

Pilot Application, Petrol Station Redevelopment, Pesaro, Italy

In-Situ Chemical Oxidation Treats TPH and BTEX



Summary

Leakages from underground storage tanks (UST) at a former service station, resulted in significant TPH and BTEX contamination impacting the groundwater (with concentrations of 2,200 µg/L and 400 µg/L respectively).

As the site was undergoing redevelopment, remediation was required to reduce contaminant levels to 350 µg/L TPH and 1 µg/L BTEX.

Treatment

The 55m² pilot area was treated through an application design comprising of 6 injection points arranged in a 3 m x 3 m grid spacing. RegenOx Part A (oxidizer component) and RegenOx Part B (catalyst component) were applied over 3 injection phases.

Easy Application and No Equipment Left Onsite

The RegenOx application was carried out using a portable Direct-Push Injection Rig. The rig is easy to mobilise and operate within a restricted area. No installation of above ground equipment was required, so no equipment was left onsite between applications.

Project monitoring is ongoing.

Remediation Details

Site Type:

Disused Service Station

Project Driver:

Site Redevelopment

Remediation Approach:

In-Situ Chemical Oxidation

Technologies:

RegenOx®

Geology

	Bedrock
	Gravel
	Sand (rocky moraine)
X	Silt
	Clay

Medium

X	Groundwater
	Saturated Soil
	Vadose Zone

COC

X	Petro HCs
	Petro LNAPL
	Chlorinated VOCs
	Metals

COC Concentration Levels:

TPH - 2,200 µg/L

BTEX - 400 µg/L

Treatment Depth:

3 m to 8 m BGL

Volume Treated (m³):

55m² x 5 m = 275m³

Remediation Cost:

€20,000