Technology Innovation News Survey

Entries for July 1-15, 2016

Market/Commercialization Information

NAVAJO NATION AREA URANIUM MINES: RESPONSE, ASSESSMENT AND EVALUATION SERVICES

U.S. Environmental Protection Agency, Office of Acquisition Management, Region IX.

The Notice of Funding Opportunity (NOFO) is being solicited to provide technical support to the Navajo Nation Water Utility Authority in addressing the concerns of uranium mining impacts on the Navajo Nation.

Environmental Remediation Services (U.S. NAVY)

Federal Business Opportunities (DBFBO), Solicitation #N00173-16-MC-3081, 30-MAY-2016.

The U.S. Navy is seeking contractors to provide aquifer cleanup services at the Clearwater/Hunter Refueling Complex, Idaho National Laboratory, Idaho.

AFICA ENVIRONMENTAL SERVICES 2017

Federal Business Opportunities (DBFBO), Solicitation #F15390-16-J-9001, 30-MAY-2016.

The U.S. Army Corps of Engineers is seeking proposals for the purpose of funding the Navy for the long-term clean-up activities at the Clearwater/Hunter Refueling Complex.

ENVIRONMENTAL SERVICES: MULTIPLE AWARD TASK ORDER CONTRACT (MATOC)


The U.S. Navy is seeking contractors to provide environmental service support and operations.

Cleanup News

BIOREMEDIATION: SOURCE ZONE AND PLUMES REMOVED

Federal Business Opportunities (DBFBO), Solicitation #F33542-16-D-C004-00001, 29-May-2016.

The U.S. Army Corps of Engineers is seeking proposals to provide technical support to the U.S. Army Corps of Engineers.

Demonstrations / Feasibility Studies

FINAL REPORT FOR SURFACTANT ENHANCED AQUIFER REMEDIATION (SEAR) PILOT TEST

Federal Business Opportunities (DBFBO), Solicitation #F17292-15-C-0039, 29-May-2016.

This report provides a summary of the final report for the Surfactant Enhanced Aqueous Groundwater Remediation System (SEAR) demonstration project.

IN SITU AND EX SITU BIOLOGICAL TREATMENT OF NDMA

Federal Business Opportunities (DBFBO), Solicitation #F42602-16-D-0528, 29-May-2016.

The U.S. Army Corps of Engineers is seeking proposals to provide technical support to the U.S. Army Corps of Engineers.

Research

GRAPHENE-BASED MICROBOTS FOR TOXIC HEAVY METAL REMOVAL AND RECOVERY FROM WATER

Johnson City, Texas.

The National Science Foundation is seeking proposals to provide technical support to the National Science Foundation.

EXCEPTIONALLY LONG MTBE PLUMES OF THE PAST HAVE GREATLY DIMINISHED

Gordonia

The National Science Foundation is seeking proposals to provide technical support to the National Science Foundation.
ACCELERATED CATALYTIC FENTON REACTION WITH TRACES OF IRON: AN FE-PD-MULTICATALYSIS APPROACH

Environmental Technology, Vol 37 No 14, 1745-1756, 2016

The study was conducted to determine the potential of using iron, palladium, and activated carbon as catalysts in Fenton-type reactions for the treatment of industrial wastewater containing phenolic compounds. The results showed that the use of these catalysts significantly enhanced the oxidation of phenolic compounds, leading to a decrease in the concentration of phenolic compounds in the wastewater.

TRANSPARENT AQUABEADS TO MODEL LNAPL GANGLIA MIGRATION THROUGH SURFACTANT FLUSHING

Tabe, K., and M. Kuroda.

The study investigated the use of transparent synthetic soil containing aqueous droplets to model the migration of LNAPLs. The results showed that the use of surfactant flushing can effectively remove LNAPLs from the soil media, indicating the potential of this technique for in-situ remediation of contaminated sites.

LAB-SCALE TESTS AND NUMERICAL SIMULATIONS FOR IN SITU TREATMENT OF POLLUTED GROUNDWATER

Environmental Technology, Vol 17 No 4, 1741-1752, 2015

The study investigated the use of surfactant flushing as a remediation technique for contaminated groundwater. The results showed that the use of surfactant flushing can effectively remove contaminants from the groundwater, indicating the potential of this technique for in-situ remediation of contaminated sites.

LABORATORY-SCALE DEMONSTRATION USING DILUTE AMMONIA GAS-INDUCED ALKALINE HYDROLYSIS OF SOIL CONTAMINANTS (CHLOROPHENOLS AND PROPAINE)


The study investigated the use of dilute ammonia gas to induce alkaline hydrolysis of soil contaminants. The results showed that the use of dilute ammonia gas can effectively remove contaminants from the soil, indicating the potential of this technique for in-situ remediation of contaminated sites.

FLUOROCHEMICALS IN AFFC CONTAMINATED SITES: ENVIRONMENTAL FATE, TOXICITY AND TREATMENT

Li, M., and X. Wang.

The study investigated the environmental fate, toxicity, and treatment of fluorocarbons in contaminated sites. The results showed that fluorocarbons can migrate through various pathways, pose a significant risk to human health, and require effective treatment methods to minimize their impact on the environment.

DEFINITION OF PFOS IN GROUNDWATER: IS THERE AN IN SITU REMEDIATION TECHNIQUE FOR PERFLUOROALKYL SUBSTANCES?

Rice, C.
American Chemical Society Conference, Philadelphia, August 2016

Recent lab work has demonstrated that the presence of perfluoroalkyl substances in groundwater can be detrimental to human health. The study investigated the potential of using in-situ remediation techniques to remove these substances from groundwater. The results showed that the use of in-situ remediation techniques can effectively remove perfluoroalkyl substances from groundwater, indicating the potential of this technique for in-situ remediation of contaminated sites.

EFFECTS OF ISOC ON POLY- AND PERFLUOROLYALKYL COMPOUNDS

Brodie, N.
RMITIC Summit 2016, Poster

Time-course lab experiments were performed using synthetic groundwater containing two AFFC ammoxides to assess the potential for biodegradation or reduction of these compounds in aquatic media. The results showed that the presence of isoc compounds can significantly enhance the biodegradation or reduction of AFFC compounds, indicating the potential of this technique for in-situ remediation of contaminated sites.

APPLICATION OF FIRST ORDER KINETICS TO CHARACTERIZE TURBULENT NATURAL ATTENUATION IN GROUNDWATER

Heinle, J.C., A. Parnell, M. Roesler, M. Suerth, and H.J. van der Zee.

The study investigated the potential of using first-order kinetics to characterize turbulent natural attenuation in groundwater. The results showed that the use of first-order kinetics can effectively describe the attenuation of contaminants in groundwater, indicating the potential of this technique for in-situ remediation of contaminated sites.

ACCELERATED FENTON REACTION WITH TRACES OF IRON: AN FE-PD-MULTICATALYSIS APPROACH

Environmental Technology, Vol 37 No 14, 1745-1756, 2016

The study investigated the potential of using iron, palladium, and activated carbon as catalysts in Fenton-type reactions for the treatment of industrial wastewater containing phenolic compounds. The results showed that the use of these catalysts significantly enhanced the oxidation of phenolic compounds, leading to a decrease in the concentration of phenolic compounds in the wastewater.
Many communities struggle to find and attract sufficient funding for brownfields redevelopment projects. EPA developed this guide to assist communities in overcoming the challenges of making sound investment decisions to attract additional resources for community revitalization. [https://www.epa.gov/sites/production/files/2016-04/documents/final_leveraging_guide_document_4-19-16.pdf](https://www.epa.gov/sites/production/files/2016-04/documents/final_leveraging_guide_document_4-19-16.pdf)

**DISENTANGLING PROPERTY VALUE IMPACTS OF ENVIRONMENTAL CONTAMINATION FROM LOCALLY UNDESIRABLE LAND USES: IMPLICATIONS FOR MEASURING POST-CLEANUP STIGMA**


An empirical model was developed to consider the influence of uncontaminated commercial properties on home values concurrently with contaminated property influences, identifying stigma effects in a way not possible in past studies. Results indicate that environmental contamination more than doubles the negative influence commercial properties have on neighboring residential home values, but little evidence of stigma effects is found once a contaminated site is remediated. The negative spillover effects associated with remediated contaminated sites are largely indistinguishable from the spillover effects from the presence of commercial properties with no known contamination. Additional information: [https://cenrep.ncsu.edu/2016/07/14/remediated-brownfield-sites-environmental-and-property-value-benefits/](https://cenrep.ncsu.edu/2016/07/14/remediated-brownfield-sites-environmental-and-property-value-benefits/)

The Technology Innovation News Survey welcomes your comments and suggestions, as well as information about errors for correction. Please contact Michael Adam of the U.S. EPA Office of Superfund Remediation and Technology Innovation at adam.michael@epa.gov or (703) 603-9915 with any comments, suggestions, or corrections.

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