

RESIDUE.				ADDITIONAL OBSERVATIONS.
Per cent.	Siliceous Organisms.	Minerals.	Fine Washings.	
13-56	(2.00 %), Sponge spicules, Lituolidae.	(3.00 %), m. di. 0.40 mm., angular; felspar, plagioclase, augite, magnetite, fragments of brown and black volcanic glass.	(8.56 %), a small quantity of fine amorphous matter and minute fragments of minerals and siliceous organisms.	Here also the mineral particles are remarkable for the perfection of their crystallographic form.
...	There was insufficient for subsequent examination.
9-70	(1.00 %), Sponge spicules, Lituolidae.	(3.00 %), m. di. 0.50 mm., angular; felspar, plagioclase, augite, magnetite, fragments of volcanic rocks.	(5.70 %), amorphous clayey and other matter (organic), minute mineral particles, and some fine siliceous remains.	This deposit is composed of very large shells of <i>Orbitolites complanata</i> , with fragments of Molluscs, Corals, &c.
13-59	(2.00 %), Sponge spicules, Lituolidae.	(1.00 %), m. di. 0.08 mm., angular; fragments of altered volcanic glass, felspar, hornblende, augite, magnetite, black mica.	(10.59 %), small quantity of amorphous matter, with a considerable number of fragments of siliceous organisms.	The Sponge spicules are derived chiefly from the genus <i>Geodia</i> .
...	There was insufficient for examination.
13-69	(2.00 %), Sponge spicules, Lituolidae.	(1.00 %), m. di. 0.06 mm., angular; fragments of altered volcanic glass, pumice, plagioclase, olivine, hornblende, black mica, augite, magnetite.	(10.69 %), amorphous matter, with a few mineral fragments and remains of siliceous organisms.	...
20-35	(3.00 %), Sponge spicules, Radiolaria, Astrorhizidae, Lituolidae, brown casts.	(2.00 %), m. di. 0.08 mm., angular; hornblende, felspar, magnetite, black mica, white and black glassy volcanic particles.	(15.35 %), amorphous matter, minute mineral particles, and small fragments of siliceous organisms.	A few imperfect brown coloured casts of some of the calcareous organisms were observed. There are large pieces of pumice present in the deposit. The percentage of particles from the reefs is much less than in the other soundings nearer the reefs.
13-03	(2.00 %), Sponge spicules, Astrorhizidae, Lituolidae.	(1.00 %), m. di. 0.08 mm., angular; felspar, plagioclase, hornblende, magnetite, pumice.	(10.03 %), flocculent amorphous matter, minute fragments of minerals and siliceous spicules.	In the dredge there were several pieces of grey pumice stone overgrown with <i>Carpenteria</i> and <i>Serpula</i> . One of these pieces of pumice was as large as a hen's egg.
55-57	(1.00 %), Radiolaria, Astrorhizidae, Lituolidae, Diatoms.	(1.00 %), m. di. 0.10 mm., angular; felspar, plagioclase, black mica, augite, hornblende, magnetite, many fragments of pumice, glassy volcanic particles, lapilli of basaltic rocks, manganese.	(53.57 %), amorphous matter, with small fragments of minerals and siliceous organisms.	The trawl brought up a branch of a tree which was in parts carbonised, also many fragments of pumice and some animals; most of the animals were found on the piece of wood. The felspar and augite have sometimes vitreous inclusions and are covered with glassy scoriaceous matter. The pumice stones are all more or less rounded and vary much in size, the largest being 6 to 8 cm. in diameter, and are all covered with a layer of hydroxides of iron and manganese which penetrate them more or less deeply. The pumice is to be referred to augite-andesite; it contains plagioclase and augite.

Of Tongatabu—
continued.

Of Fiji Islands.

Fiji Islands to New Hebrides.