

TR1-63-64
R. 294 and R. 295

ALLUVIAL MATERIAL—MONTAGU SWAMP

CHROMITE WITH CASSITERITE

Samples

R294 weight 6 lbs. R295 weight 75 lbs.

Samples were obtained by Mr. T. D. Hughes on the 29th of May, 1956, at Montagu Swamp. Mr. A. A. Walker and Mr. W. St. C. Manson accompanied Mr. Hughes.

R294 was obtained from the same locality as R292 and was partially concentrated by panning. R295 was taken from a quarry about one mile distant. The material from the quarry is currently being used for road construction purposes.

Investigation

Concentration tests were desired to determine grade of concentrate and obtain further evidence regarding the relative proportions of chromite, cassiterite, and rutile.

No responsibility is accepted for the results shown in this report except in so far as they apply to the samples tested. Screen sizes shown refer to British Standard screen, and I.S. fractions 1 to 7 refer to Haultain Infrasizer fractions.

Summary

The quantities of concentrate obtained by jig concentration and analysis of products are shown below. Coarse barren material was removed prior to concentration by screening.

	R294	R295
	Per cent	Per cent
Jig concentrate	17.68	1.4
Magnetic Fraction	17.61	1.39
Cr ₂ O ₃	58.4	58.6
Fe	14.5	15.0
Non-magnetic Fraction	0.07	0.01
Tin	36.9	17.2
Rutile	21.4	36.4
Insoluble	25.5	24.1

Sizing Analysis of Chromite Concentrate

B.S. Size	R295	R293 (for comparison)
+ 30	29.6	7.2
+ 44	25.8	36.5
+ 52	14.9	30.9
+ 60	7.9	12.6
+ 85	17.1	11.4
+ 100	2.7	0.9
- 100	2.0	0.5