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NEW ZEALAND

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH  
THE INSTITUTE OF NUCLEAR SCIENCES

PRIVATE BAG, LOWER HUTT

8 August, 1966

Dr G. Reber,  
C.S.I.R.O.,  
Tasmanian Regional Laboratory,  
"Stowell", Stowell Avenue,  
HOBART, AUSTRALIA.

Dear Dr Reber,

Further to your letter of 25 July:

The results quoted in my letter of 18 July can be compared with those quoted in the letter of 26 July, 1965 as follows:-

Sample	Counting rate in c.p.m.	Beta-Activity in % U <sub>3</sub> O <sub>8</sub> /equivalent	Beta-Activity in $\mu\mu\text{c}/\text{gram}$	Beta-Activity in terms of "Gracefield Soil"
R1587/2	0.76	$1.6 \times 10^{-4}$	1.0	0.11
R1520/4	1.82	$3.9 \times 10^{-4}$	2.4	0.26
"Gracefield Soil"	6.92	$14.8 \times 10^{-4}$	9.1	1.00
R1814/1	10.95	$23.5 \times 10^{-4}$	14.4	1.58
R1814/2	3.99	$8.54 \times 10^{-4}$	5.2	0.57
R1814/3	1.00	$2.14 \times 10^{-4}$	1.3	0.14
R1814/4	4.26	$9.10 \times 10^{-4}$	5.6	0.62

The graywacke of Gracefield soil has a rather high radioactive content. Only the sample from the tunnel used by the University of Tasmania exceeds it, in terms of the samples reported here.

Yours faithfully,

(H. S. Jansen)  
for Director