

The analysis has been made by Mr. M. F. Connor, B.A.Sc., of Radnor Forges, Quebec.

	I	II	III	IV	V
Si O ₂	53.15	50.50	50.47	53.80	47.94
Ti O ₂	1.52	1.91	.51	.43	.20
Al ₂ O ₃	17.64	17.64	18.73	20.13	17.44
Fe ₂ O ₃	3.10	5.41	4.19	3.57	6.84
Fe O	4.65	4.02	4.92	2.63	6.57
Mn O	.46	—	.11	.29	—
Ca O	5.66	7.91	8.82	5.60	7.47
Ba O	.13	—	—	—	—
Mg O	2.94	3.33	3.48	2.26	2.02
K ₂ O	3.10	3.02	3.56	4.49	2.79
Na ₂ O	5.00	5.52	4.62	5.20	5.63
P ₂ O ₅	.65	.92	.10	.56	1.04
C O ₂	.39	—	trace.	—	—
S O ₃	.28	—	—	—	—
Cl	.07	—	trace.	—	—
H ₂ O	1.10	.45	.58	.90	2.04
	99.84	100.63	100.09	99.86	99.92

I. Essexite. Shefford (No. 179). Analysis by M. F. Connor.

II. " Rognstock, Bohemia. Quoted in 'Elemente der Gesteinslehre,' by Prof. Rosenbusch.

III. Augite-diorite (olivine facies), Mount Fairview, Rosita Hills, Colorado. This rock is also included in the Essexite group by Prof. Rosenbusch, loc. cit.

IV. Augite-diorite (orthoclase facies). Ibid.

V. Essexite. Salem Neck, Massachusetts.

CONTACT FACIES.

Endomorphic
contact.

Along the original contact zone, the dark minerals are in increased amounts, and the texture of the rock becomes variable.

Couplands
lake.

In a section exposed for a time during the construction of an aqueduct from Couplands lake to the town of Granby the contact facies were well shown. For forty yards from the contact the rock was fine-grained, and about one-half of it was made up of black hornblende. By a sharp transition, the rock then became exceedingly coarse for the next thirty yards, and the proportion of hornblende was somewhat increased. The hornblende crystals here are seldom less than half an inch in the smallest dimension. It next returned quite abruptly to the fine-grained type for two hundred and ten yards, when it passed more gradually into the normal type.

These phases are sometimes finer, at others coarser, than the texture of the main mass, but are marked by no other change of structure,