

VENDENHEIM, FRANCE

Managing and reducing pollution in environmentally sensitive areas caused by oil leaks during fuel delivery



Industry: Site development
Sub-industry: Stormwater management
Location: Vendenheim, France
Product: OSMORIA™ Geoclean®

Overview

In November 2019, SOCOS and Vinci CT implemented a refuelling platform for construction machinery in Vendenheim, France. The project aimed to protect the environment from oil leaks during fuel delivery by installing the OSMORIA Geoclean Pure oil-biodegrading aquatextile. This solution sought to mitigate pollution and safeguard the shallow, sensitive Alsace groundwater.

In Vendenheim, the Alsace groundwater is particularly shallow and sensitive, necessitating an effective solution to manage and reduce pollution from construction activities.

CASE STUDY

Managing and reducing pollution in environmentally sensitive areas caused by oil leaks during fuel delivery

Challenge

Refuelling areas for construction machinery frequently face pollution issues due to oil leaks during fuel delivery. These leaks can contaminate the soil and groundwater, posing significant environmental risks. In Vendenheim, the Alsace groundwater is particularly shallow and sensitive, necessitating an effective solution to manage and reduce pollution from construction activities.

Solution

SOCOS decided to use the OSMORIA Geoclean Pure oil-biodegrading aquatextile for the refuelling platform. The platform, measuring 6 m by 10 m, accommodates watering machine tractors. The design includes two layers of the oil-biodegrading aquatextile separated by a 20 cm layer of drainage gravel, topped with 50 cm of drainage material

for vehicle passage. A layer of drainage aggregate at the bottom keeps the aquatextile unsaturated above the water level. Additionally, a MIRAFI™ Bidim® separation geotextile lies between the drainage material and the existing terrain.

When oil leaks and polluted stormwater enter the structure, they percolate through the aquatextile layers, which attract hydrocarbons to their oleophilic continuous filaments. The purified water then flows through a drainage gravel layer into the soil. The aquatextile's continuous filaments contain a natural growth activator, promoting the colonization of microorganisms that degrade the hydrocarbons. This process ensures the long-term retention capacity of the aquatextile.

SOCOS's installation of the OSMORIA Geoclean system provides an effective and sustainable solution for managing oil pollution at construction machinery refuelling sites, protecting both the soil and groundwater in Vendenheim.



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