

J.J. McDONALD & SONS MINING PTY LTD

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EXPLORATION LICENCE NO. 17/1998

MAYDENA, TASMANIA

RELINQUISHMENT REPORT

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ABSTRACT

Areas peripheral to the Pine Hill silica sand and silica bedrock resources outlined in Exploration Licence 17/1998 have been assessed on a reconnaissance basis and downgraded for the likely occurrence of deposits of similar size and quality.

These areas have been assigned for relinquishment.

Keywords:

Maydena, Pine Hill;
Silica flour, silica rock
Relinquishment

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1. INTRODUCTION

This brief report has been compiled in response to requirements attached to the relinquishment of ground currently part of Exploration Licence 17/1998 which totals 7 sq. km. The five-year term of this licence is due to expire on 03.09. 2003.

Of this tenement, three segments totalling 3 sq. km have been selected for relinquishment and these are designated as:

Part 1	-	Northern Part	1.5 sq. km
Part 2	-	Eastern Part	0.5 sq. km
Part 3	-	Southern Part	1.5 sq. km
		TOTAL:	3.0 sq. km

These three segments are peripheral to the remaining 4 sq. km core of the licence area which contains the Pine Hill silica sand/flour deposit as well as a near-by silica bedrock resource.

This core area is now subject to an application for a retention licence.

2. LOCATION

The current tenement is centred on a point approximately 4 km SW of Maydena and is about 90 km by road from Hobart (Fig. 1).

The infrastructure of the area is excellent.

The sealed Gordon River road extends along and inside the northern edge of the tenement and the remaining areas earmarked for relinquishment are easily accessible by good and well maintained gravel roads and tracks.

Power, water, labour, housing and basic facilities are readily available within a short radius of the tenement and a 700m long gravel air-strip lies 3 km to the north west.

The narrow gauge rail line from New Norfolk to Maydena is being progressively upgraded for passenger traffic which will, in time, provide alternative links with Hobart.

3. EXPLORATION TARGETS

The primary exploration target within the tenement was the Pine Hill silica sand deposit and possible occurrences of substantial quantities of similar material in the area.

Some attention was also focused on the silica bedrock resources of the area in response to late stage expressions of interest from the market place for the production of silicon and ferro-silicon.

4. ACTIVITIES

This report addresses only those activities, which are relevant to the areas to be relinquished.

These activities included:

- acquisition and examination of aerial photographs for signs of significant occurrences of silica sand
- spot checks on air-photo features, surficial and bedrock geology as represented by Ellis (in Jones, 1988) and MRT mapping by Calver and Forsyth (1999)
- check on limestone occurrences in the Risbys Basin section in the north east of the tenement
- spot checks on bedrock geology along the southern fringe of the tenement

5. RESULTS

5.1 Part 1 - Northern Part (Fig. 2):

Inspection of 1:10,000 aerial photographs gave no obvious indications of extensive occurrences of silica sand similar to the Pine Hill deposit in the areas to be relinquished. A conspicuous vegetation anomaly approx. 1.5 km E-W x 0.3 Km N-S extending down the flanks of the Pine Hill ridge to the Gordon River road represents thinner scrubby growth in contrast to the more lush forest growth to the south. Small cuttings just south of the Gordon River Road in this area indicated the presence of white material, possibly silica sands.

Ground check showed this to be scree of largely coarse silica gravel and rock boulders. The proportion of finer fractions was too small to justify further investigation. Assays of several grab samples of this material collected previously by Ellis (in Jones, 1988) showed

Sample	A1203	Fe203	T102	CaO
PH 39	0.86	0.072	0.071	0.011
PH 53	1.2	1.5	0.066	0.014?
PH 69	0.53	0.046	0.19	0.004
PH 70	0.82	0.14	0.033	0.013
PH 71	0.40	0.26	0.042	0.010
PH 88	0.56	0.018	0.062	0.010
PH 90	1.2	0.031	0.14	0.013
PH 99	0.82	0.41	0.042	0.011

Note: Results in %

CaO values in these samples are low, but the high levels of A12O₃, T1O₂ and, to a certain extent Fe₂O₃, rendered this material unattractive to Pioneer Silicon Industries for the production of silicon.

It remains so for the purposes of this investigation.

5.2 Part 2 - Eastern Part:

Most of this segment is underlain by units of the Ordovician Gordon Limestone Group, with a dip of around 35-40' to the NE.

These units were mapped by Calver and Forsyth (1999) and designated the Karmberg Limestone at the base of the sequence, followed by the Cashions Creek Limestone and the Benjamin Limestone at the top.

Further investigations of these units by Calver (1992) and Wrigley (1992 & 1993) as a possible source of high quality limestone for the Risdon Smelter was successful in outlining a drill indicated resource of some 1 million tonnes of suitable limestone in the Cashions Creek Limestone averaging around 94.5% CaCO₃ and 0.38% MgO in an area just to the SE of E.L. 17/1998.

As this unit traverses the NE corner of the tenement some limited check assaying of some of the MRT-generated drill cuttings was undertaken to confirm the quality of the material and to test for acid neutralization capacity.

The results confirmed the high quality of the material, indicated only very low levels or absence of undesirable contaminants and indicated satisfactory acid neutralization values of around 96.9

Further investigations into this material were discontinued when it became apparent that the required, relatively small , amounts of limestone could be sourced more cheaply elsewhere.

5.3 Part 3 - Southern Part

This segment, traversed by Maynes and Styx Road, occupies a 3 km long section along the lower slopes of the Maydena Range.

Most of this area contains lithologies at the base of the Permo-Triassic Parmeener Group, represented here by soft "pebble" mudstones overlain by dark grey mudstone dipping at very low angles to the south.

These beds are downfaulted against steeply-dipping, north-west trending sequences of probable Lower Cambrian age.

Spot checks revealed no significant deposits of silica sand or flour associated with the rocks in this area.

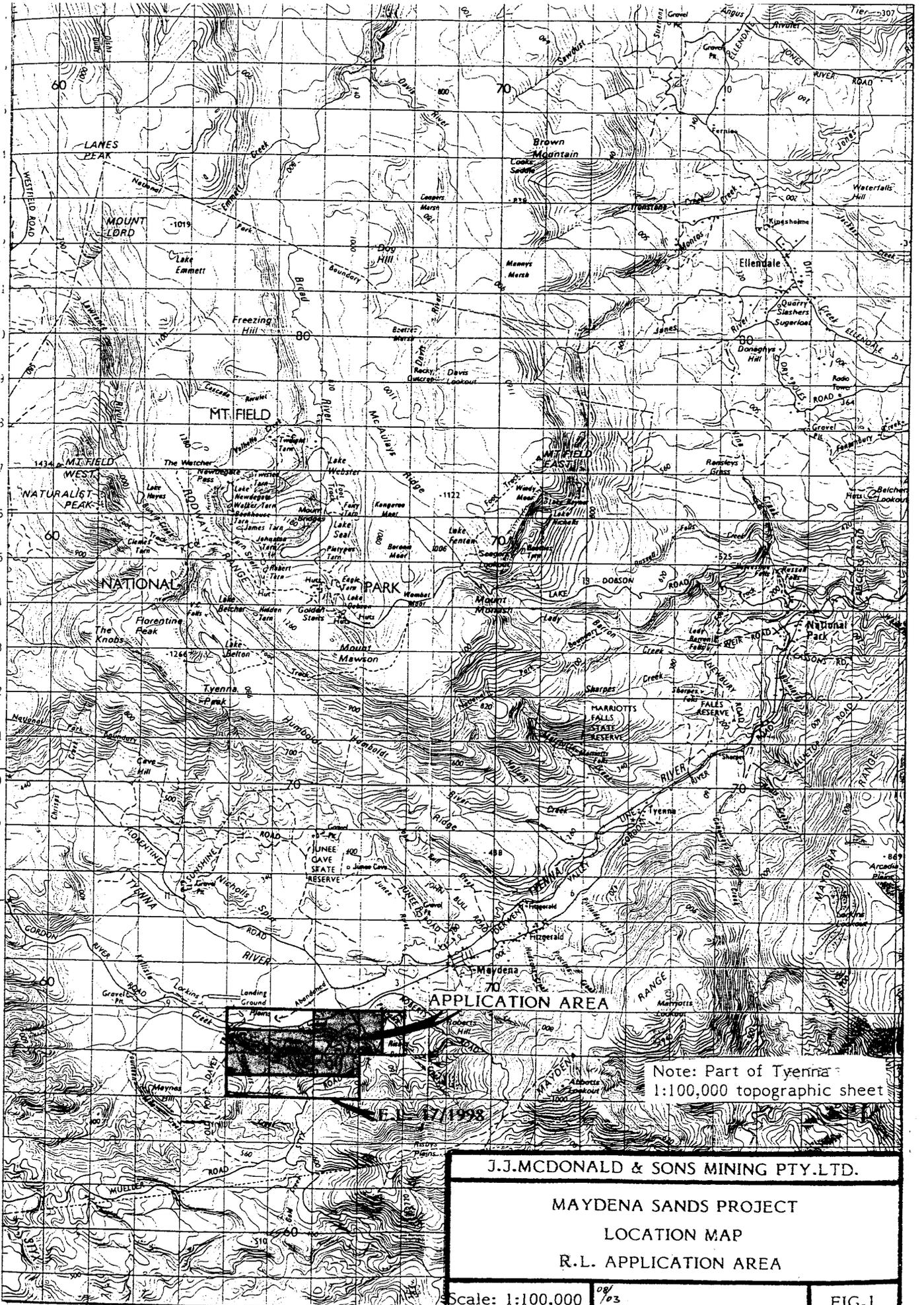
6. CONCLUSIONS

6.1 The areas reviewed do not contain raw materials of immediate economic significance to this company.

6.2 It is proposed that these three segments of E.L. 17/1998 be relinquished.

7. REFERENCES

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MAYDENA SANDS PROJECT

LOCATION MAP

R.L. APPLICATION AREA

Scale: 1:100,000 08/03

FIG.1

