

THE ROLE OF HPC ON SUBSURFACE SIMULATION OF U(VI) TRANSPORT AT THE HANFORD 300 AREA

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Over the past several years, massively-parallel high performance computing has been employed through the PFLOTRAN code to simulate the fate of a persistent uranium plume within an unconfined aquifer driven by groundwater/river water interaction at the Hanford 300 A rea in southeastern Washington State. This presentation illustrates the challenges of applying high performance computing to simulate subsurface physicochemical processes in the real world. More importantly, it demonstrates the new scientific discovery enabled by the increased computing power that is readily available today.