NEWSLetter

Former Nebraska Ordnance Plant ■ Mead, Nebraska

Open House Meeting

The U.S. Army Corps of Engineers will host the Winter Open House on Wednesday January 16, 2013 at the Yutan VFW Country Club in Yutan, Nebraska. The Yutan VFW Country Club is located south of Highway 92 at 1581 Yutan Road. The open house meeting is from 4:00 p.m. to 8:00 p.m. with technical staff in attendance to answer specific questions regarding the former Nebraska Ordnance Plant. Representatives from the U.S. Environmental Protection Agency and Nebraska Department of Environmental Quality are expected to attend as well. A variety of handouts and displays will be available along with refreshments. Additionally, a brief informational presentation will be given on the the achievement of cleanup goals at three extraction wells. The presentation will be given hourly at 5:00, 6:00, and 7:00 p.m. For further information regarding the meeting, contact the Corps of Engineers Project Manager at (816) 389-3172.

Operations and Maintenance Summary

Operation of the Main, Load Line 1, Advanced Oxidation Process, and Load Line 4 Groundwater Treatment Plants have resulted in removal of the following amounts of contaminants of concern from groundwater as of December 31, 2012 since their respective start-up:

TCE (trichloroethene) total removed – 25,213 pounds

- Main Groundwater Treatment Plant – 377 pounds
- Load Line 1 Groundwater Treatment Plant - 314 pounds
- Advanced Oxidation Process Treatment Plant - 21,859 pounds
- Load Line 4 Groundwater Treatment Plant – 2,663 pounds

RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine) total removed from the Main Groundwater Treatment Plant – 249 pounds

Total gallons of water treated:

- Main Groundwater Treatment Plant - 11,582,066,000 gallons
- Load Line 1 Groundwater Treatment Plant - 1,057,236,000 gallons
- Advanced Oxidation Process Treatment Plant -1,166,196,000 gallons
- Load Line 4 Groundwater Treatment Plant - 612,832,000 gallons

Load Line 4 Groundwater Treatment Plant, Photo by ECC

The treated water from the Advanced Oxidation Process Groundwater Treatment Plant is sent to the Main Groundwater Treatment Plant for further polishing; therefore the amount of contaminated groundwater treated from the

January 2013

For more information or any questions concerning the former Nebraska Ordnance Plant project, please contact:

Project Manager
U.S. Army
Corps of Engineers
Kansas City District
601 E. 12th Street
Kansas City, Missouri 64106
Phone (816) 389-3172

or go to the project website at

www.nwk.usace.army.mil.projects/mead

Information repository documents are available for review at:

Mead Public Library
316 South Vine Street
Mead, Nebraska 68041
(402) 624-6605

Hours
Monday: 2-7 PM
Thursday: 9:30-11:30 AM, and 2-7 PM
Saturday: 9-12 PM

US Army Corps of Engineers ®

Operations and Maintenance Summary (continued)

Advanced Oxidation Process Groundwater Treatment Plant is included in the Main Groundwater Treatment Plant discharge quantity. Focused Extraction Wells 11 and 15, which pump groundwater to the Advanced Oxidation Process Groundwater Treatment Plant and Load Line 4 Groundwater Treatment Plant respectively, are installed in high contaminant concentration areas which result in high mass removal.

Cleanup Goals Achieved at Three Extraction Wells

The U.S. Army Corps of Engineers decommissioned extraction wells (EW)-3, EW-6, and EW-16 in January 2013. The decommissioning of these extraction wells represents a milestone in the U.S. Army Corps of Engineers' progress towards meeting the remedy for the former Nebraska Ordnance Plant. The groundwater in the vicinity of these extraction wells is now below Final Target Groundwater Cleanup Goals. As a result, these wells have been decommissioned to avoid unnecessary removal of groundwater from the aquifer in the area of these extraction wells. This action also will result in additional energy savings in addition to conserving groundwater.

Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) concentrations in EW-3, EW-6, and EW-16 are currently and have been below the Final Target Groundwater Cleanup Goal of 2 micrograms per liter since 2009. Due to the low levels in EW-3, EW-6, and EW-16, direct-push sampling was performed in the Spring of 2012 to refine the extent of RDX in the vicinity of the wells and to determine optimal operation of the extraction wells. The direct-push sampling conducted during the Groundwater Monitoring Program Optimization Investigation at Load Line 2 and 3 confirmed RDX concentrations in groundwater upgradient of EW-3 and EW-6 and in the vicinity of EW-16 were all below clean up goals.

Next, a groundwater computer model simulation was preformed with the assumption that EW-3, EW-6 and EW-16 were turned off and the pumping rate for FEW-14 was increased from 190 gallons per minute (gpm) to 250 gpm. This simulation predicted that the Load Line 2 and Load Line 3 plumes will remain in containment for the next 30 years, which is the simulation period of the model. In addition, the RDX concentrations in the vicinity of EW-3, EW-6 and EW-16 are predicted to remain below 2 micrograms per liter. By decommissioning EW-3, EW-6, and EW-16 and increasing the pumping rate at FEW-14, it decreases the total amount of water removed from the aquifer by approximately 400 gpm.

To ensure the modified containment system is operating as predicted, the entire groundwater containment system, now including an additional monitoring well cluster installed upgradient of EW-6, will continue to be evaluated annually in the Containment Evaluation Report. The extraction wells will be left in place in the event that they are needed in the future to meet groundwater containment.

Helicopter Electromagnetic and Magnetic Geophysical Survey Summary

The Helicopter Electromagnetic and Magnetic Geophysical Survey was conducted at the former Nebraska Ordnance Plant between October 4 until October 7, 2012. No problems or issues were identified as a result of the survey. The purpose of the survey was to map the subsurface properties in an area that covers the existing groundwater plumes. The survey data will provide a three-dimensional picture of subsurface resistivity variations which can be related to geology. The results of the survey will be presented in a report in February 2013.

Geophysical Survey, photo by ECC