

ANALYSES OF DEPOSITS.

Analysis of a Blue Mud.

By Dr. Hornung.

Station 323, February 21, 1876; 1900 fathoms, South Atlantic.

I. 0.8069 grm. of substance dried at 110°, fused with carbonates of soda and potash, gave 0.4804 grm. of silica, 0.1566 grm. of alumina, 0.0576 grm. of ferric oxide, 0.0135 grm. of lime, 0.0155 grm. of magnesia, 0.0503 grm. of loss on ignition.

II. 1.4212 grms. of substance dried at 110° C., treated with hydrofluoric and sulphuric acids, gave 0.0202 grm. of potash and 0.0382 grm. of soda.

Silica (SiO ₂),	.	.	.	.	.	.	.	.	59.54
Alumina (Al ₂ O ₃),	.	.	.	.	.	.	.	.	19.42
Ferric oxide (Fe ₂ O ₃),	.	.	.	.	.	.	.	.	7.15
Lime (CaO),	.	.	.	.	.	.	.	.	1.68
Magnesia (MgO),	.	.	.	.	.	.	.	.	1.93
Potash (K ₂ O),	.	.	.	.	.	.	.	.	1.35
Soda (Na ₂ O),	.	.	.	.	.	.	.	.	2.68
Loss on ignition,	.	.	.	.	.	.	.	.	6.24
Phosphoric and sulphuric acids,	.	.	.	.	.	.	.	.	traces
									<hr/> 99.99

Analysis of a Red Clay.

By Dr. Hornung.

Station 9; 3150 fathoms, North Atlantic.

I. 1.1459 grms. of substance dried at 110°, fused with carbonates of soda and potash, gave 0.6519 grm. of silica, 0.2323 grm. of alumina, 0.1148 grm. of ferric oxide, 0.0150 grm. of lime, 0.0293 grm. of magnesia, and 0.0770 grm. of loss on ignition.

II. 1.1162 grms. of substance dried at 110°, treated with sulphuric and hydrofluoric acids, gave 0.0219 grm. of potash and 0.0092 grm. of soda.

	I.	II.	Mean.
Silica (SiO ₂),	56.89	...	56.89
Alumina (Al ₂ O ₃),	20.28	...	20.28
Ferric oxide (Fe ₂ O ₃),	10.02	...	10.02
Lime (CaO),	1.31	...	1.31
Magnesia (MgO),	2.56	...	2.56
Potash (K ₂ O),	...	1.91	1.91
Soda (Na ₂ O),	...	0.81	0.81
Loss on ignition,	6.72	...	6.72
Barium, manganese, and phosphoric acid,	...	...	traces
			<hr/> 100.50