



Veolia MPPE Technology

Gas stations- Italy/Germany

MTBE, BTEX, GROs and DROs Removal

- Groundwater Remediation
- Gas station/Refineries
- Italy/Germany



Challenge

- MTBE, GROs, DROs removal
- In public area, no smell, no noise etc.
- Limited period of operation



MPPE Performance

- Mobile MPPE units
- Capacity from 3 to 30 m3/h
- No waste stream
- Separated hydrocarbons used by O&G Company



Analytical results Germany (µg/l)

	IN	OUT	% removal
MTBE	550	< 2 (dl)*	>99,2
BTEX	1,693	<1 (dl)	>99.9
PAHs	49.7	<1 (dl)	>98

*(dl=detection limit)

Analytical results Italy (µg/l)

	IN	OUT	% removal
MTBE	4,860	<0.1 (dl)	>99.9
BTEX	981.8	<0.1 (dl)	>99.9
GROs*	2,315	<5 (dl)	>99.8
DROs**	280	<5 (dl)	>99

*GROs=Gasoline Range Organics (C7-C10)

**DROs= Diesel Range Organics (C11-C27)

The MPPE process

MPPE stands for Macro Porous Polymer Extraction. Polymer beads contain a specific immobilized extraction liquid. Hydrocarbon contaminated water is passed through a column packed with MPPE particles. The hydrocarbons are extracted from the water at any designed efficiency up to 99.999%. The MPPE particles can simply be regenerated by heating with steam. The removed hydrocarbons are recovered as an almost 100% pure product. No other waste stream is created. No chemicals requires, no off gasses produced.

MPP & TiPSS Technologies

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