Residue.				Additional Observations.	
Per cent.	Siliceous Organisms.	Minerals.	Fine Washings.		
65·37	(25·00 %), Radiolaria, Sponge spicules, numerous Diatoms.	(25·00 %), m. di 0·12 mm., angular and rounded; felspar, plagioclase, augite, hornblende, olivine, magnetite, brown and red decomposed glassy volcanic fragments, one or two rounded quartz grains, brown and red mammillated fragments.	(15·37 %), fragments of Diatoms and minute mineral particles.	Very little of the deposit was obtained. There were several pebbles in the trawl; one fragment, about 3 cm. in diameter, is angular; some of them are vesicular augite-andesites, with a vitreous base. In addition there were other fragments covered with and cemented by manganese; these consist of lapilli, brown in colour and much decomposed.	Marion Island to Crozet Islands—*continued.*
63·66	(20·00 %), Radiolaria, casts of calcareous organisms, Diatoms.	(25·00 %), m. di. 0·12 mm., angular and rounded; felspar, plagioclase, black mica, hornblende, augite, magnetite, olivine, glassy volcanic particles, red mammillated fragments.	(18·66 %), amorphous matter, very many fragments of Diatoms, and minute mineral particles.	There are in this deposit very fine and perfect casts of Foraminifera, fragments of Echini, &c. The carbonate of lime organisms are white or of a pale straw colour; with reflected light they are shining and homogeneous; with transmitted light some are opaque, some transparent and yellow-brown. There are no green casts or glauconitic particles in the deposit. It is unusual to find such perfect casts in the deposit off a volcanic island. Some of these casts show aggregate polarization.	Off Crozet Islands.
...	...	...	...	There were two dredgings; many animals, but no deposit, were obtained. The bottom seemed to be hard and composed of gravel, Polyzoa, and shells.	
...	...	...	...	The dredge brought up a few specimens of *Aphrocallistes*. The bottom appeared to be of the same nature as that at the previous station.	
99·00	(50·00 %), Sponge spicules, Lituolidæ, frustules of Diatoms.	(20·00 %), m. di. 0·15 mm., angular; plagioclase, augite, magnetite, hornblende, olivine (in some cases altered), lapilli, pumice, brown volcanic glass.	(29·00 %), a small quantity of amorphous matter, flocculent organic matter, many fine mineral particles, fragments of Sponge spicules and Diatoms.	During the month of January 1874 the Challenger took many soundings and dredgings in the bays, and several miles off the coast, of Kerguelen, in depths varying from 20 to 150 fathoms. In all cases the deposit was a Green Mud, with a strong smell of sulphuretted hydrogen, composed principally of mineral particles and the skeletons of siliceous organisms. Generally these muds did not effervesce with acid; sometimes a few spots were observed. The carbonate of lime never appeared to make up more than 1 per cent. The larger sized mineral particles were found in the soundings nearest the coast, while siliceous organisms seemed to be most abundant in the soundings furthest from the coast. In some cases the deposit was almost entirely made up of the basal portions of siliceous sponges, *e.g.*, *Rossella antarctica*. The dredgings along this coast gave many animals.	Off Kerguelen Island.
[80·00]	(15·00 %), many Sponge spicules and Radiolaria.	(60·00 %), volcanic and other pebbles.	(5·00 %), amorphous matter and fragments of siliceous organisms.	A large number of stones were brought up in the dredge. These are fragments of rocks of irregular form and varying in diameter from 1 to 7 cm. They are blue-black and much overgrown by Sponges, *Serpula*, Polyzoa, Foraminifera, &c.; some of the pebbles are granite, augite-andesite, basalt filled with dolessite.	Off Heard Island.
97·42	(5·00 %), Radiolaria, Sponge spicules, and Diatoms.	(80·00 %), m. di. 0·30 mm., angular; fragments of brown and reddish volcanic glass often enclosing microliths of olivine, plagioclase, augite, magnetite.	(12·42 %), many fine mineral particles, a small quantity of amorphous matter, fragments of Sponge spicules and Diatoms.	This deposit is essentially composed of black volcanic sand and remains of organisms. The fragments of glass are vesicular, and often decomposed. The dredge was used three times and brought up many animals.	