



DETECTION // TREATMENT // REGULATION

EMERGING CONTAMINANTS
— S U M M I T —

Field Demonstration of Infrared Thermal Treatment of Per and Polyfluoroalkyl Substances (PFAS)-contaminated Soil from Subsurface Investigations

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Field Demonstration of Infrared Thermal Treatment of Per and Polyfluoroalkyl Substances (PFAS)-contaminated Soil from Subsurface Investigations

- Treat PFAS IDW using a portable infrared-powered thermal desorption system
- This is an ultimately destructive process: PFAS transferred to GAC, PFAS destroyed (we think) during GAC regeneration
- Use soil migration to groundwater values (AK DEC) to assess ability to re-use the soil (<3.0 ng/g PFOS and <1.7 ng/g PFOA)

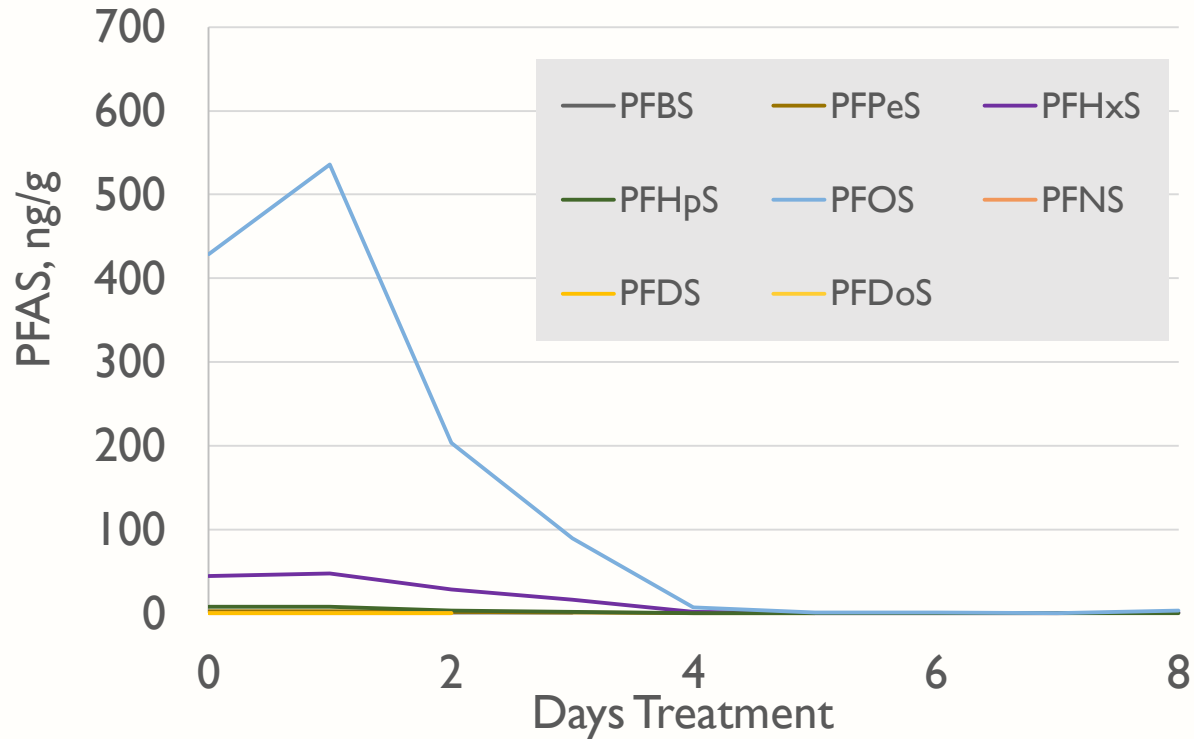


PFAS Thermal Desorption Unit

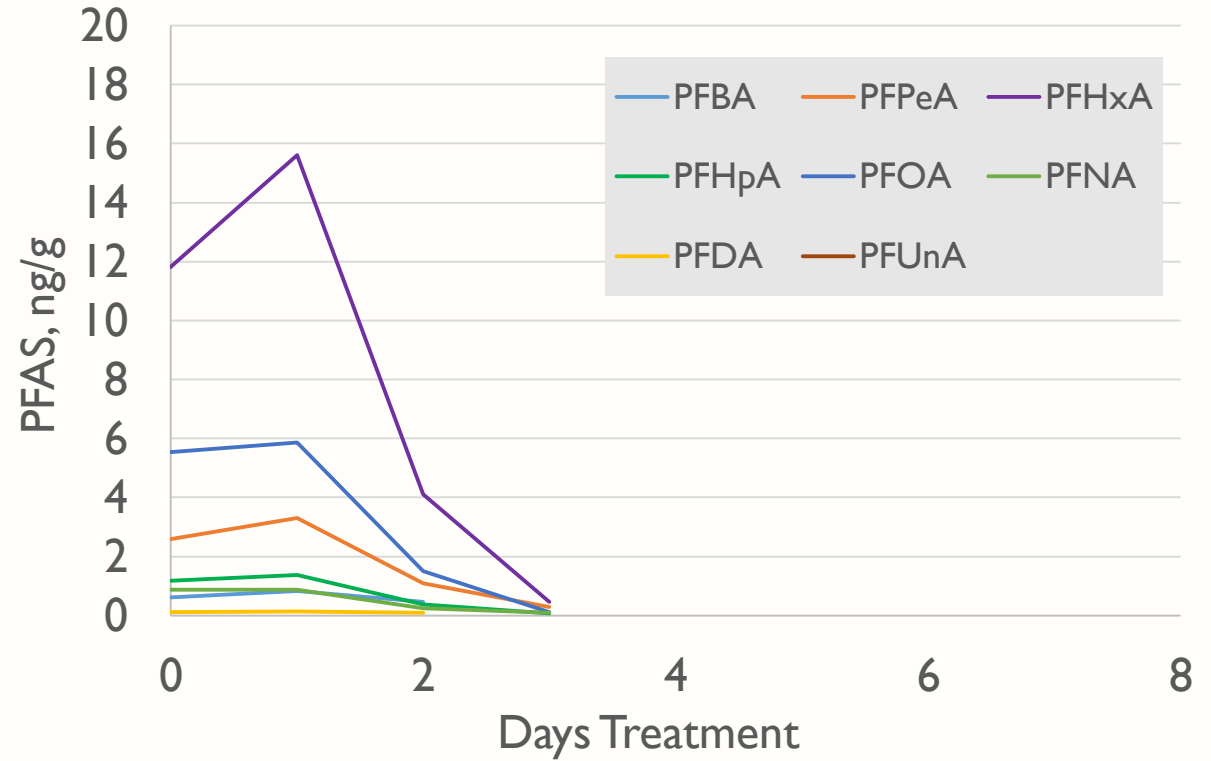


Results: 516 $\mu\text{g}/\text{kg}$ initial Total PFAS

PFSA, Low Concentration



PFCA, Low Concentration



Conclusions

- Thermal Desorption Works!
 - Desorption at 350-400 C
- Challenges in off-gas Management
- To discuss the promise and challenges of Thermal Desorption for PFAS, drop by my poster.

Condensate PFAS Composition

