E-REDOX® CASE STUDY: *IN SITU* TREATMENT OF PAH-CONTAMINATED SOIL AT AN INDUSTRIAL PARK IN CHINA

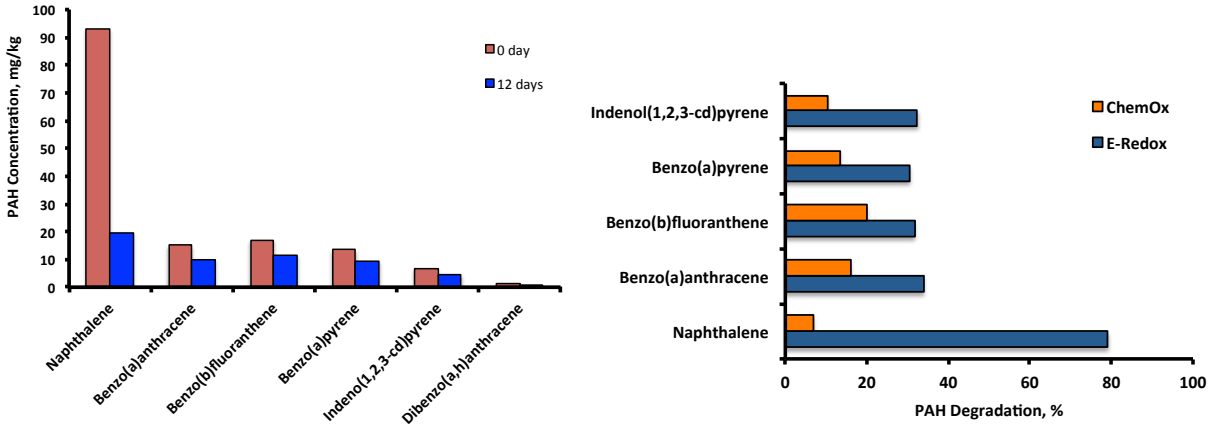
Location: Industrial park in eastern China

Contaminated Matrix: Soil

Primary Contaminants of Concern: Polycyclic aromatic hydrocarbons (PAHs)

Project Objective: Demonstrate sustainable enhanced *in situ* PAH degradation in saturated soil using E-Redox® technology

Case Study Description & Results: An E-Redox® field demonstration was conducted at an industrial park site in eastern China, where soil was contaminated with polycyclic aromatic hydrocarbons (PAHs). An E-Redox® system consisting of three rows of electrodes was installed within water saturated soil at the site. The results indicated that E-Redox™ substantially enhanced PAH degradation in excavated saturated soil, in which approximately 79% of naphthalene and 50% of total PAHs were degraded within 12 days. A simultaneous separate comparison test was conducted using chemical oxidation as the remediation technology, and the results indicated that chemical oxidation degraded substantially less PAHs within the same 12-day period. The field demonstration indicated that E-Redox® is a viable technology for *in situ* PAH degradation in environmental matrices.



Degradation of PAHs in soil by E-Redox® (left), and comparison of chemical oxidation and E-Redox® for degrading PAHs in soil (right)