

Pantex Clean-up Progress

Active clean-up continues from legacy operations that released contaminants to the perched groundwater and for solvents that were released to soils in the Burning Ground. The perched groundwater clean-up action includes four In-situ bioremediation systems (ISB) and two pump and treat systems. A soil vapor extraction system operates to remove solvents from the Burning Ground soils. One of the primary goals for treatment is to prevent movement of contaminated perched groundwater and solvents in soils to the deeper drinking water aquifer (Ogallala Aquifer). Pantex monitors over 100 perched groundwater wells to evaluate the effectiveness of the clean-up and 28 Ogallala Aquifer wells to evaluate the continued protectiveness of the action for the drinking water aquifer. Monitoring results from Ogallala wells continue to indicate that drinking water for neighboring domestic wells and Pantex production wells is safe and protected. You can find results on the Mission page at pantex.energy.gov.

Highlights of Clean-up Actions

- This past year, Pantex removed 350 lbs of contaminants through remedial actions.

Totals since start of remedial action :

- 3.0 billion gallons of perched groundwater treated with 1.8 billion gallons beneficially used
- 16,050 pounds of contaminants removed from perched groundwater
- Perched water levels are continuing to steadily decline
- Bioremediation systems are reducing high explosives, perchlorate, and TCE (trichloroethylene) to safe drinking water levels
- 21,300 pounds of solvents removed from soils by the Soil Vapor Extraction System

Pantex 2022 Annual Public Meeting

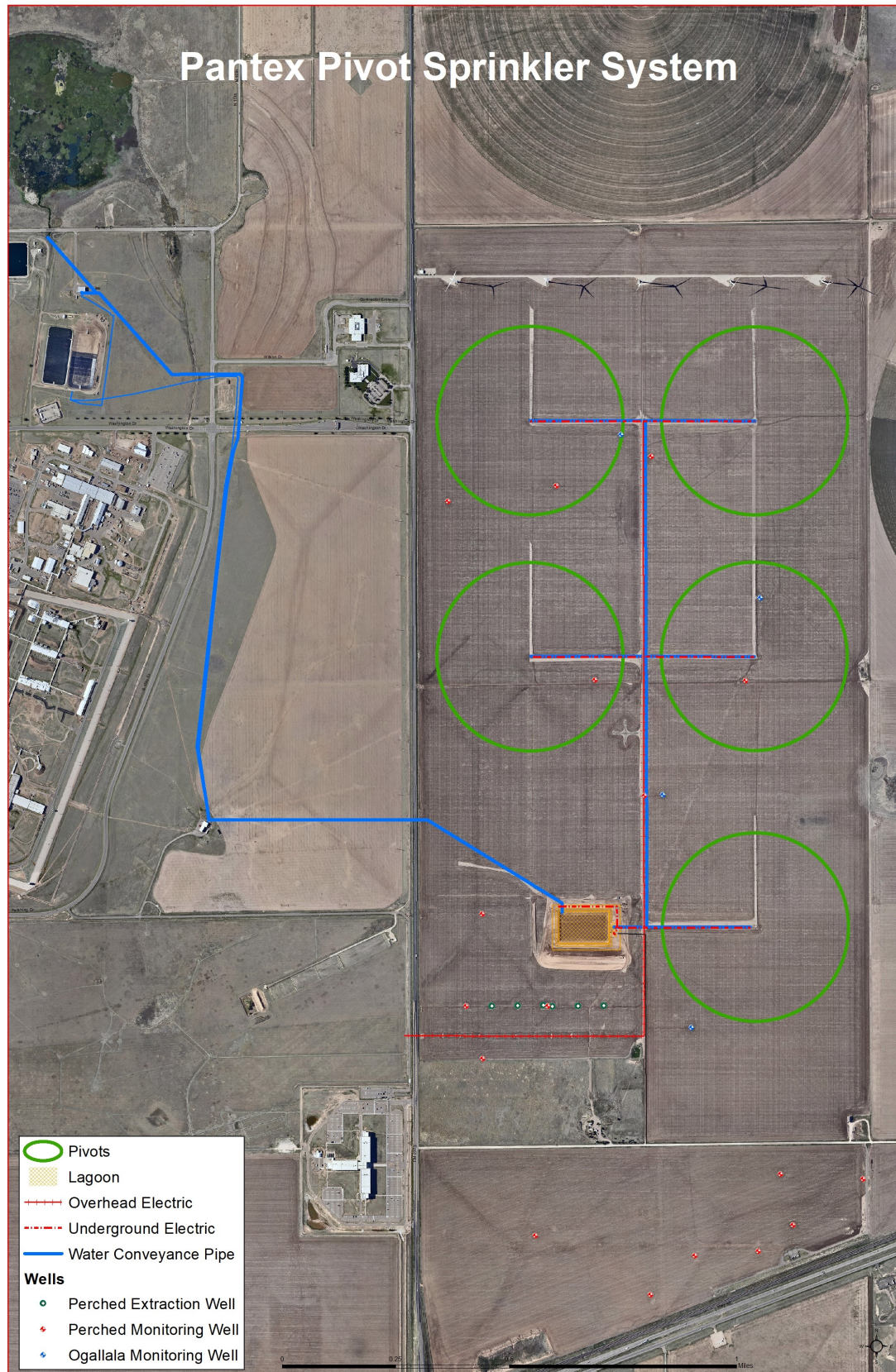
Pantex provides updates of the clean-up progress at an annual Public Meeting held on the second Tuesday of November. This year's meeting will be held at 4:00 p.m. on Tuesday, November 1st, 2022, at the Square House Museum, 501 Elsie Avenue, in Panhandle, TX.

Legacy High Explosive Detection at Ogallala Monitoring Well

Pantex has an extensive perched and Ogallala well network that monitors for breakthrough of legacy constituents to the Ogallala Aquifer from the overlying perched aquifer. One Ogallala monitoring well (PTX06-1056) continues to demonstrate detections of legacy 4-amino-2,6-dinitrotoluene (DNT4A), a breakdown product of TNT, first detected in April 2014. Pantex has proactively evaluated potential sources for the contamination. A nearby perched well that was drilled deep was plugged to address a potential source. A cement bond log was run on PTX06-1056 in October 2016 to determine the competency of the well. The log indicated that the seal is competent and that PTX06-1056 is likely not acting as a preferential pathway for contamination to reach the Ogallala Aquifer.

Concentrations of DNT4A in recent samples are near the Groundwater Protection Standard (GWPS) of 1.2 ug/L. As part of an effort to better understand contamination potential, Pantex performed a time-series sampling event with a high volume purge in early August and re-sampled the well in September. Results from these samples confirmed DNT4A exceeds the GWPS and further detail will be provided at the Pantex Public Meeting. Plans are being finalized to install two new Ogallala monitoring wells in 2023 to help evaluate potential sources and extent of DNT4A contamination. Further actions will be determined based on sampling results and in accordance with the Pantex Plant Ogallala Aquifer and Perched Groundwater Contingency Plan. As this well is located more than a 1.5 miles away from Pantex's property boundary, there is no risk to the public and workers.

Pantex Installs New Pivot Irrigation System



One of Pantex remedial actions is to dewater the perch through extraction wells. To help, a surface irrigation pivot sprinkler system was constructed at Pantex that will allow treated water to be pumped from Pantex's two pump and treat systems for commercial farming on DOE property east of FM 2373. The new system will provide a consistent long-term option for management of treated water so that the pump and treat systems can fully operate and continue the mission to remove and treat perched groundwater.

Funding was requested in fiscal year (FY) 2021 to design and construct infrastructure for irrigation of land east of FM 2373 using five center pivot sprinklers. The design of the new irrigation system was completed in May 2021 and construction is scheduled began in November 2021. Installation of the multiple pivot irrigation units was built with a total discharge capacity to accommodate the combined effluent flows from the two pump and treat systems and Pantex's Wastewater Treatment Facility (WWTF). The first crop using the new system will be planted in May 2023.