

MICROFILMED

LOUISA MINING CORPORATION N. L.
FINAL REPORT S. P. L. 137
September 1978
M. C. Forster

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LOUISA MINING CORPORATION N.L.

152 BRISBANE STREET, LAUNCESTON, TASMANIA. 7250

22nd Aug. 1978

The Director of Mines,
Department of Mines,
Davey Street,
HOBART.

556 Sandy Bay Road,
SANDY BAY. 7005

Doc. No. 12	CC&M	DATE
RECEIVED	25 AUG 1978	REGISTRAR
ANALYSIS	DEPT. OF MINES	
REF. No. 3648/78		

(Handwritten initials and circled numbers 1, 2, 3, 4 are present on the form)

Dear Mr. Symons,

Herewith the final report on S.P.L. 137 at Lune River in respect of limestone prospecting.

Perhaps in the future, if there is a rig available for a few days, and of course the funds, could your Department put a hole down on the North Lune Road as part of your general mapping project?

The drilling of the southern outcrop in the Lune River would require an access track from the South Lune Road and would involve quite a lot more work.

Yours faithfully,

(Handwritten signature of M.C. Forster)
M.C. Forster

AMG REFERENCE POINTS ADDED

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Final Report S.P.L. 137M.C.ForsterSep. 1978.

An application for a S.P.L. covering approx. 100 sq.km in the Lune River area was made in March, 1974 by Louisa Mining Corp. N.L. Objections to the application were received from the Tasmanian Conservation Trust only.

A meeting with representatives of the Trust resulted in an amended application with a reduced area and the Trust withdrew its objection.

S.P.L. 137 in respect of 83 sq.km was issued on 19th July, 1974, for the purpose of prospecting for high grade limestone. The object of the Company was to locate large deposits of metalurgical grade limestone in a suitable location where it could be economically mined on a large scale for use as a flux in steel making by the BOS method.

Summary

On 30th July, 1974 The B.H.P. Company Ltd. gave their specifications for high grade limestone for use in BOS steel making as follows:-

CaO	54.0% min.
SiO ₂	0.5% max.
Al ₂ O ₃ + TiO ₂	0.25% max.
P	0.05% max.
S	0.03% max.
Zn	0.05% max.
Pb	0.05% max.
K & Na, Alkalis	0.10% max.
Fe ₂ O ₃	0.5 % max.
MgO	0.5 % max.
Free water	2.0 % max.

As a preliminary result from the current studies undertaken by B.H.P. they advised that they may be able to allow the MgO to increase somewhat.

Another requirement is that the stone should calcine to a hard lump. This specification has been found only in fine to very fine grained limestone by B.H.P.

-It was known that the limestone used for carbide manufacture at Electrona would not meet the B.H.P. specifications. This limestone comes from the Lune River quarry but at a site elevated from the Lune River Plains.

It was thought that a higher grade limestone could be present at other bed levels and in particular in the area of the Lune River Plain.

As there is no great demand for high grade limestone in Australia at the present time (due to the low price of 'back loading' stone from Japan etc.) the prospecting was for something of geological curiosity rather than for direct mineral value. However the discovery of a high grade deposit in this area close to a deep water loading site could have value in the future.

Prospecting

Surface prospecting along the bed of the Lune River led to the discovery of an outcrop of limestone at a location to the S.W. of the Thermal Springs as indicated on the plan 1. herewith. This limestone was blue-grey in colour and of very fine grain. A chip sample assay gave 52.5% CaO and 0.5% MgO.

Extensive surface prospecting was carried out over the Lune River basin, including the the beds of the Lune River and Messa Creek without finding any further limestone outcrop other than a bed of Permian limestone in the upper section of Messa Creek. However, limestone outcrops in flat country such as the lune basin could be expected to be rare.

It was noted that despite heavy winter rains, most of the lower part of Messa Creek carried very little water, perhaps indicating an underflow in limestone or dolomite.

Attempts to auger drill the alluvium at a location on the North Lune Road between the Lune River and Mesa Creek were at first unsuccessful, due to boulder beds.

The Company was unable to find a suitable drilling rig which could penetrate deep boulder beds until the Department of Mines offered a suitable rig in October, 1975. However more urgent work on the proposed new Derwent bridge site near Risdon made the rig unavailable for over a year and the Company made further efforts with a powered auger.

Three holes about 100m apart were successful in getting through the boulder beds which were found to be only on the surface to a depth of about 0.5m. These holes were located on the North Lune Road between the Lune River and Mesa Creek just to the west of the silica outcrop.

Below the 0.5m boulder bed the auger penetrated brown clay to what was thought to be bedrock at about 2.5m. Chip samples from the auger showed richly fossiliferous (Permian?) sediment. The drilling method does not prove that the drill auger was in fact on 'bottom', and all three holes may have been on float.

Further to the north on the steep slopes, directly to the west of the Hastings Caves (dolomite) there is outcrop of limestone which we understand was discovered by Mr. Ian Jennings of the Mines Department. This outcrop was sampled over a vertical distance of about 100m by chip samples at about equal vertical distance from top to bottom with the following assay results:-

<u>Sample No.</u>	<u>%CaO</u>	<u>% MgO</u>
H1	43.4	5.1
H2	42.8	5.5
H3	51.2	1.8
H4	52.9	1.3
H5	50.4	3.2
H7	47.2	4.7
H8	51.9	0.8
H9	46.9	6.1
H12	54.7	0.7
H13 A	50.8	3.8
H13 B	53.3	1.8
H13 D	46.9	6.5

A number of large sink holes were found in the same general area.

Conclusion

- (1) All limestone samples were taken from outcrop and therefore may not be truly representative of the average grade for that reason.
- (2) The drilling of the Lune River basin area was not extensive and did not satisfactorily resolve the question of whether or not there is limestone under the Lune Plain.
- (3) The general downturn in the steel industry and lack of interest by the users has in turn left this Company with an unenthusiastic attitude towards limestone prospecting at this time.
- (4) It is considered that the area still has some prospect for the location of high grade limestone deposits.
- (5) If further work is undertaken in the future it is recommended that the outcrop found in the Lune River bed be drilled and sampled to depth, and that drilling should extend outwards from this known deposit.

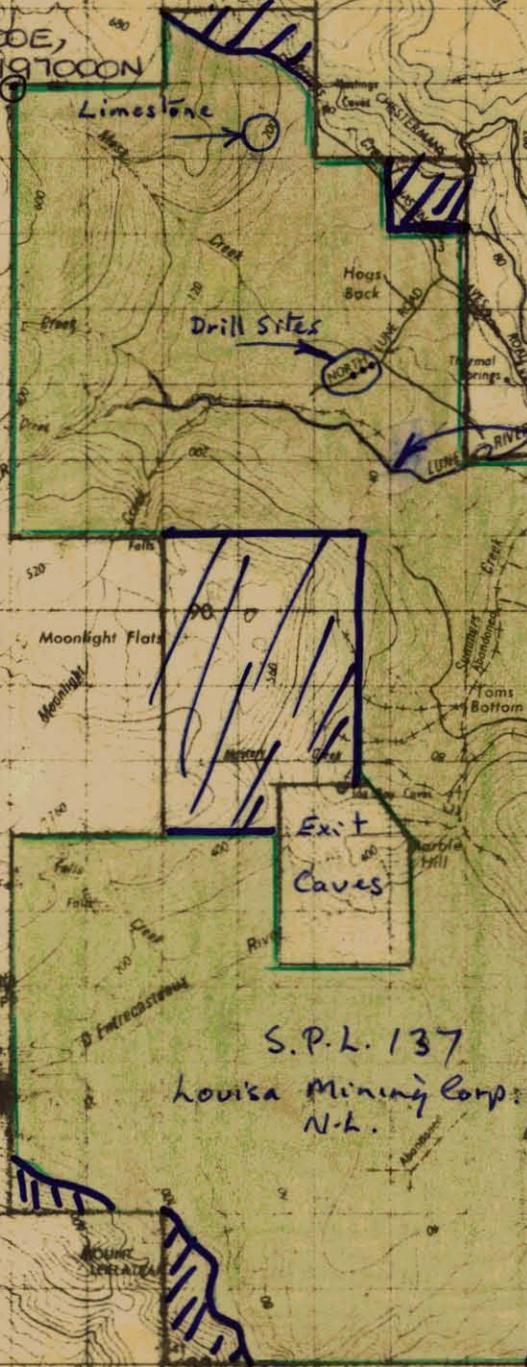
Yours faithfully,



Mac Forster

Plan ①

AMG 483000E, 519700N



S.P.L. 137
Louisa Mining Corp.
N.L.

High areas
excluded
from S.P.L. 137

AMG 490000E, 518000N

AMG REFERENCE POINTS ADDED

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