

RESIDUE.				ADDITIONAL OBSERVATIONS.
Per cent.	Siliceous Organisms.	Minerals.	Fine Washings.	
96·11	(50·00 %), Radiolaria, Astrorhizida, Lituolida, Spongo spicules, Diatoms.	(5·00 %), m. di. 0·08 mm., angular; felspar, augite, magnetite, magnetic spherules, manganese grains, many small prismatic crystals of phillipsite, pumice.	(41·11 %), very many small crystals of phillipsite, fragments of pumice and siliceous organisms, relatively little amorphous matter.	The trawl and attached tow-nets contained a few animals, much ooze, a quantity of manganese nodules, some earbones of Cetaceans, sharks' teeth, and pumice fragments. The nucleus of one nodule is composed of amorphous clayey matter, bordered with zeolitic crystals. A glassy volcanic pebble, the outer rim transformed into palagonite, was also obtained.
100·00	(1·00 %), a few fragments of Radiolaria and arenaceous Foraminifera.	(10·00 %), m. di. 0·20 mm., angular and rounded; almost exclusively made up of crystals of phillipsite, augite, felspar, magnetite, manganese.	(89·00 %), composed essentially of small crystals of phillipsite, small manganese grains, and amorphous matter.	Not a single fragment of pelagic Foraminifera can be observed; there are, however, a few arenaceous Foraminifera, and a good many small teeth of fish, but only a few Radiolaria. The crystals of phillipsite are frequently grouped so as to form small yellowish or dark globules made up of a more or less considerable number of microliths. One small fragment of quartz was observed.
71·72	(1·00 %), Radiolaria, Astrorhizida, Lituolida, Spongo spicules.	(5·00 %), m. di. 0·15 mm., angular; phillipsite spherules, felspar, plagioclase, augite, hornblende, magnetite, glassy volcanic fragments, manganese, magnetic spherules.	(65·72 %), very many small crystals of phillipsite, fragments of other minerals, manganese and amorphous matter.	The trawl brought up about half a ton (508 kilogrammes) of manganese nodules,* some small pieces of pumice, some angular basaltic pebbles, many sharks' teeth (one very large); some of these are thickly and others slightly coated with manganese. The most numerous minerals are crystals or globules of phillipsite, which sometimes have a diameter of 0·20 mm. The percentage of carbonate of lime is the mean of two analyses.
90·57	(1·00 %), Radiolaria, Spongo spicules, <i>Rhizammina algiformis</i> , Diatoms.	(1·00 %), m. di. 0·06 mm., angular; magnetite, volcanic glass, palagonite, felspar.	(88·57 %), much amorphous matter, mineral and siliceous remains.	The deposit in the lower part of the tube was of a chocolate colour, and contained only traces of carbonate of lime (small teeth) and no Radiolaria or Diatoms. The mud in the upper part was of a light grey colour, the transition between the two being gradual. In the upper layer the organisms mentioned were observed.
79·53	(3·00 %), Radiolaria, Spongo spicules, <i>Hyperammia ramosa</i> , Lituolida, arenaceous Textularida.	(20·00 %), m. di. 0·10 mm., angular; altered volcanic glass, augite, plagioclase, felspar, a great number of black volcanic particles some of them magnetic.	(56·53 %), many fine mineral particles, amorphous matter, and fine remains of siliceous organisms.	The minerals are all volcanic.
16·66	(2·00 %), Spongo spicules, Lituolida, arenaceous Textularida, a few Diatoms.	(12·00 %), m. di. 0·20 mm., rounded; quartz, felspar, augite, hornblende, glassy volcanic fragments, magnetite, manganese grains, titanite.	(2·66 %), amorphous matter, and a few remains of minerals and siliceous organisms.	The bulk of the deposit is made up of fragments of corals. These and the other particles measure 0·5 mm. in diameter.
77·70	(2·00 %), Spongo spicules, Lituolida, arenaceous Textularida, Diatoms.	(15·00 %), m. di. 0·10 mm., angular; plagioclase, felspar, augite, olivine, magnetite, volcanic rock fragments, palagonite.	(60·70 %), many mineral fragments, amorphous matter, and siliceous remains.	This sounding is 705 fathoms from the edge of the reef.
74·72	(2·00 %), Spongo spicules, Lituolida, arenaceous Textularida, Diatoms.	(15·00 %), m. di. 0·10 mm., angular; volcanic glass, olivine, plagioclase, felspar, magnetite, augite, hornblende.	(57·72 %), many minute mineral particles, amorphous matter, and fine siliceous remains.	Not much of the deposit was brought up. The upper layer was slightly red, but otherwise the bottom is similar to that taken in 420 fathoms.

* The nuclei of the nodules consist of fragments of basaltic rocks or lapilli, vitreous and generally vesicular, the vesicles coated with green delessite and chabasite, and prismatic zeolites; dolerite; augite-andesite; palagonite; clayey matter; sharks' teeth and bones of Cetaceans. Sometimes palagonite is seen transforming into clayey matter. In all cases these nuclei are very much altered. The nodules were mostly from 1 to 2 cm. in diameter.