HIGHLIGHTS

National Risk Management Research Laboratory
Ground Water and Ecosystems Restoration Division
Robert S. Kerr Environmental Research Center
Status Report for the week of February 2, 2015

TECHNICAL ASSISTANCE

Technical Assistance Region I: On January 14, 2015, Dr. Scott Huling (GWERD) provided technical review comments to RPM Richard Hull on the "Draft Feasibility Study Report Savage Municipal Water Supply Superfund Site: Bedrock Contamination" (621 Elm Street Milford, New Hampshire). Prior to the deployment of the proposed pilot study where additional field data and information will be obtained on oxidant transport, distribution, and persistence, it is recommended that one of the objectives of the pilot study involve establishing a spatial correlation between the volume of oxidant injected and the transport distance of the oxidant from the injection location. In general, this is referred to as the radius of influence (ROI). Currently, it has been proposed that the ROI will range from 20-35 feet or 10-15 feet, depending on the injection system and targeted zone. The Authors have assumed the volume of oxidant proposed to be injected will achieve the design ROI. However, no calculations or scientific basis was provided to validate the design. There are several factors that could be taken into consideration that will play a role in this relationship but may be difficult to quantify or to definitively evaluate in a critical analysis. The spatial correlation between oxidant volume and ROI could be evaluated empirically during field scale deployment. Such information could be used to more definitively design the injection volume for full scale deployment appropriate for specific depth intervals, targeted zones, and contaminated areas.
(15-R01-004) (S. Huling (GWERD) 580-436-8610)

Technical Assistance Region I: On January 15, 2015, Dr. Bruce Pivetz (Dynamac Corp.), under the direction of Mr. Steven Acree (GWERD), provided technical review comments to RPM Karen Lumino on the *Spring 2014 Compliance Monitoring Report* for the Pine Street Canal Superfund Site. In addition, the report entitled *Completion of Work Report, Pine Street Canal Superfund Site, Vertical Barrier, July 2014* (the Completion Report) was reviewed as background material to support review of the current and future compliance monitoring reports. The technical review indicated that the conditions (extent and magnitude of contamination) do not appear to have changed significantly from previous monitoring periods. Further, there does not appear to be any evidence of non-performance of the vertical barrier to date. Continued monitoring is recommended. Additional NAPL observations and measurements (i.e., in wells where they are not to be made during future monitoring events) could be useful to fully understand and confirm the extent of NAPL. The comments below provide discussion of this point.
(15-R01-003) (S. Acree (GWERD) 580-436-8609)

Technical Assistance Region I: On January 20, 2015, Dr. Eva Davis (GWERD) provided technical review comments to RPM Cheryl Sprague on the "Updated Demonstration of Compliance Plan (DCP), Phase 1 Thermal Remediation, Beede Waste Oil Superfund Site, Plaistow, New Hampshire." In general, the Updated DCP responds adequately to previous comments. However, additional clarification on 'diminishing returns,' groundwater sampling, and interim soil sampling is warranted. If the operation of the thermal remediation is to continue past 150 days, additional groundwater data would provide a valuable line of evidence in determining if the system is approaching diminishing returns. It is recommended that interim soil sampling be used to determine if additional remedial treatment is needed. The Plan indicates that the thermal remediation system would be shut down if sufficient natural gas is not available for operation. Other fuel types should be considered for producing steam before resorting to shutting off the steam injection system before the soil cleanup goals or diminishing returns are met.
(15-R01-002) (E. Davis (GWERD) 580-436-8548)

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