D.M. 55/56.

DEPARTMENT OF MINES

SOUTH AUSTRALIA

REPORT

ON

MT. GAMBIER LIMESTONE NEAR GLENCOE

SECS. 11 & 388, Hd. HINDMARSH, CO. GREY

(A.E. KNIGHT)

by

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GEOLOGICAL SURVEY BRANCH

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Date. 20. 1.56.

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Department of Mines
South Australia.

1. ABSTRACT

A deposit of Mt. Gambier Limestone at Glencoe was examined and samples taken. Compression tests indicated that the material will be satisfactory for small buildings. Suitable quarry sites exist.

2. INTRODUCTION

Mr. Fletcher, M/P for Mt. Gambier, delivered to the Department about July 1955, a sample of building limestone from Glencoe. This sample was provided by Mr. A. E. Knight of Gwendoline St., Mt. Gambier.

A report on the limestone was requested "in due course". The area was visited by the writer in company with Mr. Knight on Wednesday 16. 11. 55 and again on Thursday 17.11.55.

3. LOCATION

The limestone was reported from the extreme south-eastern corner of Hd. Hindmarsh. However the Regional Geological Map of Counties MacDonnell, Robe and Grey published in Bulletin 29, "The Geology of the South East Province, South Australia" by R.C. Sprigg, Senior Geologist, shows Tertiary Limestone outcropping over most of the south-eastern half of the Hd. Hindmarsh, extending into the adjoining hundreds. No limestone is recorded as outcropping north and west of the area under review.

4. GEOLOGY

The Mt. Gambier bryozoal limestone is placed as ? lower & ? middle Miocene. No definite upper Miocene marine formations have been recognised. There are no known stratigraphic markers but the base where it rests on the Knight. Formation (mainly Eocene) has been used for structural interpretation.

Zones of dolomitization occur, being probably post sedimentation and possibly related to faulting. Gentle folding about NW - SE axes occurs but no major folds exist. A number of NW - SE faults have been recognised.

Where inspected in Secs. 11 & 388, the bryozoal limestone appears very similar to that being worked for building stone west of Mt. Gambier. It is rather coarser than that previously worked in the vicinity of Mt. Shank. No structural interpretation was possible from the outcrops.

Small quarries have previously been worked for building stone in Secs. 11 & 388 and these were sampled as well as an outcrop in Sec.11 near the road.

Compression tests were carried out by the Engineering Testing Laboratories of the University of Adelaide - their Test Report is appended. Results indicated that a stone with strength sufficient for small buildings is available. In using these result it should be noted that two specimens marked "3" cut from the same sample on opposite sides of the same saw cut gave results varying by almost 20%. Variations such as this will always occur and should be taken into account in designing structures.

5. CONCLUSION

An occurrence of Mt. Gambier Limestone near Glencoe, reported by A.J.Knight, has been examined. Compression tests carried out by the Engineering testing Laboratory of the University of Adelaide indicate that the material will be satisfactory for small buildings.

Suitable quarry sites exist in the area.

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GW:JAH.
23. 1.55.

Appended.

Test Report.

THE UNIVERSITY OF ADELAIDE

ENGINEERING TESTING LABORATORIES.

TEST REPORT.

Date: 5 th January, 1956.

The Senior Geologist,

Department of Mines,

North Terrace, ADELAIDE.

Compression Tests on Mt. Gambier Limestone

Description and Brand	Date Cast	Date Tested	Dimensions of bearing surface (in.)	Height (ins)	Density lb.c.ft.	Comp Strength (lbs./sq.in)	Age	Remarks
1.		16/12/55.	4.0 x 3.9	5.95		650		
2.		"	3.8 x 2.2	2.5		420		
3.		"	3.9 x 3.9	4.0		550		
3.		"	4.0 x 3.9	4.0		460		

Localities

1. Sec. 388 Hd. Hindmarsh Centre of Southern Boundary
2. " 11 Hd. Hindmarsh Centre of Southern Boundary
3. " " " Centre of Eastern Boundary

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