

Estimated P&A- Norwegian Continental Shelf: 2020 - 2025

October 2019

Company	Estimated number of P&A 2020 → 2025	Estimated number of Slot Recovery 2020 → 2025	Estimated number of Sub Sea P&A 2020 → 2025	Contact person
AkerBP	17	29		Egil Thorstensen
ConocoPhillips	50	20		Thomas Maeland
Equinor	+/- 100	+/- 70/year	+/- 20	Tormod Fossdal
Neptune Energy	0	0	8/9	Krister Aunan
DNO North Sea	3-5	0	subsea P&A	Grethe Lønø
Lundin Norway	4	2	4 subsea P&A	Jakob Mo
Norske Shell	9	0	subsea P&A, LWI	Madelen Moore
Repsol Norge	32	1	3	Vivien Helen Vestre
Total Norge	3	0	Subsea P&A	Johan Kverneland
Spirit Energy	1	0	Subsea P&A	Stian Brevik
Wintershall Dea	+/-6	+/-20		Mark van Aerssen

Key technical challenges:

Subsea P&A, Platform P&A, Dual casing strings across P&A zone, Slot recovery, Rigless P&A, Verification of cement / formation outside casing, Removal of tubing / casing, Challenge to set 50m plugs, Tubing access/collapse, verification methods, corroded tubulars, cross-department. Through tubing PWC, Logging through two strings, Deformed casing/tubing COP do rig/DP based P&A. Key challenge is dual casing over P&A zone. Typically, 7" casing inside 9 5/8" csg. Also: See presentation "Casing Deformation" held in 2018

Technical needs:

Dual string cross sectional plugging, Cutting/milling in large casing, Pull tubing, Logging challenges, PWC, Reliable and efficient barrier verification methods, Dual casing bond logging, Alternative plugging solutions, Rigless P&A

CoP: A dual string cross sectional technique which (dual string logging) can be verified or effective fishing of inner string.