

**CBS Corporation
Indiana Voluntary Remediation Program Site
Madison, Indiana**

The Madison, Indiana site is a former bulk storage terminal that had a series of 20,000 to 50,000 gallon above ground tanks that primarily stored a variety of petroleum products and distillates but had one tank that was used to store chlorinated solvents. On-loading and off-loading handling practices to these tanks resulted in releases of petroleum hydrocarbons, petroleum distillates, and chlorinated solvents at the site. The site is located along the Ohio River and is situated between two well fields that serve the City of Madison and a State Hospital. SMA reviewed previous reports generated by the prior consultants and devised a scope of work that would be used to develop a site conceptual model to obtain a better understanding of site subsurface transport processes.

The key elements of the scope of work were: (A) Source area investigations to determine the horizontal and vertical limits of chlorinated VOCs (CVOCs) in the soil and groundwater immediately below the source area; (B) The performance of an area-wide membrane interface probe (MIP) investigation to delineate the CVOC and petroleum hydrocarbon plumes in 3-dimensions within the alluvial aquifer; (C) The MIP investigation was then followed up with vertical aquifer profile sampling of the aquifer to efficiently delineate the 3-dimensional CVOC concentrations within the aquifer; (D) The aquifer profiling investigation was followed up with installation of nested monitoring wells to provide 3-dimensional groundwater monitoring information on the aquifer, and; (E) the collection of hydrogeologic data and groundwater samples.

During completion of the scope of work identified above, SMA performed a preliminary cost evaluation of the remediation technologies that might applicable for use in cleaning up the CVOC and petroleum hydrocarbon source areas at the site. SMA developed a request for proposal to the various technology vendors in order to determine costs for remediating the CVOC source area and inclusion of that technology in the remediation work plan (RWP) for submittal to IDEM.

An interim RWP has been approved by IDEM contains a complete delineation of the CVOC occurrence at the site in soil and groundwater, and soil and groundwater modeling to develop non-default soil migration to groundwater cleanup objectives for the site. The CVOC source area soil will be remediated through use of electrical resistive heating (ERH) and soil vapor extraction (SVE).

After completion of the IRWP work a final RWP was submitted and approved by IDEM in 2018. Substantial CVOC concentration decreases have occurred in groundwater as a result of the remedial measures implemented at the site. During the ensuing time plume stability has been demonstrated and in 2026 IDEM approved a plan of reduced groundwater monitoring for the next six years. At the end of that monitoring period, the site will undergo closure with only the site and three adjacent parcels requiring Environmental Restrictive Covenants that prohibit groundwater use for potable use.