

Chlorine removal from water by TC-75

Table 1. Sorbent mass, porosity, flow rate, and residence time for columns packed with TC-75 sorbent.

Sorbent	Mass Sorbent		Porosity	Flow Rate		Residence
	(kg)	(lb)		(mL/min)	(gal/hr)	
TC-75	2.2	4.8	0.30	52	0.84	20

Table 2. 95% breakthrough data of TC-75 sorbent material given in pore volumes and minutes along with estimated mass of chlorine sorbed per mass of sorbent in mg/kg, lb/lb, and percent basis.

Sorbent	Breakthrough			Mass sorbed		Mass Sorbed/Mass Sorbent		
	PV	BV	min	(mg)	(lb)	(mg/kg)	(lb/lb)	(%by sorbent)
First 95% breakthrough	61	18	1220	8074	0.0178	3670	0.00367	0.367
Second 95% breakthrough	41	12	820	3306	0.0073	1503	0.00150	0.150
Total	102	31	2040	11380	0.0250	5173	0.00517	0.517

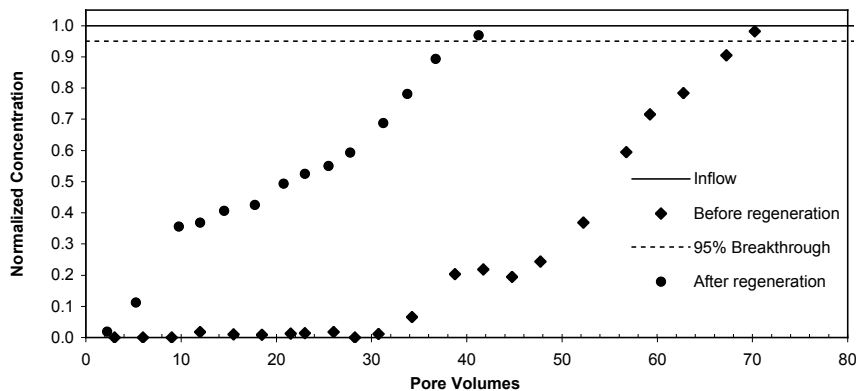


Figure 1. Breakthrough curve of chlorine (in terms of pore volume) through a column of TC-75.

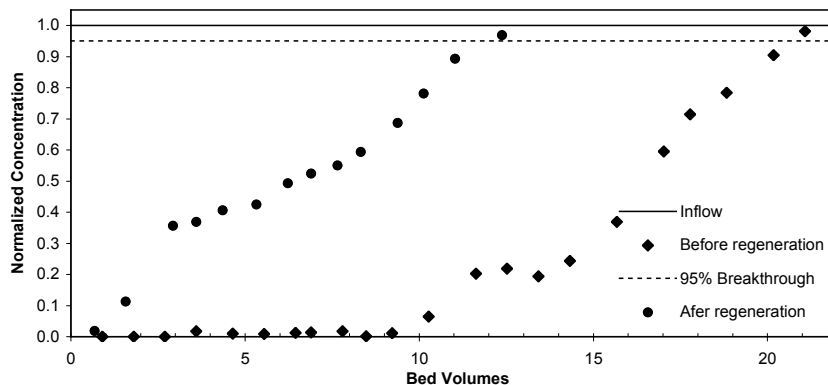


Figure 2. Breakthrough curve of chlorine (in terms of bed volume) through a column of TC-75.