

ISTD/ I-20-03

NEDER-OVER-HEEMBEEK (BE)

Context & Project Description

This project was carried out at Haemers Technologies' headquarters by its own team in Brussels, between March 2020 and March 2021.

The contamination was due to a historic motor oil leaking into the soil of an old car garage, now used as the main building of Haemers Technologies.

Equipment

2 batches of 45 burners each, with various fuel used (propane, natural gas, and diesel) and using the Reburn system.

Treatment target

- 250°C at the cold points
- Soil targets: TPH (C10-C40) < 300 mg/kg of dry soil
- Groundwater targets: TPH (C10-C40) < 300 µg/l

Number of Heating Tubes

Batches 1 & 2 :

- 25 burners with propane fuel
- 11 burners with natural gas
- 9 burners with diesel

Heating duration

- Batch 1: 46 days
- Batch 2: 55 days

Monitoring

- 21 temperature probe wells in total (at depths of 1m, 3.5m and 4.5m below ground)
- 8 pressure wells
- Emission control with Gaz Analysers

Planning

March 2020 to March 2021

Conclusion

Thermal desorption was effective to treat the contaminated soil and to stop cross contamination into the water table.



Key words

Contaminants

Soil: TPH (C10-C40)

Water: TPH (C10-C40)

Max. concentration

TPH (C10-C40) in dry soil:

12.000 mg/kg

TPH (C10-C40) in water:

5.800 µg/l

Area

84m²

Treatment depth

5m

Volume

420m³

Tonnage

756 T

Nb of heating tubes

90 (in total)

Temperature Target

250°C

Project duration

1 year

Treatment targets

TPH (C10-C40) in dry soil:

< 300 mg/kg

TPH (C10-C40) in water:

< 300 µg/l

Location

Brussels (Belgium)

Client

Haemers Technologies SA

Date

March 2020 - March 2021