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# Repurposing the near-end-of-life Whisby Oilfield in the East Midland Province for Geothermal Use

**Alessandro Ranise,  
Structural Soils Ltd**

Tuesday 15<sup>th</sup> October 2024

**Hybrid Talk:** Starts at 6:30pm (see below for details)

The Western Regional Group is pleased to welcome Alessandro Ranise who will present his dissertation discussing a different way to use end-of-life oilfields.

This study focuses on the feasibility of repurposing nearly exhausted oilfield wells for geothermal energy production utilising formation waters. The project investigates the East Midland Province of the UK, particularly the Whisby Oilfield, for its potential to supply a geothermal district heating system for the nearby city of Lincoln.

The report provides a comprehensive analysis of the region's geological setting, stratigraphy, and tectonic history, with emphasis on the formation's porosity and permeability, geothermal gradient, and heat flow. The Carboniferous Limestone is the primary unit of interest for this research as it has an above-average geothermal gradient and areas with good porosity and permeability, albeit its subsurface extent is quite unpredictable.

Repurposing near-end-of-life oilfields reduces geothermal drilling costs and provides clean energy, thereby extending the oilfield's economic life.



**Hybrid Event;** When: 15<sup>th</sup> October 2024 at 6:30 PM (room opens at 6pm), at The Hub, 500 Park Ave, Aztec W, Almondsbury, Bristol BS32 4RZ. **Non-members welcome.**

**Zoom Details:** Zoom "room" opens from 6:15pm.

<https://us02web.zoom.us/meeting/register/tZEdeuqrjMtGtPwNPGECCLB2LpwzOi4ZMLxs>

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