



Your gateway to Dutch data

GDE type

Stuck Pipe

Bit Balling

ROP

Kick

Losses

Washout

Steering

No event

No data

-5500

-2500

-1000

Other

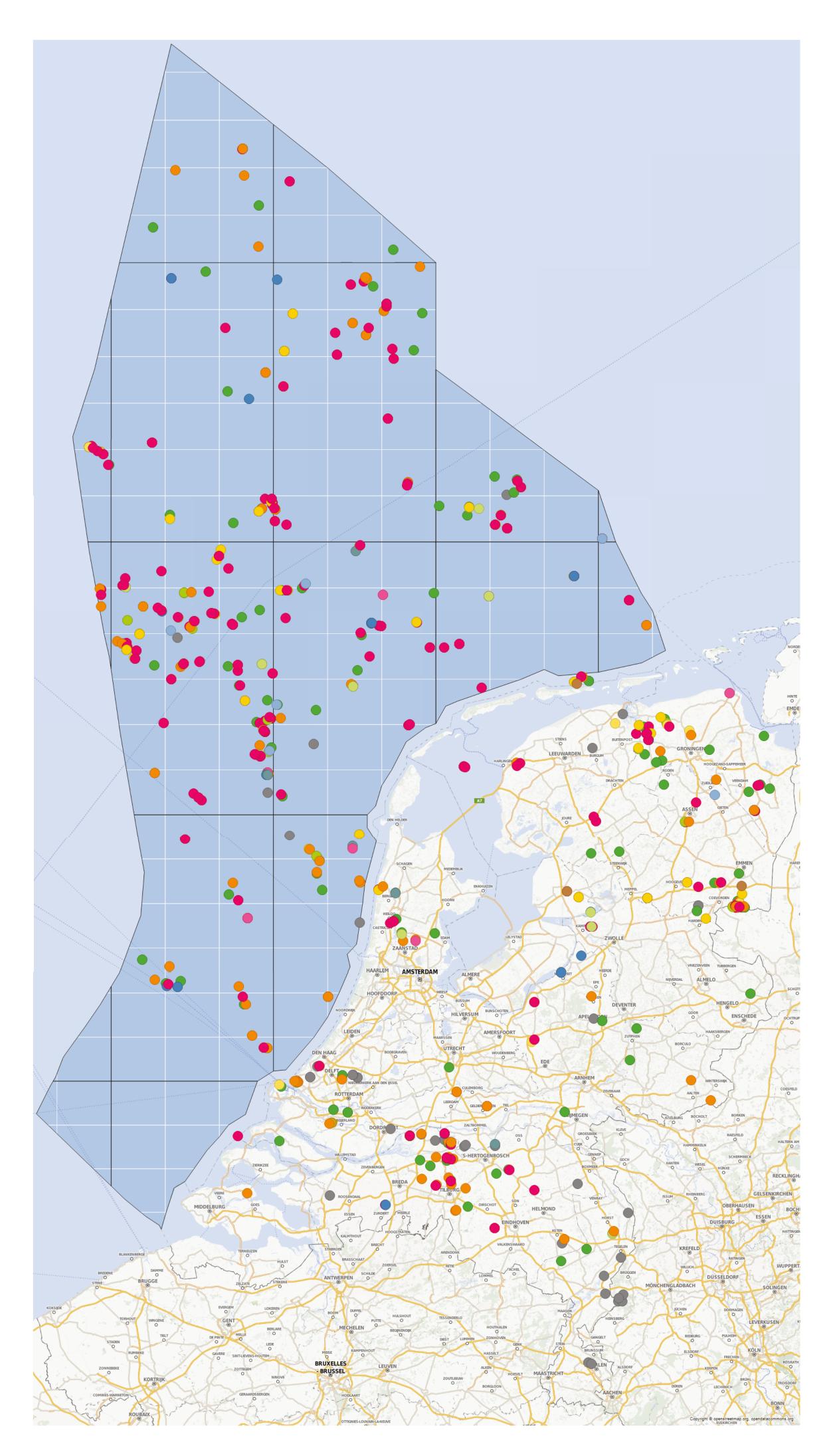
Lithology (unexpected)

H2S (unexpected)

Deformed Casing

HC (unexpected)

Learnings from big data analyses by EBN



Geo-Drilling Events database

Planning new wells requires careful screening of the trajectory for possible geo-drilling hazards. The Geo-Drilling Events (GDE) database contains information on drilling events from existing wells. Geo-Drilling Events are those events for which a geological component contributed to the cause of the incident.

This database provides a better understanding of Geo-Drilling Events and hazards in the Dutch subsurface.

- Opportunity to learn from past drillings events encountered by other operators.
- Optimize well design to prevent repetition of mistakes and misinterpretations.
- Contribute to drilling safety and to reducing well costs.

The database is accessible for operators active in the Dutch subsurface.

Information in the database

Around 1000 GDE's have been analyzed in some 700 on- and offshore wells. The database consists of 3 parts:

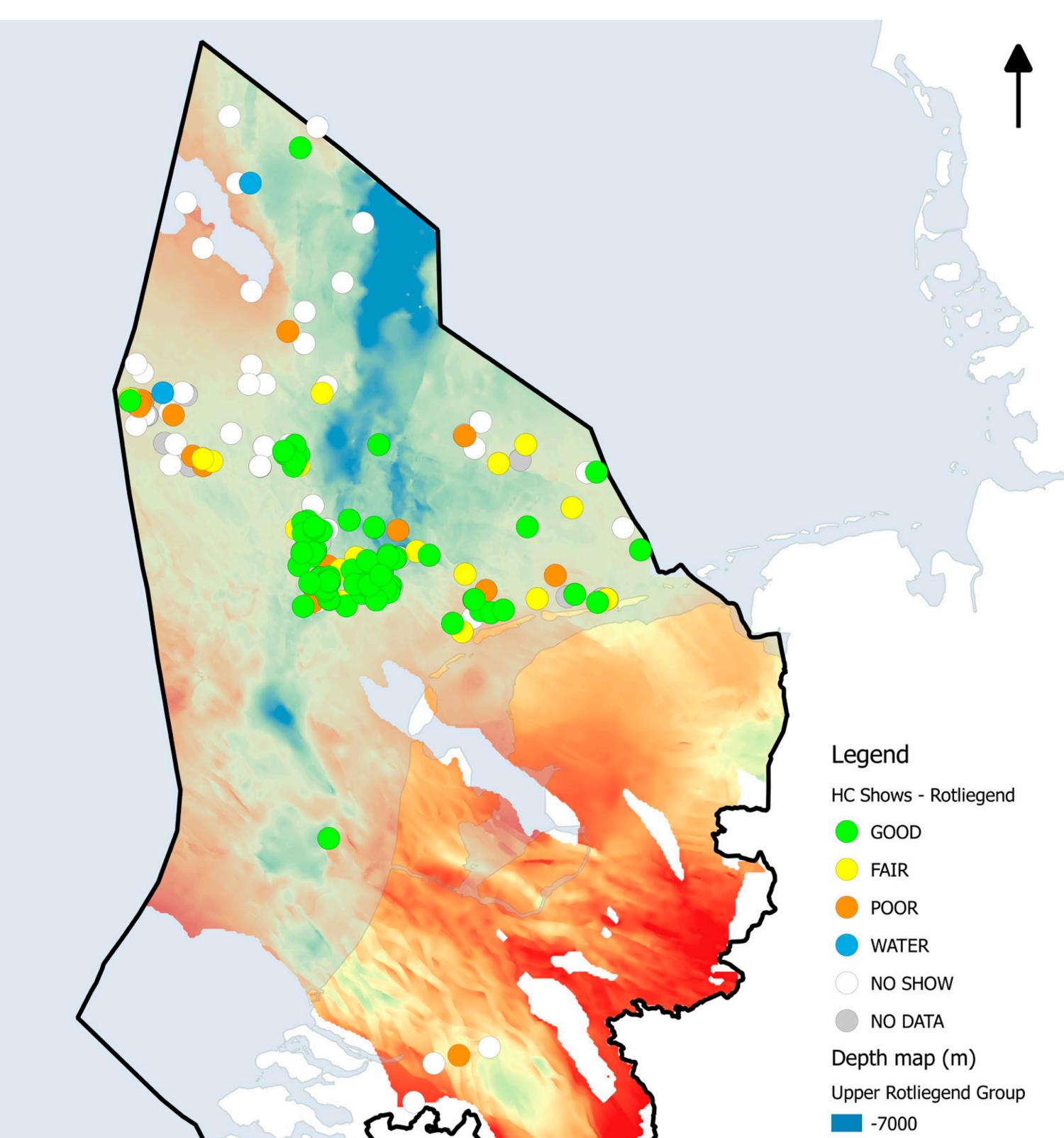
Well meta data **Geo-Drilling Events** Geo-Drilling Hazards (Generic well data) (observations) (interpretations) Well name GDE type Hazard type GDE narrative Hazard stratigraphy Well type Coordinates GDE severity Hazard description GDE depth Operator etc.

Webportal hosted by EBN

A user-friendly web-based access to the database is provided for operators. Multiple visualizations of the database are available.

Figure 1.

Map view of the GDE-database as provided in the analysis tool. In this map view GDE's are indicated as coloured spheres and for which further information is available.



Hydrocarbon shows database

This database provides an systematic overview of Hydrocarbon (HC) shows based on:

- Mudlog gasreadings
- Well test data (incl. RFTs)
- Core data (incl. fluorescence)

This information is compiled per stratigraphic level in key wells drilled in the Dutch subsurface.

The analysis uses a well-defined classification scheme to describe all types of oil and gas observations quantitatively and includes an estimate of the confidence level of interpretations.

Currently some 700 on- and offshore wells have been analyzed. Information is also used to assist in well planning for geothermal purposes.

Figure 2.

Map view of the HCS-database as provided in the analysis tool. In this figure the coloured dots indicate if a hydrocarbon show was observed in the well.