

Article Title: Numerical and laboratory investigations of closely-spaced and joint infiltration of precipitation and treated waste water

In Journal: Water

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Electronic Supplementary Materials S1: Results for simulation of water contents for scenarios WW-Rep (sep.), WW-RE-Ref (sep.), WW-RE-Rep-2 (sep.), WW-RE-24 (sep.) and WW-RE-Int (sep.) as compared to observed values in the laboratory tank experiment for the separated ditches

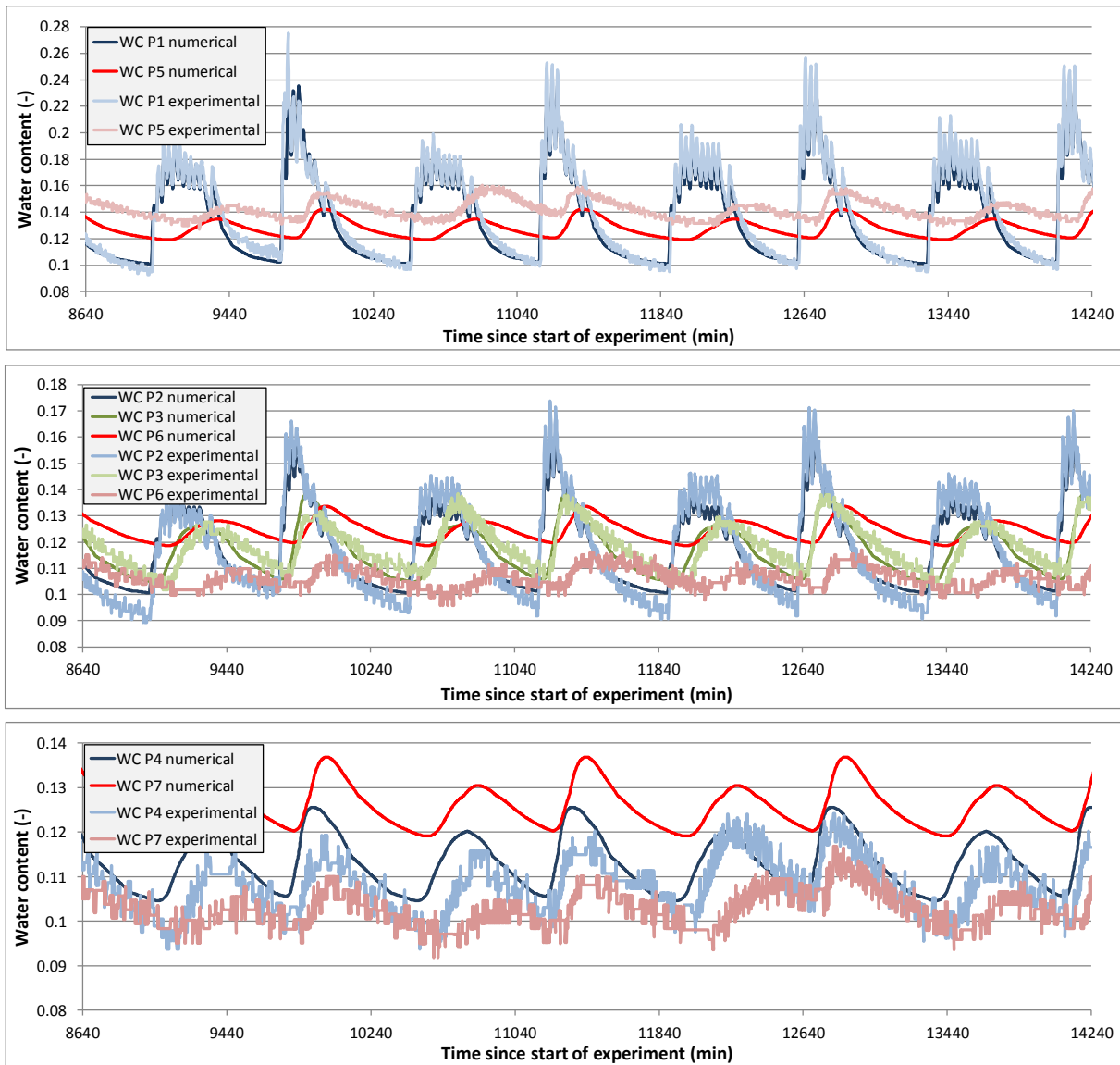


Figure S1(1). Results for simulation of water contents for scenario WW-Rep (sep.) as compared to observed values in the laboratory tank experiment for the time of 8640 to 14240 min after onset of numerical experiment

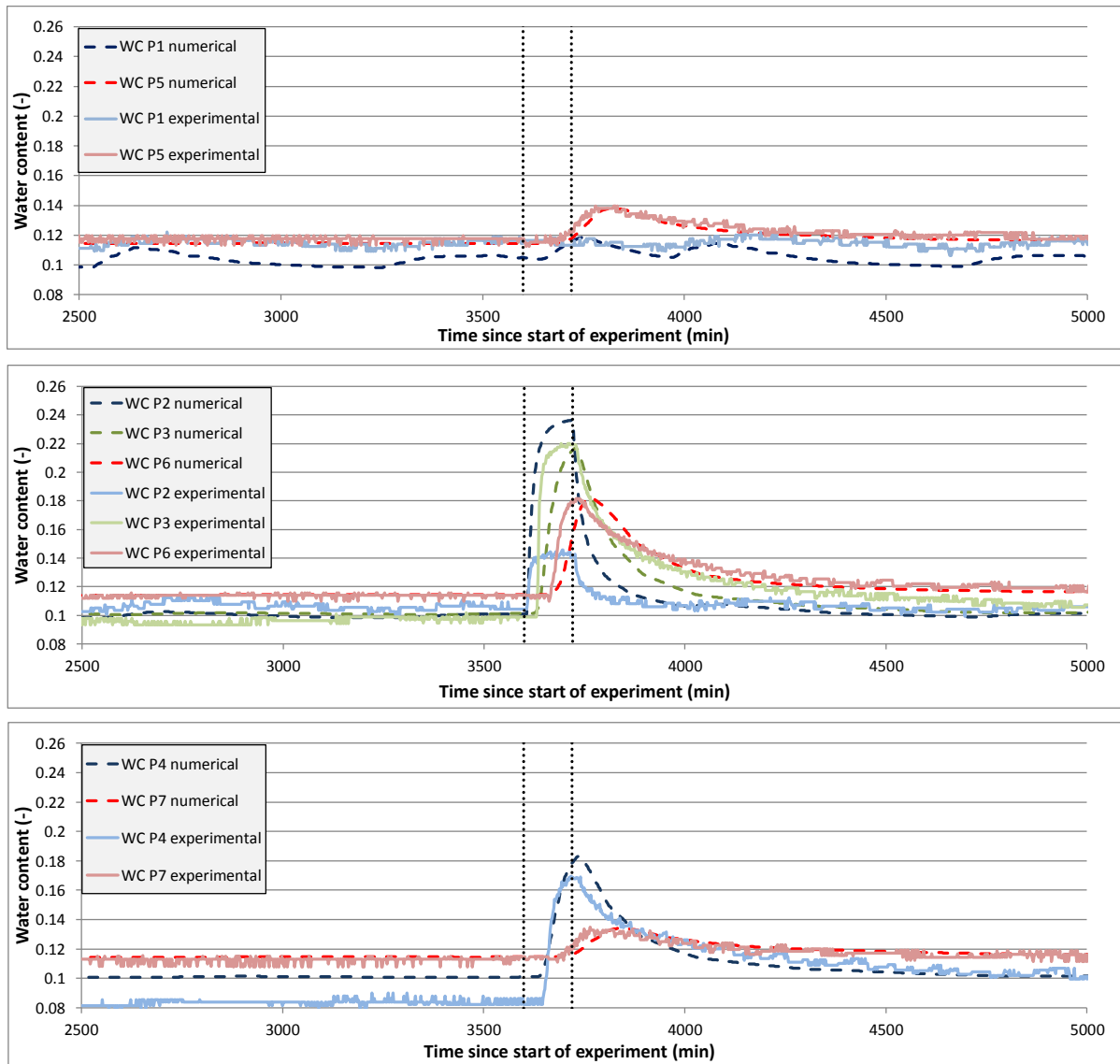


Figure S1(2). Results for simulation of water contents for scenario WW-RE-Ref (sep.) as compared to observed values in the laboratory tank experiment for the time 2500 to 5000 min after onset of the numerical experiment, black dotted line indicates duration of precipitation event

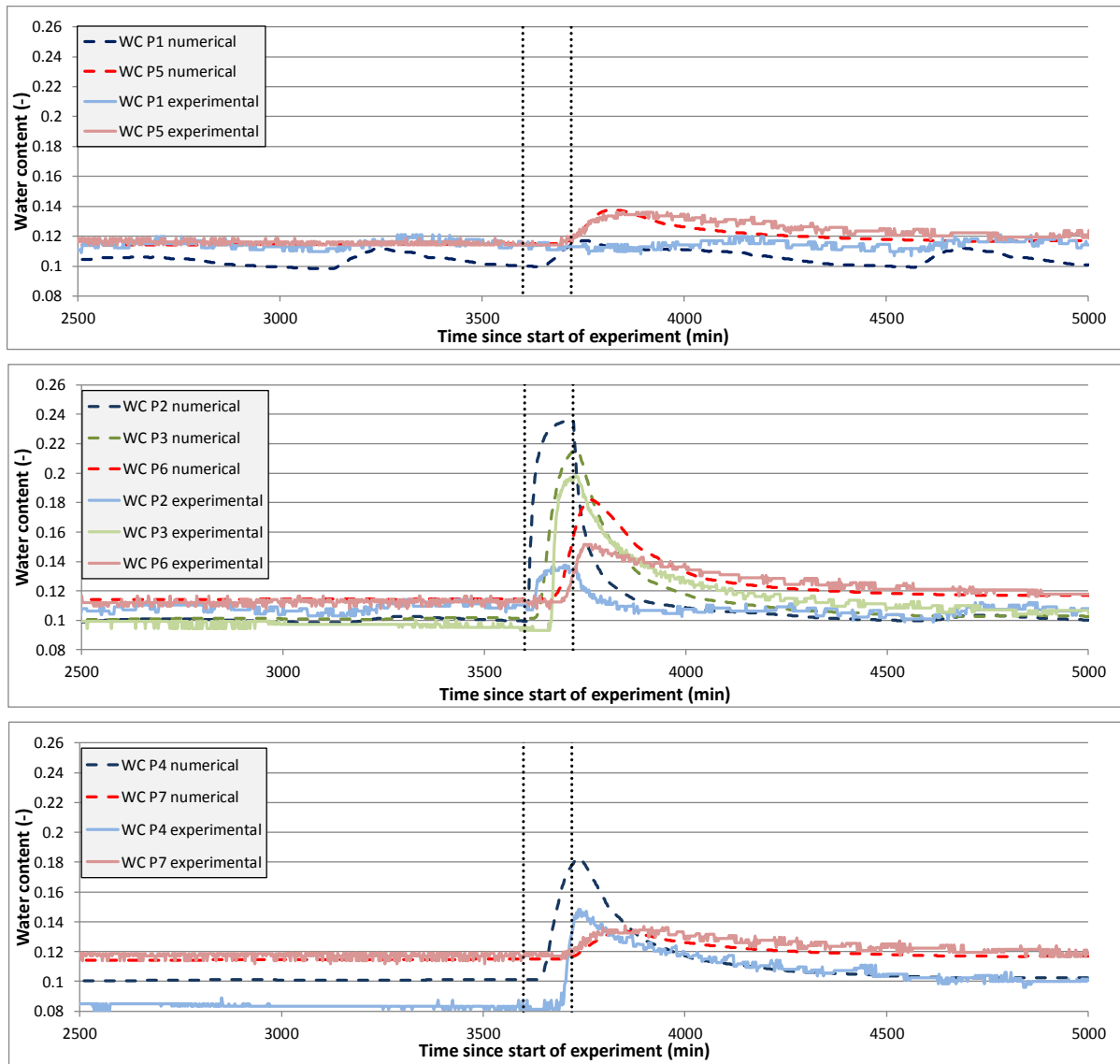


Figure S1(3). Results for simulation of water contents for scenario WW-RE-Rep-2 (sep.) as compared to observed values in the laboratory tank experiment for the time 2500 to 5000 min after onset of the numerical experiment, black dotted line indicates duration of precipitation event

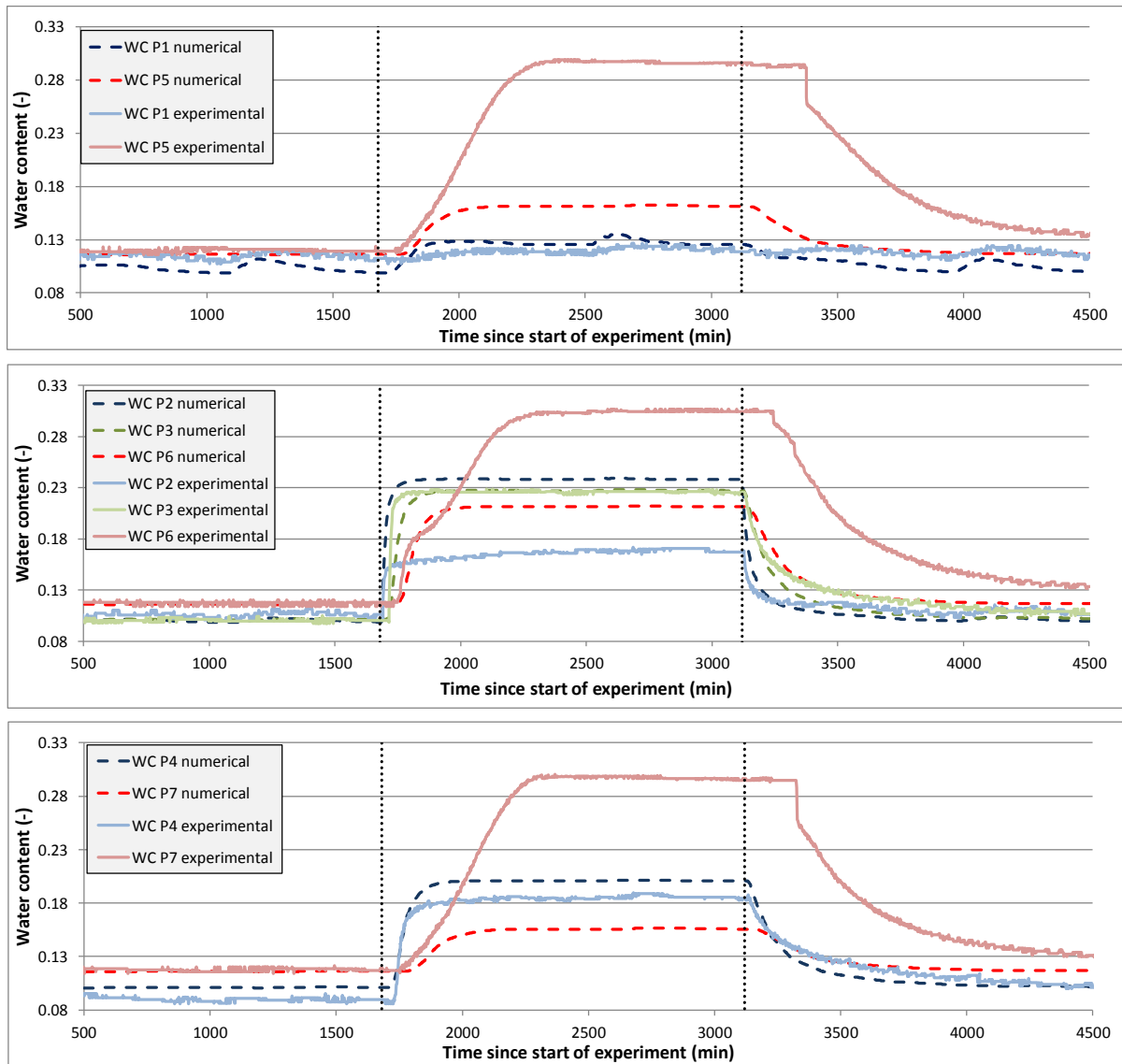


Figure S1(4). Results for simulation of water contents for scenario WW-RE-24 (sep.) as compared to observed values in the laboratory tank experiment for the time 500 to 4500 min after onset of the numerical experiment, black dotted line indicates duration of precipitation event

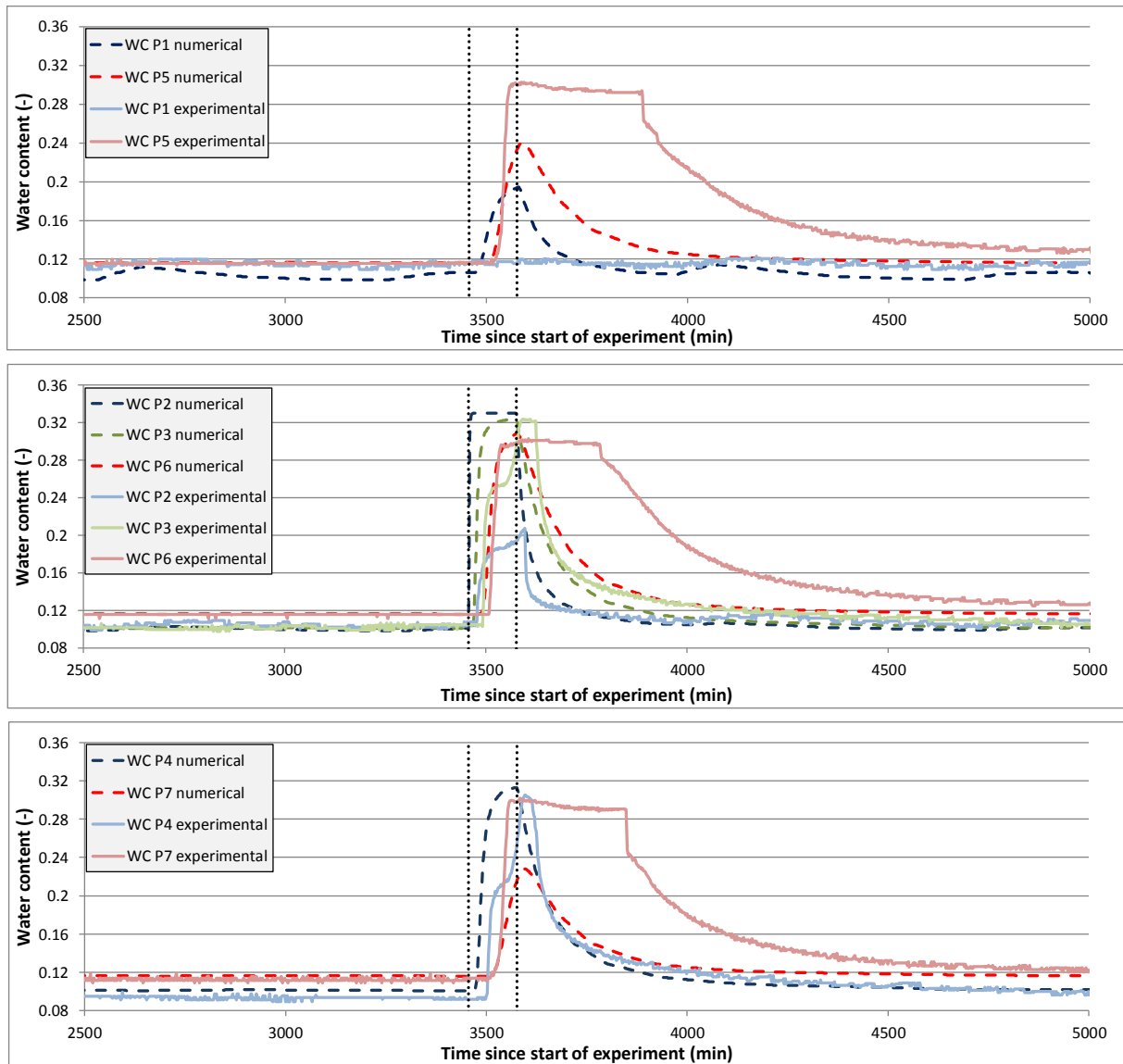


Figure S1(5). Results for simulation of water contents for scenario WW-RE-Int (sep.) as compared to observed values in the laboratory tank experiment for the time 2500 to 5000 min after onset of the numerical experiment, black dotted line indicates duration of precipitation event

Electronic Supplementary Materials S2: Results for simulation of water contents for scenarios WW-RE-Rep-1 (jnt.), WW-RE-Rep-2 (jnt.), WW-RE-24 (jnt.) as compared to observed values in the laboratory tank experiment for the joint ditch

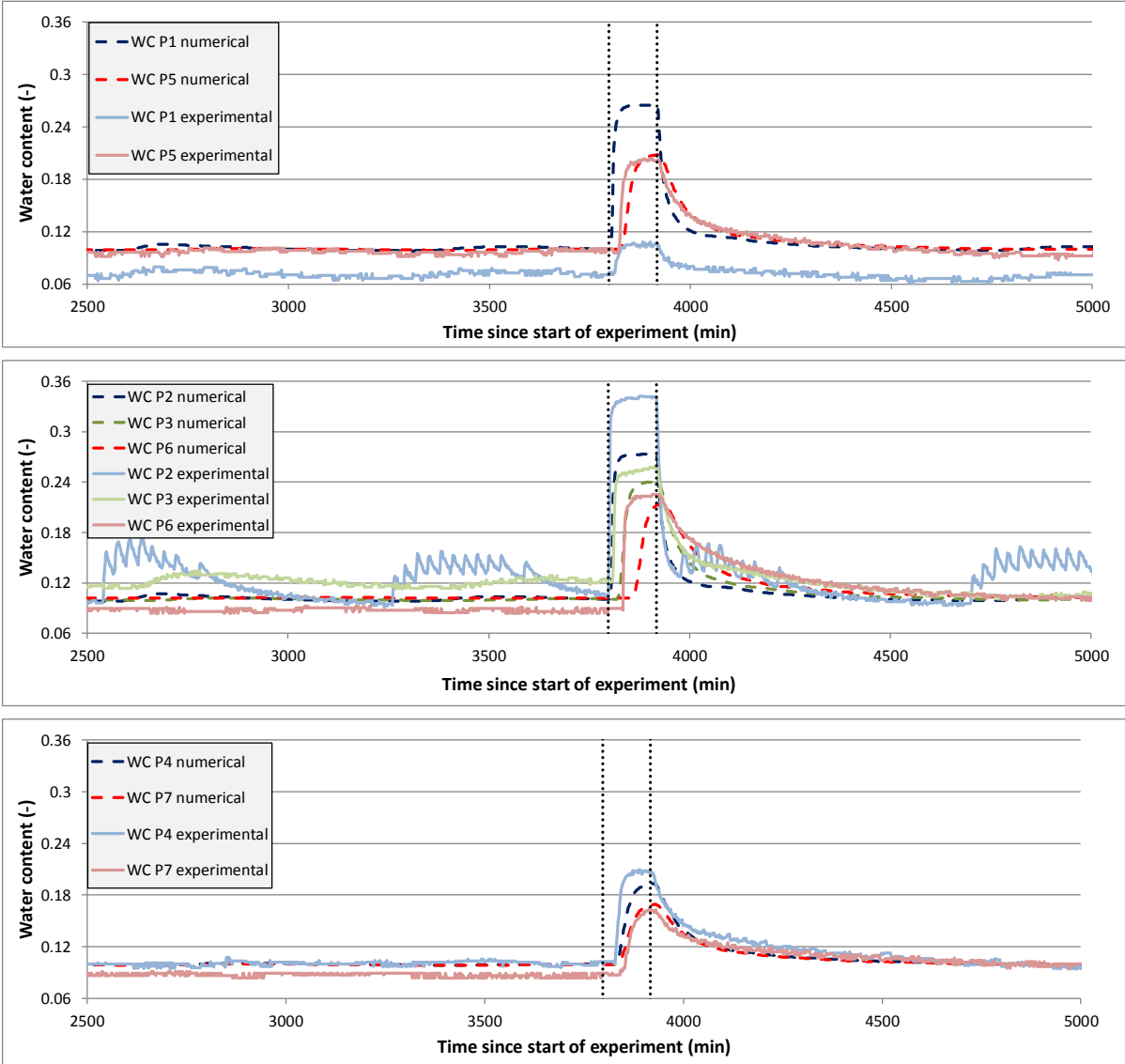


Figure S2(1). Results for simulation of water contents for scenario WW-RE-Rep-1 (jnt.) as compared to observed values in the laboratory tank experiment for the time 2500 to 5000 min after onset of the numerical experiment, black dotted line indicates duration of precipitation event

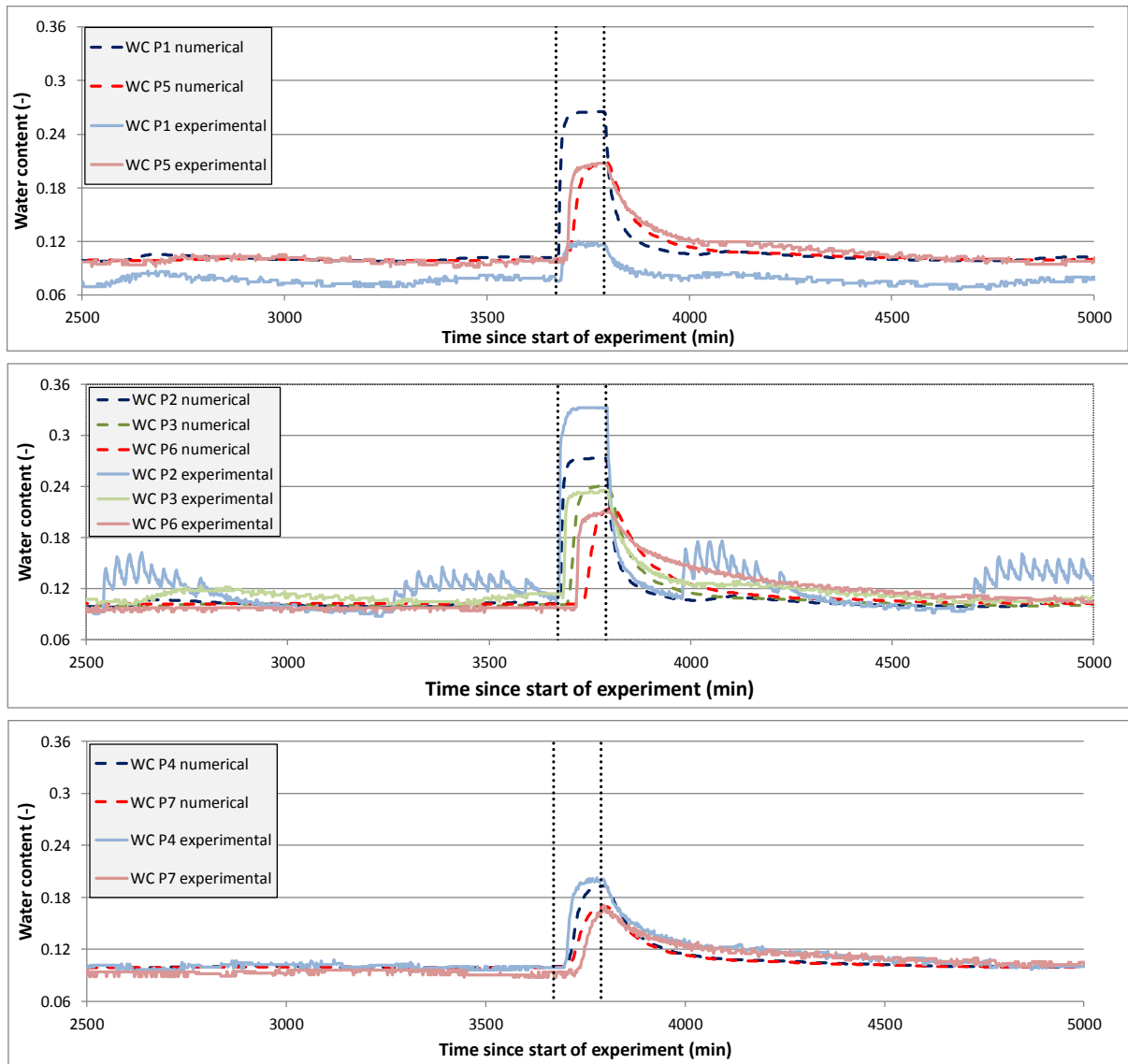


Figure S2(2). Results for simulation of water contents for scenario WW-RE-Rep-2 (jnt.) as compared to observed values in the laboratory tank experiment for the time 2500 to 5000 min after onset of the numerical experiment, black dotted line indicates duration of precipitation event

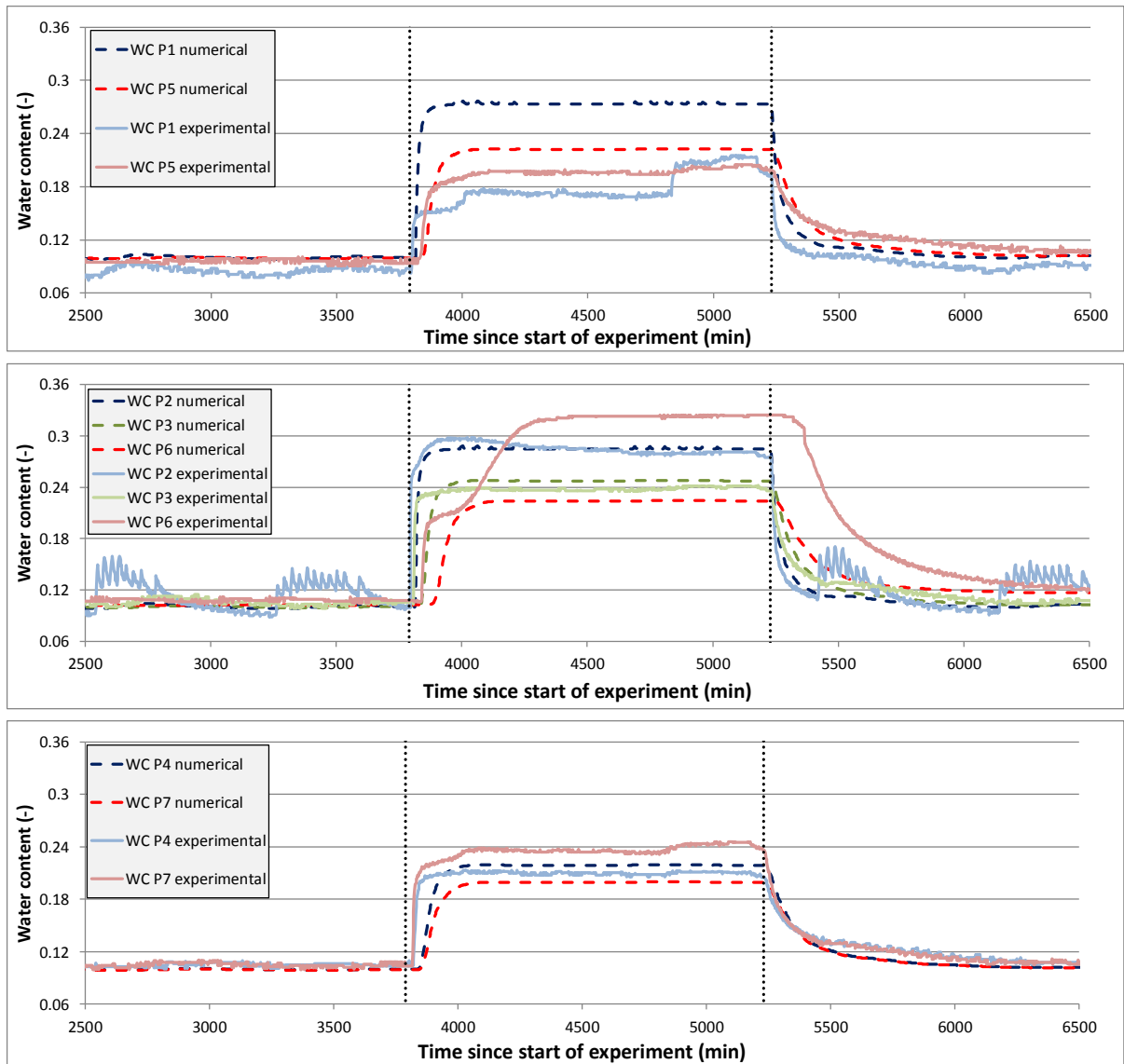


Figure S2(3). Results for simulation of water contents for scenario WW-RE-24 (jnt.) as compared to observed values in the laboratory tank experiment for the time 2500 to 6500 min after onset of the numerical experiment, black dotted line indicates duration of precipitation event

Electronic Supplementary Materials S3: COD, NH₄-N and NO₃-N concentration profiles in the 3D-Tank before and after the precipitation events for separated, closely-spaced and joint infiltration

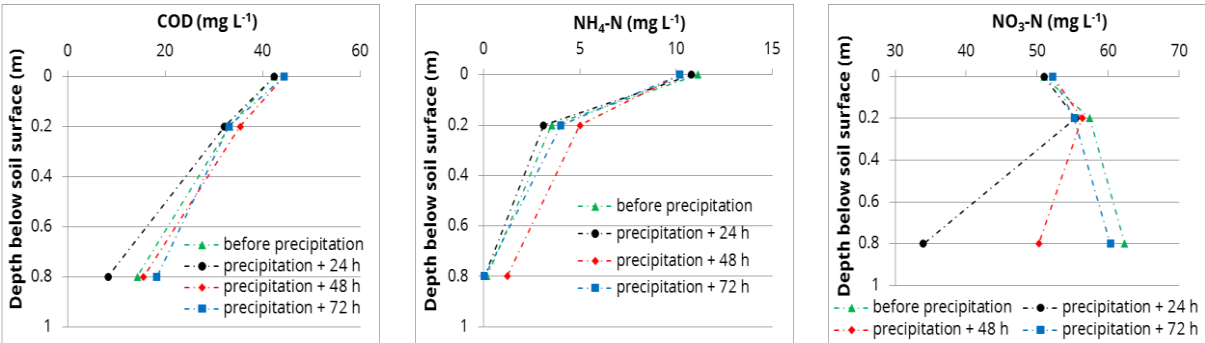


Figure S3(1). COD, NH₄-N and NO₃-N concentration profiles (sampling points: inflow, P1 and P5) before and 24h/48h/72h after the precipitation event WW-RE-Int for separated, closely-spaced infiltration

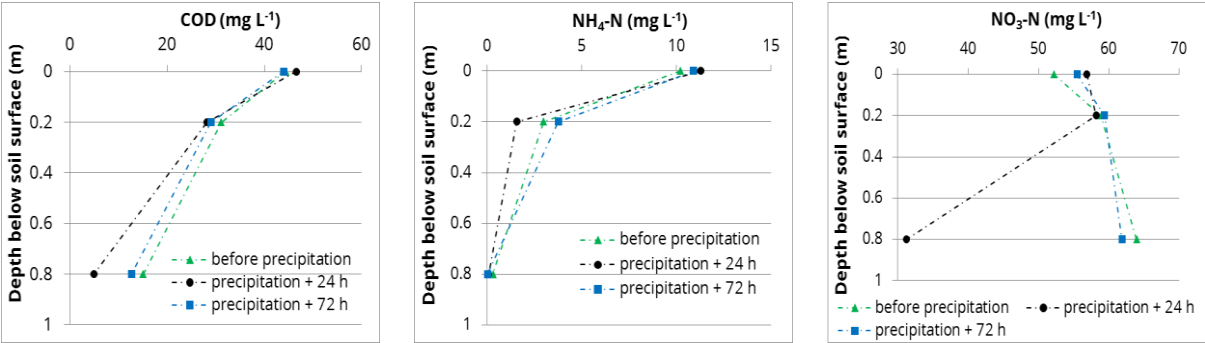


Figure S3(2). COD, NH₄-N and NO₃-N concentration profiles (sampling points: inflow, P1 and P5) before and 24h/72h after the precipitation event WW-RE-24 for separated, closely-spaced infiltration

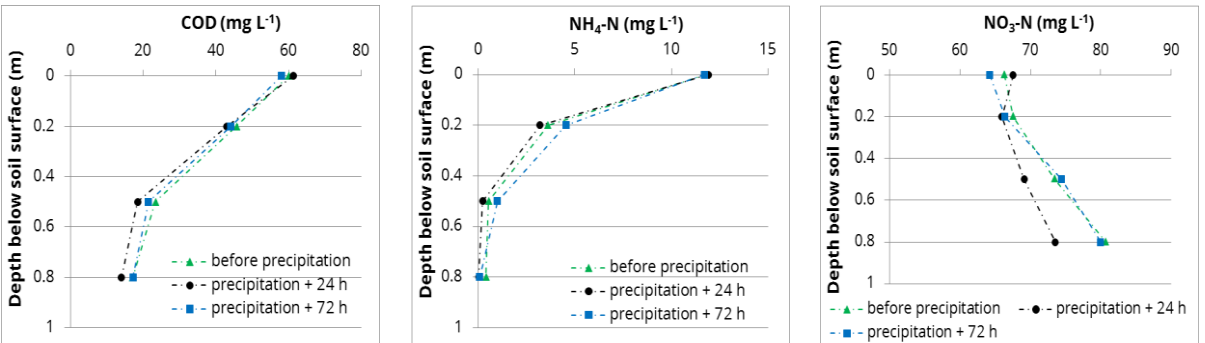


Figure S3(3). COD, NH₄-N and NO₃-N concentration profiles (sampling points: inflow, P2, P3 and P6) before and 24h/72h after the precipitation event WW-RE-Ref for joint infiltration

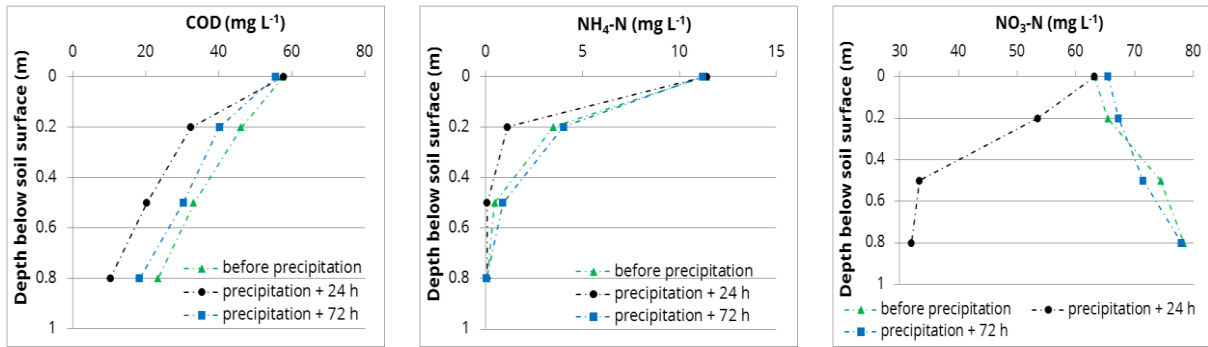


Figure S3(4). COD, NH₄-N and NO₃-N concentration profiles (sampling points: inflow, P2, P3 and P6) before and 24h/72h after the precipitation event WW-RE-Int for joint infiltration

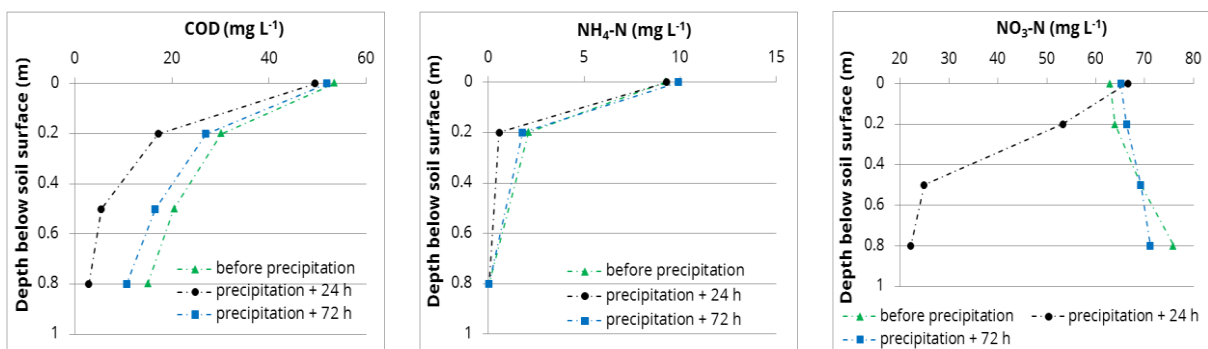


Figure S3(5). COD, NH₄-N and NO₃-N concentration profiles (sampling points: inflow, P2, P3 and P6) before and 24h/72h after the precipitation event WW-RE-24 for joint infiltration

Electronic Supplementary Materials S4: Oxygen saturation in water (temperature-corrected) before, during and after the precipitation events for separated, closely-spaced and joint infiltration

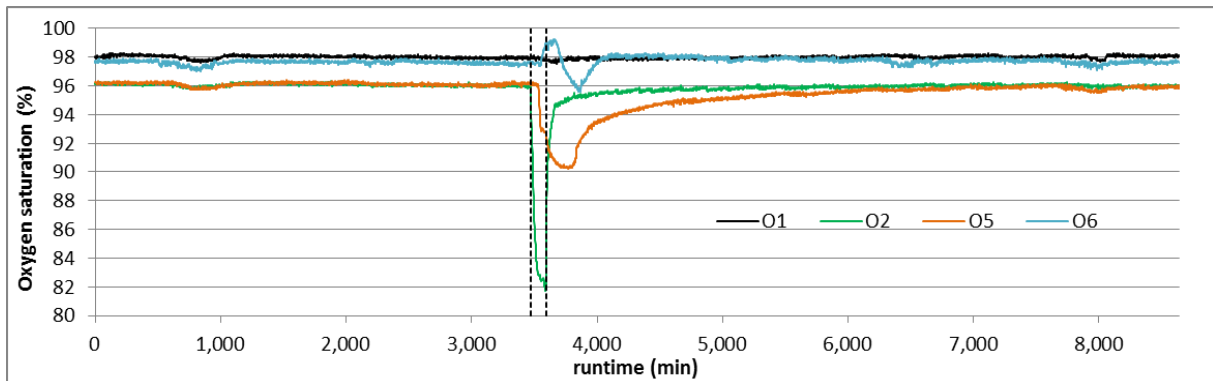


Figure S4(1). Oxygen saturation (observation points: P1, P2, P5 and P6) before, during and after the precipitation event WW-RE-Int for separated, closely-spaced infiltration

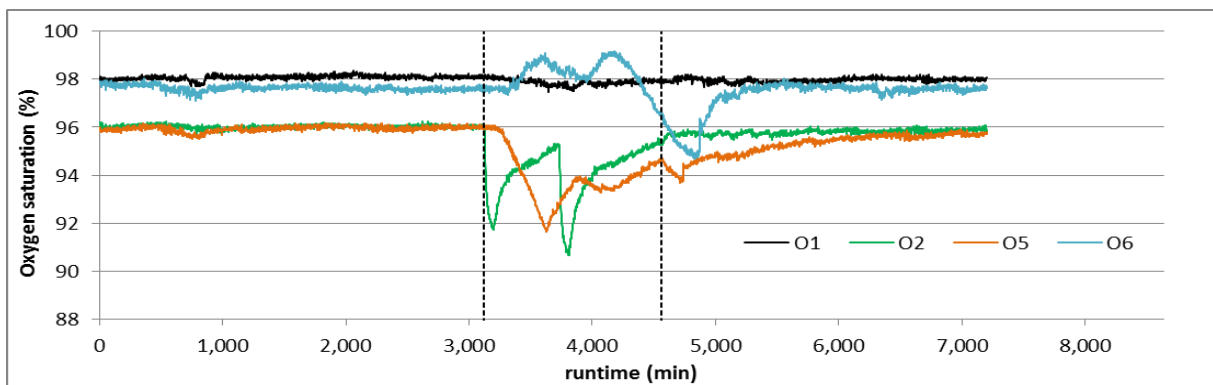


Figure S4(2). Oxygen saturation (observation points: P1, P2, P5 and P6) before, during and after the precipitation event WW-RE-24 for separated, closely-spaced infiltration

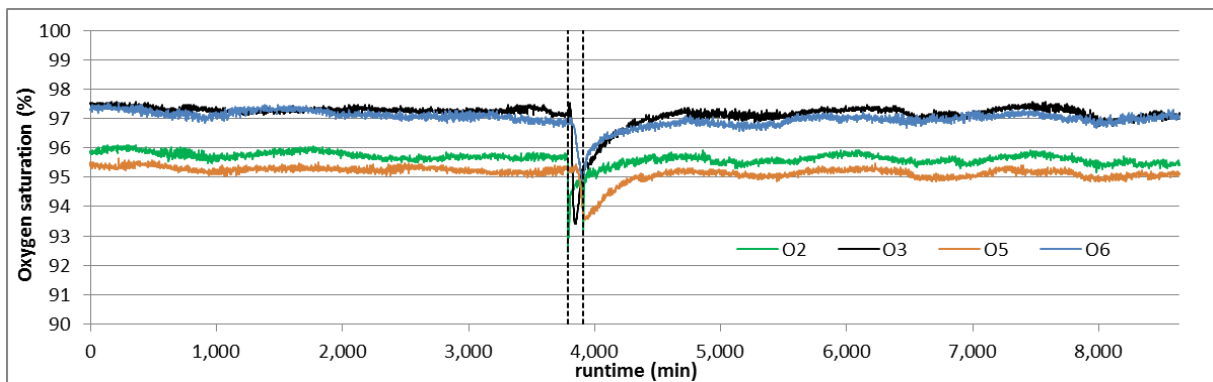


Figure S4(3). Oxygen saturation (observation points: P1, P2, P5 and P6) before, during and after the precipitation event WW-RE-Ref for joint infiltration

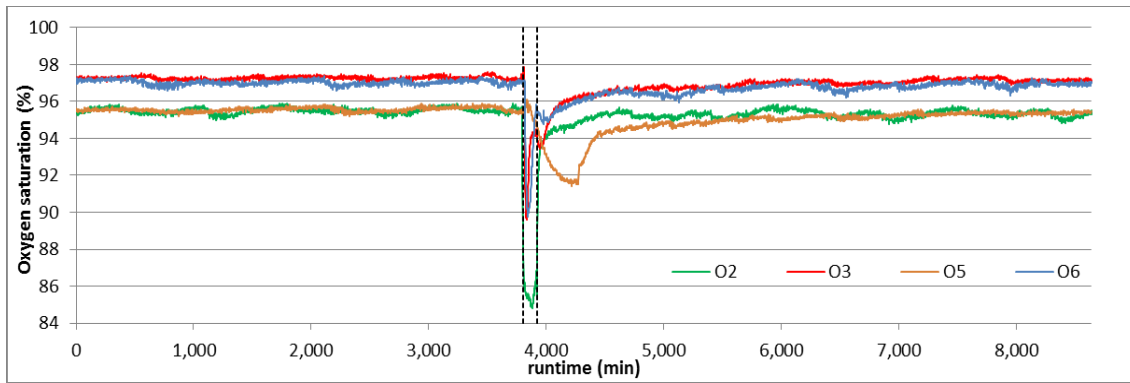


Figure S4(4). Oxygen saturation (observation points: P1, P2, P5 and P6) before, during and after the precipitation event WW-RE-Int for joint infiltration

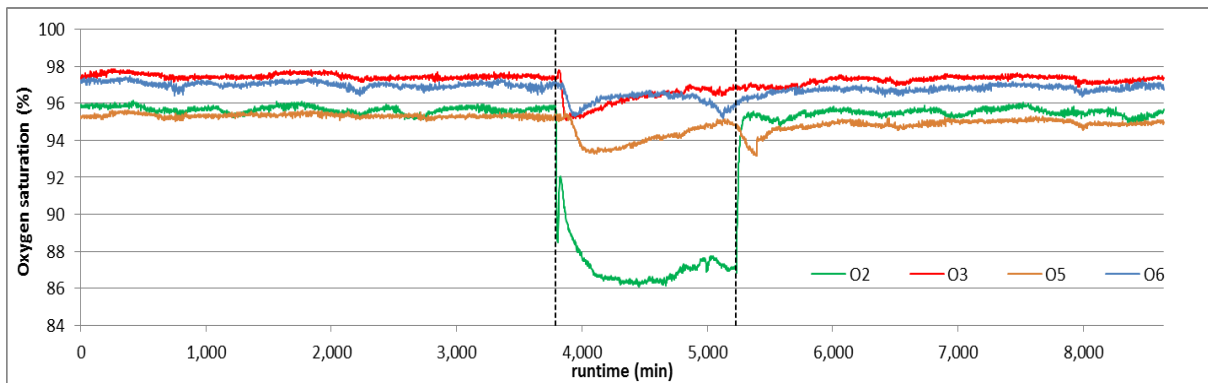


Figure S4(5). Oxygen saturation (observation points: P1, P2, P5 and P6) before, during and after the precipitation event WW-RE-24 for joint infiltration