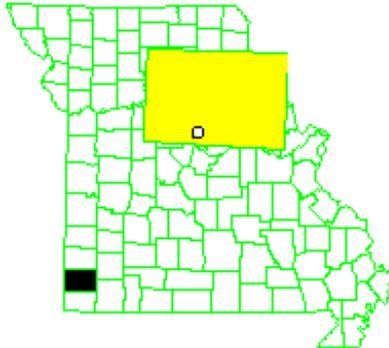


**POOLS PRAIRIE**  
**MISSOURI**  
**EPA ID# MO0000958835**

**EPA Region 7**  
**City: Neosho**  
**County: Newton**  
**Other Names: Neosho Wells; Camp  
Crowder**

**02/06/2009**



## **SITE DESCRIPTION**

The Pools Prairie site is adjacent to Neosho, Newton County, Missouri, in southwest Missouri. The site was discovered in July 1994 by the Newton County Health Department (NCHD) through a citizen's complaint of gasoline contamination in the family's well located west of Highway 71 on Quince Road, southwest of the Neosho city limits. A number of Superfund-related investigations, cleanup responses, and other actions have occurred since then, including the following:

- Installation of temporary residential water filtration systems at affected homes.
- Installation of approximately five miles of water main, and subsequent hookup of over 200 residences, in affected areas of the site.
- Investigation and cleanup of former lagoon sediments at the Components Test Area.
- Investigation and cleanup of release areas near the former 900 Building.
- Investigation and cleanup of waste pits, test sites and other areas at the Engine Test Area.
- Investigation of contaminated areas at the Manufacturing Plant Area.

### **Site Responsibility:**

This site is being addressed through the actions of potentially responsible parties, with oversight by EPA and the Missouri Department of Natural Resources.

### **NPL LISTING HISTORY**

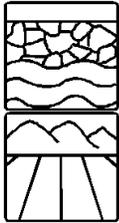
**Proposed Date:** 01/19/99

**Final Date:** 09/17/99

**Deleted Date:**

---

## THREATS AND CONTAMINANTS



In August 1994, subsequent sampling by NCHD and the Missouri Department of Natural Resources (MDNR) at the truck plaza, the complainant's well, and at the nearby residential wells, determined that there were no leaking tanks at the truck plaza; however, eight volatile organic compounds (VOCs), including trichloroethylene (TCE) and carbon tetrachloride were found in the 10 private wells sampled. The most common VOC found in the wells and at the highest concentrations was TCE. From August to December 1994, MDNR and NCHD continued to sample and resample residential wells in the area of Highway 71 and Quince Road. Additional residential wells have been found to contain TCE, with some concentrations found above the TCE maximum contaminant level (MCL) of 5 parts micrograms/liter (ug/L) in the areas located along roads HH and TT and near the intersection of Highways 71 and 60.

---

## CLEANUP APPROACH

### Response Action Status



**Cleanup Ongoing:** Five potential source areas have been identified at the Pools Prairie site for which adequate documentation exists to attribute the VOCs found in ground water to the site. To identify the sources of VOC ground water contamination, EPA and MDNR first investigated the area south of Neosho and later investigated the area known as the former Fort Crowder Military Reservation (Camp Crowder). The five potential sources identified are: Source 1-Engine Testing Area (ETA) at the Rocketdyne Test Site; Source 3-Contaminated Soil at the CTA; Source 4-Saberliner Plant (Main Facility); and Source 5-Saberliner 900 Building.

These potential sources were identified because (1) soil samples have been found at all five source areas to contain VOCs (primarily TCE) above background levels; (2) TCE and other VOCs have been associated with sources through use of the compounds as solvents and degreasers, through storage of the solvents at the sites, and through evidence that TCE was deposited directly onto the ground and deposited into storage lagoons with no liners or other Containment structures; (3) VOCs have been found in shallow ground water at four of the five sources in monitoring wells installed at those sources; and (4) degradation products of TCE,

such as vinyl chloride, (cis) 1,2-dichloroethylene [(cis) 1,2-DCE], and 1,1-dichloroethylene (1, 1-DCE) have also been found in ground water and/or soil at the source areas.

**Site Facts:** The comprehensive list of associated hazardous substances found at these source areas includes: TCE, vinyl chloride, tetrachloroethene PCE), (cis) 1,2-DCE, 1,1-DCE, 1,1,2,2-tetrachloroethane (1,1,2,2-PCA), 1,1-dichloroethane (1,1 DCA), 1,1,1,-trichloroethane (1,1,1-TCA), 1,1,2-trichloroethane (1,1,2-TCA), methyl isobutyl ketone (MIBK), carbon tetrachloride, carbon disulfide, chloroethane, and chloroform. In addition to the VOCs, two pesticides, Aroclor 1260 and 1254, both polychlorinated biphenyls (PCBs), were found - in soil at Source 1 and Source 2, and in the ground water at Source 2.

---

## ENVIRONMENTAL PROGRESS



In 1998, EPA entered into an agreement with the U.S. Department of Defense, Boeing North American, Sabreliner Corporation and Teledyne Industries to provide whole-house water treatment units at approximately 37 residences. This action was completed in late 2000, after affected residences had been connected to city water service.

In 1998, EPA entered into an agreement with the U.S. Department of Defense, the Missouri Army National Guard, Boeing North American and Teledyne Industries to provide for the construction of water mains and related connections to affected residences at the site. This action was completed in late 2000, resulting in the installation of more than 15 miles of water main and subsequent connection of 233 residences.

In 1998, EPA entered into an agreement with Teledyne Industries and Boeing North American to provide for engineering controls and contaminant containment at the Components Test Area, and to perform an engineering evaluation/cost analysis of cleanup alternatives at the Components Test area. The engineering controls and contaminant containment construction was completed in 1999. From startup through the summer of 2002, approximately 310,000 gallons of contaminated groundwater was extracted and treated, resulting in an estimated 1,200 pounds of volatile organic compounds removal. The engineering evaluation/cost analysis for the Components Test Area was completed in March 2001, recommending excavation and landfarming of contaminated soils, and passive soil vapor extraction from adjacent soils. In 2002, EPA entered into an agreement with TDY Industries (f.k.a. Teledyne Industries), Boeing North American, and the U.S. Department of Defense to implement the work outlined in the engineering evaluation/cost analysis. In 2003, excavation and landfarming activities commenced. As of December 2005, all excavation and landfarming actions had been completed, and included the following:

- 1) Approximately 13,900 cubic yards of VOC-impacted soils in the Soil Treatment Area were aerated, primarily using a tractor-drawn 40-inch Rome disc.
- 2) Performance verification soil samples were collected from treated material to confirm achievement of the treatment standard of an average of 1 milligram per kilogram (mg/kg) total VOCs.
- 3) The excavation was backfilled with approximately 14,700 cubic yards of treated soil and approximately 5,500 cubic yards of clean soil.
- 4) The Soil Stockpile Areas and Former Primary Lagoon excavation area were graded and hydroseeded with a mixture of native grasses composed of a mixture of the following grasses: Little Bluestem, Big Bluestem, Prairie Dropseed, Indian Grass and Sideouts Gramma Grass.
- 5) Approximately 2,013,500 gallons of water were treated and discharged between December 2003 and September 2004. Analytical results of the treated water confirmed that the chemical concentrations were below the discharge standards for the CTA.
- 6) Perimeter air samples were collected monthly during soil treatment and backfilling activities. All results were below health-based screening levels.
- 7) Soil excavation, treatment and backfilling equipment and materials were removed from

the CTA by May 2005.

In 1999, EPA entered into an agreement with the U.S. Department of Defense and Teledyne Industries to provide for the development of an engineering evaluation/cost analysis of various cleanup alternatives at the Quince Road Area. In 2003, the engineering evaluation/cost analysis was finalized, recommending soil-vapor extraction for removal of contaminants at the area. In 2005, the SVE system was installed and became fully operational, with 13 vapor extraction wells. By the spring 2008, the system had attained all cleanup goals, resulting in an estimated removal of approximately 3,200 pounds of VOCs from the subsurface.

In 2000, an interim remedial action response was completed at the Engine Test Area, resulting in the extraction of 40,000-60,000 gallons of highly contaminated liquids from the hazardous waste pit. The Army Environmental Center (AEC) finalized an engineering evaluation/cost analysis for the Engine Test Area in 2006. In 2006, AEC completed excavation and landfarming of highly contaminated hazardous waste pit soils. In 2007, AEC began soil-vapor extraction activities at the former test stands. Soil-vapor extraction activities are expected to continue through 2009.

In 2003, EPA entered into agreements with TDY Industries, The Boeing Company, Sabreliner Corporation, and the U.S. Department of Defense to provide for performance of an investigation and engineering evaluation/cost analysis (EE/CA) at the Manufacturing Plant. Investigations commenced in 2003. The Removal Site Investigation was largely completed in 2005, and the EE/CA was finalized in 2008.

A site-wide groundwater investigation is planned for 2009. This investigation has three objectives:

- 1) develop a better understanding of groundwater flow in the Springfield (shallow) aquifer and Ozark (deeper) aquifer,
- 2) relate groundwater flow to the contamination distribution, and
- 3) identify other potential source areas.

---

## **COMMUNITY INVOLVEMENT**

For each Community Advisory Group (CAG) Meeting a notice is mailed and an ad placed in the *Neosho Daily News* .

7/2002 Corrective Actions Management Unit (CAMU), Fact Sheet mailed and ad placed in *Neosho Daily News* .

4/2003 CAG Meeting.

9/2003 Engineering Evaluation/Cost Analysis (EE/CA). Fact Sheet mailed and ad placed in *Neosho Daily News* announcing 30-day Comment Period.

10/2003 CAG Meeting.

4/2004 CAG Meeting.

10/2004 CAG Meeting.

4/2005 CAG Meeting.

11/2005 RPM mailed a letter citing updates on the areas of the site to those on the mailing list.

3/2006 Fact Sheet mailed on Engine Testing Area.

4/2006 CAG Meeting.

10/2006 CAG Meeting.

4/2007 CAG Meeting.

10/2007 CAG Meeting.

4/2008 CAG Meeting.

10/2008 CAG Meeting.

CAG Meetings are held twice yearly in Neosho.

---

## SITE REPOSITORY



Eric Haddock  
Neosho City Hall  
203 E. Main  
Neosho, MO 64850  
(417) 451-8050  
Mon-Fri: 8:30am-4:30pm

Superfund Records Center  
901 N. 5th St.  
Kansas City, KS 66101  
Mail Stop SUPR  
(913)551-7166

## REGIONAL CONTACTS

**SITE MANAGER:**

Dave Williams

**E-MAIL ADDRESS:**

Williams.Dave@epa.gov

**PHONE NUMBER:**

(913) 551-7625

**COMMUNITY INVOLVEMENT  
COORDINATOR:**

Fritz Hirter

**PHONE NUMBER:**

913-551-7130

**E-MAIL ADDRESS:**

hirter.fritz@epa.gov

**STATE CONTACT:**

Evan Kifer

**PHONE NUMBER:**

573-751-1990

## MISCELLANEOUS INFORMATION

**STATE:**

MO

07WT

**CONGRESSIONAL DISTRICT:**

07

**EPA ORGANIZATION:**

SFD-

## MODIFICATIONS

**Created by:**

Brian  
Daniels/SUPR/R7/USEPA/U  
S

**Created Date:**

05/17/99 10:06 AM

**Last Modified by:**

Fritz Hirter/R7/USEPA/US

**Last Modified Date:**

02/06/2009 01:40 PM