

UNCLASSIFIED.

DEPARTMENT OF MINES.

South Australia

GEOLOGICAL SURVEY OF STONE DEPOSIT, SECTION 2.

HUNDRED OF YONGALA, COUNTY DALHOUSIE.

I N T R O D U C T I O N:

A geological report on the stone deposit of Section 2, Hundred of Yongala, was requested by the Highways and Local Government Department (D.M. 293/54.)

The owner of Section 2, is Mr. A.J. Berryman, of 12 Phillips Street, Somerton, South Australia.

F I E L D W O R K:

A plane table and geological survey was carried out by I.R. Campbell (Assistant Geologist) and the writer, on the 20th, 22nd and 23rd of February, 1954. A plan of the area surveyed and of its locality accompany this report. (54-74)

T O P O G R A P H Y:

Section 2 is bounded on the east by the Jamestown - Yongala road and in the west by the road from Mannanarie which intersect at the southern corner of the section. The railway line between Yongala and Jamestown passes centrally through Section 2, in a north-easterly direction. North west of the railway the land rises to the summit of a hill. Just south of the summit is a group of small quarries. North of the hill is a track from the western boundary road to a homestead near the northern boundary of Section 2.

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There is no track to the quarries.

The quarries of Section 2 have not been worked within living memory and are in poor condition. They have been used as dumps for quartz - hematite vein material which litters the surrounding cultivated land. The northern quarry is the largest of the group, being 150 ft. long and 75 ft. wide. The face rises from a height of 6 ft. in the south and north to 15 ft. in the eastern part of the quarry. The eastern quarry is 65 ft. long and 50 ft. wide with a maximum face height of 26 ft. The southern quarry is 70 ft. long and 40 ft. wide with a face reaching a height of 12 ft. Midway between the northern and southern quarries are three small workings which have been nearly filled with rubble.

G E O L O G Y:

The rocks in the region belong to the Pre-Cambrian Adelaide System and are disposed in a broad syncline whose axis is about 6 miles east of Jamestown, trending north - south. Section 2, Hundred of Yongala, lies on the eastern limb of the syncline.

The rocks exposed in the quarries of Section 2, vary from sandstones to shaley siltstones. They are usually finely laminated and frequently show current bedding. In general, the rocks are soft and crumble when hit with a hammer. In places siliceous cementation has compacted and toughened the rock, this process has acted in a localized and haphazard fashion. The silicification may be connected with the introduction of quartz - hematite veins which are abundant in all the quarries. A mass of quartz - hematite outcrops 100 ft. north-east of the northern quarry.

As seen in the quarry faces, the rocks of Section 2 are strongly contorted; numerous small folds vary the strike and

dip of the beds. A cleavage is especially prominent in the northern quarry and in the small workings to the south. The cleavage strikes in a direction 155° magnetic and dips at 70° to the west. Joints are irregular, the most definite being along the bedding planes. In addition the rocks are thoroughly broken up by irregular fractures and often occur as breccias. In some of the breccias, the cementing matrix is hematite.

C O N C L U S I O N S:

The rocks of Section 2, Hundred of Yongala, crumble easily and contain an appreciable content of argillaceous material. The beds are shattered and brecciated. The rocks in the locality are therefore not considered suitable for road metal and no attempt has been made to estimate reserves.

D. Thatcher

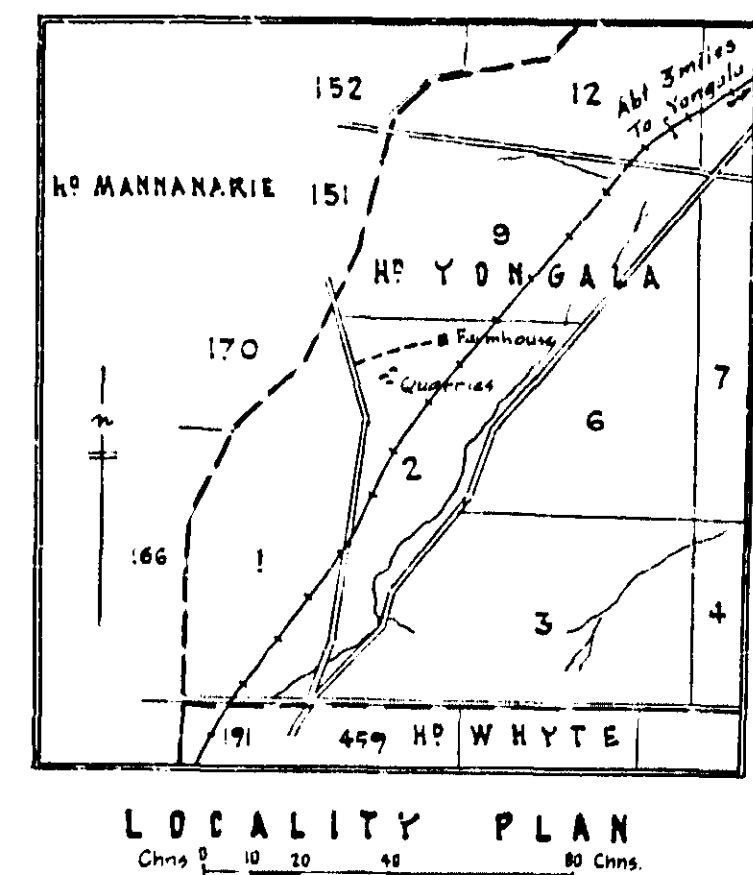
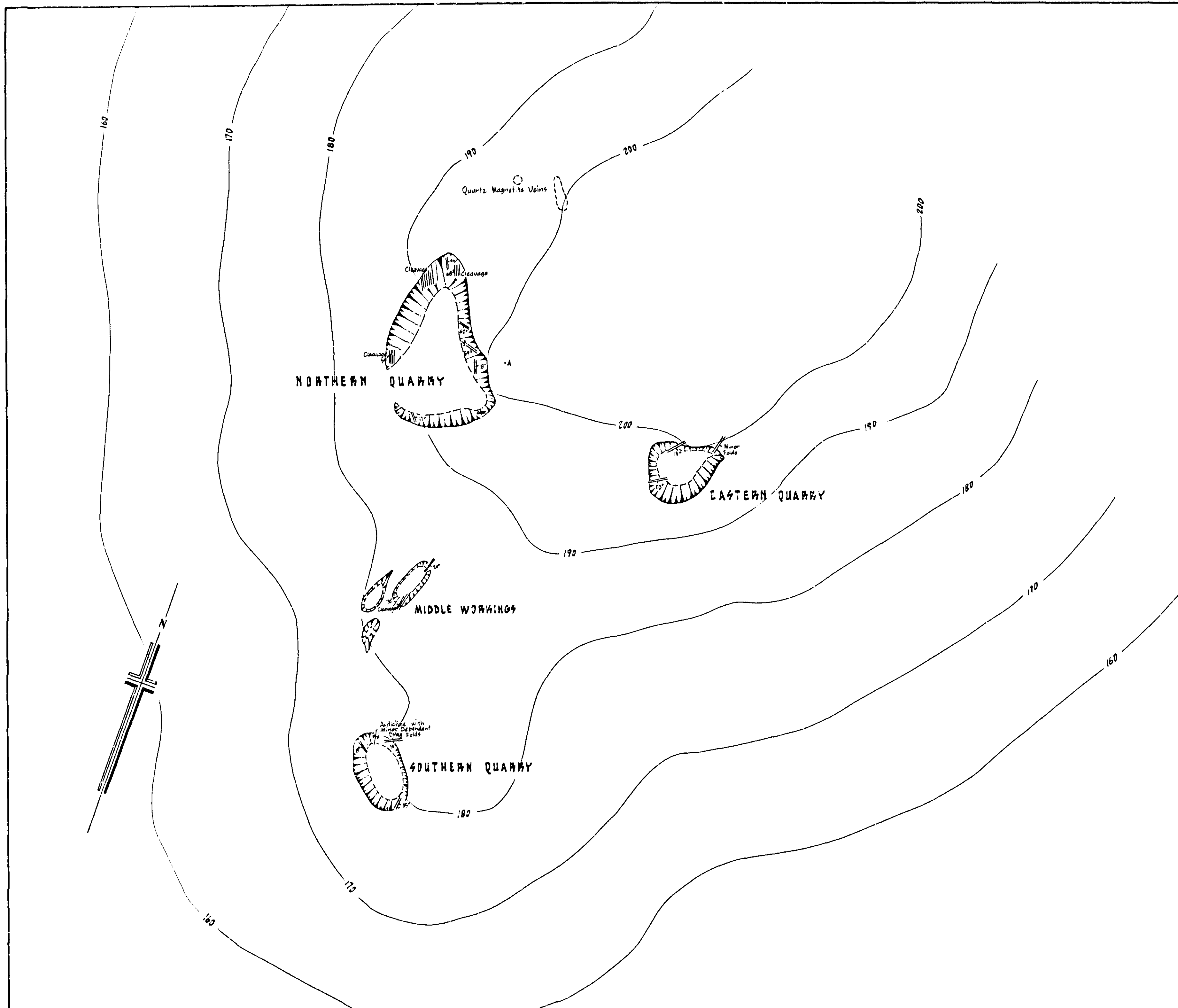
(D. Thatcher)

ASSISTANT GEOLOGIST.

ENGINEERING GEOLOGY & MINERAL RESOURCES SECTION.

DT:CO

9th March, 1954.



LEGEND

- STRIKE AND DIP
- JOINTING
- SURFACE CONTOURS (INTERVAL 10 FT.)
- SCALE : 50 FT TO 1 INCH
- ASSUMED DATUM A AT 200 FEET

SURVEY BY D. THATCHER AND I. CAMPBELL 1954

TO ACCOMPANY REPORT BY I. CAMPBELL AND D. THATCHER.

S.A. DEPT. OF MINES					REQ. NO.		STONE DEPOSIT		APPROVED		PASSED		DATE	
					D.M.		SECTION 2 - H.P. YONGALA						54.74	
					Compiled from Orig.		GEOLOGICAL PLAN						FJ 12	
Associated Drawing					No.				Director of Mines				Date 9.3.54	