
 pH - method 424  
 Fluoride - 414 D  
 Suspended Solids (Nonfilterable Residue) - 208 F  
 Metals by Atomic Absorption Spectrophotometry method 301 A et seq.  
 vide: Cadmium - method 305 A      Lead - method 311 A  
       Chromium - 307 A                Manganese - 314 A  
       Copper - 308 A                 Zinc - 323 A  
       Iron - 310 B
- 2) Boron - H Wolf, *Soil Sci. & Plant Anal.* 2(5)363-374 (1971)
- 3) Sulphate - Vogel 3rd Ed. (1971) XII, method 3, p 850 (Spect. Finish)
- 4) Antimony - C J Rowe, *Food Anal.*, Varian Techtron (1973)
- 5) Arsenic - Priv. Comm. BCI/4, Dept. Envir., Hobart

The results of these analyses were:

| Sample                          | 1     | 2     | 3     | 4     | 5     | 6     |
|---------------------------------|-------|-------|-------|-------|-------|-------|
| ✓ pH                            | 6.3   | 4.2   | 3.2   | 3.6   | 2.4   | 2.7   |
| All following results are mgm/l |       |       |       |       |       |       |
| ✓ Suspended Solids              | 0.6   | 8     | 50    | 1     | 0.2   | 4     |
| ✓ Cu                            | 0.005 | 0.050 | 0.12  | 0.10  | 11    | 1.8   |
| ✓ Zn                            | 0.012 | 0.084 | 7.2   | 0.14  | 7.4   | 21    |
| ✓ Fe                            | 0.57  | 3.0   | 170   | 24    | 580   | 780 * |
| ✓ Mn                            | 0.092 | 0.30  | 12    | 0.22  | 1.8   | 23    |
| ✓ Cr                            | N D   | N D   | 0.015 | N D   | 0.059 | 0.050 |
| ✓ Sb                            | 0.05  | 0.05  | 0.12  | 0.06  | 0.35  | 0.37  |
| ✓ P                             | 0.1   | 0.2   | 7     | 0.3   | 10    | 14    |
| ✓ B                             | 0.08  | 0.08  | 0.25  | 0.05  | 0.94  | 0.90  |
| ✓ SO <sub>4</sub>               | 1     | 6     | 40    | 23    | 550   | 700 * |
| ✓ Cd                            | N D   | N D   | 0.025 | 0.002 | 0.075 | 0.13  |
| ✓ Pb                            | 0.014 | 0.036 | 0.13  | 0.044 | 1.0   | 1.3   |
| As                              | 0.002 | 0.01  | 0.35  | 0.006 | 0.25  | 0.66  |

  
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- EFFLUENT ANALYSIS

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REPORT 8639      ISSUED 18 AUGUST 1981

The six water samples delivered on 6 August 1981 and listed hereunder

Lab Ref 26815: (1) Waratah River below Falls  
26816: (2) Waratah River downstream  
26817: (3) Tinstone Creek  
26818: (4) Surface Mt Bischoff north  
26819: (5) Adit Mt Bischoff north  
26820: (6) Adit Mt Bischoff south

were analysed by methods essentially in accord with the following references:

- 1) *Standard Methods for the Examination of Water and Wastewater, APHA 14th Ed. (1975):-*
  - pH - method 424*
  - Fluoride - 414 D*
  - Selenium - 318 A*
  - Suspended Solids (Nonfilterable Residue) - 208 D*
  - Metals by Atomic Absorption Spectrophotometry method 301 A et seq,*  
*vide:* Barium - method 303 A
  - Cadmium - 305 A
  - Chromium - 307 A
  - Copper - 308 A
  - Iron - 310 B
  - Lead - 311 A
  - Manganese - 314 A
  - Silver - 319 A
  - Zinc - 323 A
  - Mercury - 315 A
- 2) Boron - B Wolf, *Soil Sci. & Plant Anal.* 2(5)363-374 (1971)
- 3) Phenols - *Anal. of Raw, Potable & Waste Water, HMSO Lon.*(1972) p 219
- 4) Chloride - *AOAC 12th Ed.*(1975) methods 3.069, 3.070
- 5) Sulphate - *Vogel 3rd Ed.*(1971) XII, method 3, p 850 (spect. finish)
- 6) Antimony and Tin - C J Rowe, *Food Anal., Varian Techtron* (1973)
- 7) Arsenic - *Priv. Comm. BCL/4, Dept. Envir., Hobart*

The results of these analyses are appended ... (page 2)



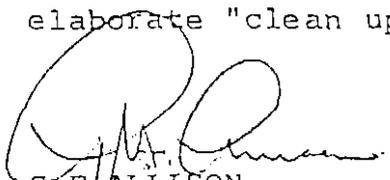
  
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Note: except pH, all results are mgm/l

| Lab Ref          | 26815               | 26816               | 26817               | 26818               | 26819               | 26820               |
|------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Sample           | 1                   | 2                   | 3                   | 4                   | 5                   | 6                   |
| pH               | 6.0                 | 4.2                 | 3.5                 | 3.6                 | 2.5                 | 2.7                 |
| Suspended Solids | <1                  | 7                   | 8                   | 1                   | <1                  | <1                  |
| Cu               | 0.002               | 0.058               | 0.10                | 0.12                | 13                  | 3.4                 |
| Zn               | 0.01                | 0.09                | 5.5                 | 0.16                | 7.2                 | 14                  |
| Fe               | 0.3                 | 2.9                 | 100                 | 1.7                 | 590                 | 880                 |
| Cd               | 0.001               | 0.001               | 0.021               | 0.004               | 0.077               | 0.13                |
| Pb               | 0.030               | 0.038               | 0.20                | 0.041               | 0.84                | 1.2                 |
| Mn               | 0.04                | 0.15                | 5.4                 | 0.10                | 1.0                 | 11                  |
| Cr               | 0.002               | 0.002               | 0.013               | N.D.                | 0.053               | 0.053               |
| Ag               | 0.001               | 0.001               | 0.002               | 0.001               | 0.008               | 0.011               |
| Sn               | <0.01               | <0.01               | <0.01               | <0.01               | 0.04                | 0.05                |
| Ba               | N.D.                | 0.007               | N.D.                | N.D.                | N.D.                | 0.004               |
| Sb               | 0.04                | 0.04                | 0.14                | 0.04                | 0.53                | 0.42                |
| F                | 0.1                 | 0.1                 | 5                   | 0.2                 | 9                   | 14                  |
| B                | 0.06                | 0.04                | 0.29                | 0.15                | 0.90                | 1.1                 |
| Hg               | 0.0001 <sub>6</sub> | 0.0001 <sub>4</sub> | 0.0001 <sub>3</sub> | 0.0001 <sub>4</sub> | 0.0001 <sub>3</sub> | 0.0001 <sub>2</sub> |
| SO <sub>4</sub>  | 1                   | 6                   | 75                  | 9                   | 540                 | 660                 |
| Cl               | 7.6                 | 11                  | 7.5                 | 7.3                 | 7.3                 | 5.7                 |
| As               | <0.001              | 0.003               | 0.24                | <0.001              | 1.7                 | 2.4                 |
| Phenolics        | 0.11                | 0.15                | 0.08                | 0.11                | 0.20                | 3.1                 |
| Se               | 0.002               | <0.001              | *                   | <0.001              | *                   | *                   |

\*The high concentrations of interfering substances rendered these results unreliable and hence unobtainable without elaborate "clean up".

  
G.F. ALLISON

CHARTERED CHEMIST (AUSTRALIA)

18 August 1981



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- TANK AND CARGO SURVEYS
- EFFLUENT ANALYSIS

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REPORT 8628 ISSUED 22 JULY 1981

The six water samples delivered on 6 July 1981 and listed hereunder

- Lab Ref 26661: (1) Waratah River below Falls
- 26662: (2) Waratah River, downstream of former workings
- 26663: (3) Tinstone Creek
- 26664: (4) Surface runoff, Mt Boschhoff north
- 26665: (5) Adit water, Mt Bischoff north
- 26666: (6) Adit water, Mt Bischoff south

were analysed by methods essentially in accord with the following references:

- 1) Standard Methods for the Examination of Water and Wastewater, APHA 14th Ed. (1975):-
  - pH - method 424
  - Fluoride - 414 D
  - Selenium - 318 A
  - Suspended Solids (Nonfilterable Residue) - 208 D
  - Metals by Atomic Absorption Spectrophotometry method 301 A et seq, vide: Barium - method 303 A
  - Cadmium - 305 A
  - Chromium - 307 A
  - Copper - 308 A
  - Iron - 310 B
  - Lead - 311 A
  - Manganese - 314 A
  - Silver - 319 A
  - Zinc - 323 A
  - Mercury - 315 A
- 2) Boron - B Wolf, Soil Sci. & Plant Anal. 2(5)363-374 (1971)
- 3) Phenols - Anal. of Raw, Potable & Waste Waters, HMSO Lon.(1972) p 219
- 4) Chloride - AOAC 12th Ed.(1975) methods 3.069, 3.070
- 5) Sulphate - Vogel 3rd Ed.(1971) XII, method 3, p 850 (spect. finish)
- 6) Antimony and Tin - C J Rowe, Food Anal., Varian Techtron (1973)
- 7) Arsenic - Priv. Comm. BCL/4, Dept. Envir., Hobart

The results of these analyses are appended... (page 2)

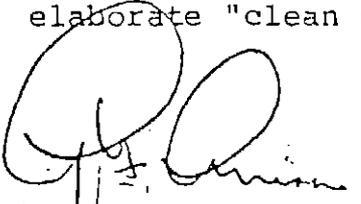
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| Lab Ref          | 26661    | 26662               | 26663    | 26664               | 26665    | 26666    |
|------------------|----------|---------------------|----------|---------------------|----------|----------|
| Sample           | <u>1</u> | <u>2</u>            | <u>3</u> | <u>4</u>            | <u>5</u> | <u>6</u> |
| pH               | 7.0      | 3.7                 | 3.9      | 3.7                 | 2.6      | 2.7      |
| Suspended Solids | 9        | 35                  | 28       | 11                  | 15       | 99       |
| Cu               | 0.002    | 0.085               | 0.041    | 0.078               | 9.0      | 5.3      |
| Zn               | 0.02     | 0.22                | 1.4      | 0.12                | 4.4      | 9.8      |
| Fe               | 0.77     | 2.8                 | 17       | 1.9                 | 360      | 540      |
| Cd               | N.D.     | 0.002               | 0.006    | 0.001               | 0.044    | 0.11     |
| Pb               | 0.021    | 0.053               | 0.071    | 0.034               | 0.21     | 0.23     |
| Mn               | 0.038    | 0.25                | 1.2      | 0.058               | 0.47     | 5.8      |
| Cr               | N.D.     | 0.005               | 0.010    | N.D.                | 0.035    | 0.041    |
| Ag               | N.D.     | 0.001               | 0.002    | 0.001               | 0.004    | 0.007    |
| Sn               | N.D.     | N.D.                | N.D.     | N.D.                | 0.030    | 0.050    |
| Ba               | N.D.     | 0.002               | 0.005    | N.D.                | 0.12     | N.D.     |
| Sb               | 0.05     | 0.06                | 0.02     | 0.03                | 0.25     | 0.30     |
| F                | 0.05     | 0.3                 | 1.7      | 0.3                 | 7        | 16       |
| B                | 0.07     | 0.07                | 0.20     | 0.20                | 1.1      | 0.99     |
| Hg               | 0.0001   | 0.0001 <sub>5</sub> | 0.0002   | 0.0001 <sub>5</sub> | 0.0003   | 0.0001   |
| SO <sub>4</sub>  | N.D.     | 9                   | 27       | 8                   | 55       | 68       |
| Cl               | 6.7      | 7.8                 | 7.4      | 7.1                 | 6.2      | 5.3      |
| As               | 0.001    | 0.012               | 0.033    | 0.005               | 0.95     | 0.56     |
| Phenolics        | 0.25     | 0.18                | 0.23     | 0.19                | *        | *        |
| Se               | 0.0015   | 0.0022              | 0.0009   | 0.0021              | *        | *        |

\*The high concentrations of interfering substances rendered these results unreliable and hence unobtainable without elaborate "clean up".

  
 G F ALLISON  
 CHARTERED CHEMIST (AUSTRALIA)

22 JULY 1981.



This Laboratory is registered by the National Association of Testing Authorities, Australia. The test(s) reported herein have been performed in accordance with its terms of registration. This document shall not be reproduced except in full.

# ALLISON LABORATORIES

4 WARWICK STREET, HOBART TASMANIA 7000  
TELEPHONE: (002) 34 7681

- APPLIED RESEARCH AND DEVELOPMENT
- INDUSTRIAL AND AGRICULTURAL ANALYSIS
- TANK AND CARGO SURVEYS
- EFFLUENT ANALYSIS

18 August 1981

Mr J R Stephens  
9 Sherwin Court  
ROSETTA .. 7010

ERRATA: Report 8628, 22 July 1981

Please note that two results reported for sulphate sulphur were low by a factor of ten and hence should read

|   |           |
|---|-----------|
| Lab Ref 26665 : Adit Water, Mt Bischoff north | 550 mgm/l |
| Lab Ref 26666 : Adit Water, Mt Bischoff south | 680 mgm/l |

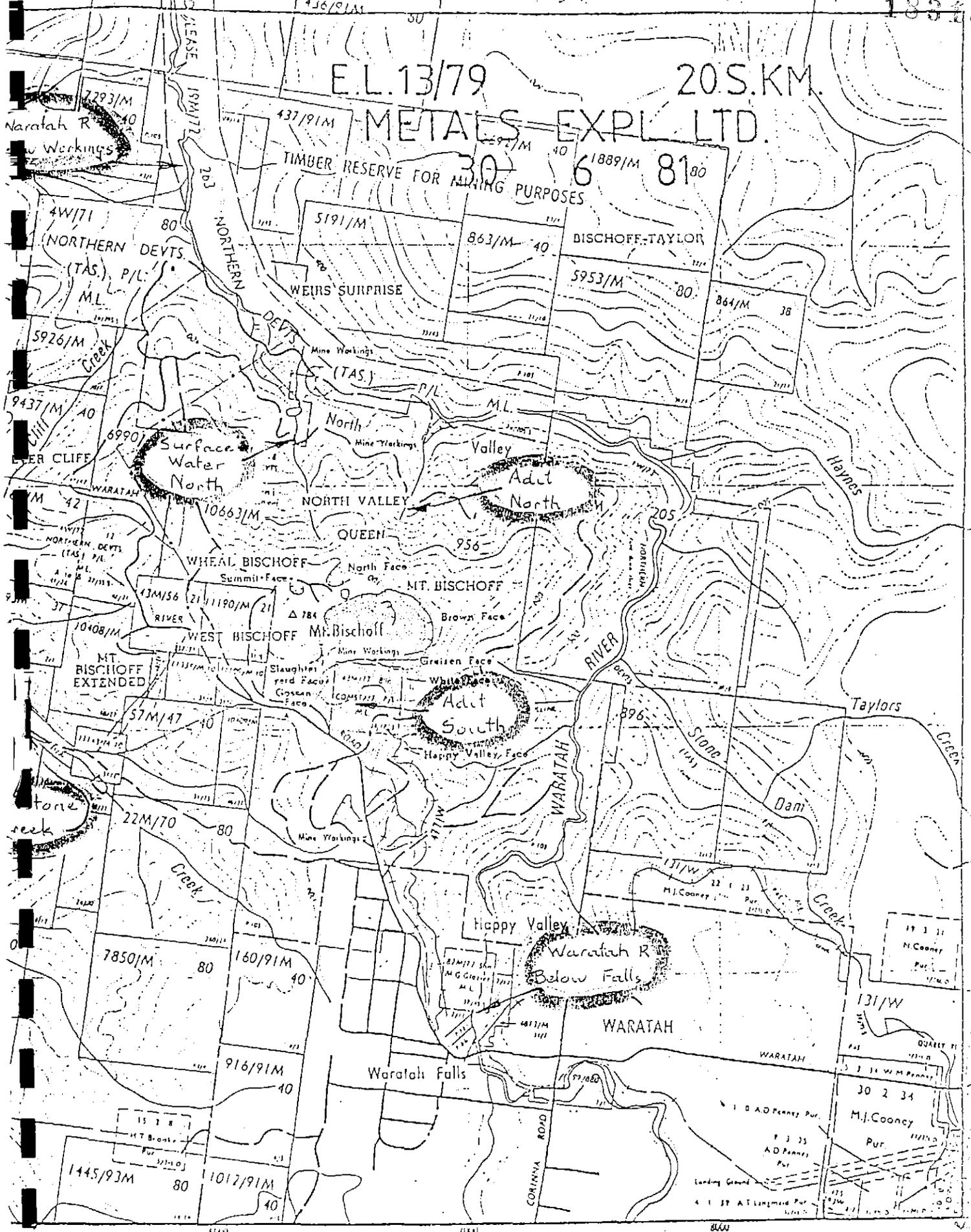
Please amend your copy accordingly.

G F ALLISON  
CHARTERED CHEMIST (AUSTRALIA)

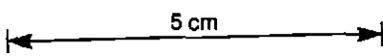
E.L.13/79

20 S. KM

METALS EXPL. LTD.



Mineral Topographic Series, Scale 1:20 000 - Mt Bischoff



Bischoff P.

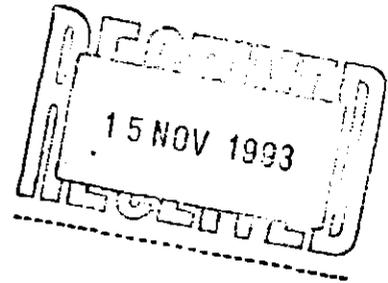
*APPENDIX 7*

**GUIDELINES FOR THE PREPARATION OF A DEVELOPMENT  
PROPOSAL AND ENVIRONMENTAL MANAGEMENT PLAN FOR  
THE RE-DEVELOPMENT OF A TIN MINE AT MOUNT  
BISCHOFF**

## Division of Environmental Management



Inquiries: Mr Bourke  
Phone : (002) 332788  
Fax : (002) 233494  
Our ref : (050028:H/jchick) ars  
Your ref :



Mr J Chick  
Environmental Manager  
Lynch Mining Ltd  
GPO Box 444  
BRISBANE QLD 4001

Dear Sir

**Mt Bischoff - Development Proposal**

I refer to your letter of 1 September 1993 enclosing water quality data on runoff streams from areas disturbed by past mining at Mt Bischoff and enquiring about environmental requirements in the event that your company is to proceed with its proposal to develop an open cut mining operation at the site.

It is acknowledged that the quality of water presently discharging as runoff from historical workings at Mt Bischoff is unsatisfactory given the very high levels of heavy metals reported in water quality analyses over a period of time. Studies undertaken by Dr L Koehnken and described in the "Pieman River Environmental Monitoring Programme Technical Report, August 1992" have brought into question the applicability of standards prescribed by the Environment Protection (Water Pollution) Regulations 1974 in the Tasmanian West Coast situation. While Dr Koehnken's studies were confined to the Pieman River catchment and did not include the Mt Bischoff site it appears that her findings could be readily transferred to the Mt Bischoff/Waratah/Arthur River situation. Furthermore, it is acknowledged that, given the outcropping nature of the orebody, which facilitated its discovery, "natural waters" on the mountain are likely to have carried elevated concentrations of metals, sulphate and other substances prior to disturbance by mining operations.

However, the present Environment Protection (Water Pollution) Regulations 1974 allow no flexibility in setting requirements for point source emissions from a mining operation such as you propose. The new Environmental Management and Pollution Control Bill

Department of Environment and Land Management  
160 Collins Street or GPO Box 1396P Hobart Tasmania 7001

due to come into force in July 1994 may allow some flexibility in that emission levels will be controlled by ambient environmental values. I would anticipate that Ambient Environmental Quality Regulations can be set for the discharge into these modified receiving waters. Until that time the present Regulations will control off-site emissions from your proposed operation.

I would draw your attention to Section 3(5) of the Environment Protection (Water Pollution) Regulations 1974 which states that:

"Nothing in the foregoing provisions of these regulations shall require an emission to have a concentration of substances lower than that occurring in the receiving waters at the time of the emission."

Therefore, you should ensure that an adequate set of baseline data exists to provide a thorough evaluation of local water quality. Your operation should not result in any further deterioration of water quality during and post mining.

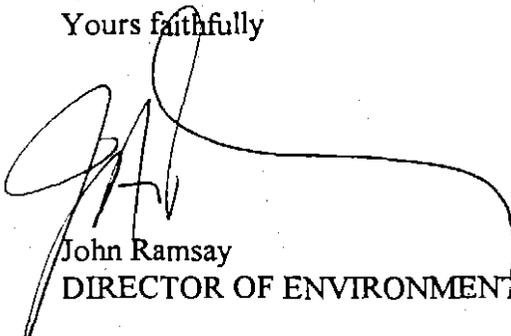
While your Company would not be expected to remediate existing conditions in the area, your operation would require to be performed using best environmental practice and would be required to rehabilitate areas disturbed by your operation. This may have an additional benefit of improving, albeit in a minimal way, the existing situation.

I am unable to provide you with assurance that the regulations governing your proposed operation would not change during the operating life of the mine. I have already flagged the new Environmental Management and Pollution Control Bill and the general thrust of this Bill relates to the use of best available technology and avoidance of waste (ie. off site emissions). I would suggest that these principles should be adopted by your Company in its proposed operation.

Guidelines for the preparation of a Development Proposal & Environmental Management Plan are attached for your information. It is recommended that you liaise directly with Mr Steve Howett, on (002) 336659, should you have any enquiries regarding these guidelines.

Mrs Isobel Stanley, Manager Industrial Operations is the relevant contact officer in relation to specific details regarding the possible environmental agreement (contact on (002) 332782).

Yours faithfully

  
John Ramsay  
DIRECTOR OF ENVIRONMENTAL CONTROL



**GUIDELINES FOR THE PREPARATION OF A**  
**'DEVELOPMENT PROPOSAL AND ENVIRONMENTAL MANAGEMENT PLAN'**  
**FOR THE REDEVELOPMENT OF A TIN MINE AT MOUNT BISCHOFF**

General information

*The purpose of the Development Proposal and Environmental Management Plan (DP & EMP) is to provide the Director of Environmental Control with sufficient information for him to assess an application for a licence to operate scheduled premises under the Environment Protection Act 1973. The document will also fulfil the role of providing information about the proposal to other decision-making authorities (e.g. Local Government) and the public, which has the opportunity to formally object to the issuing of a licence. As such the document must be written in a manner which is clear and concise, yet easily read and understood by the general public. Where it is necessary to include material of a highly technical nature, this should be contained in an appendix and summarised in the main body of the text.*

*It is intended that compliance with the management prescriptions set down in the DP & EMP should form the basis of the conditions under which any licence to operate will be granted. The management prescriptions to achieve satisfactory environmental performance should therefore be described in sufficient detail to serve this purpose.*

*If a licence is granted, it will be required that the DP & EMP must be reviewed after the first twelve months of operation and at three yearly intervals thereafter.*

*The guidelines set out below are intended to define the minimum scope of the DP & EMP. Should the proponent identify additional information which is relevant to the objectives of the DP & EMP, then this should be included. It is desirable that the format of the document follow as closely as possible the format of the guidelines such that it may be readily ascertained that all aspects of the guidelines have been addressed. However, it is recognised that an alternative arrangement of subject material may sometimes improve the readability of the document. Any proposal to change the layout of the document from that set out in the guidelines must first be discussed with the Department of Environment and Planning.*

---

## FRONTISPIECE

This should explain the function of the DP&EMP and its role in the statutory process of obtaining a licence. The statutory rights of any person to lodge an objection against the application should be described together with instructions as to how an objection may be lodged and the time constraints on this. An invitation to comment on the proposal without the lodgement of a formal objection should also be included.

## SUMMARY

### 1. INTRODUCTION

This should identify the proponent and provide relevant background to the proposal. The rationale/need for the development should be outlined, together with the broad economic implications for the local community and for Tasmania.

The time frame for the development and its full implementation given.

Other approvals required for the development to proceed (at Local and State level) should be identified, and the status of each application given.

### 2. DEVELOPMENT PROPOSAL

#### 2.1 *Site Description*

This section must include, as a minimum:

- A brief history of past mining activity on the proposed development site, and a description of the current physical condition of the site.
- A description of the development site including current land use and ownership, and any special values the site may have (such as archaeological, conservational and heritage values).
- Information on land tenure and mining leases to be directly affected by the proposed development.
- A locality map (1:25,000) showing:
  - . land tenure (public/private) of all land adjacent to the area to be mined.
  - . land zoning (Planning Scheme/Interim Order) of the area to be mined, and all adjacent land within 1000m of the premises boundary.
  - . topography, watercourses etc.
  - . access and cartage routes (existing and proposed).
  - . boundaries of mining lease(s) and any other land over which the applicant has control.
- A description of the use and ownership of the land surrounding the development site.
- A description of the vegetation and soils of the development site.

- A description of the geology and hydrology of the development site, and its relation to local and regional drainage systems.
- Outline of the condition and use of the roads to be affected by the development, and any upgrading and associated drainage and erosion protection works required.

## 2.2 *Development description*

This section should provide a complete and detailed description of the development proposed, including all necessary associated infrastructure.

The following must be included:

- Detailed plan(s) (at least 1:5,000) of the area to be mined showing:
  - . the location of all pits
  - . stages of development, benching, cross-sections etc.
  - . areas of vegetation clearance
  - . roads, storage areas etc.
  - . the location of all structures and items of equipment, access roads, crushing plant etc.
  - . the location of all stockpiles of raw material, overburden, topsoil etc.
  - . landform modifications associated with the site through all stages of the development
  - . watercourses, stormwater diversion and all other drainage arrangements
- A full description of the mining operation to be carried out, including the major items of equipment to be used, the method of operation, anticipated blasting regime and frequency, further on-site processing such as crushing etc.
- A description of how the proposed mining will be integrated into the workings and landform left as a result of past mining activities.
- A description of how the proposed drainage structures and layout will function, and how they will alter current drainage patterns.
- An estimation of the quantities and nature of the materials to be mined, overburden shifted etc. on a daily and annual basis.
- An estimation of the life of the mining operation, and any potential for subsequent development with respect to other minerals.
- A description of any infrastructure development e.g. roadworks, power and water supplies etc.
- The projected hours of operation (hours/day, days/week) for the mining operation and any other associated activity.

### 3. ENVIRONMENTAL MANAGEMENT PLAN

*This should describe how the facilities will be developed and operated so as to meet satisfactory environmental performance standards. These may take the form of emission standards or requirements defined by the Environment Protection Act 1973, the legislative requirements of other agencies or authorities, or objectives agreed with the Department of the Environment and Planning.*

*Each significant environmental issue should be identified, the environmental performance standard clearly defined, and the method of achieving the required standard demonstrated. This may be by the use of specific pollution control equipment, or management prescriptions. Unsupported assertion that the standard will be achieved will not be considered adequate.*

The environmental issues addressed in the management plan must include the following:

#### 3.1 A critical review of existing environmental problems associated with past mining activities at the site, including:

- . AMD - its sources, causes with respect to past mining activity and associated waste-rock disposal practices, its principal exit points from the site and its major current inputs to identified watercourses, relative to the requirements of the E.P. (Water Pollution) Regulations.
- . Slope stability and erosion
- . Metals, mobilisation and transport off-site
- . Sediment, transport and deposition
- . Weed infestation
- . Visual impact

The EMP should then clearly indicate in the following sub-sections, by the use of clearly defined objectives and corresponding prescriptions, how the proposed mining venture will seek not to exacerbate the existing problems, and how the progressive redevelopment, mining and rehabilitation of the proposed extractive operation will serve to ameliorate these problems wherever practicable.

#### 3.2 *Water emissions*

A principal environmental issue is mine drainage, and the impact of such discharges on the Waratah and Arthur River catchment.

This section should provide the following details:

- . sources of contaminated water e.g. minewater drainage, stormwater drainage, drainage from overburden and ore stockpiles.
- . the contaminants likely to be released from these sources over the life of the mining operation should be specifically reviewed.
- . the likely loadings of these contaminants in the source streams, and whether these are expected to diminish during the life of the mine.

the methods of treatment proposed including specific details of the volume and retention times of wastewater treatment dams or any alternative treatment facilities proposed.

the likely quality (NFR, metals, [concentration and mass loadings], pH etc.) and quantity of effluent from each discharge point.

the nature and quantity of acid mine discharge water or leachate from overburden and ore stockpiles expected to occur during or following completion of mining operations should be addressed.

### 3.3 *Atmospheric emissions*

The potential for dust emissions from mining or crushing operations should be reviewed, and mitigation procedures discussed.

### 3.4 *Noise emissions*

The impact of noise on the nearby town of Waratah must be critically evaluated in terms of the noise generation capacity of all equipment, hours of operation of this equipment, blasting regime and frequency, existing and progressive landform of the excavation and the associated potential of the nature and alignment of the landform to exacerbate the impact of noise upon the town.

### 3.5 *Solid waste disposal*

Whilst it is recognised that all ore is to be transported off-site for concentration, and that no tailings are to be accumulated on-site, this section should review the strategy for the disposal of any other solid wastes and associated rubbish, such as empty fuel/oil drums, scrap metals etc.

### 3.6 *Hazardous materials*

The nature and quantities of all potentially hazardous materials (including fuel) to be held on the premises must be identified. The storage locations must be given, and safeguards to be incorporated to contain these materials and ensure clean-up of accidental spillage described.

### 3.7 *Impact on flora and fauna*

The impact of the development on any identified flora and fauna of conservation significance should be discussed, including any measures to avoid or minimise such impacts. This discussion should include consideration of the potential for the development to result in an increased fire risk.

### 3.8 *Fire*

Any potential for the venture to result in an increased fire risk has implications both for conservation and commercial forestry interests outside of the immediate area of proposed development.

The potential for the development to result in an increased fire risk should be reviewed, and a fire prevention and control plan developed in consultation with the appropriate Authorities.

This potential and plan should take into account the bearing of the town from the development site, in that the town is located downwind of the site under summer fire-season prevailing wind conditions.

### 3.9 *Archaeology*

The Division of National Parks should be consulted to determine whether a survey of the site's historical value is warranted. Arrangements to ensure compliance with the Aboriginal Relics Act should also be made and described.

### 3.10 *Visual impact*

The existing and progressive visual impact of the mine site from the town of Waratah, or from public roads, should be reviewed, and any measures designed to progressively minimise these impacts should be described.

### 3.11 *Rehabilitation*

A comprehensive rehabilitation plan must be presented, and must include:

- . the likely end uses proposed for the mine site.
- . the changes in topography and landform associated with the site at the completion of mining activities.
- . any ongoing (post mining completion) drainage and runoff collection and treatment facilities.
- . the proposed method of rehabilitation of the mined areas, including the source and depth of topsoil, the plant species and planting techniques to be used, seed sources etc.
- . the timing of all rehabilitation works relative to the progressive mining stages.

### 3.12 *Monitoring and review*

A sampling and monitoring programme designed to ensure compliance with the objectives and predictions of the EMP must be presented. This should include consideration of the need for:

- . monitoring of point source water emissions,
- . monitoring of the progress of rehabilitation works, and
- . critical review of the EMP, comparing its predictions and management prescriptions with the actual performance of the development, after twelve months of operation, and at three yearly intervals thereafter.

**END**

183191

ANNUAL REPORT FOR  
RETENTION LICENCE 8807  
"MT. BISCHOFF TIN PROJECT"  
FOR THE PERIOD ENDING 30 JUNE 1994  
VOLUME 2 OF 2  
LYNCH MINING PTY LTD

T. KNIGHT  
MANAGER MINING  
AUGUST 1994

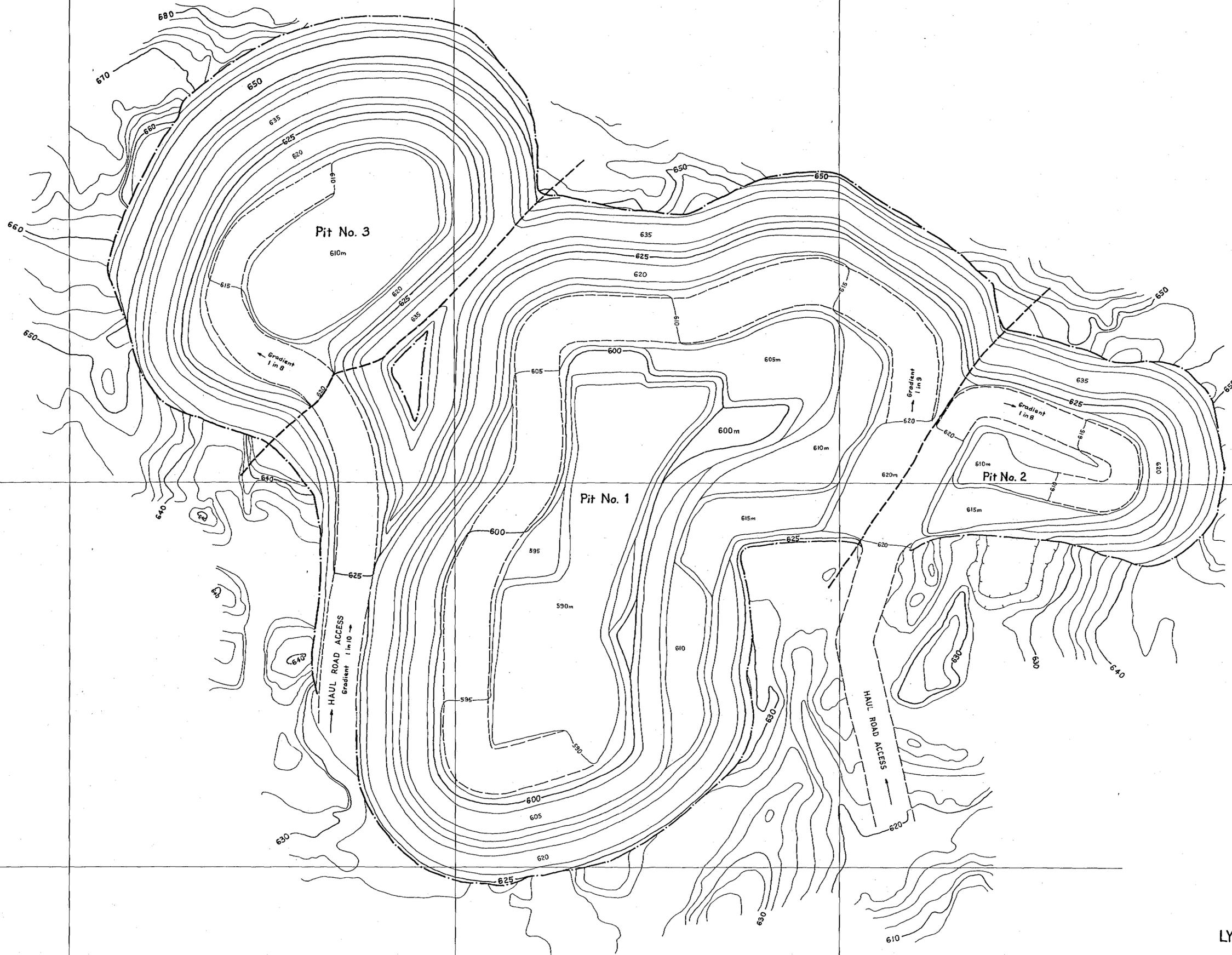
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Vol 2/2

**MICROFILMED**  
FICHE No. 013308-14

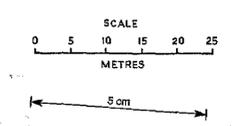
## APPENDIX 8

## PLANS AND SECTIONS

|                            |           |
|----------------------------|-----------|
| - Proposed Open Pit Design | Sept 1993 |
| - Open pit level plan      | 630m RL   |
| - Open pit level plan      | 625m RL   |
| - Open pit level plan      | 620m RL   |
| - Open pit level plan      | 615m RL   |
| - Open pit level plan      | 610m RL   |
| - Open pit level plan      | 605m RL   |
| - Open pit level plan      | 600m RL   |
| - Open pit level plan      | 595m RL   |
| - Open pit level plan      | 590m RL   |
| - Open pit level plan      | 585m RL   |
| - Longitudinal section     | 1900m N   |
| - Longitudinal section     | 1980m N   |
| - Cross section            | 980m E    |
| - Cross section            | 1020m E   |
| - Cross section            | 1140m E   |

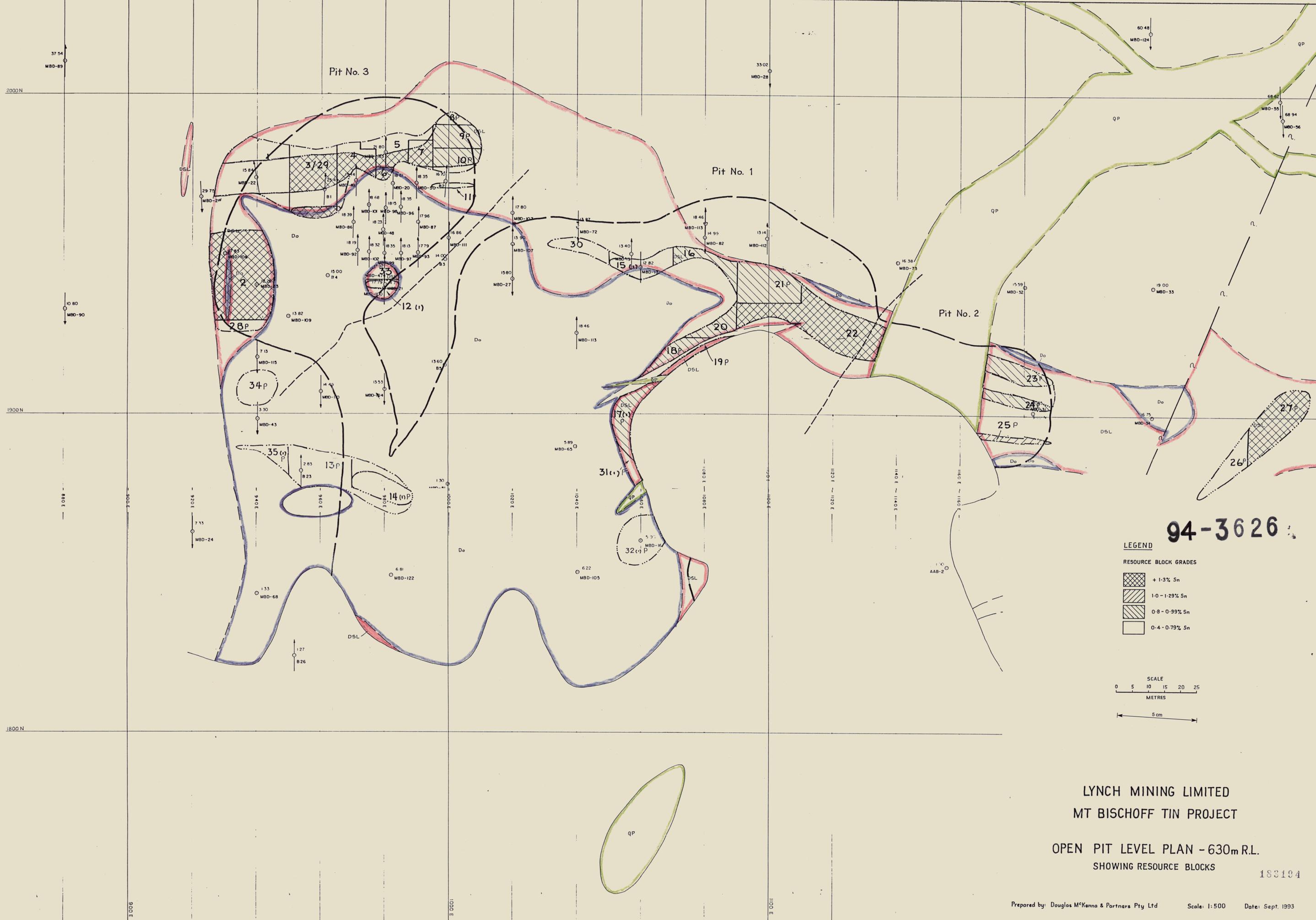


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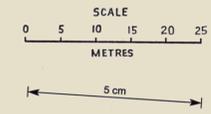
183193

LYNCH MINING LIMITED  
 MT BISCHOFF TIN PROJECT  
 PROPOSED OPEN PIT DESIGN



94-3626

- LEGEND**
- RESOURCE BLOCK GRADES
-  +1-3% Sn
  -  1.0-1.29% Sn
  -  0.8-0.99% Sn
  -  0.4-0.79% Sn



LYNCH MINING LIMITED  
 MT BISCHOFF TIN PROJECT  
 OPEN PIT LEVEL PLAN - 630m R.L.  
 SHOWING RESOURCE BLOCKS

183194

2000 N

1900 N

1800 N

Pit No. 3

Pit No. 1

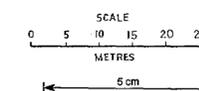
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LEGEND

RESOURCE BLOCK GRADES

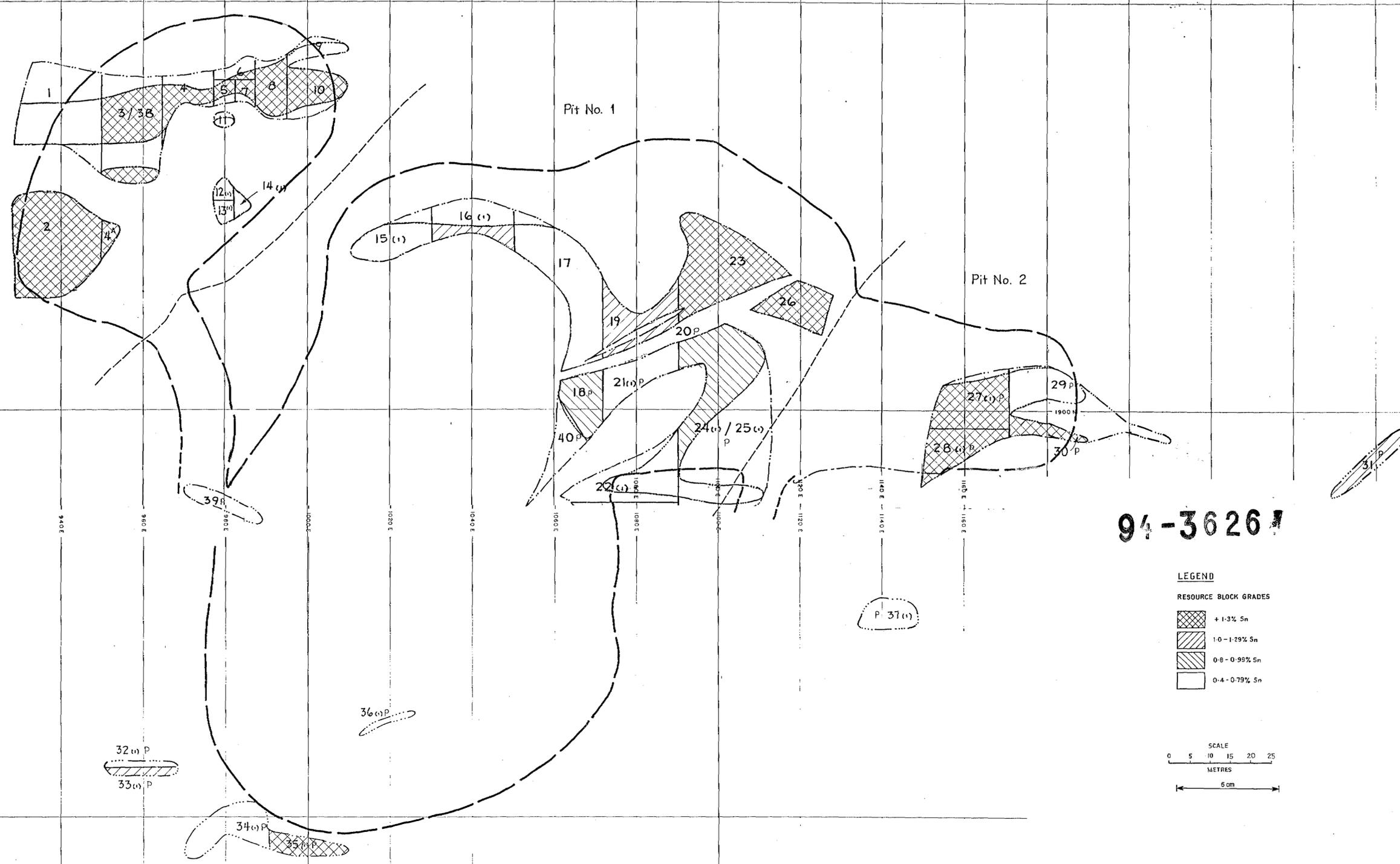
-  +1-3% Sn
-  1.0-1.29% Sn
-  0.8-0.99% Sn
-  0.4-0.79% Sn

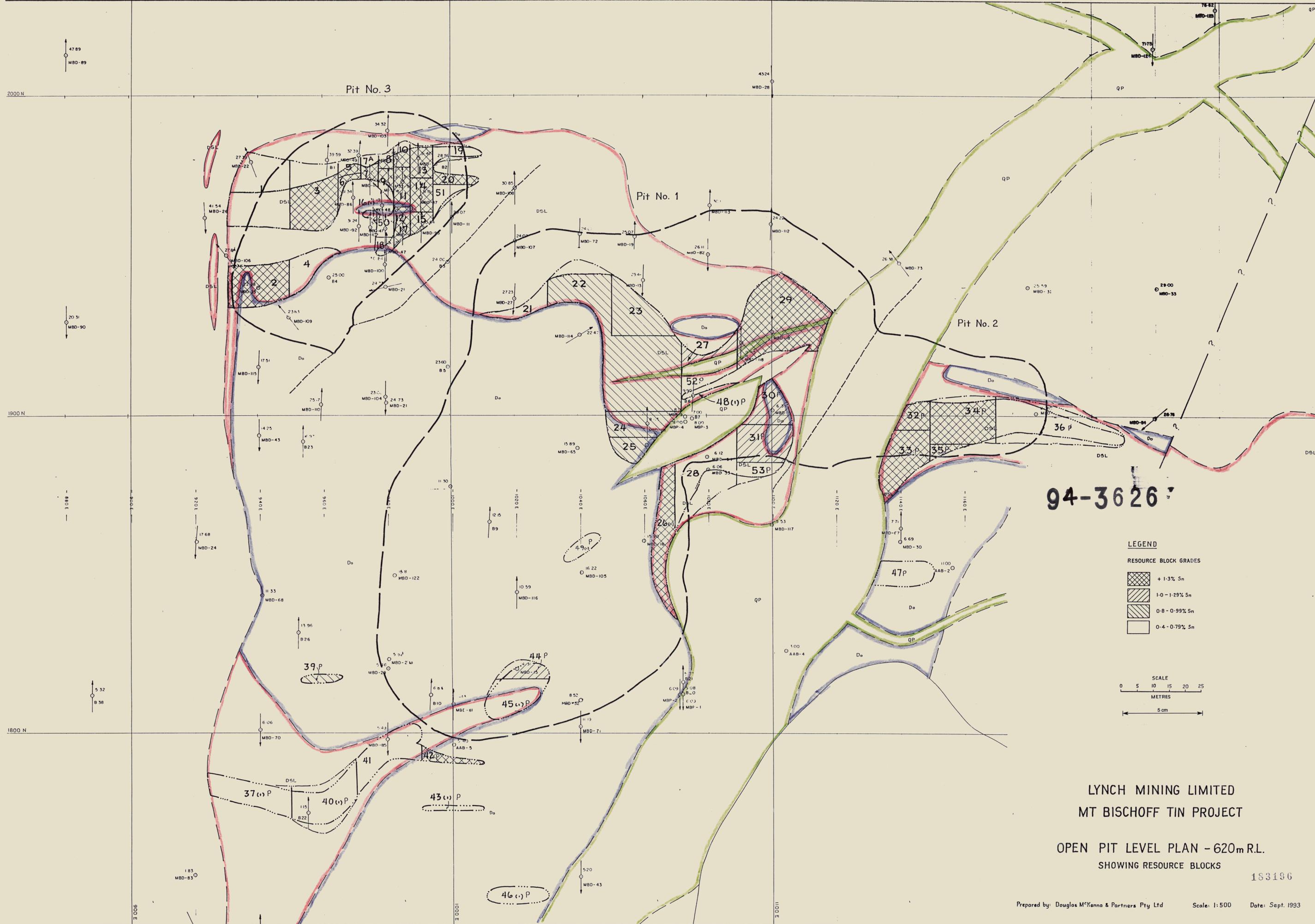


LYNCH MINING LIMITED  
MT BISCHOFF TIN PROJECT

OPEN PIT LEVEL PLAN - 625m R.L.  
SHOWING RESOURCE BLOCKS

183195



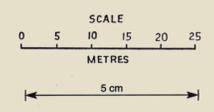


94-3626

**LEGEND**

**RESOURCE BLOCK GRADES**

|  |                |
|--|----------------|
|  | + 1-3% Sn      |
|  | 1.0 - 1.29% Sn |
|  | 0.8 - 0.99% Sn |
|  | 0.4 - 0.79% Sn |



**LYNCH MINING LIMITED**  
**MT BISCHOFF TIN PROJECT**  
**OPEN PIT LEVEL PLAN - 620m R.L.**  
**SHOWING RESOURCE BLOCKS**

183196

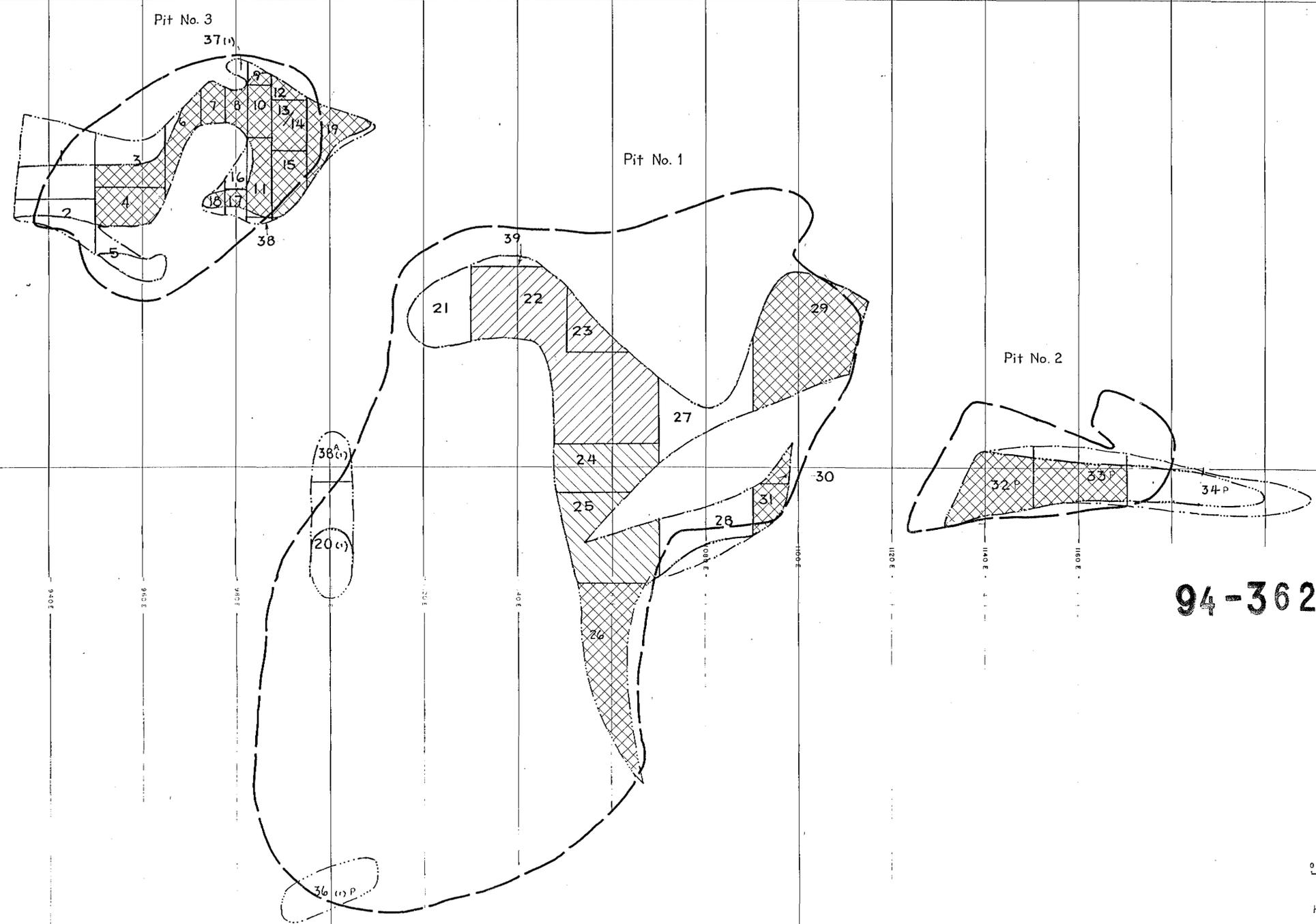
2000 N

1900 N

1800 N

880 E

900 E

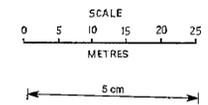


94-3626

**LEGEND**

RESOURCE BLOCK GRADES

|  |                |
|--|----------------|
|  | + 1.3% Sn      |
|  | 1.0 - 1.29% Sn |
|  | 0.8 - 0.99% Sn |
|  | 0.4 - 0.79% Sn |



LYNCH MINING LIMITED  
MT BISCHOFF TIN PROJECT

OPEN PIT LEVEL PLAN - 615 m R.L.  
SHOWING RESOURCE BLOCKS

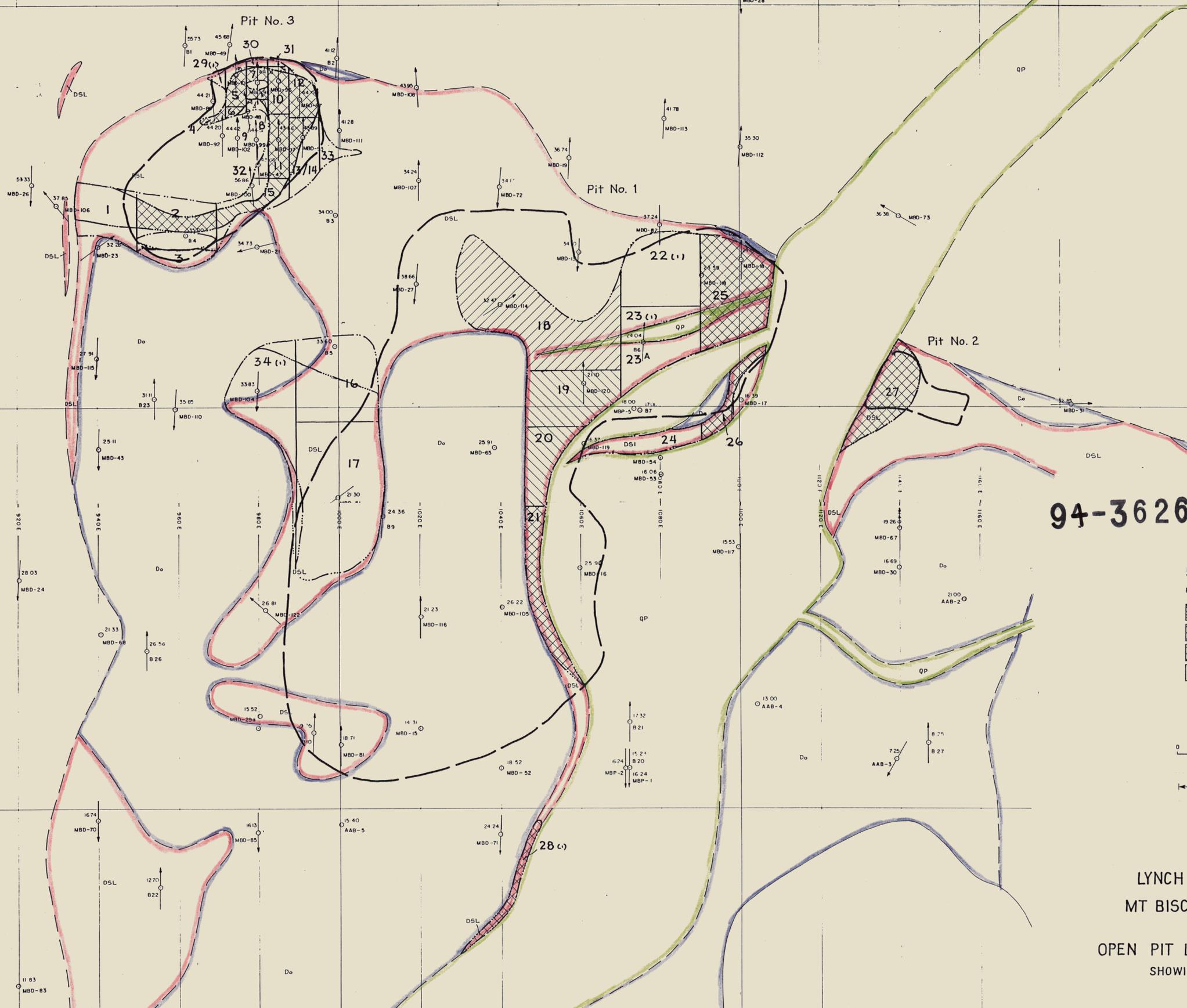
183107

2000 N

1900 N

22

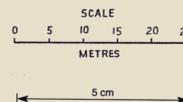
1800 N



**LEGEND**

RESOURCE BLOCK GRADES

|  |                |
|--|----------------|
|  | + 1-3% Sn      |
|  | 1.0 - 1.29% Sn |
|  | 0.8 - 0.99% Sn |
|  | 0.4 - 0.79% Sn |



LYNCH MINING LIMITED  
 MT BISCHOFF TIN PROJECT 183198  
 OPEN PIT LEVEL PLAN - 610m R.L.  
 SHOWING RESOURCE BLOCKS

2000 N

1900 N

1800 N

900 E

880 E

890 E

900 E

910 E

920 E

930 E

940 E

950 E

960 E

970 E

980 E

990 E

1000 E

1010 E

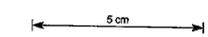
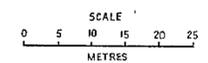
1020 E

94-3626

LEGEND

RESOURCE BLOCK GRADES

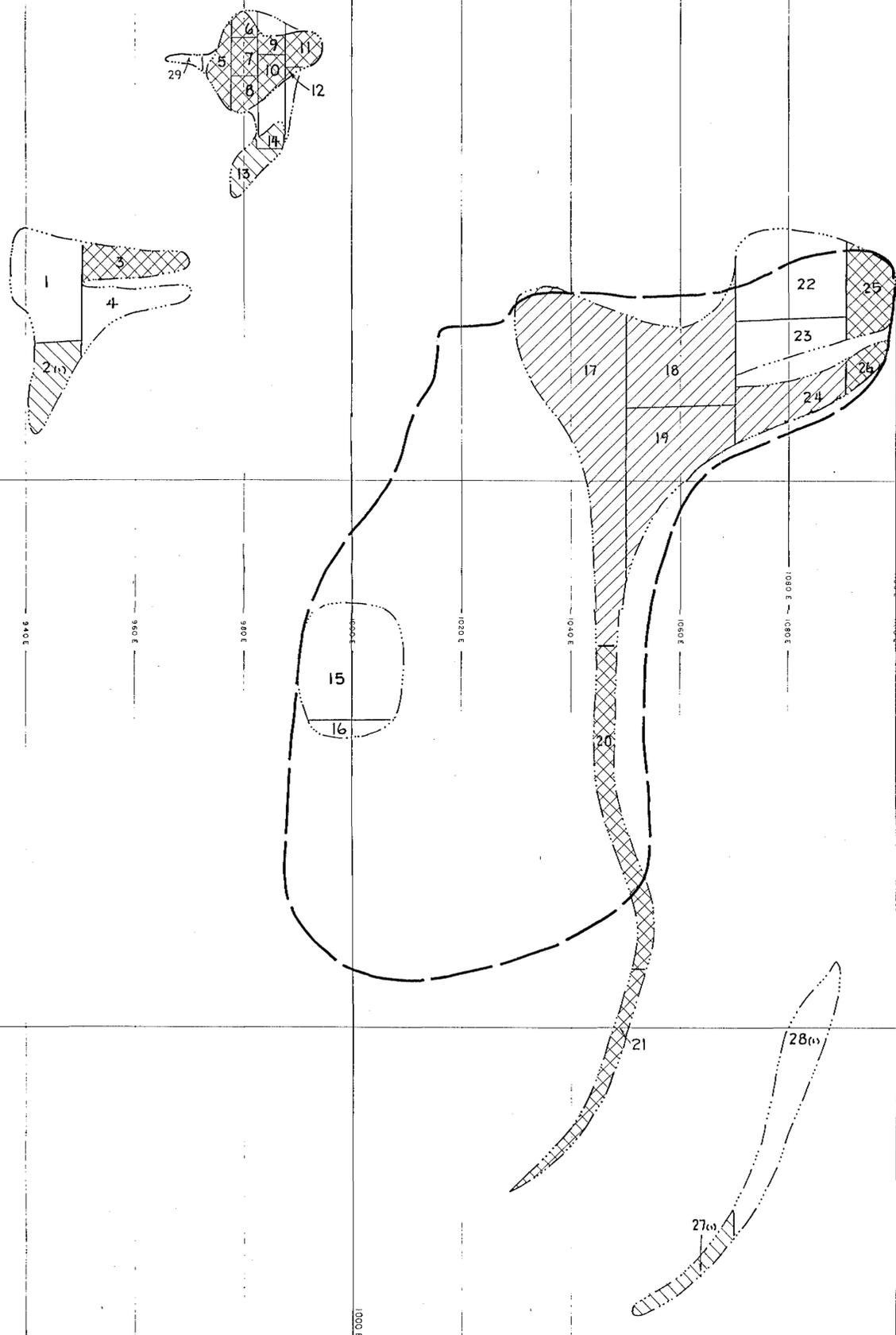
-  + 1.3% Sn
-  1.0 - 1.29% Sn
-  0.8 - 0.99% Sn
-  0.4 - 0.79% Sn

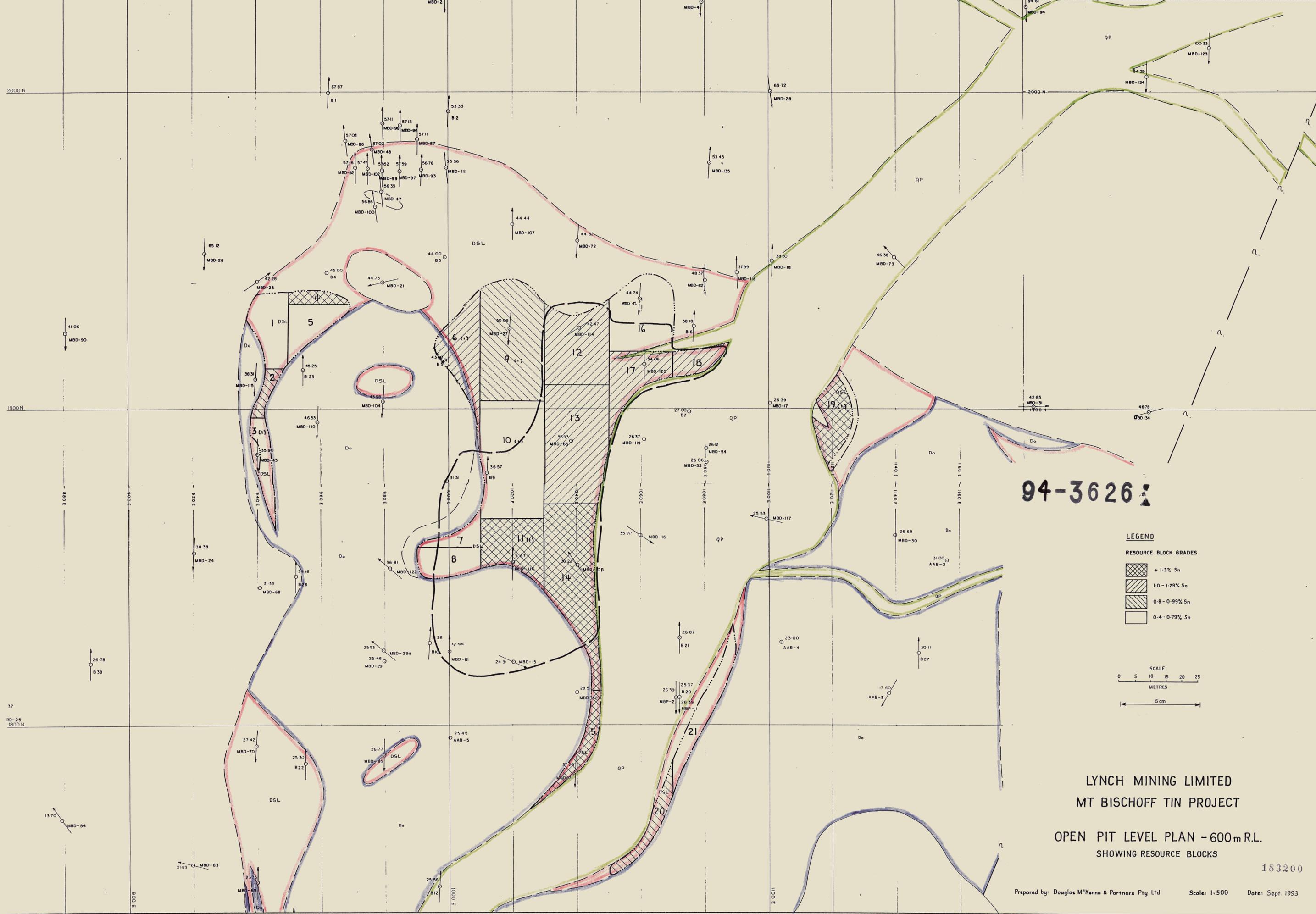


LYNCH MINING LIMITED  
MT BISCHOFF TIN PROJECT

OPEN PIT LEVEL PLAN - 605m R.L.  
SHOWING RESOURCE BLOCKS

183109



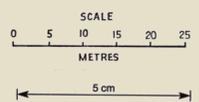


94-3626

**LEGEND**

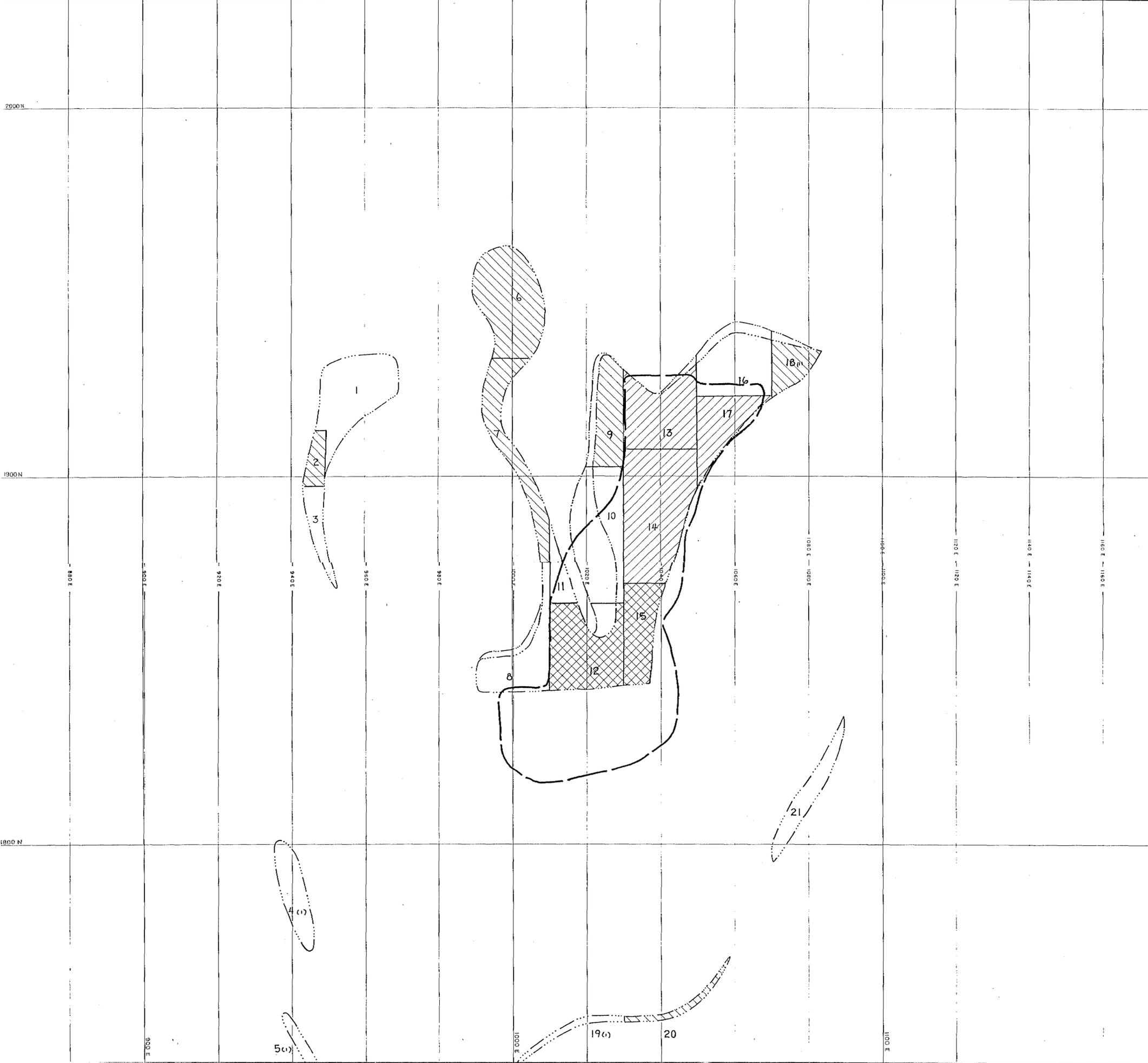
RESOURCE BLOCK GRADES

|  |                |
|--|----------------|
|  | + 1-3% Sn      |
|  | 1.0 - 1.29% Sn |
|  | 0.8 - 0.99% Sn |
|  | 0.4 - 0.79% Sn |



LYNCH MINING LIMITED  
 MT BISCHOFF TIN PROJECT  
 OPEN PIT LEVEL PLAN - 600m R.L.  
 SHOWING RESOURCE BLOCKS

183200

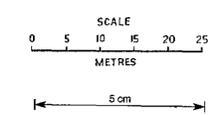


94-3626

**LEGEND**

RESOURCE BLOCK GRADES

|  |                |
|--|----------------|
|  | + 1-3% Sn      |
|  | 1.0 - 1.29% Sn |
|  | 0.8 - 0.99% Sn |
|  | 0.4 - 0.79% Sn |



LYNCH MINING LIMITED  
MT BISCHOFF TIN PROJECT

OPEN PIT LEVEL PLAN - 595m R.L.  
SHOWING RESOURCE BLOCKS

183204

2000 N

1900 N

1800 N

3088

3000

3026

3000

3000

3086

3000

3000

3000

3000

3000

3000

3000

3000

3000

3000

3000

37.60

B38

31.83

B33

35.30

B39

37.41

B28

37.69

B12

37.90

B22

50.34

B71

58.52

B52

36.14

B20

35.51

B21

36.54

B20

36.54

B20

27.95

AAB-3

36.69

MBO-30

42.36

MBO-67

1123.1

3000

40.0

3000

1131.1

3000

36.39

MBO-17

37.00

B7

36.37

MBO-119

36.12

MBO-54

36.06

MBO-53

45.90

MBO-18

45.22

MBO-105

41.32

MBO-116

42.26

MBO-116

42.26

MBO-116

41.32

MBO-116

3000 E

94-3626

**LEGEND**

RESOURCE BLOCK GRADES

-  +1-3% Sn
-  1-0 -1-29% Sn
-  0-8 -0-99% Sn
-  0-4 -0-79% Sn

SCALE

0 5 10 15 20 25

METRES

5 cm

LYNCH MINING LIMITED  
 MT BISCHOFF TIN PROJECT

OPEN PIT LEVEL PLAN -590m R.L.  
 SHOWING RESOURCE BLOCKS 183202

2000N

1900N

1800N

800 E

850 E

900 E

950 E

980 E

980 E

1000 E

1020 E

1050 E

1080 E

1100 E

1120 E

1140 E

1160 E

1180 E

900 E

1000 E

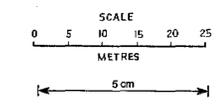
1100 E

94-3626

**LEGEND**

RESOURCE BLOCK GRADES

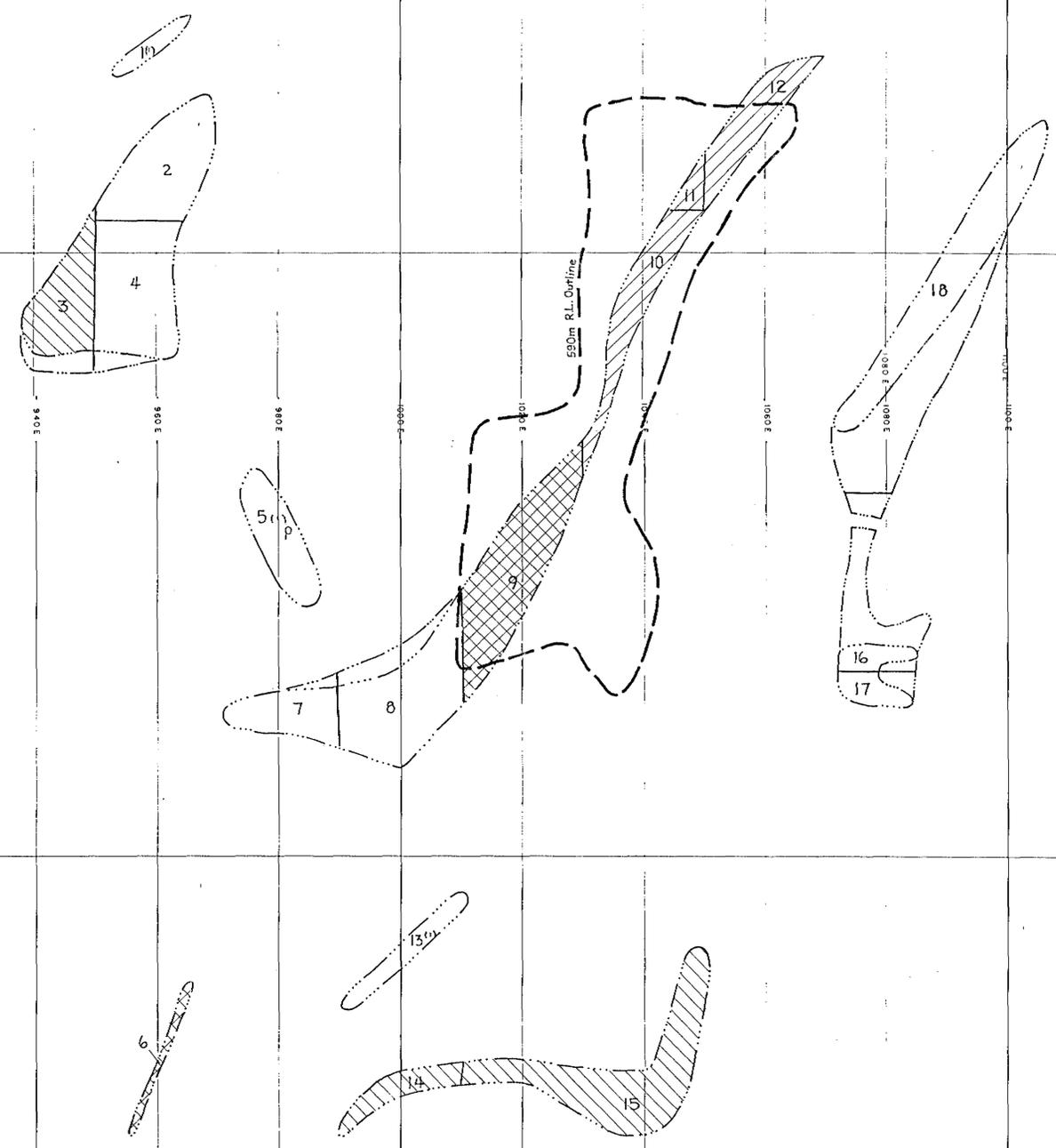
|   |                |
|---|----------------|
|  | + 1-3% Sn      |
|  | 1-0 - 1-29% Sn |
|  | 0-8 - 0-99% Sn |
|  | 0-4 - 0-79% Sn |

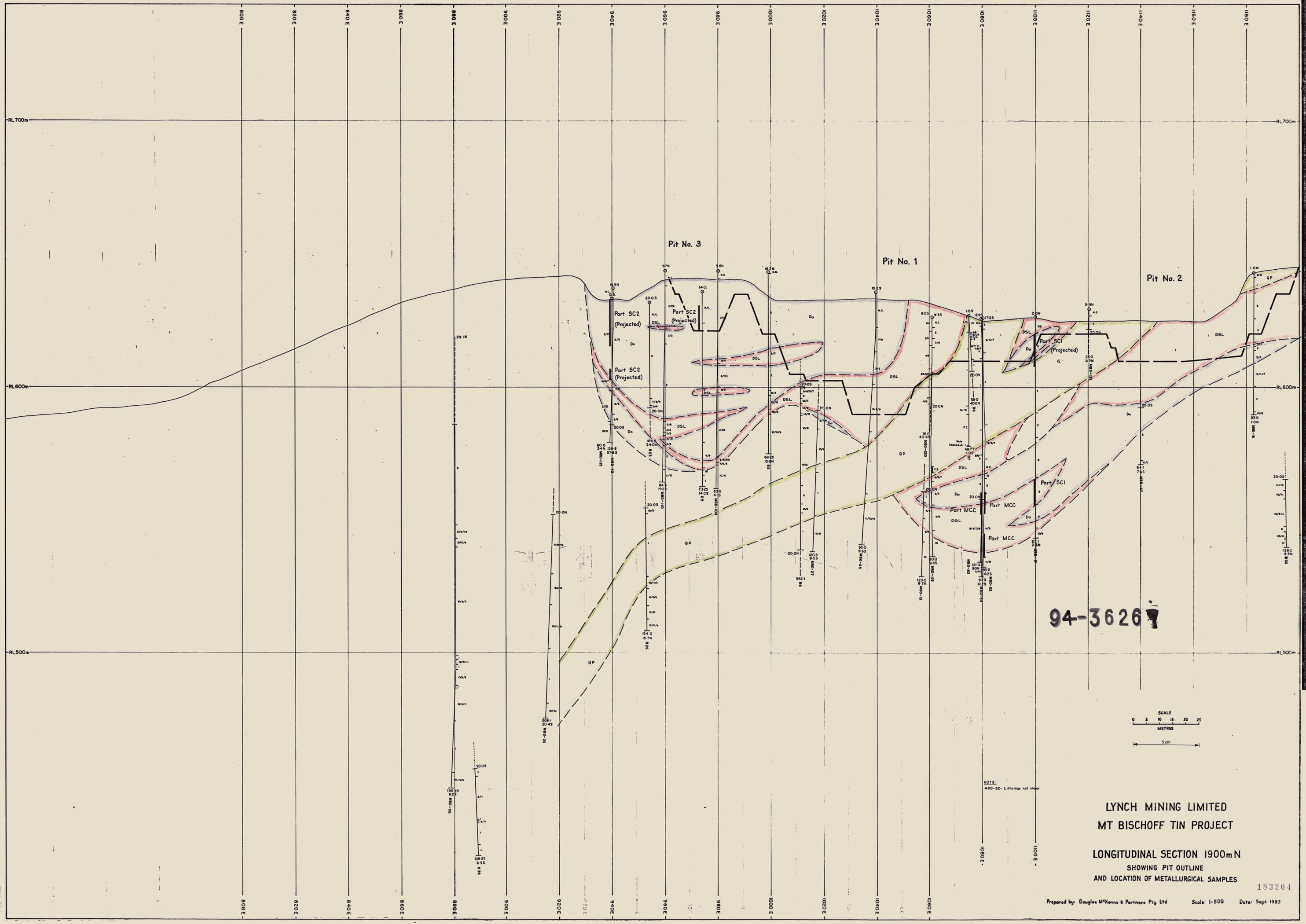


LYNCH MINING LIMITED  
 MT BISCHOFF TIN PROJECT

OPEN PIT LEVEL PLAN - 585m R.L.  
 SHOWING RESOURCE BLOCKS

163E03





Pit No. 3

Pit No. 1

Pit No. 2

Part SC2 (Projected)

Part SC2 (Projected)

Part SC1 (Projected)

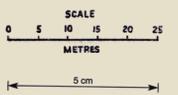
Part SC1

Part MCC

Part MCC

Part MCC

94-36267

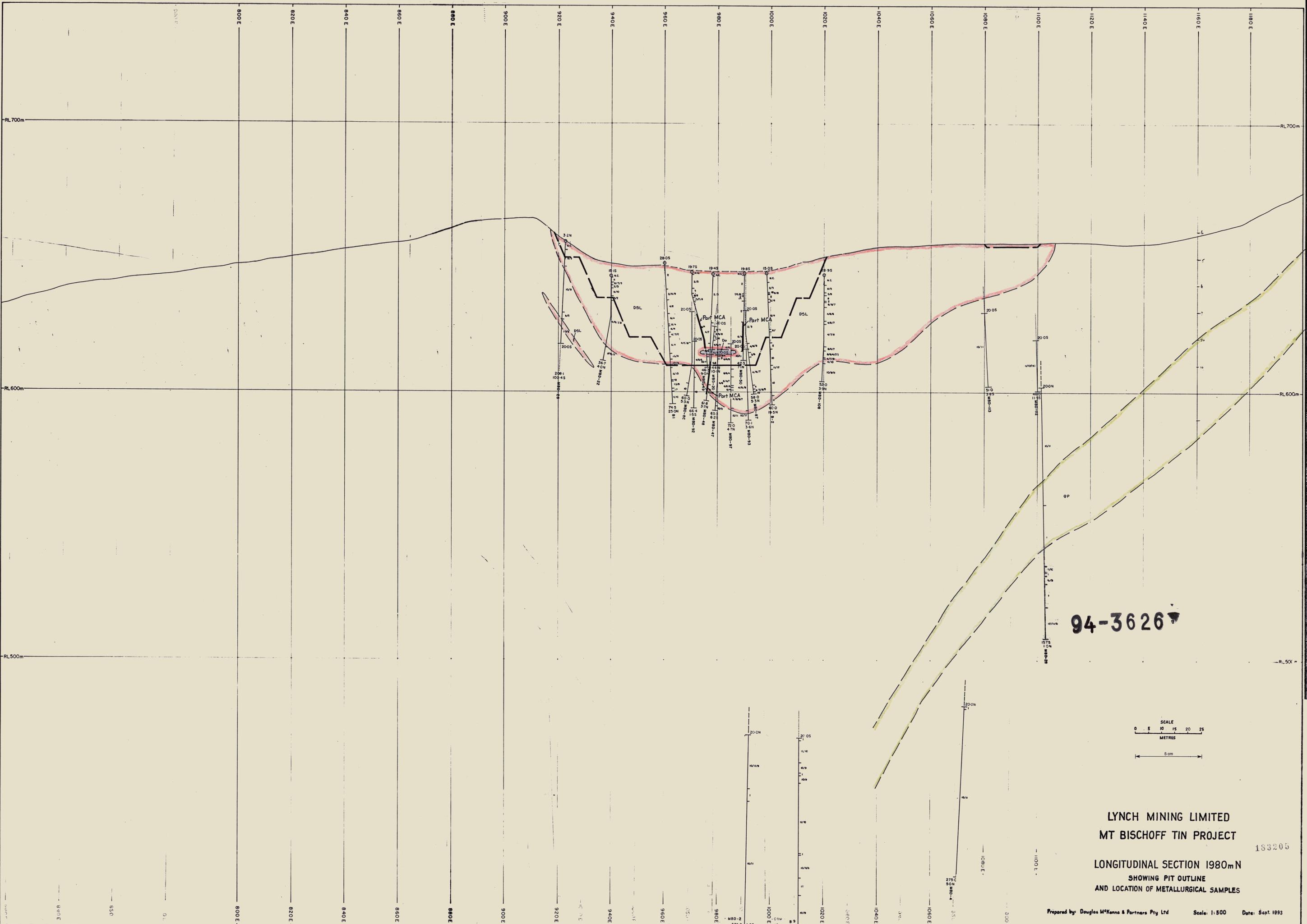


NOTE:  
M8D-82 - Lithology not shown

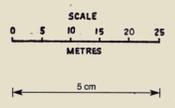
LYNCH MINING LIMITED  
MT BISCHOFF TIN PROJECT

LONGITUDINAL SECTION 1900m N  
SHOWING PIT OUTLINE  
AND LOCATION OF METALLURGICAL SAMPLES

183204

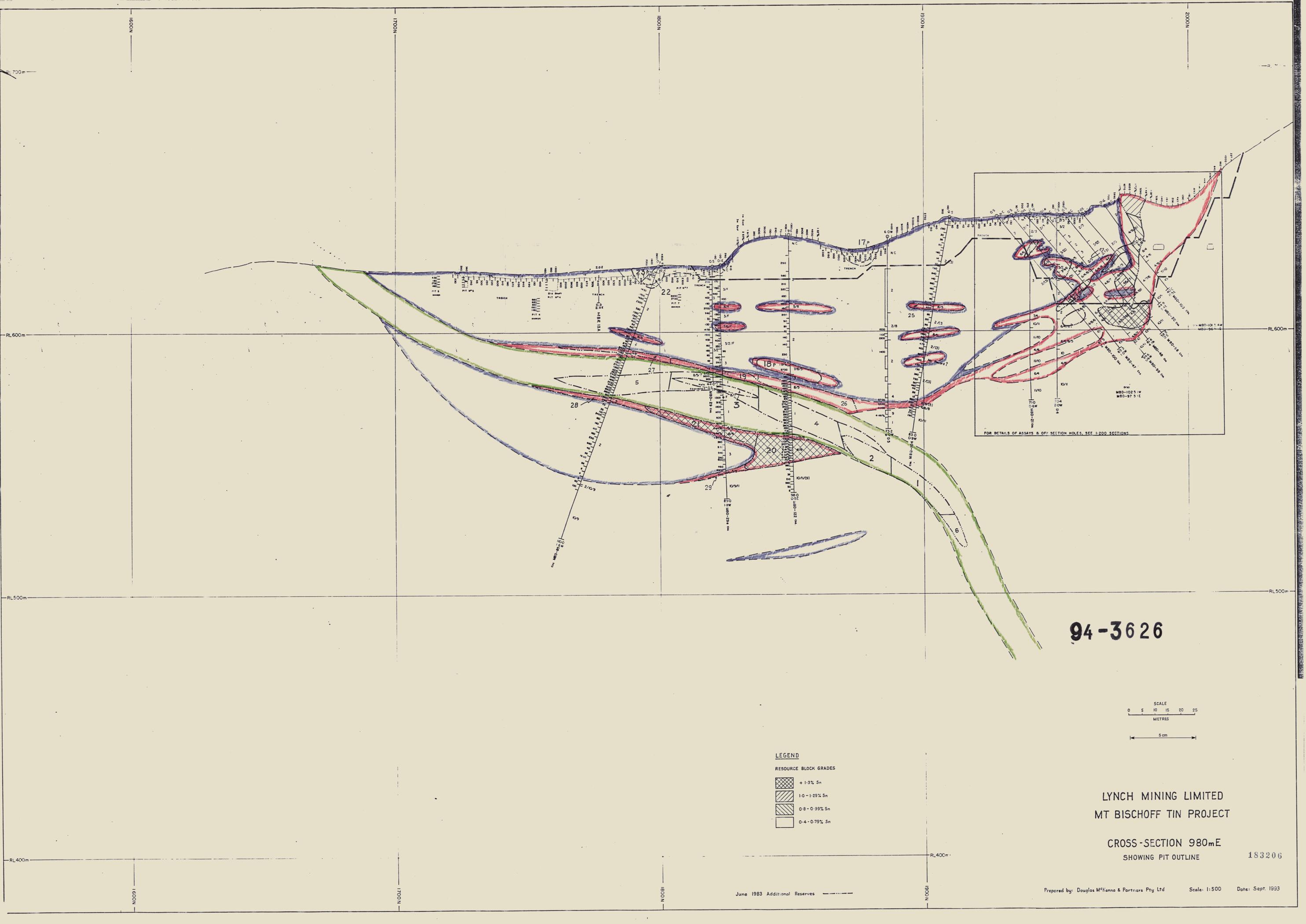


94-3626



LYNCH MINING LIMITED  
 MT BISCHOFF TIN PROJECT  
 LONGITUDINAL SECTION 1980mN  
 SHOWING PIT OUTLINE  
 AND LOCATION OF METALLURGICAL SAMPLES

183205

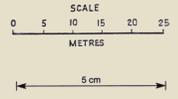


94-3626

**LEGEND**

**RESOURCE BLOCK GRADES**

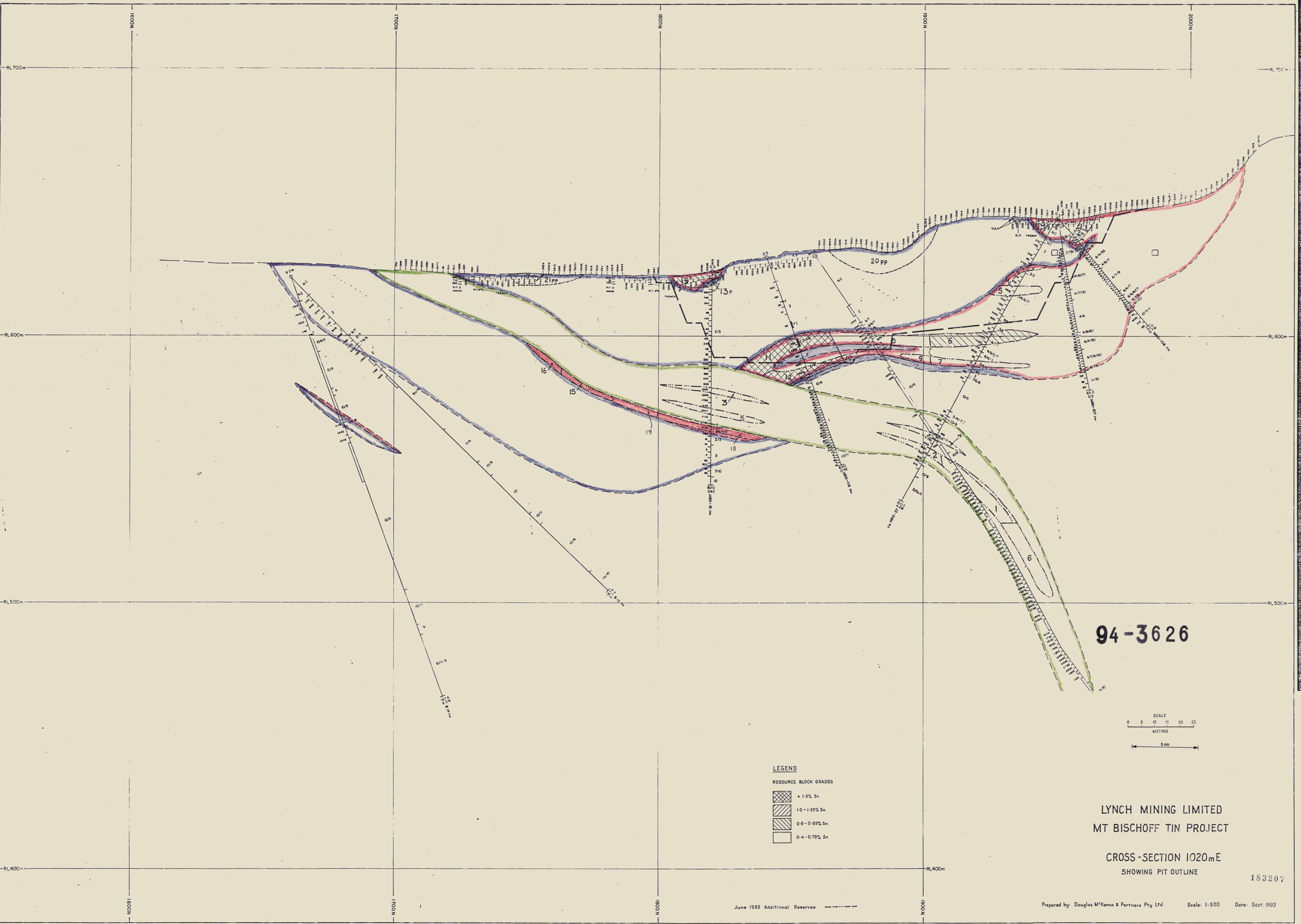
|  |                |
|--|----------------|
|  | + 1.3% Sn      |
|  | 1.0 - 1.25% Sn |
|  | 0.8 - 0.99% Sn |
|  | 0.4 - 0.75% Sn |



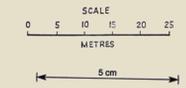
LYNCH MINING LIMITED  
MT BISCHOFF TIN PROJECT

CROSS-SECTION 980mE  
SHOWING PIT OUTLINE

183206



94-3626



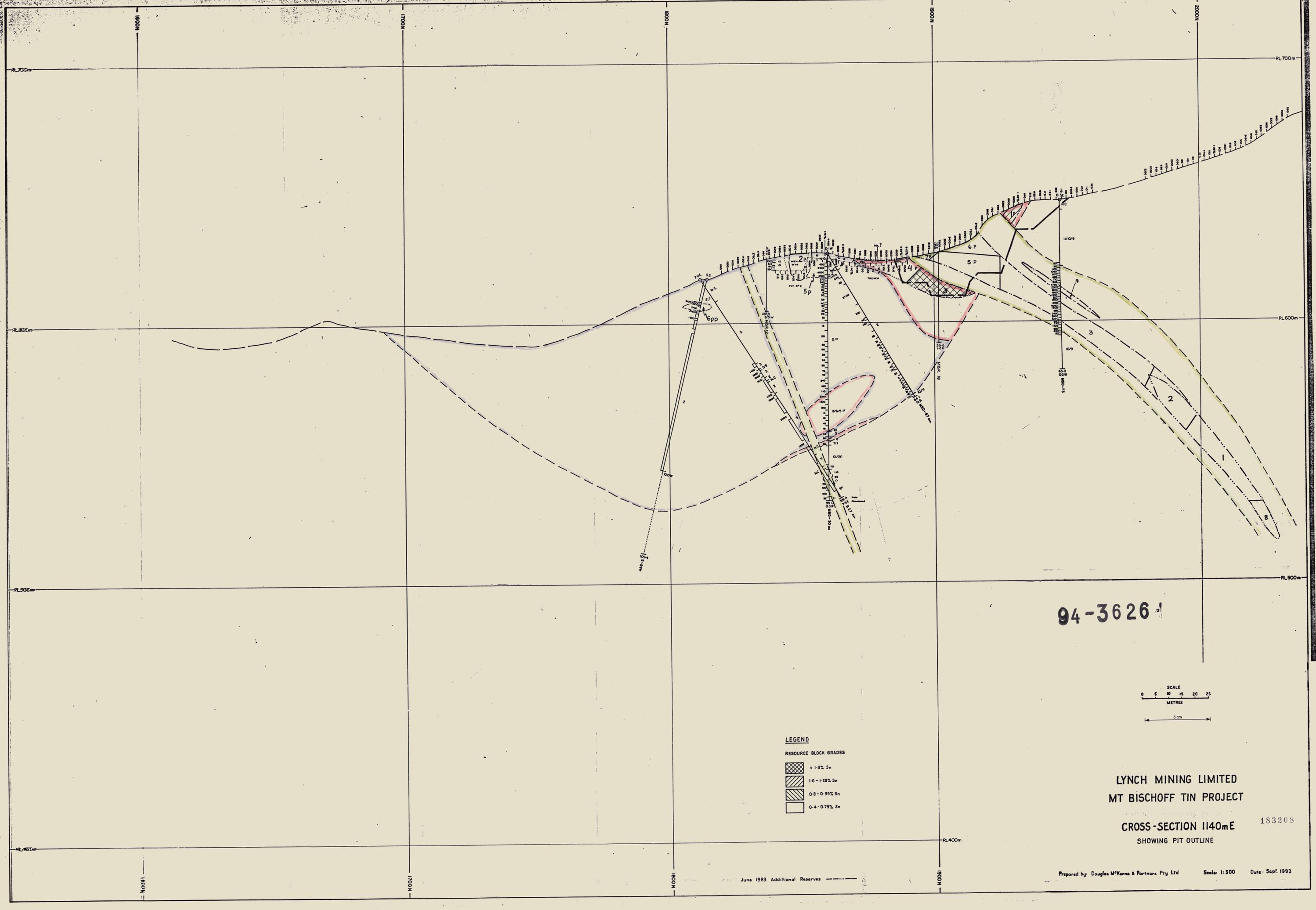
**LEGEND**

RESOURCE BLOCK GRADES

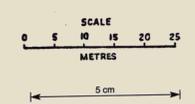
|  |                |
|--|----------------|
|  | + 1-3% Sn      |
|  | 1-0 - 1-25% Sn |
|  | 0-8 - 0-35% Sn |
|  | 0-4 - 0-75% Sn |

LYNCH MINING LIMITED  
 MT BISCHOFF TIN PROJECT  
 CROSS-SECTION 1020mE  
 SHOWING PIT OUTLINE

183207



94-3626



**LEGEND**

**RESOURCE BLOCK GRADES**

|  |                |
|--|----------------|
|  | + 1.3% Sn      |
|  | 1.0 - 1.29% Sn |
|  | 0.8 - 0.99% Sn |
|  | 0.4 - 0.79% Sn |

**LYNCH MINING LIMITED**  
**MT BISCHOFF TIN PROJECT**  
**CROSS-SECTION 1140mE**  
**SHOWING PIT OUTLINE**

183208