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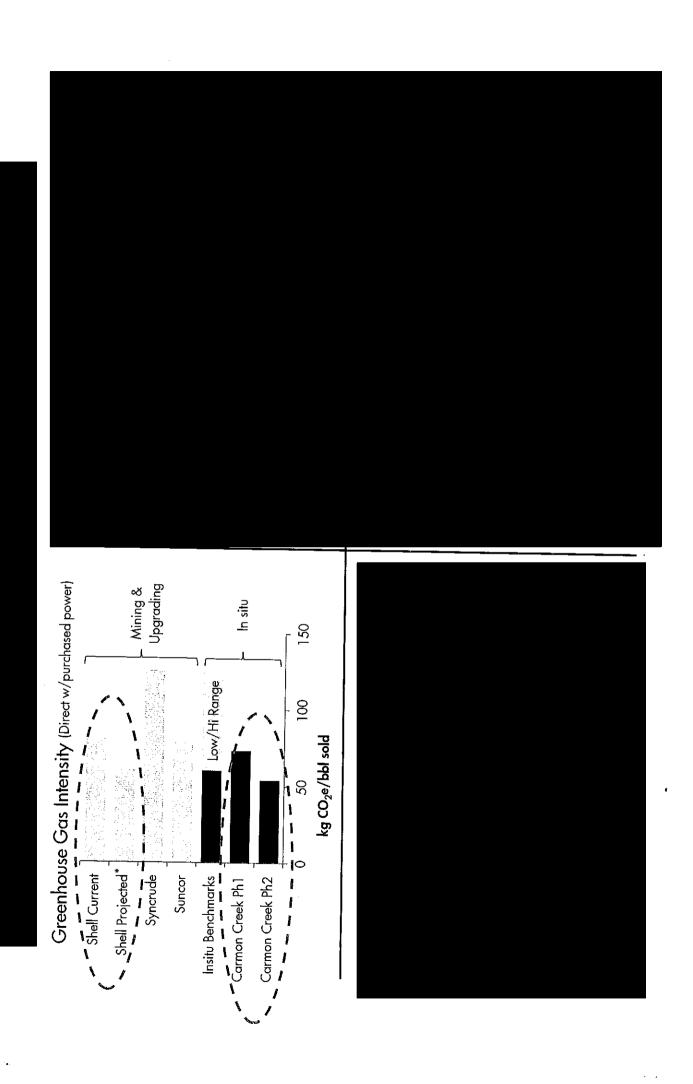
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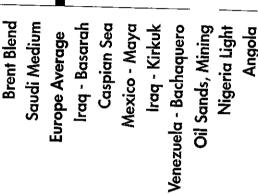
Oil sands development cycle



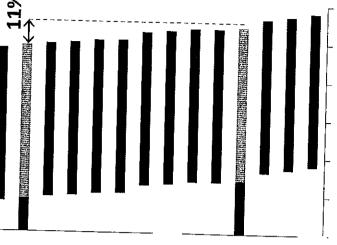
 Industry GHG intensity reduced by 29% since 1990

 within the same range or lower than other crude oils used in Europe.

 Technological innovation and CCS will achieve further reductions.



Oil Sands SAGD Venezuelan Partial Upgrader Oil Sands, Average Refined Middle East Heavy Oil



kg CO₂e per bbl refined products

Development subject to strict environmental regulation

GHG emissions

Fuel Quality Directive

Shell believes it is not justified to subject oil sands or oil shale to a separate regulatory regime for the following reasons:

Environment

- within the same range or lower than some other crude oils processed in the EU. most recent studies estimate that oil sands have a well-to-wheel GHG intensity
 - Irade:
- application of a separate regulatory penalty on oil sands on the grounds of GHG emissions would be discriminatory and possibly non-compliant with international trade law, exposing the EU to legal challenge
- A separate default value would impose a significant burden of chain of custody reporting into the crude and fuels supply chain 0

FQD - elements for a possible compromise

Review Clause including a mandate to review and, if appropriate, propose how to address high GHG intensity sources, based on:

- 1. Scientific evaluation of the GHG intensity of the sources of transport fuels used in the EU.
- 2. Assessment of impact of the proposal on:
- GHG emissions reductions

Accuracy and reliability of GHG emissions data

Recognises political intent to establish a closer association of individual crudes and their GHG intensity, and sets out criteria to update methodology, it feasible and justified on GHG grounds.