FIRE TRAINING AREA NO.4

FT-04

Joint Base Andrews April 2022

BACKGROUND

Fire Training Area Number 4 (FT-04) is located near the southeast corner of Joint Base Andrews. It was used as a fire training area from 1973 to 1990. Flammable solvents and waste petroleum hydrocarbons were released into a bermed area, ignited, and then extinguished during training. All remaining liquids then flowed through an oil-water separator to a leaching pond.

Much of the contaminated FT-04 source material was removed during the 1992 demolition/excavation of the site and operation of a free product recovery system. A groundwater remediation system, utilizing vacuum enhanced product recovery, was subsequently installed as a pilot study under a 1996 Interim Remedial Action Plan. The groundwater remediation system was installed with regulatory and partnering group concurrence in 2000 after free-phase petroleum hydrocarbons were reduced to a periodic sheen.

A treatability study utilizing Hydrogen Release Compound (HRC) was conducted as part of the 2005 Final Remedial Investigation (RI) Report to determine the effectiveness of HRC as a remedial option for the solvents in groundwater at the site. Following the treatability study, the 2005 Proposed Plan (PP) and 2005 Record of Decision (ROD) were completed. A second round of HRC injections were completed upgradient of the original treatability study in 2007, as a contingency of the ROD, to address the migration of the solvents from that location.

Remedial Action - Operations (RA-O) groundwater monitoring was conducted at FT-04 to track the progress of the remedial actions at the site. RA-O was conducted semi-annually for five years, and then annually through 2014 when site remediation goals in the ROD were met. The Air Force also established Land Use Controls (LUCs) for FT-04, and monitored those LUCs through 2014 to prevent the risk of human exposure to contaminated groundwater at the site.

CHALLENGES

An Air National Guard 113th Air Control Alert (ACA) Facility has been constructed on the site. The facility is part of a Homeland Defense initiative. During construction of the facility, the shut-in groundwater treatment system, and several of the monitoring wells included in the RA-O groundwater monitoring network, were destroyed. Although the monitoring wells have been replaced, there was a discontinuity in the data collection which posed a challenge with groundwater statistical evaluations during the 2011 five-year review process.

PERFORMANCE-BASED APPROACH

The RA-O monitoring and statistical evaluations verified the effectiveness of the groundwater remedy from the initial demolition/excavation and free product recovery through the two rounds of HRC injections. A 2011 Interim Remedial Action Completion Report (IRACR) documented the successful implementation of the remedies, and groundwater monitoring continued as per ROD requirements. The EPA accepted a 2013 Risk Management Decision Document for manganese, and a 2015 ROD Amendment was completed that documented that manganese was naturally occurring at FT-04. A Final Remedial Action Completion Report (RACR) has been completed for the site that documents that all FT-04 ROD requirements have been achieved and Response Complete (RC) has been met.

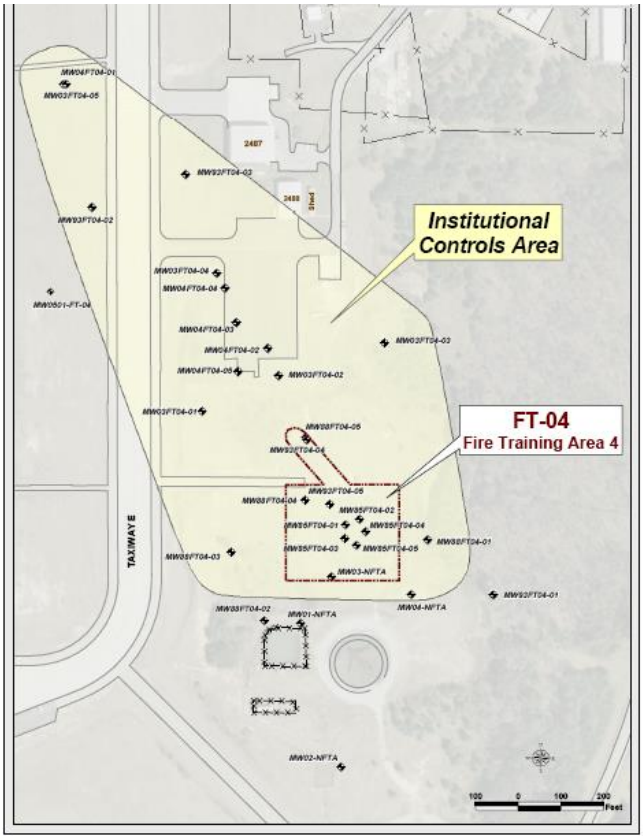

Figure 1: FT-04 Land Use Control Area

RISK DRIVERS

Contaminants: **carbon tetrachloride, benzene, arsenic, and manganese**
Impacted Media: **groundwater**
Exposure Pathways Completed: **none**
Drainage: **Piscataway Creek**
Current Land Use/ Surface Cover: **Industrial/Airfield**
Reasonably Anticipated Land Use: **Industrial/Airfield**
Relative Risk: **no unacceptable risk**