

Spare

Rept. Bk. No. 708
G.S. No. 2934
S.R. 11/5/133



DEPARTMENT OF MINES
SOUTH AUSTRALIA
GEOLOGICAL SURVEY
EXPLORATION GEOPHYSICS SECTION

SECOND REPORT
ON
GIDGEALPA MAGNETIC SURVEY

by

J. McG. Hall
Geophysicist

31st July, 1964

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R3 708

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PLANS

<u>Number</u>	<u>Title</u>	<u>Scale</u>
64-494	Locality Plan	
64-590	Plan of Traverses, Murta-Murta Section	1" rep. 1 mile
64-602	Total Magnetic Profiles, Murta-Murta Section	1" rep. 1 mile

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ON

GIDGEALPA MAGNETIC SURVEY

ABSTRACT

A magnetic survey was made with the nuclear procession magnetometer over seismic lines in the Murta-Murta area immediately prior to the main Gidgealpa survey described in report G.S. 2914. Results are presented in profile form only as there are not enough close-spaced traverses to warrant contouring.

INTRODUCTION

This survey was carried out by J. McG. Hall, R.S. Turner and J.M. Wauchope from March 13th to the 16th inclusive while en route to Gidgealpa. See plan 64-494. The base for this work was the United Geophysical Corporation Seismic Party 33 camp about 40 miles south of Gidgealpa.

METHODS USED

Traverses were run along seismic lines, shown on plan 64-590. The intersection of lines BC, AV, and AW was taken as the base for the geographical corrections. Great difficulty was found in negotiating the many sand-hills in the area, in fact it was because of this that only about half as many line-miles were covered as originally intended. The problem of the sand-hills was greatest on the east-west lines resulting in a scarcity of data in east-west directions. This made it impossible to produce a useful contour plan of the magnetic field over the area.

CORRECTIONS

Corrections were applied as for the Gidgealpa survey, and the same remarks apply to the accuracy of the Murta-Murta corrections except that all traverses were on seismic lines resulting in good geographical and heading corrections.

RESULTS

As at Gidgealpa, readings were taken directly from the pen-recorder chart, converted to gammas, corrected, and plotted at .1 mile intervals as profiles on plan 64-602. The area was not covered closely enough to warrant the presentation of the results in contour form.

RECOMMENDATIONS

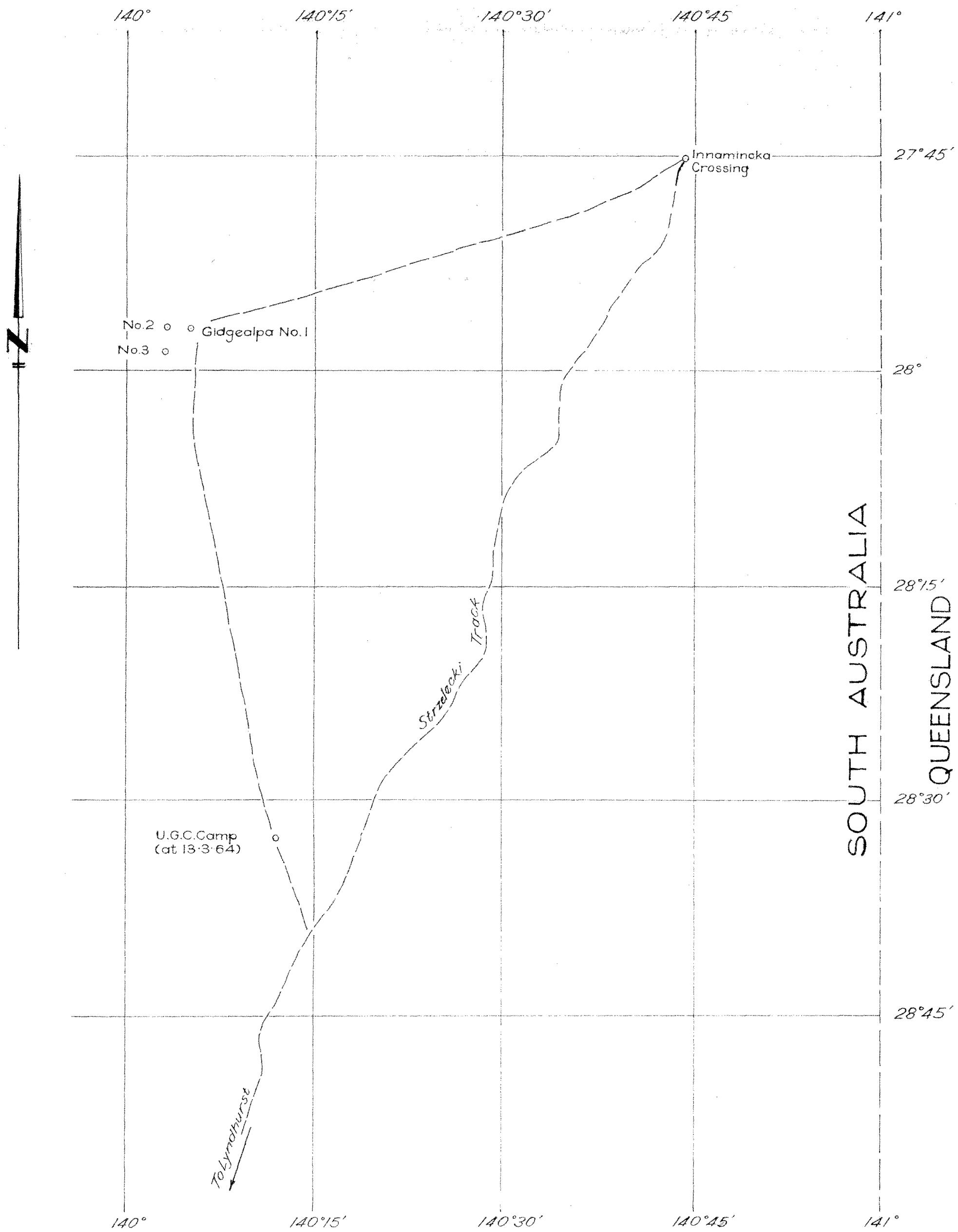
The recommendations in the first report G.S. 2914 apply equally well to this survey. In addition, it is recommended that future surveys over seismic lines in this sort of country be made as soon as possible after the lines are graded as they become impassable after only a few weeks, severely limiting the amount of work which can be done.

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Geophysicist.

EXPLORATION GEOPHYSICS SECTION

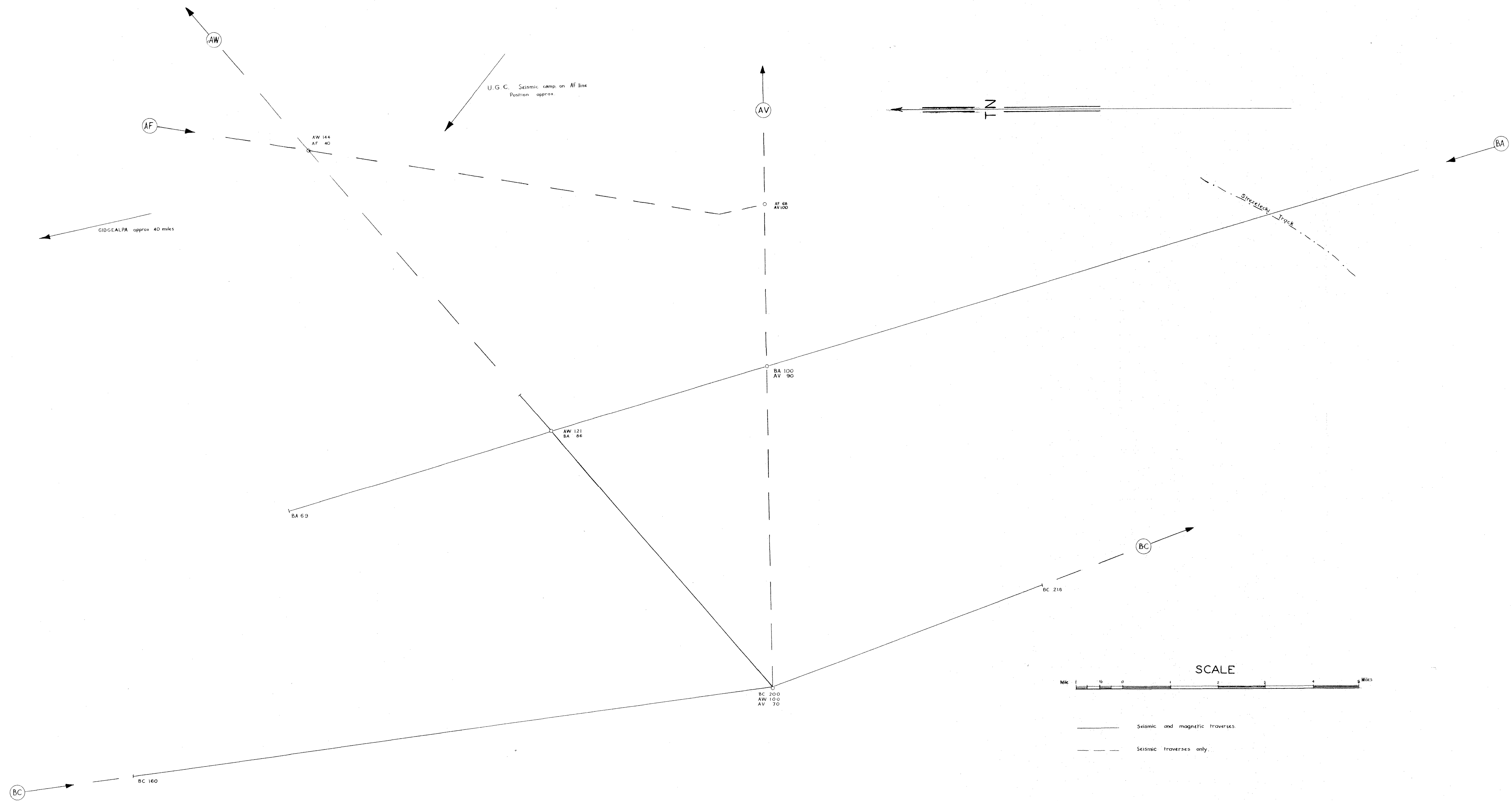
JMcGH:AGK
31/7/64



To accompany report by J. Hall

S.A. DEPARTMENT OF MINES

GIDGEALPA MAGNETIC SURVEY LOCALITY PLAN				Approved	Passed	Scale: 40,000' to 1" 64-494 Cb Date 8.7.64	
				Director			Drn.
							Tcd. G.M.
							Ckd.
No.	Amendment	Exd.	Date	Exd.			



To accompany report by J. Hall.

S.A. DEPT. OF MINES

GIDGEALPA MAGNETIC SURVEY
PLAN OF TRAVERSES, MURTA-MURTA SECTION

Approved

Passed

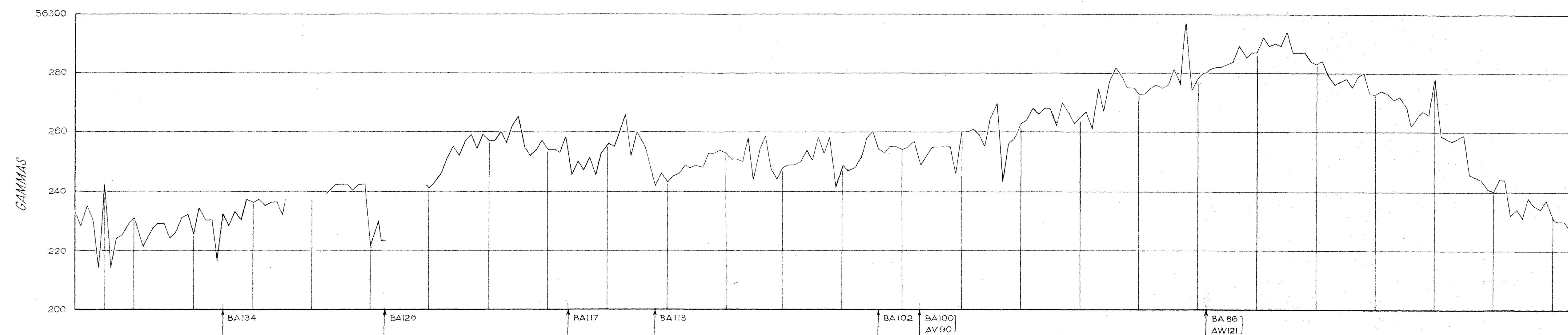
Scale: 1 mile to 1 inch

Drn. J.H.
Tcd. J.H.
Ckd.
Exd.

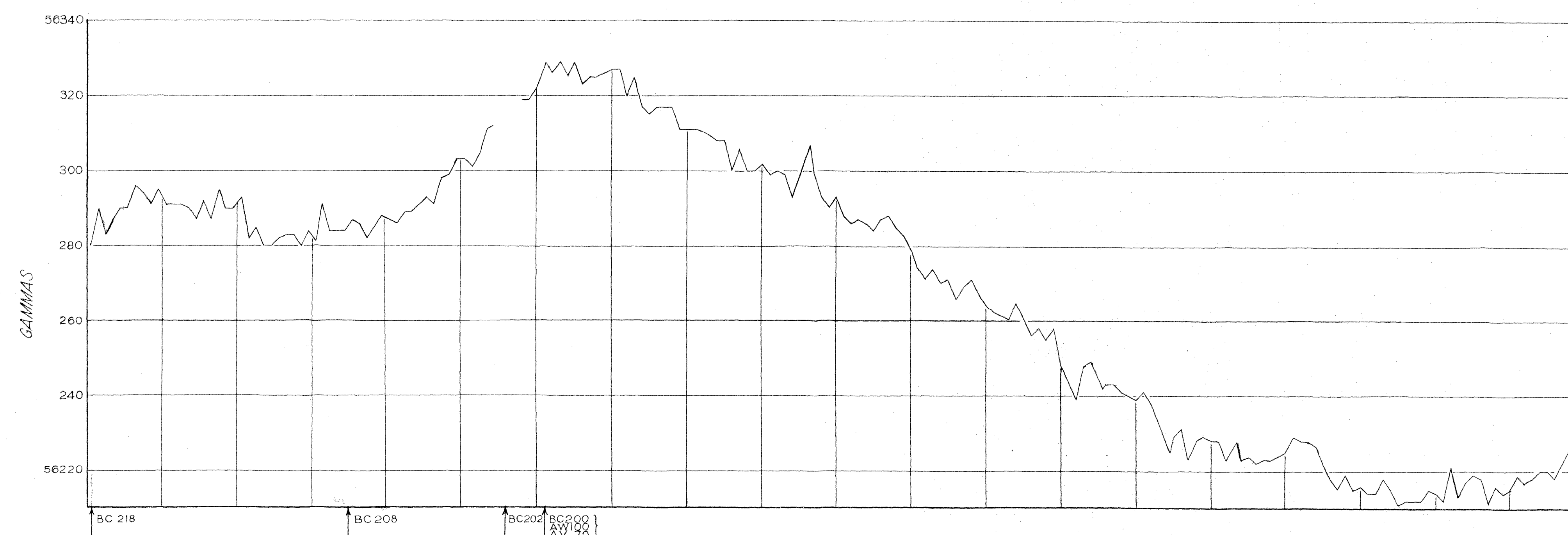
64-590
Cb.

Date 23-7-64

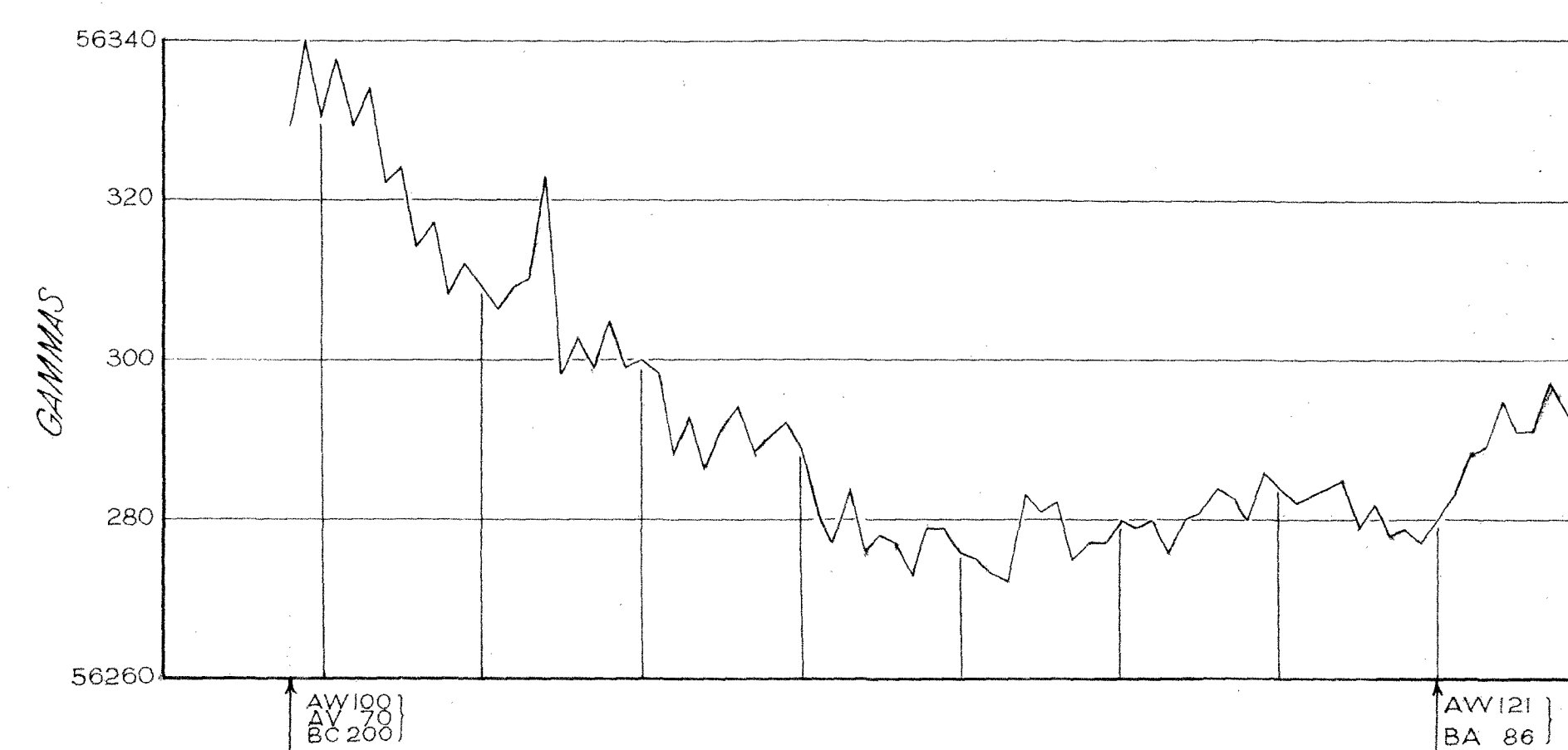
Associated Drawing					Req. No.		Director of Mines			Scale: 1 mile to 1 inch	
No.	No.	Amendment	Exd.	Date	D.M.		Compiled from			64-590	
										Cb.	
										Date 23-7-64	



BA LINE



BC LINE



AW LINE

HORIZONTAL SCALE : 1 INCH TO 1 MILE

To accompany report by J. Hall.

S.A. DEPT. OF MINES					GIDGEALPA MAGNETIC SURVEY		TOTAL MAGNETIC PROFILES, MURTA MURTA SECTION		Approved _____ Passed _____ Director of Mines _____		Scale: <i>As above</i> 64-002 CB Date 30-7-64	
Req. No. _____ D.M. _____ Compiled from _____												
Associated Drawing No. _____ No. _____ Amendment _____ Exd. _____ Date _____												