



New Mexico Fort Wingate

Facility and Location

Fort Wingate is a semi-active military site that was used for munitions storage and maintenance activities. The site was occasionally used as a launch location for missiles fired into the White Sands Missile Range. From 1949 to 1993, Fort Wingate stored, tested, and demilitarized munitions items. Open burn/open detonation (OB/OD), incineration, and bomb washout were the principal demilitarization methods used. The range is still periodically used by the Missile Defense Agency.

Media Sampled and Findings

Groundwater — In 2011, 25 of 25 samples detected perchlorate from 0.05 to 3,280 ppb. In 2010, 18 of 30 samples detected perchlorate from 0.18 to 1,900 ppb. In 2009, 34 of 34 samples detected perchlorate from 0.08 to 240 ppb. Prior to 2007, 288 samples were taken from ten sites. Of samples taken at the former trinitrotoluene (TNT) washout facilities: 12 of 47 samples detected perchlorate with a high of 76.6 ppb; two samples tested from building 528 area indicated perchlorate at concentrations of 2,440 ppb and 2,890 ppb; 1 of 17 samples tested at buildings 542/600 indicated perchlorate at 9.4 ppb; 1 of 16 samples tested at the administration area indicated perchlorate at 10 ppb; and samples at the northern property boundary area reported no detection. Two of the samples at the Sewage Treatment Facility area reported no detection. One of fourteen samples from the OB/OD closed area detected perchlorate at 10 ppb and 14 of 39 additional samples detected perchlorate with a high of 15 ppb.

Soil — Prior to 2007, 29 of 31 soil samples from ammunition normal maintenance building 528 detected perchlorate with a high of 3,180 ppb. One of 11 samples from the former TNT washout facilities area detected perchlorate at 100 ppb.

Appropriate Actions

The cleanup schedule and goals for the sites with elevated perchlorate levels are included in the Resource Conservation and Recovery Act (RCRA) permit issued by the New Mexico Environmental Department. New monitoring wells were installed in Parcel 22 to evaluate the extent of the plume present in a water bearing sandstone unit with detections above 6 ppb (cited as the action level for perchlorate in groundwater under the Fort Wingate RCRA permit). Semi-annual monitoring is planned. Additional monitoring wells were installed in 2011 to fully delineate the plume in bedrock groundwater and alluvial groundwater. In 2012, additional groundwater wells will be installed as directed by the New Mexico Environmental Department to continue characterization of the perchlorate plume. Available data continues to show no off post migration of either plume. Perchlorate plumes are confined to the installation in water bearing formations that have extremely low hydraulic conductivity values.