

The residue of the Green Muds, after the removal of the carbonate of lime, ranges from 43·82 to 100 per cent., the average being 74·48 per cent., and is of a distinct green colour.

The siliceous organisms range from 1 to 50 per cent., the average being 13·67 per cent., and consist of the remains of Diatoms, Radiolaria, Sponge spicules, arenaceous Foraminifera, and the glauconitic casts of the calcareous organisms.¹

The mineral particles range from 1 to 80 per cent. of the whole deposit, the average being 27·11 per cent. With the exception of the glauconite grains they are mostly angular, varying in diameter from 0·06 to 0·20 mm., the average being 0·13 mm. Quartz, monoclinic and triclinic feldspars, magnetite, hornblende, and augite are the most abundant, but the presence in these Green Muds of tourmaline, zircon, and garnet is very characteristic, and we may say the same of the fragments of continental rocks which are also very frequent.² It may be noticed that in the Green Sands there are frequently nodules and smaller concretions of phosphate of calcium.³

The fine washings vary from 9·69 to 84·05 per cent., the average being 33·70 per cent.

The following table gives the average percentage of minerals and fine washings and the average size of the minerals allocated to depth :—

	Minerals.	Size.	Fine Washings.
Under 500 fathoms, . . .	29·60 per cent.	0·145 mm.	24·17 per cent.
From 500 to 1000 fathoms, . . .	26·16 „	0·126 „	44·89 „
Over 1000 fathoms, . . .	17·50 „	0·100 „	47·76 „

It will be seen that the percentage of minerals and the size decrease with increase of depth, while the percentage of fine washings increases.

In the dredge pumice was obtained in two cases, pebbles in one, and hardened pieces of the bottom in one case.

The following shows the average composition of the Challenger samples of Green Mud :—

Carbonate of lime,	{	Pelagic Foraminifera,	14·59	
		Bottom-living Foraminifera,	2·94	
		Other organisms,	7·99	
			25·52	
Residue,	{	Siliceous organisms,	13·67 ⁴	
		Minerals,	27·11	
		Fine washings,	33·70	
			74·48	
			100·00	

¹ See Pl. XXV.

² See Pl. XXVI.

³ See Pl. XX. fig. 1.

⁴ The larger number of siliceous organisms compared with these in Blue and Red Muds (see pp. 232 and 235) is due to the glauconitic casts of the Foraminifera.