

Context & Project Description

The project is located in Belgium (gps coordinates: '50.434913n, '3.85913e). The domestic fuel oil tank leaked and contaminated the ground under the cellar and next to the house in the garden with hydrocarbons. The site is divided into 2 parts, one part under the house in the cellar, and one part outside in the bore designed to place the oil tank. The house will still be inhabited during the works of depollution in cellar where 4 burners have been placed. the oil stain spread up to 4m below the level of the pit i.e. between 2 and 6m below ground level.



Equipment

2 Gas Smart Burners in the cellar and 4 Gas Smart Burners in the outside bore working with natural gas and with reburn.

Treatment target

- 220°C at cold point
- 520 mg/kg dry soil for the heavy hydrocarbons and 20mg/kg dry soil for the light hydrocarbons

Monitoring

- 4 temperature probe wells in total (1 in the cellar and 3 in the garden) (at depths of 4m and 6m)
- 1 Pressure wells in the house
- Emission control with Gaz analyses

Planning

The heating has started the 25 of May and has ended the 20 July.

Conclusion

The thermal desorption was conclusive and the cleanup reached the target objectives of the engineering office up to 6m.

Key words

Contaminants
Hydrocarbons

Max. concentration
720 mg/kg C8-C10
1600 mg/kg C10-C12
4800 mg/kg C12-C16
5500 mg/kg C16-C21
3100 mg/kg C21-C45a

Volume
40 m³

Tonage
64 T

Nb of heating tubes
6 heating tubes

Heating Duration
60 days

Treatment targets
520 mg/kg dry soil for the heavy hydrocarbons and 20mg/kg dry soil for the light hydrocarbons

Location
Quaregnon

Futur use
Habitation

Client
Particular

Partner
Siterem

Consultant
Siterem

Date
2022