

“FRIGG Gruppen”

SS – EOR Feasibility

Why EOR SS?

- Business Drivers?
 - Lower RF means higher remaining potential
 - EOR to mitigate high cost of drilling new wells
 - EOR technology may be necessary to make a SS development economically feasible
 - Part of an area solution
- Why lower RF for SS
 - Lower well density
 - Modification cost
 - Reservoir management availability
 - Lower production/injection regularity
- Aob.

Current status; Challenges

- SS solutions in general
 - SS production currently exceeding platform production
 - Simple functionality, comingling, accessibility to wells, perforations
 - Data acquisition and monitoring less frequent and costly
 - Dependant on being a part of a larger EOR deployment
- Additional challenges with EOR – Plug – in
 - Water injection necessary
 - Small fields marginal economy, focus on cost
 - No currently EOR plug – in available for dry wellheads yet
 - Lack of EOR competencies in SS environments
 - Existing well stock incompatible with EOR requirements
- Aob

Vision for future SS developments plug and play EOR

- Is EOR plug and play possible?
 - Need to define EOR plug and play design basis (industry standard)
- How to increase RF for SS fields – RF vision
 - Increase well density
 - Cheaper wells
 - Improved reservoir monitoring/management
- JIP projects
 - Necessary! Integration challenge; Sub surface – Surface – Service providers