

Engineering 453  
Homework Assignment - Batch Settling Experiment

Discrete particles with an initial concentration of 90 mg/l were allowed to settle in a column and changes in concentration were measured at a port 2 meters below the surface. The table below was derived from the measurements taken during the settling test. For a horizontal grit chamber 1 meter wide and 12 meters long, what is the expected overall removal rate for solids with the same properties as those used in the experiment given under a flow condition of 6048 m<sup>3</sup>/day?

Time (min)	Concentration (mg/l)
1	88
2	84
3	80
4	75
5	68
6	61
7	52
8	40
10	32
12	19
14	10
20	6