18. Red Clay.—Station 275.

Lat. 11° 20′ S., long. 150° 30′ W., 2610 fathoms (Brazier).

	Loss on ignition after drying at 230° Fahr.,	6·50
Portion soluble in Hydrochloric Acid = 66·10	Alumina,	7·45
	Ferric oxide,	15·71
	Calcium phosphate,	0·76
	Manganese oxide,	3·85
	Calcium sulphate,	0·58
	Calcium carbonate,	3·74
	Magnesium carbonate,	1·96
	Silica,	32·05
Portion insoluble in Hydrochloric Acid = 27·40	Alumina,	6·35
	Ferric oxide,	2·35
	Lime,	0·44
	Magnesia,	0·30
	Silica,	17·96
		100·00

19. Red Clay (after the finer parts had been washed away).—Station 276.

Lat. 13° 28′ S., long. 149° 30′ W., 2350 fathoms (Brazier).

	Loss on ignition after drying at 230° Fahr.,	2·20
Portion soluble in Hydrochloric Acid = 80·70	Copper,	trace
	Alumina,	9·00
	Ferric oxide,	9·03
	Calcium phosphate,	3·44
	Manganese oxide,	2·28
	Calcium sulphate,	0·58
	Calcium carbonate,	38·18
	Magnesium carbonate,	0·94
	Silica,	17·30
Portion insoluble in Hydrochloric Acid = 17·10	Alumina,	4·27
	Ferric oxide,	1·07
	Lime,	0·22
	Magnesia,	0·11
	Silica,	11·43
		100·00

20. Crystals of Phillipsite.—Station 276.

Lat. 13° 28′ S., long. 149° 30′ W., 2350 fathoms (Dittmar).

There were two specimens, one marked "No. 1," the other "No. 2."

According to a verbal communication from Mr. Murray, No. 1 contains Foraminifera, which were removed from part of the original specimen to produce No. 2.

No. 2, when viewed under the microscope, was found to consist mainly of groups of yellowish crystals. In No. 1 these crystals were associated with a multitude of calcareous fragments.

These two specimens were analysed in the same manner, but not, I am sorry to have to add, with the same degree of success. While fully convinced of the correctness of the numbers to be given for No. 1, those for No. 2, I fear, do not possess the degree of precision which I should wish them to have.

In either case the substance was disintegrated by means of hot hydrochloric acid, and the insoluble part, after removal of the soluble silica by means of boiling carbonate of soda solution, ignited and weighed.

The hydrochloric acid solution was exhaustively analysed, separate portions of substance serving for the determination of alkalies and water respectively.