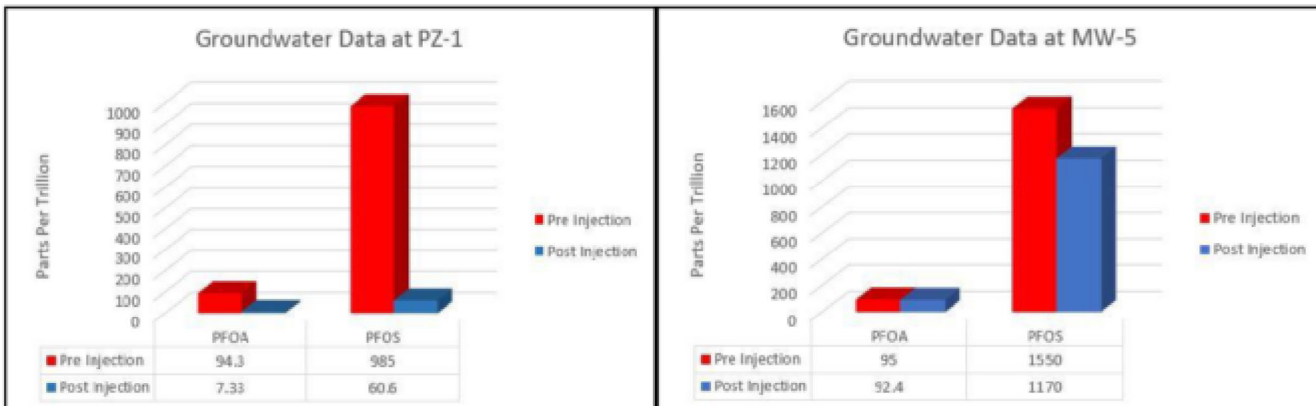


## BAM Injection – Per- and polyfluoroalkyl substances (PFAS)

Former Tannery – Northeast Michigan

- Project Profile:** Former Tannery – Northeast Michigan
- Contaminants:** Perfluorooctanoic Acid (PFOA): 94.3 ng/L, 95ng/L  
Perfluorooctyl Sulfonate (PFOS): 985 ng/L, 1550ng/L
- Treatment Chemistry:** BAM
- Impacted Matrix:** Silty Sands with Organics
- Project Summary:** ORIN conducted a pilot test to treat groundwater contaminated with PFAS using BAM, a pyrolyzed cellulosic material. BAM was mixed with water and injected through 46 DPT points encompassing PZ-1 and MW-5. A total of 4,445 gallons of BAM solution was injected through the 46 points. During injection activities, BAM was observed in PZ-1 and not in MW-5. BAM treatment chemistry was administered via DPT.↓



- Project Results:** Baseline samples were taken prior to treatment to characterize the contaminant level and compare treatment reductions. Current EPA standards for PFOA and PFOS are 70 ng/L. One week following injection a round of sampling was completed. At PZ-1, initial concentrations of PFOA and PFOS were 94.3 and 985 ng/L respectively. One week post injection PFOA and PFOS concentrations are 7.33 and 60.6 ng/L respectively. This results in a 92.2% reduction in PFOA and a 93.8% reduction in PFOS. MW-5 did not visibly show BAM in the well during the injection but mounding was observed. A 2.7% reduction in PFOA was observed in MW-5 however a 24.5% reduction was shown in PFOS.