

# Vedlikehold fra vugge til grav

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## Cautionary statement



#### CAUTIONARY STATEMENT FOR THE PURPOSES OF THE "SAFE HARBOR" PROVISIONS OF THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995

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Factors that could cause actual results or events to differ materially from what is presented include changes in commodity prices, including a prolonged decline in these prices relative to historical or future expected levels; global and regional changes in the demand, supply, prices, differentials or other market conditions affecting oil and gas, including changes resulting from any ongoing military conflict, including the conflicts in Ukraine and the Middle East, and the global response to such conflict, security threats on facilities and infrastructure, or from a public health crisis or from the imposition or lifting of crude oil production quotas or other actions that might be imposed by OPEC and other producing countries and the resulting company or third-party actions in response to such changes; insufficient liquidity or other factors, such as those listed herein, that could impact our ability to repurchase shares and declare and pay dividends such that we suspend our share repurchase program and reduce, suspend, or totally eliminate dividend payments in the future, whether variable or fixed; changes in expected levels of oil and gas reserves or production; potential failures or delays in achieving expected reserve or production levels from existing and future oil and gas developments, including due to operating hazards, drilling risks or unsuccessful exploratory activities; unexpected cost increases, inflationary pressures or technical difficulties in constructing, maintaining or modifying company facilities; legislative and regulatory initiatives addressing global climate change or other environmental concerns; public health crises, including pandemics (such as COVID-19) and epidemics and any impacts or related company or government policies or actions; investment in and development of competing or alternative energy sources; potential failures or delays in delivering on our current or future low-carbon strategy, including our inability to develop new technologies; disruptions or interruptions impacting the transportation for our oil and gas production: international monetary conditions and exchange rate fluctuations; changes in international trade relationships or governmental policies, including the imposition of price caps, or the imposition of trade restrictions or tariffs on any materials or products (such as aluminum and steel) used in the operation of our business, including any sanctions imposed as a result of any ongoing military conflict, including the conflicts in Ukraine and the Middle East; our ability to collect payments when due, including our ability to collect payments from the government of Venezuela or PDVSA; our ability to complete any announced or any future dispositions on time, if at all; the possibility that regulatory approvals for any announced or any future dispositions or acquisitions will not be received on a timely basis, if at all, or that such approvals may require modification to the terms of the transactions or our remaining business; business disruptions relating to the acquisition of Marathon Oil Corporation (Marathon Oil) or following any other announced or other future dispositions or acquisitions, including the diversion of management time and attention; the ability to deploy net proceeds from our announced or any future dispositions in the manner and timeframe we anticipate, if at all; our ability to successfully integrate Marathon Oil's business and technologies, which may result in the combined company not operating as effectively and efficiently as expected; our ability to achieve the expected benefits and synergies from the Marathon Oil acquisition in a timely manner, or at all; potential liability for remedial actions under existing or future environmental regulations; potential liability resulting from pending or future litigation, including litigation related directly or indirectly to pending or completed transactions; the impact of competition and consolidation in the oil and gas industry; limited access to capital or insurance or significantly higher cost of capital or insurance related to illiquidity or uncertainty in the domestic or international financial markets or investor sentiment; general domestic and international economic and political conditions or developments, including as a result of any ongoing military conflict, including the conflicts in Ukraine and the Middle East; changes in fiscal regime or tax, environmental and other laws applicable to our business; and disruptions resulting from accidents, extraordinary weather events, civil unrest, political events, war, terrorism, cybersecurity threats or information technology failures, constraints or disruptions; and other economic, business, competitive and/or regulatory factors affecting our business generally as set forth in our filings with the Securities and Exchange Commission. 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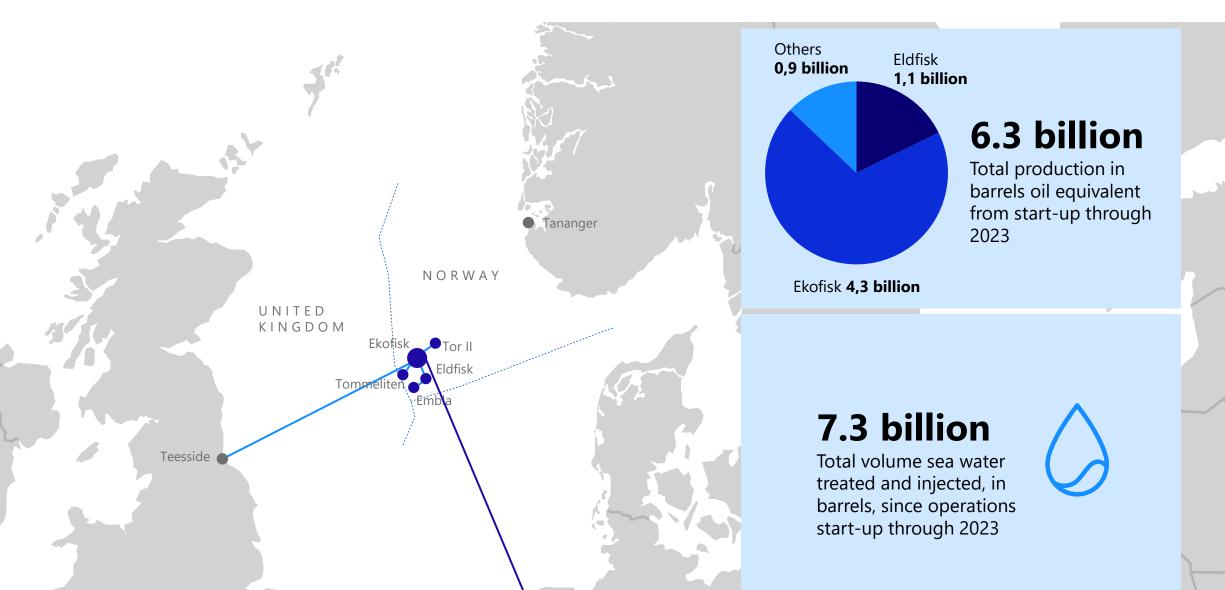
**Use of Non-GAAP Financial Information** – This presentation may include non-GAAP financial measures, which help facilitate comparison of company operating performance across periods and with peer companies. Any historical non-GAAP measures included herein will be accompanied by a reconciliation to the nearest corresponding GAAP measure either within the presentation or on our website at www.conocophillips.com/nongaap. [For forward-looking non-GAAP measures, we are unable to provide a reconciliation to the most comparable GAAP financial measures because the information needed to reconcile these measures is dependent on future events, many of which are outside management's control as described above. Additionally, estimating such GAAP measures and providing a meaningful reconciliation consistent with our accounting policies for future periods is extremely difficult and requires a level of precision that is unavailable for these future periods and cannot be accomplished without unreasonable effort. Forward looking non-GAAP measures are estimated consistent with the relevant definitions and assumptions.]

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### Greater Ekofisk Area Overview



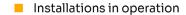


GERMANY

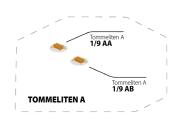
Emden

### Greater Ekofisk Area



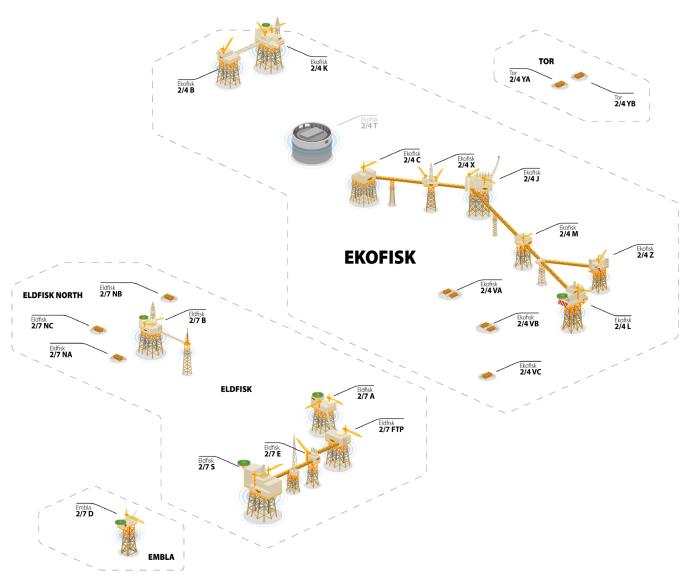


Closed installations





The Greater Ekofisk Area overview is developed for illustration purposes and does not represent accurate size of installations, distance or location. Updated September 2024.



### Ekofisk i produksjon fra 1972 – et landskap i konstant endring











### Tidsreisen for vedlikeholdsfunksjonen

Fra 1970 til 1990 – feltutbygging og etablering av vedlikeholdsfunksjonen

- Bygge opp vedlikeholdsorganisasjonen
- Maintenance Planning System

Fra 1990 til 2000 – revitalisering av fundament for vedlikeholdsfunksjonen

- Systematisering av anleggsregister
- Begynnende kritikalitetsvurdering
- Passport

Fra 2000 – operasjonalisering av sikkerhetskritisk vedlikehold

- Etablering av ytelsesmål for sikkerhetskritsik utstyr og metoder for testing
- Tettere integrering med teknisk sikkerhet og risikostyring barrierepanel
- Integrerte operasjoner effektiv samhandling
- SAP ECC

Fra 2010 – effektivitet i utførelse og optimalisering av metoder

- Integrert planlegging
- Kampanjevedlikehold
- Systematisk bruk av vedlikeholdshistorikk
- SAP 4/HANA (fra 2024)



## Utfordringer (noen)



#### Innsykning av havbunn

#### Rørsystemer i karbonstål

- Endringer i korrosivitet
- Tørre overrislingsanlegg (deluge)

#### Ventiler i prosessanlegg

- Innvendig lekkasje
- Utvendig korrosjonsbeskyttelse

#### Overflatevedlikehold

Volum

#### Plattformkraner

Pålitelighet

#### Aldrende innretninger

- Tilgang til reservedeler
- Kompetanse

#### Endring av premisser for brukstid

Forlengelse

#### Nye dataverktøy

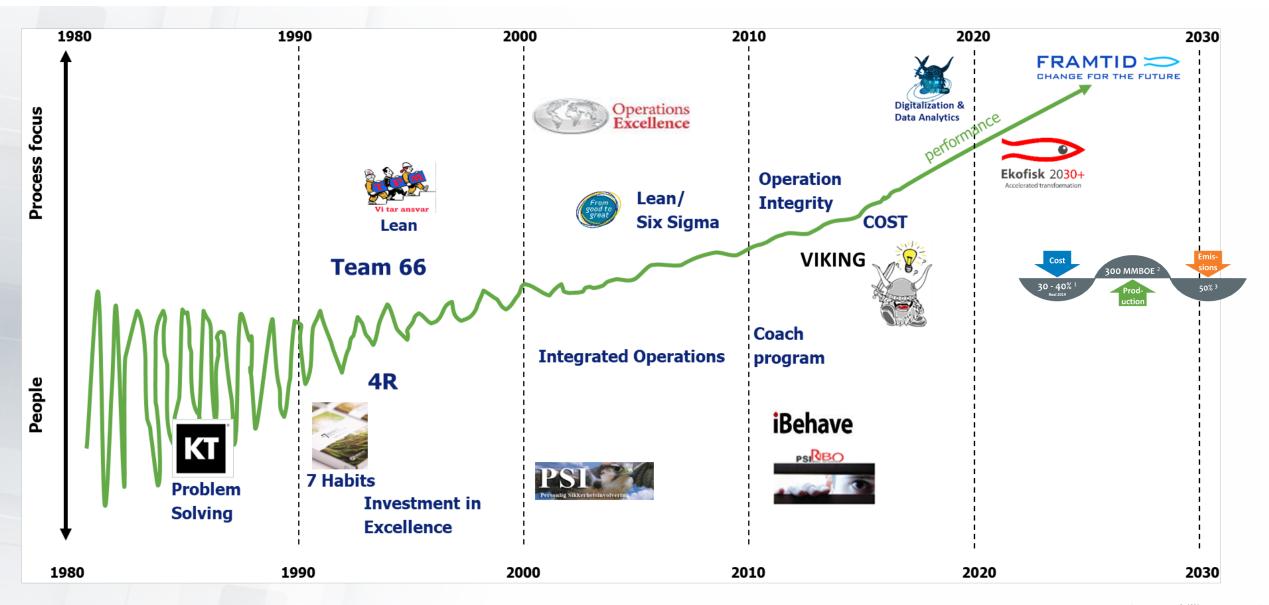
- Opplæring / tilegning
- Historiske data

#### Planlegging

- Tilgang til å utføre vedlikehold
- Senger
- Deler
- Personell
- Samhandling

### Kontinuerlig forbedring har alltid vært viktig for oss





### Bruk av historiske data – strukturert endring av strategi



#### Existing maintenance program

- Little correlasion between criticality and maintenance intervall
- Different workstandards for same type of equipment

New maintenance strategi, risk based

- Standarized maintenance activities(workstandarder)
- Maintenance frequency based on consequence classification (FCAT)

ELDB 2030+ Pilot/test for pressure and temperaturetransmitters

	Maintenance Frequency						
FCAT class	1Y	2Y	NSM	Grand Total			
А	8	2	5	15			
В	19	5	18	42			
С	72	3	2	77			
D	46	16	5	67			
E	10			10			
Grand Total	155	26	30	211			

Timeestimat existing maintenance program: 193 timer

	Maintenance Frequency						
FCAT class	1Y	2Y	4Y	NSM	Grand Total		
Α			7	8	15		
В			23	19	42		
С		46	31		77		
D		67			67		
E	10				10		
Grand Total	10	113	61	27	211		

Timeestimat new maintenance program: 57 timer

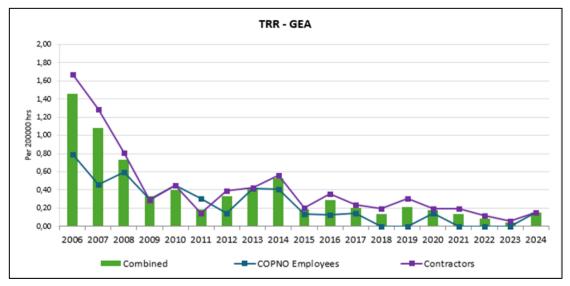
Reduksjon i timeforbruk ca. 70% Estimert reduksjon på feltet ca. 30%

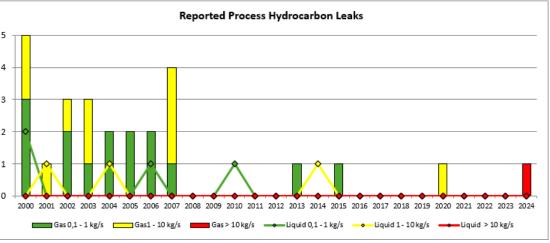
## God sikkerhetskultur fremmer også godt vedlikehold



- Nothing is so urgent or important that we cannot take time to do it safely and in an environmentally prudent manner
- We set specific safety, health and environmental goals for all our activities and we work to improve our performance
- The environment in which we operate, makes our commitment to sustainable development a significant strategy for ConocoPhillips







### Betraktninger



- Utfordringen for effektivt offshore vedlikehold er primært logistikk ikke problemutstyr og feilrater
  - Tilgang, senger, reservedeler, utførende resurser
- Vedlikehold er et lagarbeid krever gode relasjoner og samarbeidsformer «one team»
  - Egne ansatte land / hav
  - Leverandører
  - Entreprenører
- Vedlikehold dreier seg ikke bare om «hva», «hvor» og «når» men vel så mye kompetansen og ferdigheten til den enkelte
- Svært viktig å sikre forenelighet mellom planer for bruk av innretningene og vedlikeholdsomfang
  - Krevende å ta igjen forfallet når vedlikeholdet har blitt tilpasset en kortere brukstid dersom den siste forlenges







