

DEPARTMENT OF MINES
SOUTH AUSTRALIA

Report on

QUARTZ-CALCITE-DOLOMITE DEPOSIT

SEC 2276, MR. KOORINGA CO. BURRA

(H. & L.G. Dept.)

by

L. G. Nixon

GEOLOGIST

MINERAL RESOURCES SECTION

GEOLOGICAL SURVEY

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1. Abstract
2. Introduction
3. Geology
4. Drilling
5. Conclusions
6. Appendix.

Map No.

TITLE

Scale

57-285

Marble Deposit
Sec. 2276, Mr. Kooringa, Co Burra.
H. & L.G. Dept.

100' = 1"

SOUTH AUSTRALIA

Report on

QUARTZ-CALCITE-DOLONITE DEPOSITBEC 2276 MD. KOORINGA CO. BURRA

(H. & L.G. Dept.)

1. ABSTRACT

Quartz-calcite-dolonite, equated with the Torrensian series of the Adelaide system outcrop in portion of the above section. One diamond drill hole was drilled to 75' to test the rock at a probable quarry site. 80% of the core was recovered, most of which appeared to be suitable for use as bitumen aggregate.

2. INTRODUCTION

Following discussions with officers of the H. & L. G. Dept., one diamond drill hole was laid out to test the quality of stone to a depth of 75' in a probable quarry site in the above section.

Drilling commenced on 3/12/57 and completed on 6/12/57. 80% of the core was recovered.

3. GEOLOGY

Sediments outcropping have been recrystallised to white quartz-calcite-dolonite equated with the Torrensian series of the Adelaide system rock of Pre-Cambrian age. Folding in the area is complex, and movement on the Koorringa Fault may have added to the complexity of the folding.

4. DRILLING

One diamond drill hole bearing 065° depressed 60° was drilled to a depth of 75'. Most of the rock penetrated appeared to be suitable for use as bitumen aggregate. Core was made available to the H. & L. G. Dept. for testing.

5. CONCLUSIONS

The diamond drill hole located in the above section penetrated a predominantly quartz-calcite-dolonite rock. Good core recovery (80%) would indicate the area around the drill hole suitable for

<u>From</u>	<u>To</u>	<u>Description</u>
29' 4"	53' 9"	Pinkish brown tough fine grained Q.C.D. Pyritic zones about 39'. Beds make an angle of 56° to length of core.
53' 9"	73' 5"	White tough dense Q.C.D. Pyritic zone 57' 8" and 60' 8" At 60' 8" bleached and porous friable rock.
73' 5"	74'	Weathered siliceous Q.C.D. tough dense white
74'	74' 4"	Bluish tough dense Q.C.D.
74' 4"	75'	No core

DETAILS OF CORE RECOVERED

<u>From</u>	<u>To</u>	<u>Core Recovered</u>
0'	2'	10"
2'	4' 10"	16"
4' 10"	6'	12"
6'	10' 4"	33"
10' 4"	12' 3"	16"
12' 3"	14' 7"	32"
14' 7"	15' 9"	7"
15' 9"	17' 10"	21"
17' 10"	20'	26"
20'	29' 4"	41 1/2"
29' 4"	73' 5"	499"
73' 5"	75'	11"

724 1/2"

= 60 feet.

= 80% Recovery

L. G. NIXON

Department of Mines, South Australia

LOG OF DIAMOND DRILL HOLE NO. 2

Project Dolomite Deposit, H. & L.G. Dept. D.M. 1210/57
Sec. 2276 Hd. Kooringa Cd. Burra Hole Ser. No. P.D.52/58
Collar Co-ords. E.L. 999.8 Grid 22. 96
Direction 065°N Angle 60° Depth 75' Plan Ref.
Date Hole Commenced 3/12/57 Completed 6/12/57 Driller S. Lopert
Hole Logged by L.G. Nixon On 16/12/57 Hirer H. & L.G. Dept.

OBJECT: To test the suitability of the rock for use as road metal.

RESULT: Most of the rock penetrated appeared to be suitable for use as road surfacing metal.

Log comprises: Geological Log
Details of Core Recovered

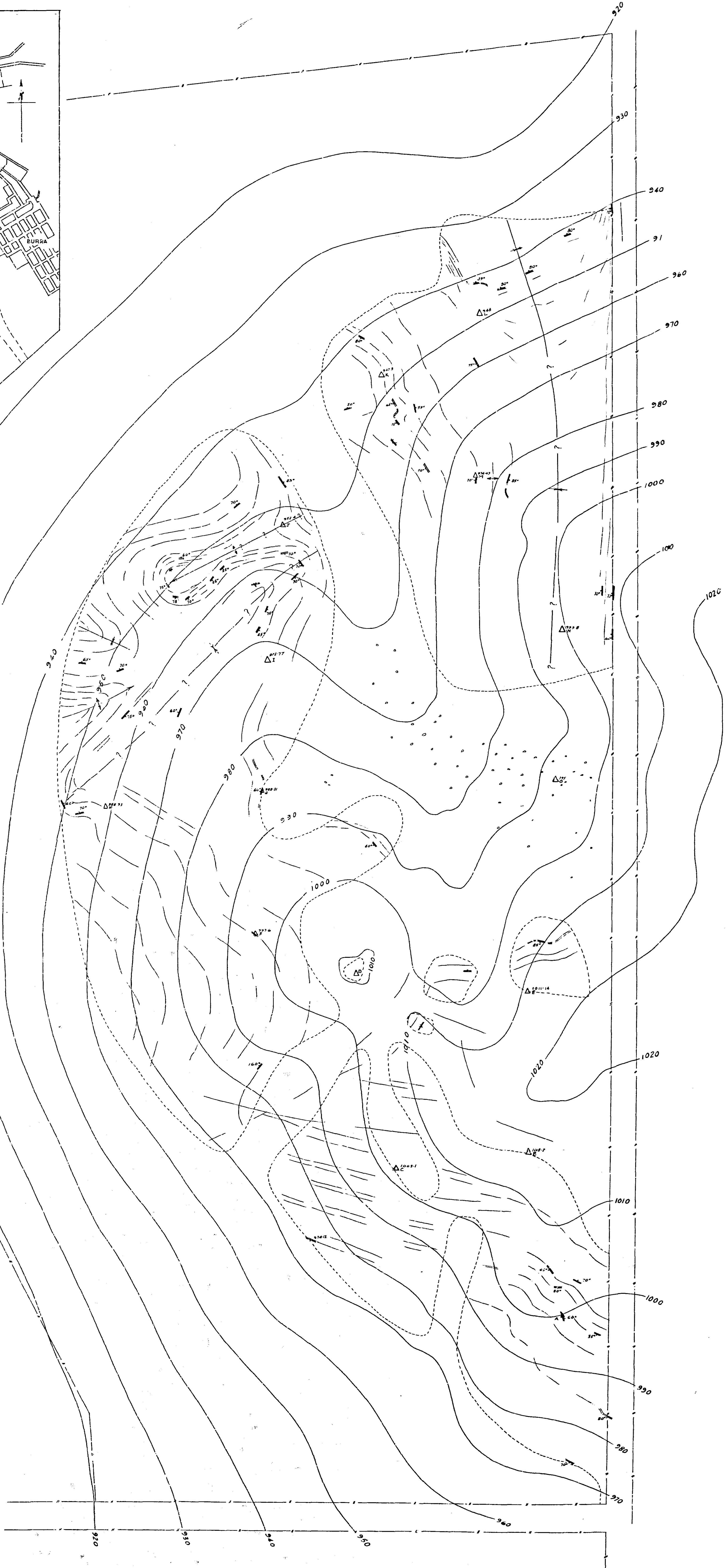
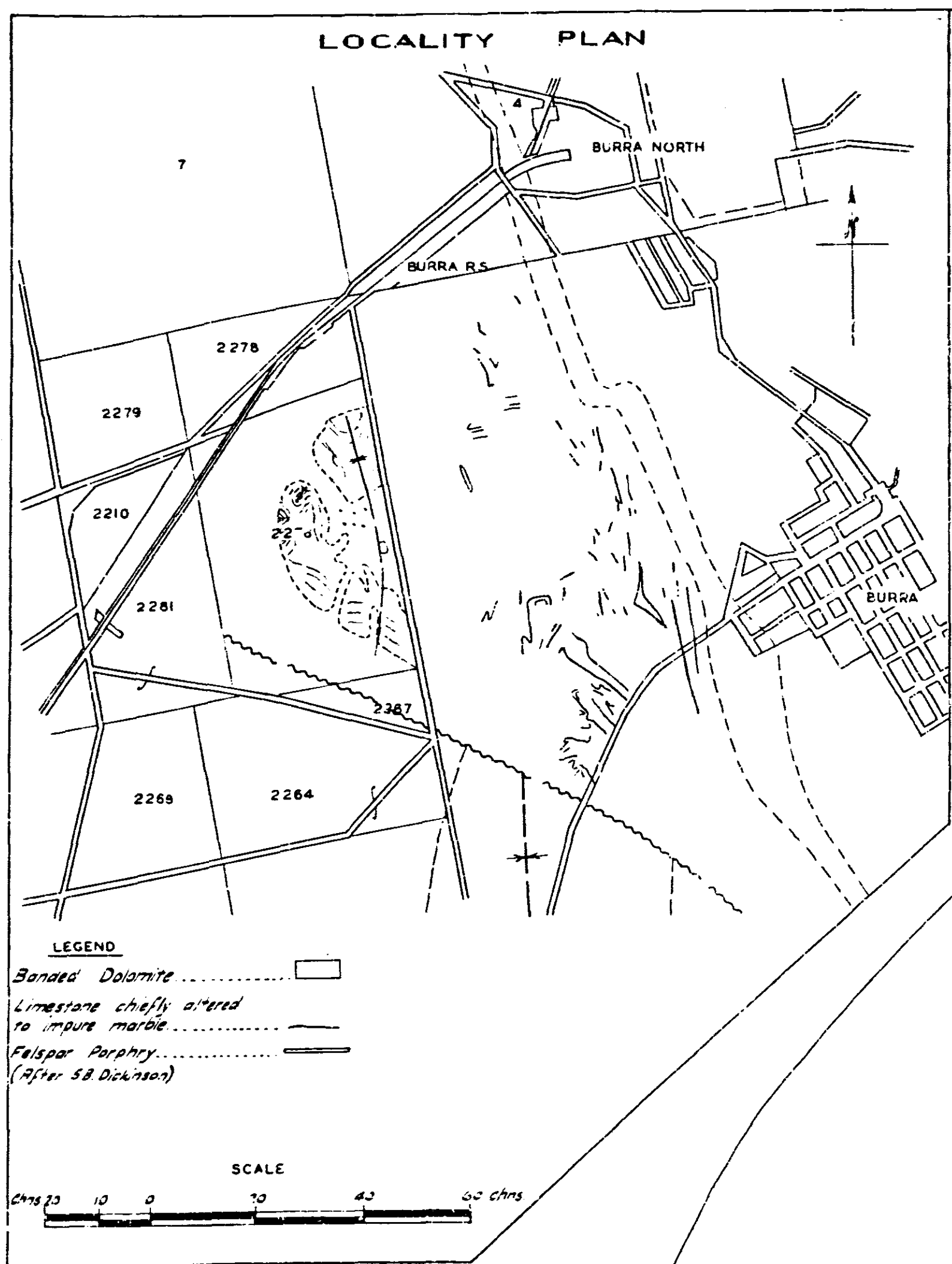
GEOLOGICAL LOG

<u>From</u>	<u>To</u>	<u>Description</u>
0	2'	Travertine capped brecciated Quarts-Calcite-Dolomite (Q.C.D.)
2'	4' 10"	Fractured Q.C.D. Some bedding visible. Beds make a 41° angle to the length of the core. Sediments weathered medium grained creamy-pinkish in colour. Fractures around the 2' mark.
4' 10"	6'	Bluish tough dense cherty Q.C.D. cut about by drill bit.
6' 0"	10' 4"	Coarser grained light cream coloured Q.C.D. Rock brecciated, some may be intraformational breccia.
10' 4"	12' 3"	Fine grained blue grey brecciated dolomitic rock with purple horizons.
12' 3"	14' 7"	Coarser grained cream coloured calcic rock brecciated and iron stained with purplish iron cement.
14' 7"	15' 9"	Laminated purple and cream coloured sediments. Beds make an angle of 50° to the length of the core. Rock brecciated but well cemented.
15' 9"	17' 10"	Brecciated cream coloured purple stained Q.C.D. well cemented.
17' 10"	20'	Slightly purple fine grained Q.C.D. grading to mustardy colour at 20'.
20'	29' 4"	Fractured iron stained Q.C.D. grain size and colour vary.

a quarry site.

LGH:CEP
29/3/58

Mixon
L. G. MIXON
PSYCHOLOGIST



LEGEND

- ALLUVIUM.....
- OUTCROP OF MARBLE.....
- PORPHYRY FLOATERS.....
- DIP AND STRIKE OF BEDS.....
- ANTICLINAL AXIS.....
- SYNCLINAL AXIS.....
- INFERRED STRUCTURE.....
- SURVEY STATION.....
- FENCES.....
- CONTOUR LINE (DATUM 1000 ft.).....

S.A. DEPT OF MINES

MARBLE DEPOSIT
SEC. 2276 H₄ KOORINGA — C° BURRA
(H & LG DEPT)

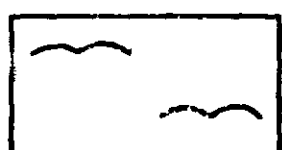
To accompany report by L.G. Nason Geologist

Associated Drawing	No.	No.	Arrangement	End	Date

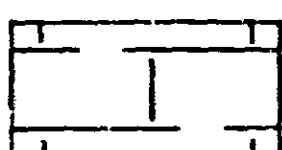
Approved	Passed	Scale: 100 Feet to 1 inch.
		57-285
		Gc6
		Date 2-9-27

LEGEND

Alluvium



Marble (outcrop)

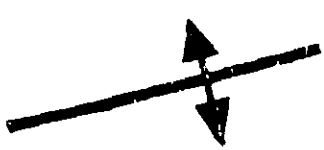


Porphyry? Floaters



Strike and dip of bedding $\frac{85}{\text{Vertical}}$

Anticlinal axis



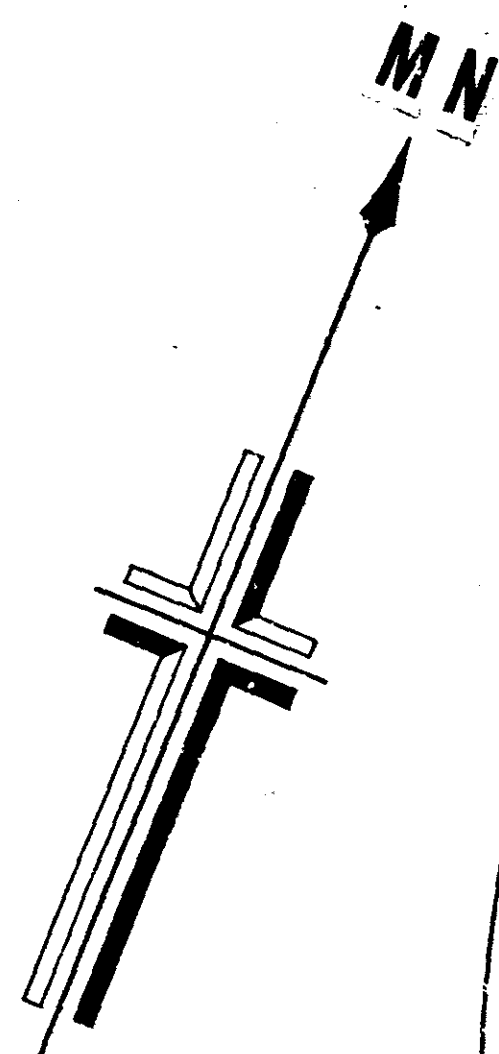
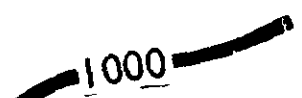
Synclinal axis



Structure lines (inferred)



Surface contours (10ft. intervals) (Arbitrary datum)



LOCALITY PLAN

LEGEND

Banded dolomite



Limestone chiefly altered to impure marble



Felspar porphyry (After S. B. Dickinson)



BURRA NORTH

BURRA R.S.

HD. KOORINGA

N



Fault

2278

2279

2210

2281

2267

2268

2264

SCALE

CHAINS 20 0 20 40 60 80 CHAINS

SCALE IN FEET

100 0 100 200 300 400 500

Fence