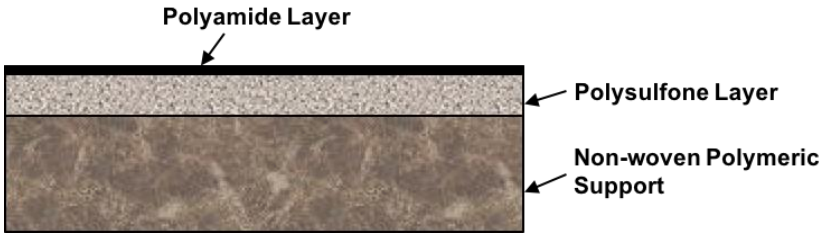


Figure 1. Cross-sectional view of three layered TFC membrane

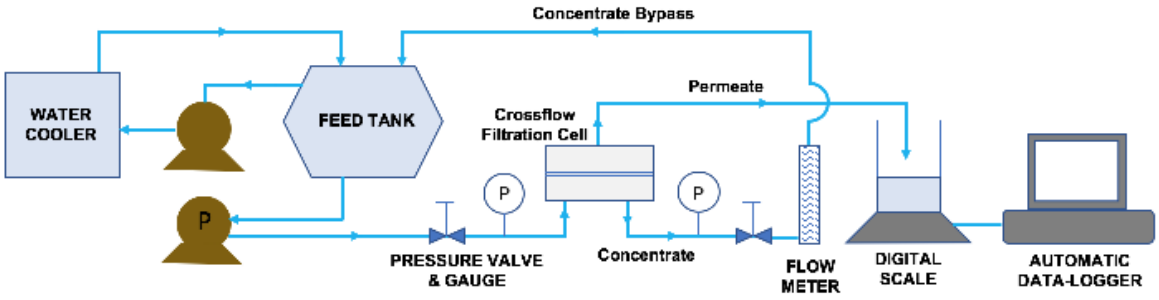


Figure 2. Schematic Diagram of the Bench-scale Experimental Setup

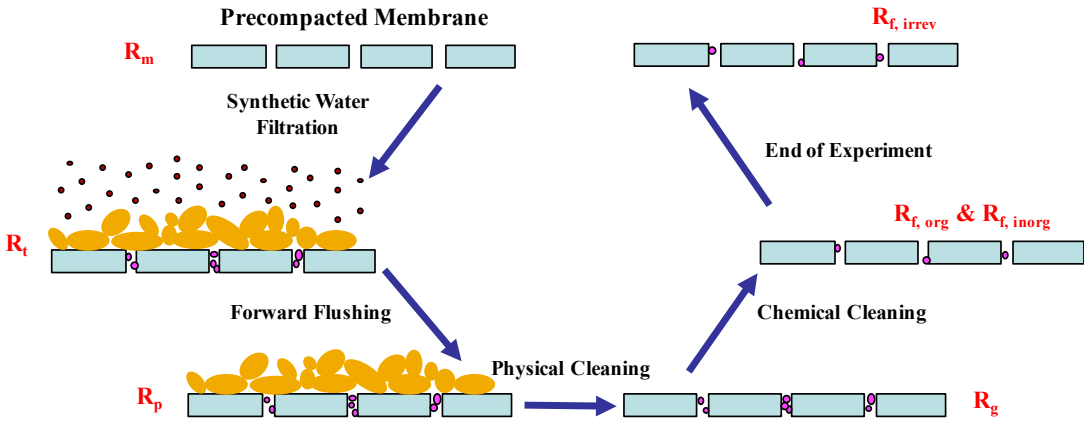


Figure 3. Flow chart for investigation of resistances due to various fouling mechanisms

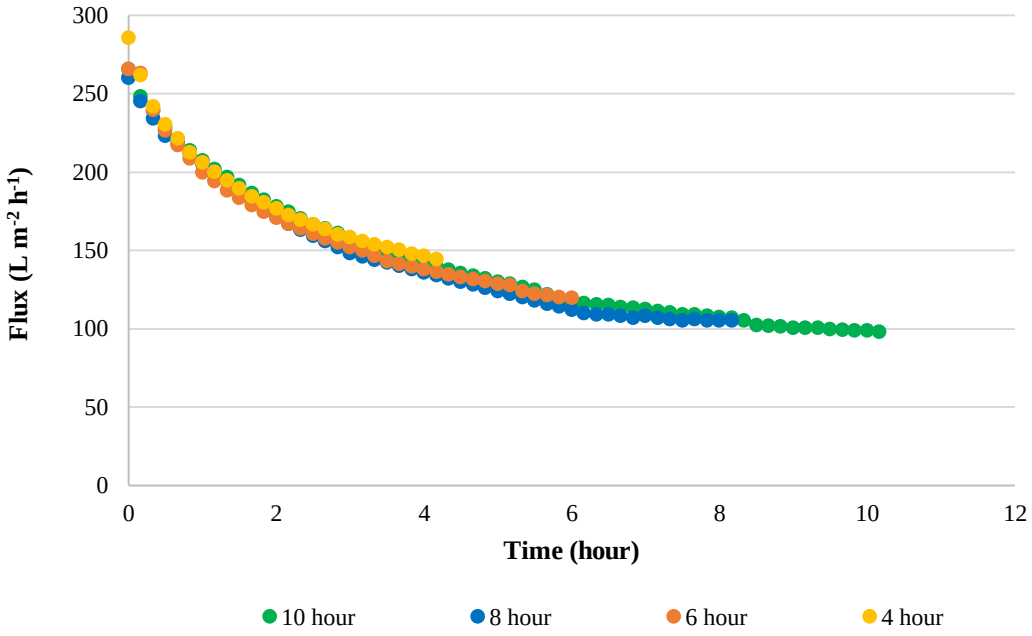


Figure 4. Flux Decline Curve for different hours of precompaction in NF90 membrane

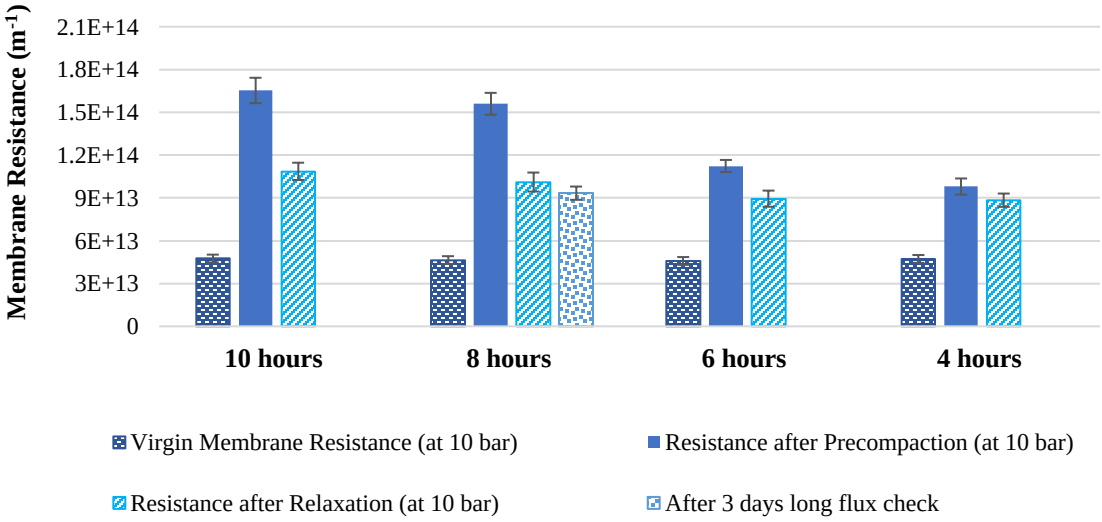


Figure 5. Change in membrane resistance due to precompaction

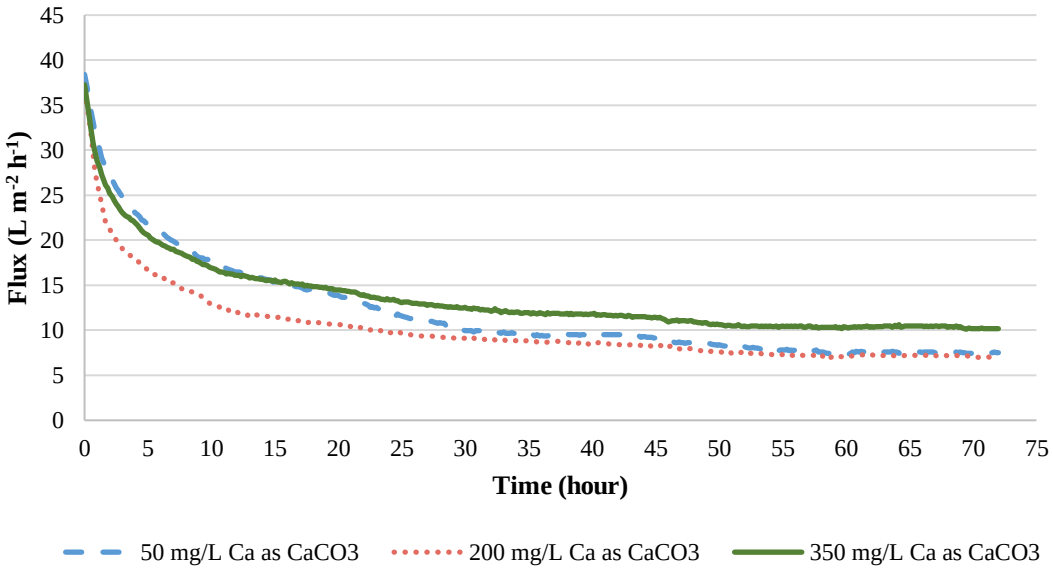


Figure 6. Flux Decline Curve for synthetic waters with different Calcium concentrations

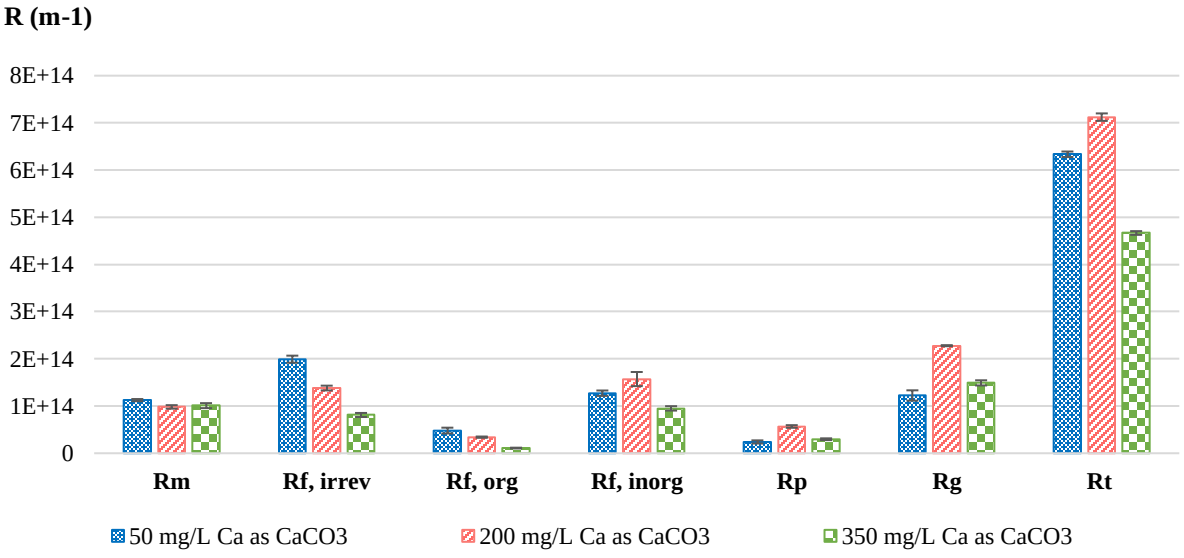


Figure 7. Resistances due to various fouling mechanisms in NF90 membranes

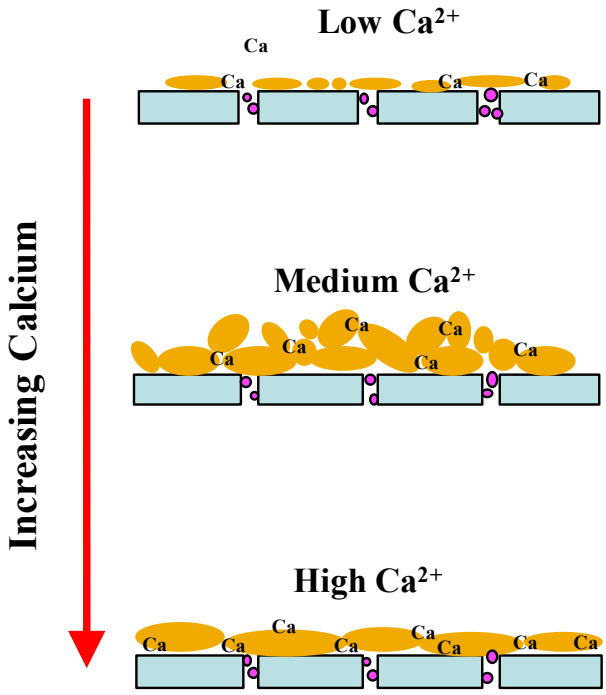


Figure 8. Behavior of gel layer formation with increasing Ca^{2+} concentration

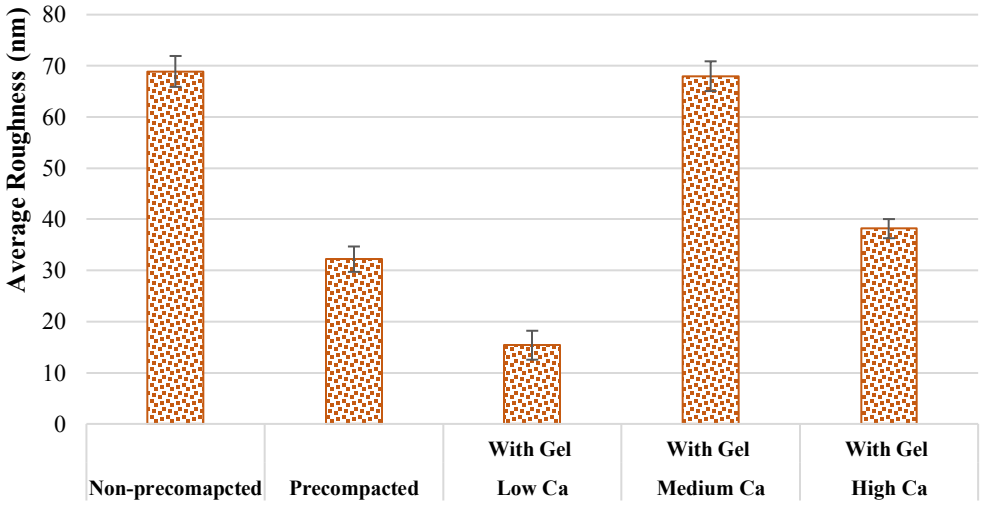


Figure 9. AFM Measured Mean Plane Surface Roughness of NF-90 membrane

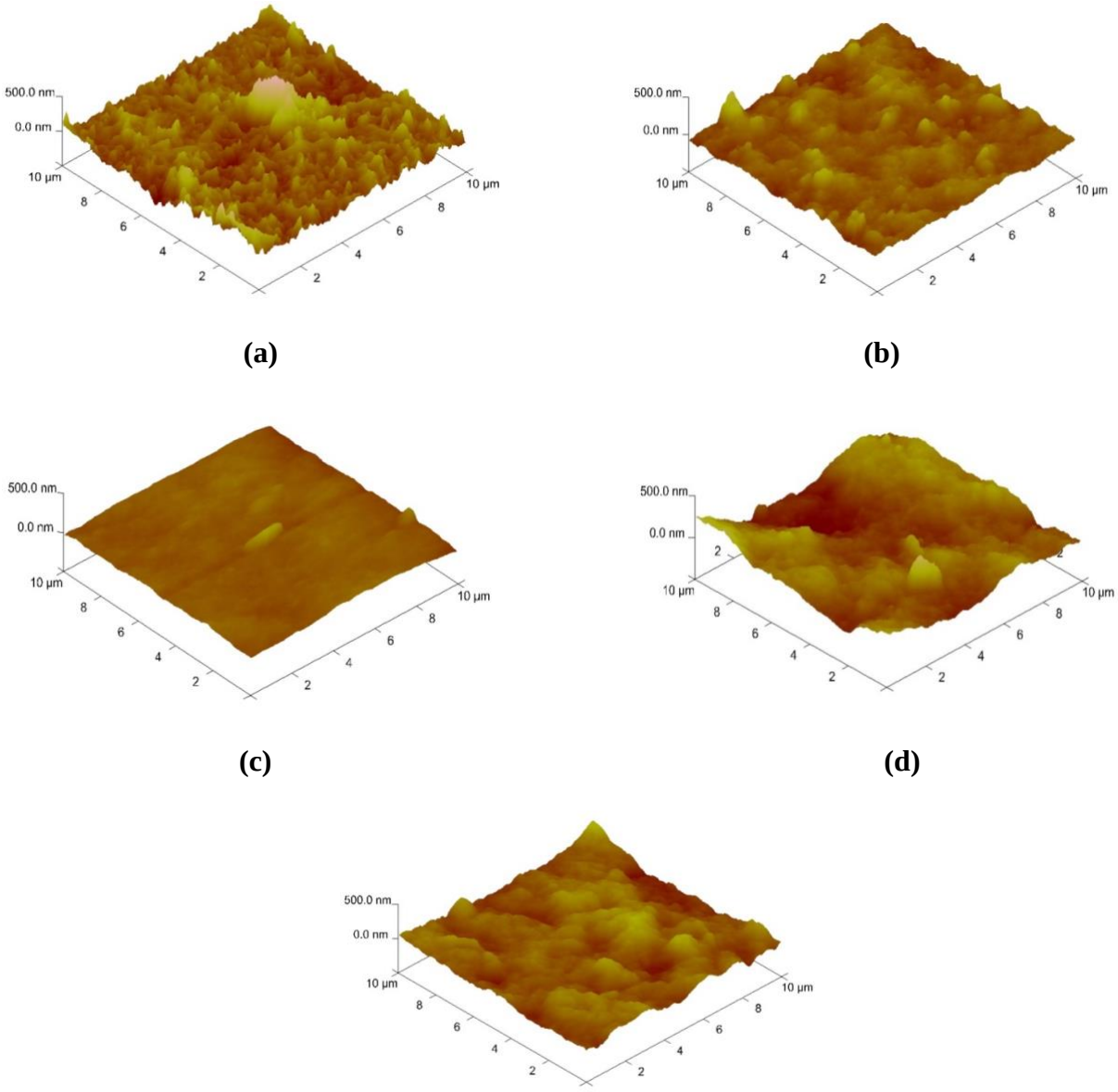
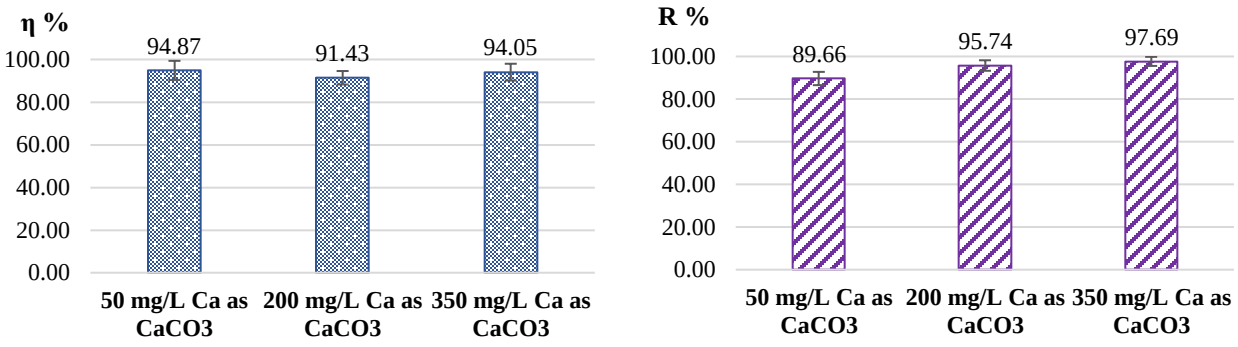


Figure 10. AFM Images of NF-90 membrane surface (a) Non-precompacted (b) Precompacted (c) 50 mg/L Ca as $CaCO_3$ (d) 200 mg/L Ca as $CaCO_3$ (e) 350 mg/L Ca as $CaCO_3$



(a) **(b)**

Figure 11. Retention on NF90 membranes (a) DOC (b) Hardness

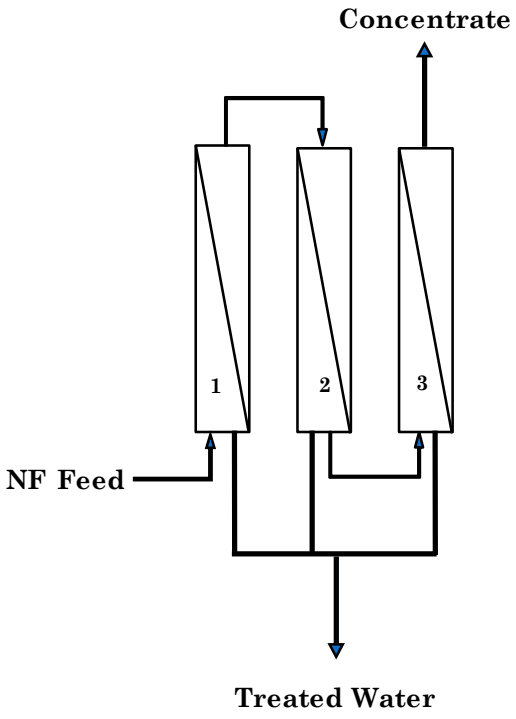


Figure 12. NF stages (Stage 1: NF270 and Stage 2 & 3: NF90) in pilot-scale filtration setup in Stephenfield Regional WTP

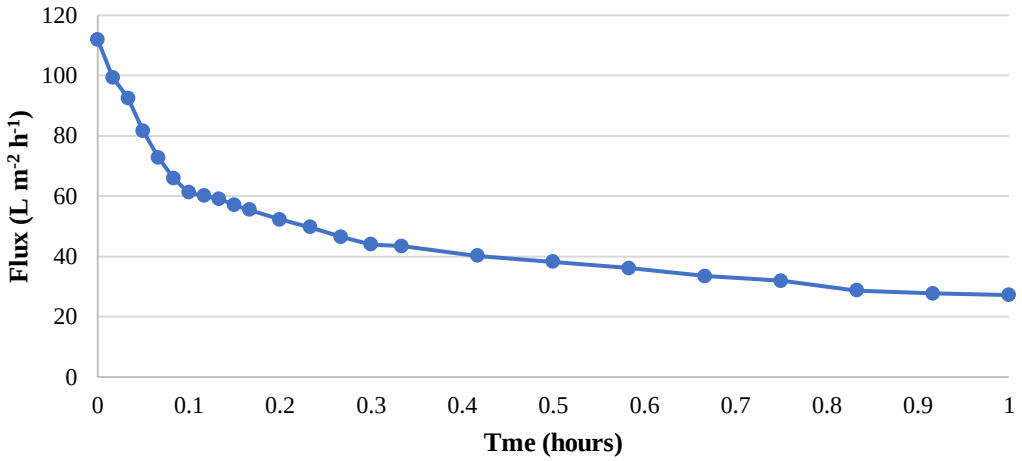


Figure 13. Flux Decline Curve for natural water (Boyne river Stage 1 effluent - Stephenfield Pilot Plant)