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THE MOUNT LYELL MINING & RAILWAY CO. LTD.

72-877

ANNUAL REPORT

ON

S.P.L. 94
(KING RIVER DELTA AREA)

1971 - 72

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Copies To:	General Office	(1)
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	Department of Mines, Hobart	(1)

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1. INTRODUCTION

A Special Prospector's Licence, over 9.2 square miles situated at the mouth of the King River, was issued to The Mount Lyell Mining & Railway Company Limited on October 13, 1970. S.P.L. 94 was acquired to enable the pyrite potential of the sand deposits of the King River Delta to be evaluated. The delta sediments presented a potential source of easily recoverable pyrite which could be supplied to the plant of North-West Acid Pty. Ltd. for sulphuric acid production.

During the 1971-72 year no field work was carried out on S.P.L. 94.

On October 13, 1971, 4.2 square miles of the area were relinquished, reducing the total licence area to 5 square miles. A decision was made to relinquish S.P.L. 94 when it fell due for renewal on April 13, 1972. The licence area was held for a total period of 18 months.

Expenditure during 1971-72 totalled \$85, bringing final expenditure on S.P.L. 94 during the period from October 13, 1970 to April 13, 1972 to \$1,973.

2. PREVIOUS WORK 1970-1971

All previous investigations conducted on S.P.L. 94 are adequately detailed in the 1970-71 Annual Report for this area, to which the reader is referred.

3. WORK COMPLETED 1971-723.1 Field Work

No field work was carried out on S.P.L. 94 during the 1971-72 year.

3.2 Analytical Work

Three pyrite concentrate samples were prepared from three bulk samples of typical delta sand by flotation. The pyrite concentrates were analysed to determine the cobalt content of the pyrite.

The results indicate an average Co content of about 1,000 ppm (0.1% Co) in the concentrate, and about 60 ppm in the tail. The cobalt content is probably contained entirely within pyrite.

Table I summarises the analytical data:-

TABLE I

Sample Number	Cu %	Co ppm
No. 1 Concentrate	0.38	975
No. 1 Tail	0.19	50
No. 2 Concentrate	1.65	1,100
No. 2 Tail	0.15	92
No. 3 Concentrate	1.15	1,100
No. 3 Tail	0.06	40

4. APPRAISAL OF POTENTIAL

During 1970-71 investigations, it was shown that minimum tonnage of 300,000 tons of pyrite was contained in the top 5 feet of exposed delta sands, with further tonnage potential around the submerged delta toe, at depth in the delta and along the banks of the King River for some distance upstream.

At that stage the indicated tonnage, together with the possibility of easy recovery and concentration, appeared sufficient to justify further detailed assessment of the sand deposit.

However, during the 1971-72 year it became apparent that domestic sulphuric acid demand was falling. In addition current supply sources were adequately meeting demand.

On May 31, 1972 the Federal Government removed the bounty on indigenous pyrite production. The Mount Lyell Company currently has a stockpile of some 50,000 tons of pyrite stored in dumps.

Elemental sulphur price is currently low and demands for sulphuric acid appear relatively stable and are able to be supplied by current sources.

In light of the general market for elemental sulphur and sulphuric acid any further study of the King River pyrite sands as potential source of these commodities would appear unwarranted.

The Special Prospector's Licence held over the delta sand deposits was, accordingly, relinquished on April 13, 1972.