Dynamic Skimming – A new and highly effective approach to skimming LNAPL

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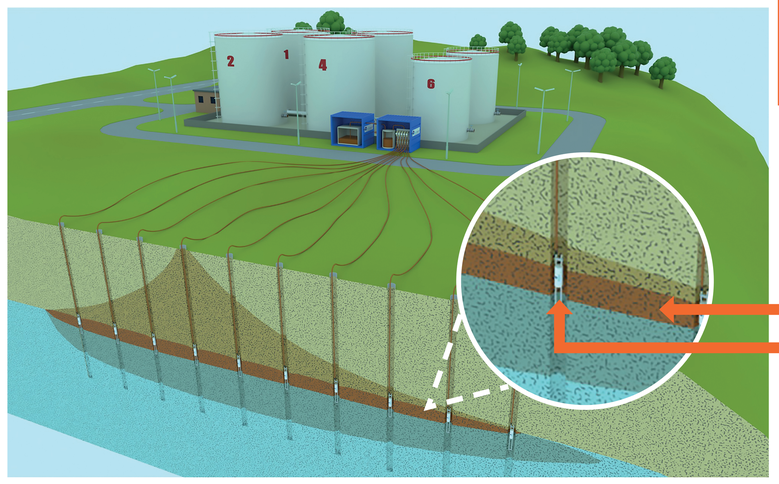
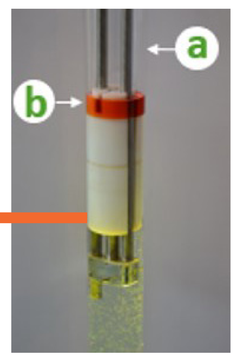
Dynamic skimming: Dynaskim solution

The Elimination of 100% of free phases on the aquifer by skimming



1. Free phase = LNAPL (Light Non-Aqueous Phase Liquid)
2. Mainly Hydrocarbon



a. 2.5m variation follow up
b. Natural positioning of the float at the free phase level

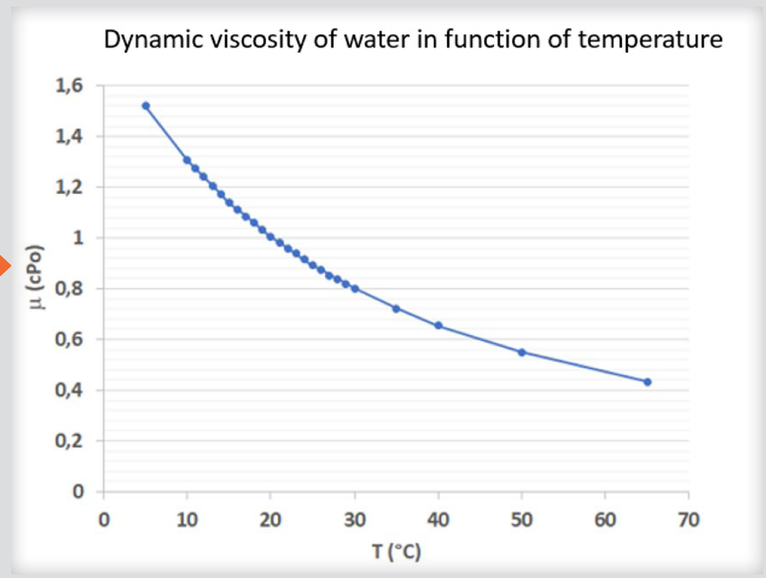
Other technologies general disadvantages

Highly sensitive to viscosity and clogging	Unsuited to groundwater levels variations	High effluent water production
High electric consumption	Incapability to recoververy thin layers	Risk of secondary pollution
Emulsion production	No central storage of recovered product	High maintenance

Reduction in project duration

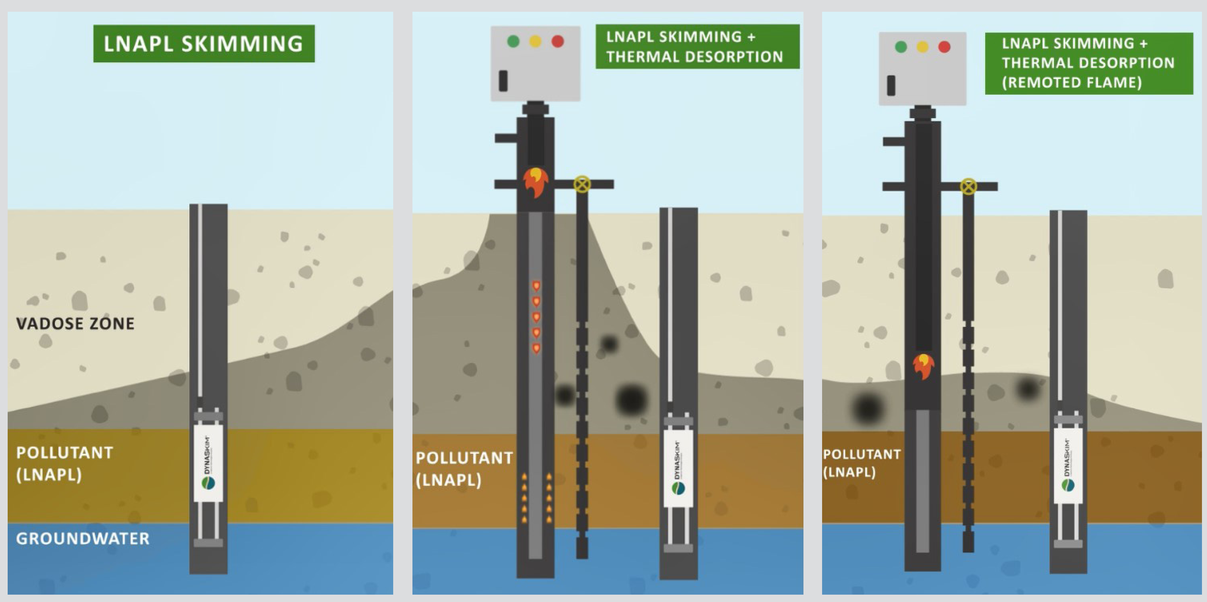
Reducing viscosity

Remaining problem with dynamic skimming:
limited migration of the contaminant towards the wells



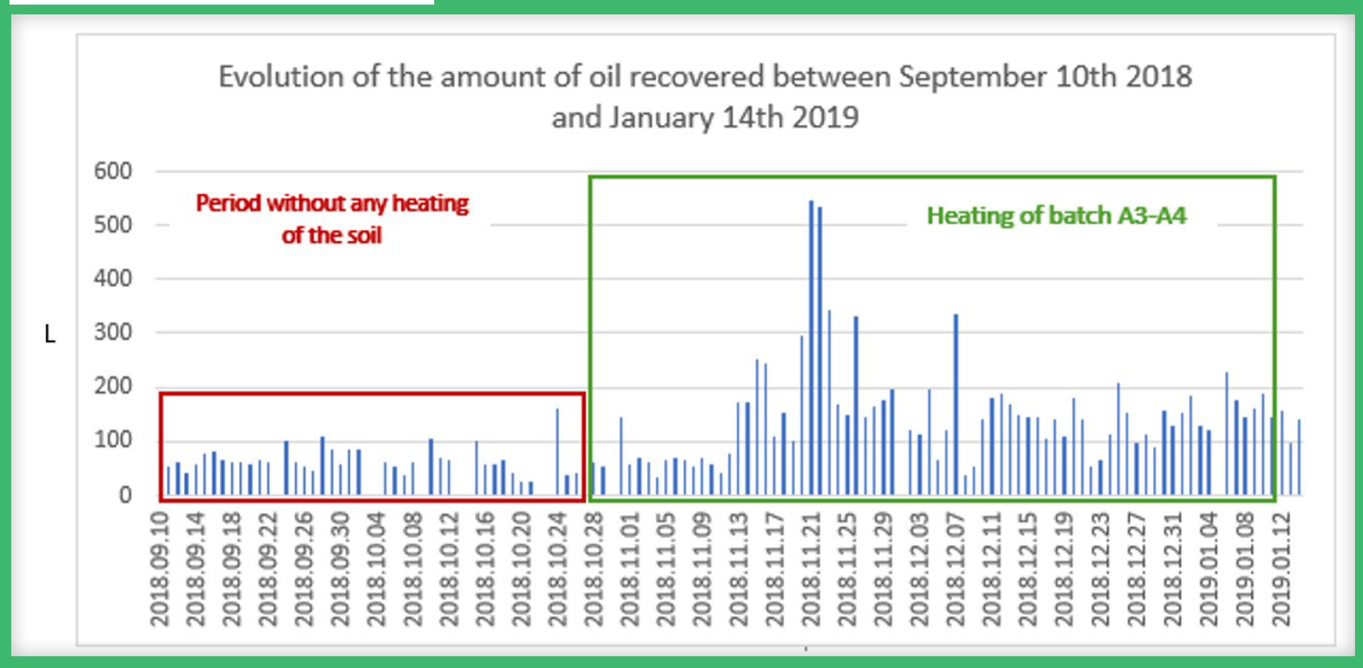
Increase the temperature will increase the mobilization of the contaminant in the ground

Three different cases



Case Studies

Hydrocarbons – Italy



Clear increase of hydrocarbons recovery in the wells when increasing the temperature of the soil

Conclusion

- Temperature enhances mobility of the contaminant
- Improving time of remediation
- Combination of thermal desoprtion and dynamic skimming
- Adaptation if contaminant in unsaturated zone

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