

APPLIED PHYSIOLOGY LABORATORY

Transvaal and Orange Free State Chamber of Mines

P.O. Box 809,

JOHANNESBURG

South Africa

March, 1960

The Director,
Laboratory of Physiological Hygiene,
University of Minneapolis,
MINNEAPOLIS, Minnesota,
U.S.A.

Dear Sir,

This Laboratory is concerned with exercise and work physiology, particularly with regard to acclimatization and physiological responses to the hot, humid conditions in South African gold mines; with the motivation and work incentives of the large and diverse Native labour population of these mines; and with all aspects of the nutrition and anthropological classification of this same population.

We would be most grateful, therefore, if we could have any reports, reprints or other literature on these and allied subjects from your organization, and if this Laboratory could be put on your mailing list for future publications. We would, of course, be pleased to make the exchange of literature reciprocal.

Yours faithfully,

C.H. WYNDHAM

May 3, 1960

Dr. C. H. Wyndham, Director
Applied Physiology Laboratory
Transvaal and Orange Free State Chamber
of Mines
P. O. Box 809
Johannesburg, South Africa

Dear Dr. Wyndham:

I have your letter of March, 1960 requesting reprints.
I am sending by surface mail those that look as if they might have some
direct or indirect bearing on your program.

Some time ago you sent Dr. Keys and myself some material
on the relationship between submaximal pulse rates, oxygen consumption
and the maximal oxygen consumption. Has this been published any place?
If so, we would appreciate reprints or the journal reference.

We have been evaluating the prediction of maximal oxygen
intakes from the submaximal pulse under conditions of stress and have
had to examine the role of the basal pulse and O_2 intake and have found as
you might expect, that this fits into the submaximal O_2 intake pulse
relationship. Using our data from previous experiments without knowledge
of the maximal pulse under stress, we have found the extrapolation from
 CO_2 values generally over-estimates the maximal O_2 under stress
conditions. This is particularly true of semistarvation. When the manu-
script has been prepared, I will send you a copy.

Sincerely yours,

Henry L. Taylor

HLT:mn