

151. CENTRAL PORTION OF WHALE'S BONE MUCH IMPREGNATED WITH MANGANESE.—Station 286.

Lat. 33° 29' S., long. 133° 22' W., 2335 fathoms (Dittmar).

The outer portions of this specimen were perfectly black; most of the inner portion also was black, but a small portion in the centre had remained untinged with manganese. This comparatively uncoloured central portion was removed, prepared for analysis, and used for the following determinations:—

	P.	P. E.
Moisture,	2.87	
Phosphoric acid,	29.13	1.281
Fluorine,	1.44	0.076
Lime,	36.05	1.287
Portion insoluble in hydrochloric acid,	2.91	

Ratio of equivalents of phosphoric acid and fluorine—

$$1 : 0.062$$

There was an appreciable quantity of manganese present, and also a trace of cobalt.

152. EXTERNAL PORTION OF WHALE'S BONE MUCH IMPREGNATED WITH MANGANESE.—Station 286.

Lat. 33° 29' S., long. 133° 22' W., 2335 fathoms (Dittmar).

The outer manganiferous portion of the specimen used in Analysis 151 was completely analysed, with the following results:—

	P.	P. E.
Portion insoluble in hydrochloric acid,	5.76	
Total water,	9.77	
Manganous oxide,	20.22	
Loose oxygen,	3.49	
Ferric oxide,	6.54	
Alumina,	1.66	
Lime,	19.71	0.7039
Magnesia,	7.42	0.3710
Potash,	0.55	
Soda,	1.12	
Phosphoric acid,	18.59 ¹	0.7860
Carbonic acid,	3.87	0.1759
Traces of copper, chlorine, fluorine, and loss,	1.30	
	100.00	

The manganese is probably present mostly as binoxide, combined chemically with water and part of the protoxides.

¹ Equal to 40.90 per cent. tricalcic phosphate.

153. PORTION OF WHALE'S BONE MUCH IMPREGNATED WITH MANGANESE.—Station 286.

Lat. 33° 29' S., long. 133° 22' W., 2335 fathoms (Dittmar).

The manganese was pretty well diffused through all the specimen.

Found in 100 parts—

Moisture,	5.49	
Combined water,	6.88	
Phosphoric acid,	13.05	{ - 28.48 per cent. tricalcic phosphate.
Fluorine,	0.65	

Ratio of equivalents of phosphoric acid and fluorine—

$$1 : 0.062$$