

RESIDUE.				ADDITIONAL OBSERVATIONS.
Per cent.	Siliceous Organisms.	Minerals.	Fine Washings.	
14.79	(1.00 %), a few Radiolaria, imperfect casts of Foraminifera, Astrorhizidae, Lituolidae.	(1.00 %), m. di. 0.06 mm., angular; sanidine, plagioclase, hornblende, mica, magnetite, glassy volcanic particles.	(12.79 %), amorphous matter, many fine mineral particles, a few fragments of siliceous organisms.	The sounding tube had sunk about a foot (30 cm.) into the bottom and brought up a litre of the deposit. Of this there were two layers separated by a thin dark line, an upper layer of a light brown colour and about 8 inches (20 cm.) in thickness, composed essentially of the shells of pelagic Foraminifera, and a lower, milk white and over an inch (25 mm.) in thickness, chiefly made up of amorphous calcareous matter and Coccoliths. On analysis the upper layer gave 84.65 per cent. of carbonate of lime, the lower 85.77 per cent. The annexed analysis is the mean of these two results. The passage between the two layers appeared to be quite abrupt, so far as could be judged from a careful examination of the contents of the sounding tube. The tow-nets at the weights and at the trawl contained a little of the ooze, which was the same as the upper layer above described. A fragment of the hardened deposit about 1 cm. in diameter was taken from the washings from the trawl.
6.23	(1.00 %), Sponge spicules, Radiolaria, Lituolidae, imperfect casts of Foraminifera.	(1.00 %), m. di. 0.06 mm., angular; felspar, hornblende, grains and crystals of magnetite, glassy volcanic fragments, pumice, manganese grains.	(4.23 %), amorphous matter, many fine mineral particles, some fragments of siliceous spicules.	The sounding tube had not apparently sunk far into the bottom as there were no traces of mud or ooze on the outside, and in the inside only about half a pint (0.3 litre) of the ooze. In the dredge and attached tow-nets there were about 10 litres of the ooze and three pieces of pumice, measuring fully an inch (25 mm.) in diameter, and more or less rounded. They are white and scoriaceous, although the pores are generally small and contain only a few porphyritic minerals, felspar and augite. These porphyritic minerals in many instances project above the rounded smooth surface of the pumice. Some of the shells of the arenaceous Foraminifera are formed of agglomerations of microliths of hornblende, little fragments of felspar and magnetite, and of vitreous particles. Many of the shells of the pelagic Molluscs are black and brown from a coating of manganese, and are macroscopic. A Pteropod Ooze, it must be remembered, only indicates a relative abundance and not a predominance of these shells in the deposit.
20.98	(1.00 %), Radiolaria, Lituolidae.	(1.00 %), m. di. 0.10 mm., angular; fragments of brown glassy volcanic rock with the conchoidal fracture of obsidian, sanidine, magnetite, vesicular feldspathic lapilli, small particles of manganese.	(18.98 %), flocculent amorphous matter, with minute fragments of minerals, manganese, and Radiolaria.	The sounding tube brought up only a small quantity of the deposit. The splinters of volcanic rock are sometimes 0.5 mm. in diameter, and make up almost the whole of the mineral particles in the deposit. Note the absence of Pteropod and Heteropod shells in this deposit.
1.53	A few large Radiolaria, fragments of Sponge spicules, Astrorhizidae, Lituolidae.	M. di. 0.06 mm., angular; a few particles of felspar and magnetite.	Traces of flocculent matter.	The sounding tube brought up about half a pint (0.3 litre) of the deposit, which contains very little amorphous calcareous or clayey matter, and is chiefly composed of the shells of pelagic Molluscs and Foraminifera. Many of the shells are fully 1 cm. in length, some of them black or brown with a thin coating of manganese, some transparent. The tow-nets had not been at the bottom, and the dredge seemed just to have touched. This is the shallowest depth far removed from land of any kind met with during the cruise.

Rio de la Plata to Tristan da Cunha—continued.

Tristan da Cunha to Ascension Island.