

200-UP-1 Groundwater Operable Unit



Overview

Between 1994 and 2005, DOE operated a pump-and-treat system for uranium and technetium-99 in the 200-UP-1 Operable Unit (southern 200-West Area). Concentrations declined below cleanup goals (480 µg/L for uranium and 9,000 pCi/L for technetium-99), so DOE shut off the pumps and monitored concentrations in 2005 and 2006. The cleanup goal for uranium is expected to change to 300 µg/L, so DOE restarted the system in April 2007.

The system removes uranium and technetium-99 from the most concentrated portion of the contaminant plumes. The system also removes secondary contaminants nitrate and carbon tetrachloride from the groundwater.

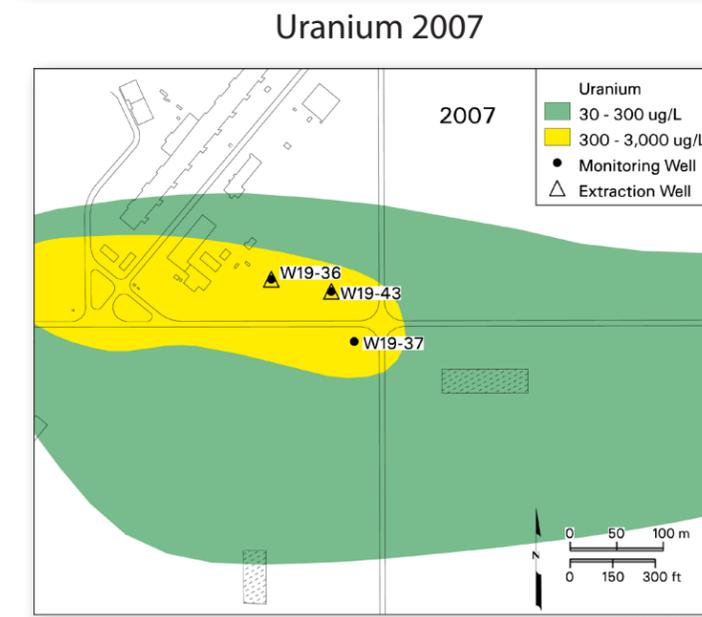
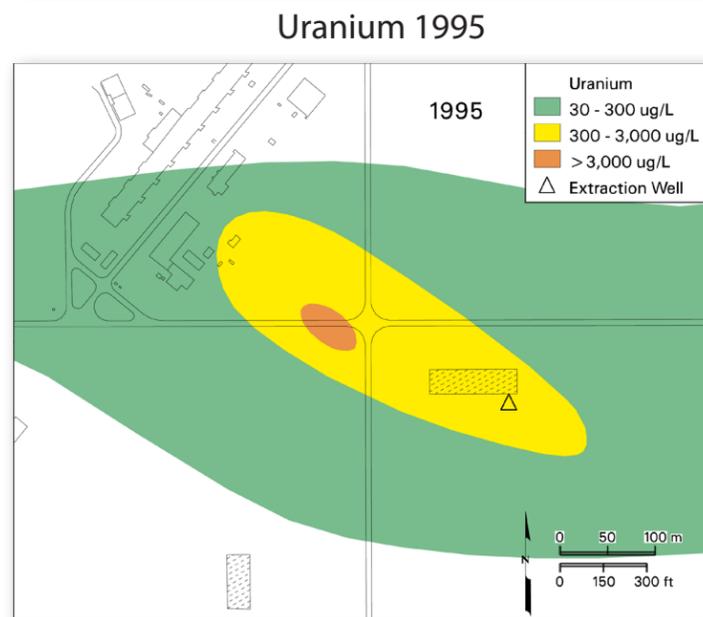
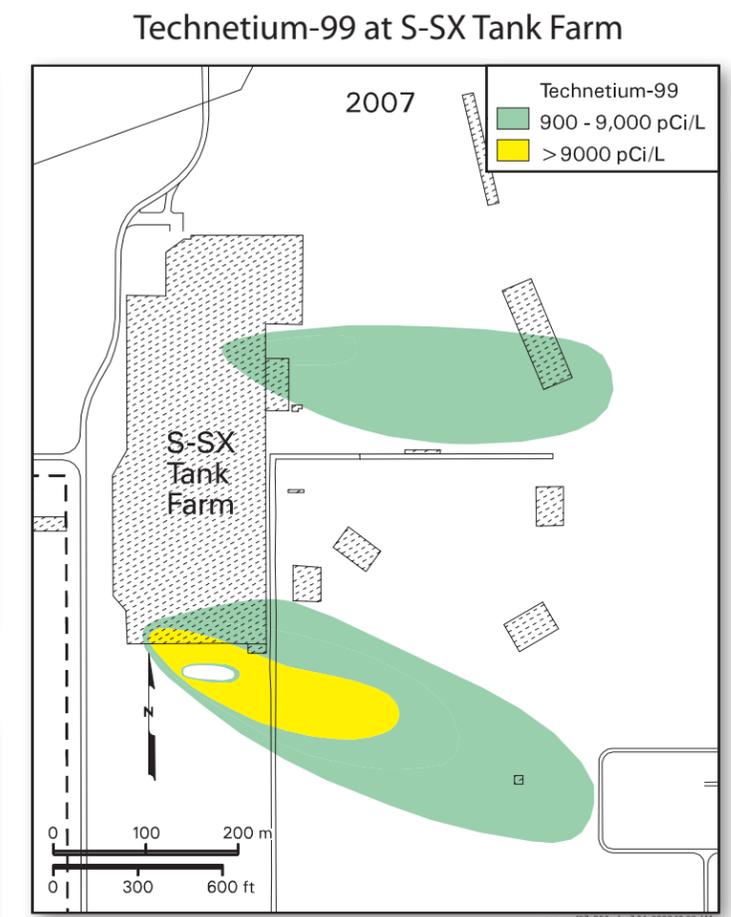
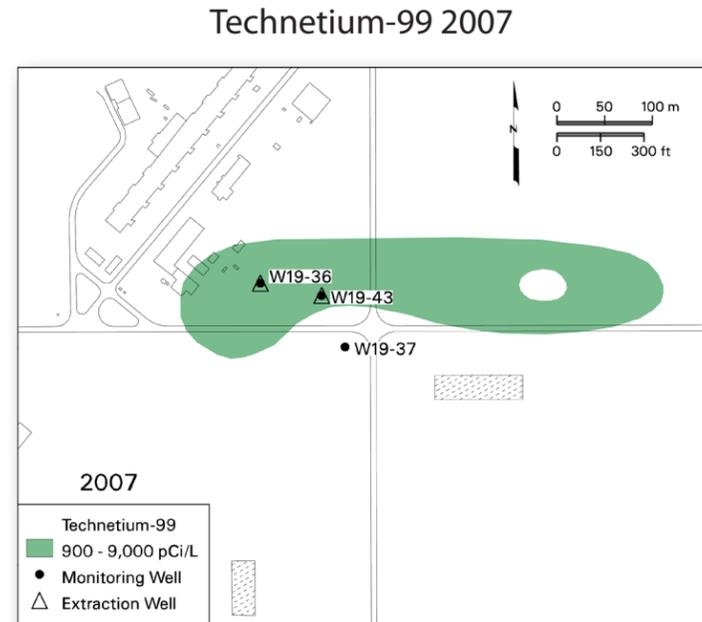
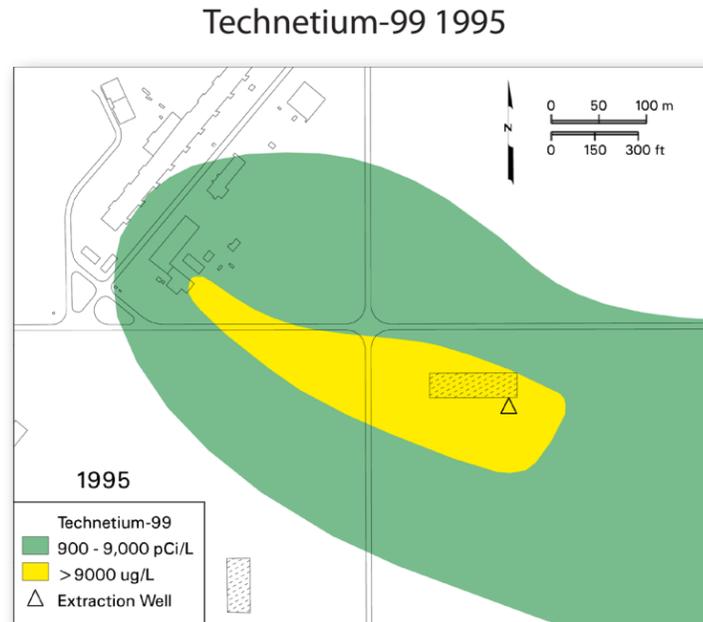
Limitations

The size of the plume at levels below the cleanup goal is uncertain.

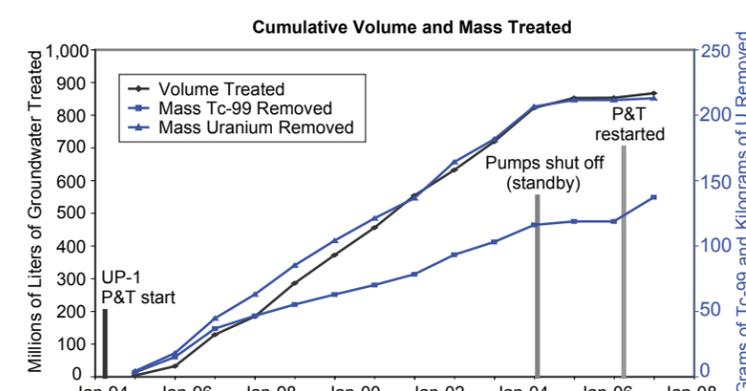
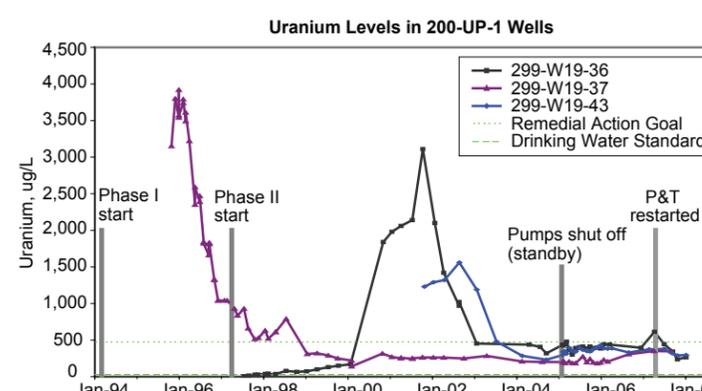
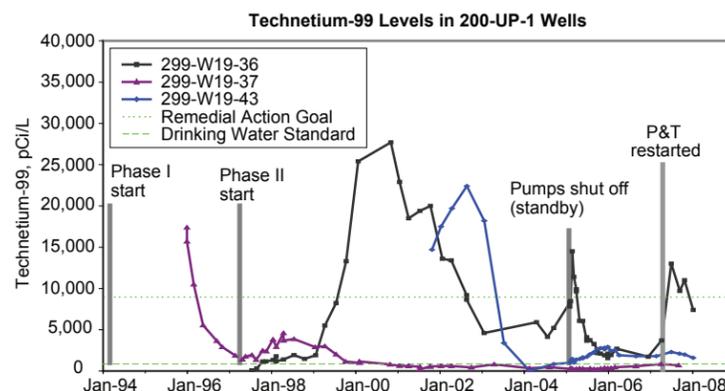
Conclusions

The pump-and-treat system removed 137 grams (4.8 ounces or 2.3 Curies) of technetium-99 and 212 kilograms (467 pounds) of uranium.

Technetium-99 and uranium concentrations declined below cleanup goals, and remained below those goals for two years after pumps were shut off. DOE restarted the pump-and-treat system in April 2007.



Single-shell tank farm S-SX also contaminated groundwater with technetium-99. The plumes are expanding to the east.



7/21/08

