

# IDENTIFICATION AND OPTIMIZATION OF FUTURE DEVELOPMENT OPPORTUNITIES IN A SET OF ONSHORE MATURE FIELDS

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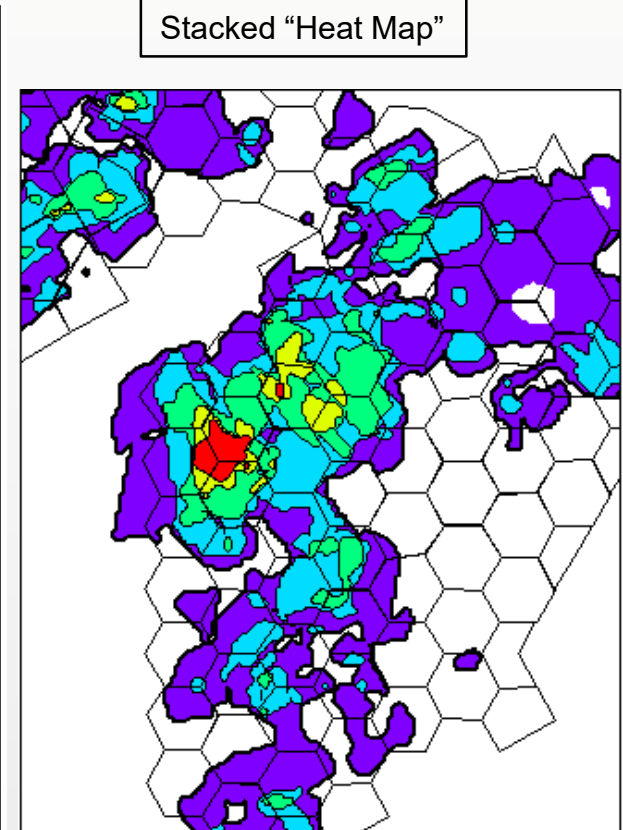
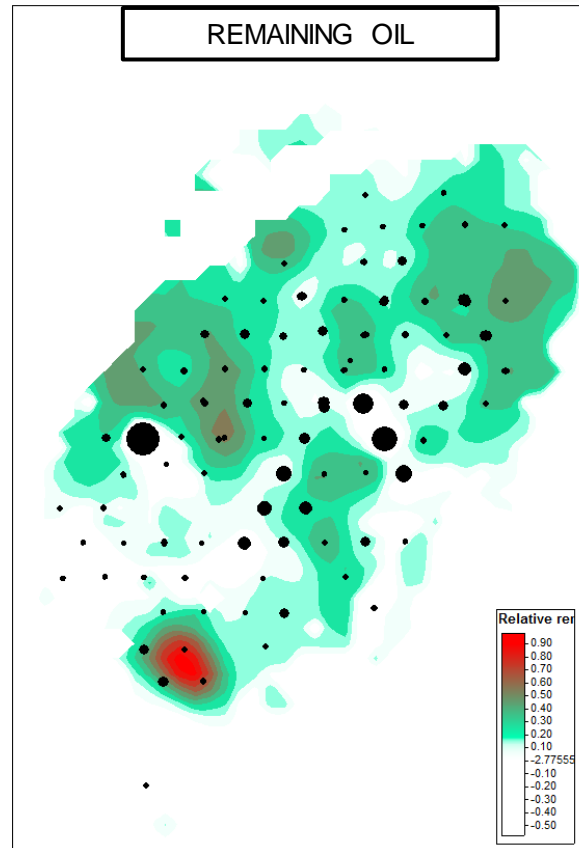
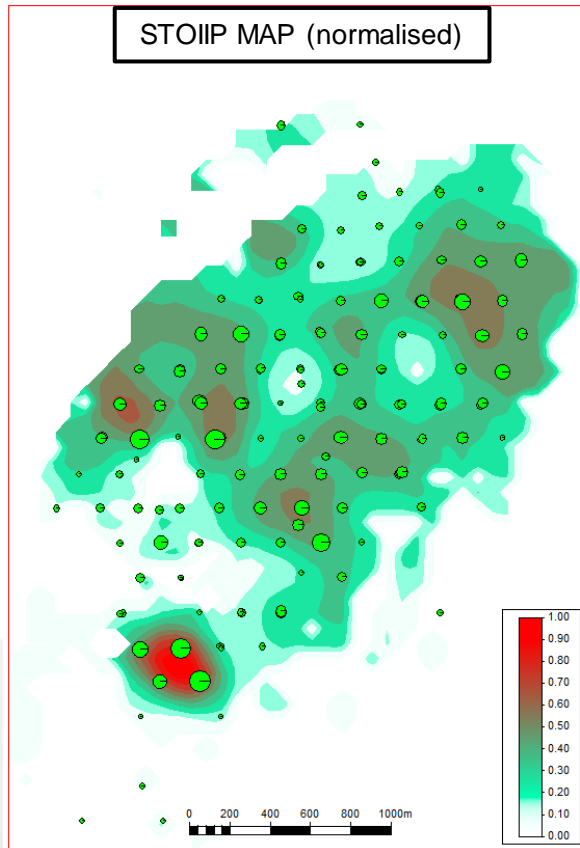
Petrofac 

## *Objective*

- Identify area of opportunities in a highly mature asset
- Develop a set of activities and associated profiles

## *Workflow*

- Review current static model to calculate initial oil-in-place
  - Petrophysical workflow was established to generate a full analysis of older generation logs resulting in a more robust petrophysical interpretation of reservoir properties
  - Fluid contacts were adjusted based on an integrated approach of fault compartment analysis, well correlation and production.
- Generate a set of analytical maps to identify areas of potential un-swept oil for each reservoir interval
- Rank derived opportunities in terms of size and ease of development profiles
- Design a sequential pattern waterflood to recover remaining oil in key areas

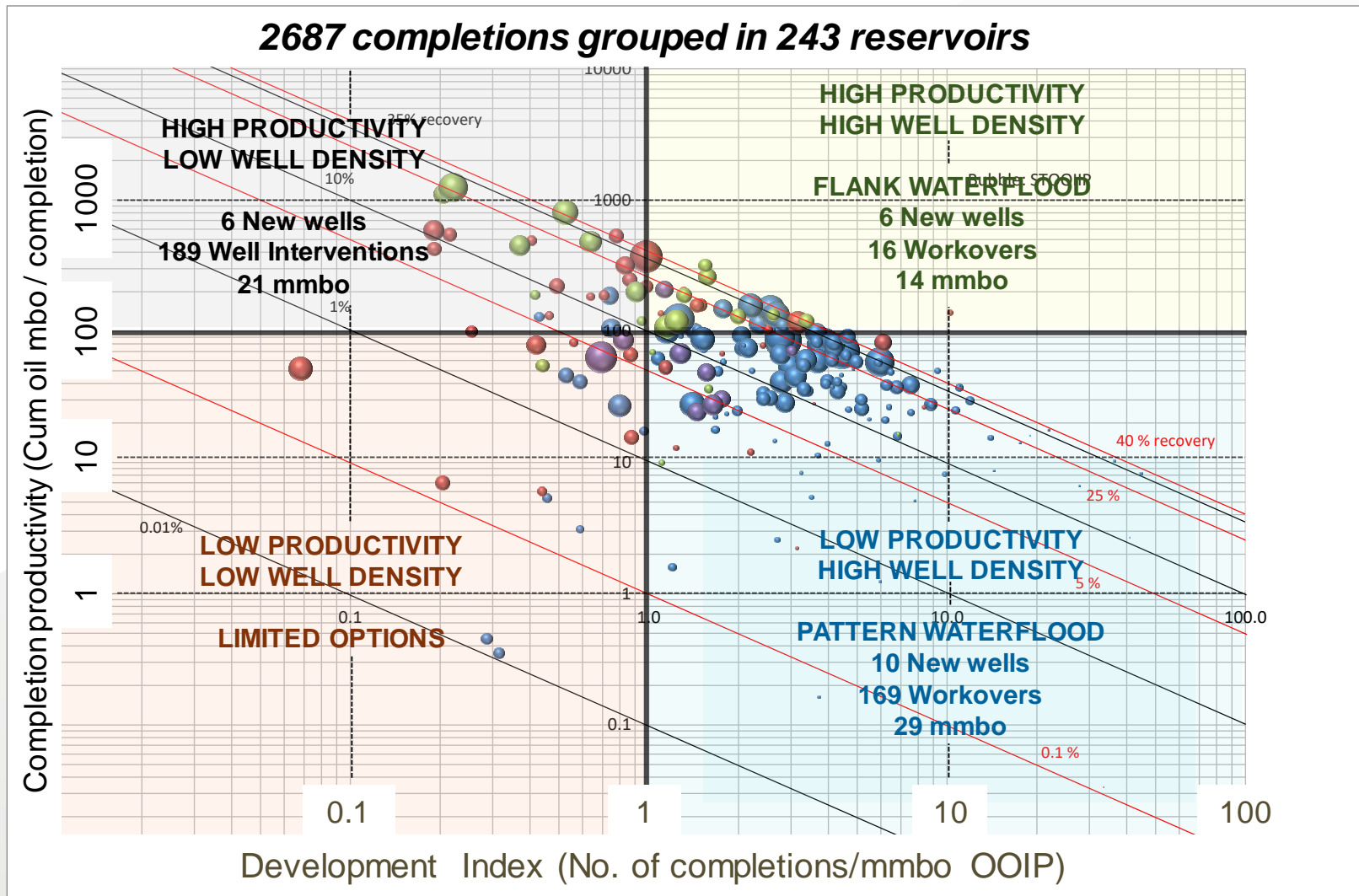


1. Output STOIP thickness map  
[Sum Property \* Height]
2. Normalise result (0 – 1)

1. Deduct normalised CUM from initial  
STOIP map
2. Result is relative remaining oil map

Stacked Map with sweet spots over various zones was generated to target best areas

# Reservoir opportunity Matrix



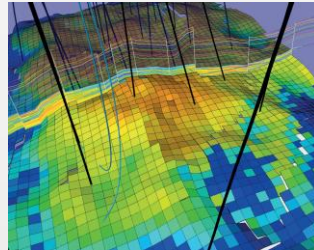
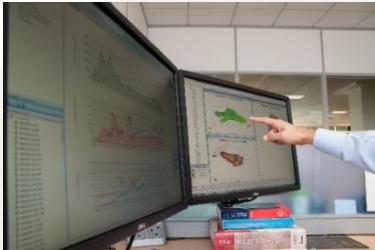
## RESULTS

- 5% incremental recovery and a viable exploitation plan for the next 25 years

An oilfield service company providing services across the asset life cycle in 29 countries

Capabilities: Subsurface, Subsea & Facilities expertise to support Engineering, Construction, Production Operations, Well Engineering & Training

Our subsurface skills span **geoscience, reservoir engineering, production & well engineering**



- We **integrate subsurface skills** with wider Petrofac capabilities to provide a *full range of field and infrastructure development* and asset enhancement services.
- We can address a range of common challenges to help **improve recovery** from *maturing fields, depleting reservoirs* or where *poor or minimal reservoir data* and models exist.
- This integrated approach enables us to **execute fast-track oil & gas projects** that are delivered within various commercial models including *Green Field Developments, Mid-field Life Production Enhancement & Brown Field/Late-life Optimization*.

Subsurface staff have more than 200 man years of experience from operators (including Petrofac assets)