

Dear Madam or Sir

We hope this email finds you well and healthy. Just before summer vacation, we send you our following Newsletter containing the July updates.

From our R&D department we are happy to provide you with a new update regarding customer projects.

### Successful feasibility study completed with an International environmental engineering company.

**The Problem:** The feasibility study was with an International environmental engineering company that provides a wide range of decontamination services and soil washing. The project's target was to use **ACTs reagent as an oxidizer and detergent to improve releasing and washing of the crude oil from the sand.**

**The Objective** Therefore, the customer intends to use ACTs reagents in a small quantity and low concentration as a pretreatment stage before sand washing. With a target to meet the required threshold values of sand decontamination.

**The Solution:** We have implemented our SOA solution as a treatment agent based on oxidation and washing methodology on the lab scale. As shown below, our reagent in very small concentration can be a very efficient detergent-like material.

#### Hexane extraction –Results



#### Results:

Contamination	Before Treatment (ppm   mg/L)	After treatment (ppm   mg/kg)	Conversion (%)
TPH	100,000	1,000	99

Maybe you face similar challenges in your business. Then please feel free to contact us.

<https://www.linkedin.com/company/alpha-cleantec-ag/>



### About Alpha Cleantec AG

We believe that our eco-system requires looking after so we have a world worth living in to pass to our next generations. Decontamination of soil and water from hazardous contaminants plays a major role in this regard, in our view. This is why we established Alpha Cleantec AG as an environmental technology company in 2016 with a vision to provide safe, green, rapid, efficient and cost effective technologies to resolve environmental harms and hazards caused by inadequate human and industrial activities.

Alpha Cleantec AG provides two technologies, AFA and SOA, achieving decontamination ratios of up to 97% for a wide range of contaminants in just hours (such as Hydrocarbons, BTEX, Petroleum leftovers, Aromatics, PAHS, Chlorinated Solvents, PCBs, Dioxins as well as Pesticides and Herbicides) to be applied for soil, wastewater and railway ballast treatment.

### Table of contaminants treatable by our technologies

CONTAMINANTS	IN-SITU		ON SITE	
	SOA	AFA	SOA	AFA
<b>BTEX</b>				
Benzene	*	*	*	*
Toluene	*	*	*	*
Ethylbenzene	*	*	*	*
Xylene	*	*	*	*
<b>PETROLEUM HYDROCARBONS</b>				
Gasoline Range Organics (GRO)	*	*	*	*
Diesel Range Organics (DRO)	*	*	*	*
Oil Range Organics (ORO)	*	*	*	*
<b>AROMATICS</b>				
Chlorobenzene	*	*	*	*
Bromobenzene	*	*	*	*
Dichlorobenzene	*	*	*	*
Nitrobenzene	*	*	*	*
Phenol	*	*	*	*
Styrene	*	*	*	*
Naphthalene	*	*	*	*
Trichlorobenzene	*	*	*	*
Trimethylbenzene	*	*	*	*
<b>PAHS</b>				
Phenathrene	*	*	*	*
Naphthalene	*	*	*	*
Acenaphthylene	*	*	*	*
<b>CHLORINATED SOLVENTS</b>				
Tetrachloroethylene	*	*	*	*
Trichloroethene	*	*	*	*
Dichloroethene	*	*	*	*
Vinyl chloride	*	*	*	*
Tetrachloroethane	*	*	*	*
Trichloroethane	*	*	*	*
Dichloroethane	*	*	*	*
Dibromochloroethane	*	*	*	*
Bromodichloromethane	*	*	*	*
Carbon tetrachloride	*	*	*	*
Chloroethane	*	*	*	*
Chloroform	*	*	*	*
Chloromethane	*	*	*	*
Chlorotoluene	*	*	*	*
Methylene chloride	*	*	*	*
<b>PCBS</b>				
<b>DIOXINS</b>				
<b>PESTICIDES AND HERBICIDES</b>				
Glyphosate	*	*	*	*
Goal	*	*	*	*

We plan to inform you in future whenever we accomplished projects, pilots or case studies. If you do not wish to get our company news, please let us know.

Kind regards

Mit freundlichen Grüßen

Andreas Danner

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