SCHEDULE 2

METHODS OF ANALYSIS

PART I

9b.

EXTRACTION OF PHOSPHORUS BY 2% FORMIC ACID

SCOPE

1. This method is for the determination of phosphorus soluble in 2% formic acid (20 g per litre).

FIELD OF APPLICATION

2. Soft natural phosphate exclusively.

PRINCIPLE

3. To differentiate between hard natural phosphates and soft natural phosphates, phosphorus soluble in formic acid is extracted in specific conditions.

REAGENTS

4.—(4.1) Formic acid, 2% (20 g per litre): dilute 82 ml formic acid (concentration 98-100% ; d = 1.22 g/ml) to 5 litres with distilled water.

APPARATUS

5.—(5.1) 500 ml graduated flask (for example Stohmann).

(5.2) Rotary shaker, 35-40 turns per minute.

PREPARATION OF THE SAMPLE

6. See Method 1.

PROCEDURE

Extraction

Extraction

7.—(7.1) Weigh to the nearest 0.001 g, 5 g of the prepared sample and place it in a dry 500 ml graduated Stohmann flask (5.1) with a wide neck. While continuously rotating the flask by hand, add the formic acid (4.1) (at 20±1°C) until it is approximately 1 cm below the graduation mark and make up to the volume. Close the flask with rubber stopper and shake for 30 minutes at 20±2°C on the rotary shaker (5.2). Filter the solution through a dry fluted filter, into a dry receiver, discarding the first portion of the filtrate.

Determination

(7.2) Determine the phosphorus according to Method 10 in an aliquot part of the clear filtrate.