



Drilling Optimisation – UK

UK SNS Development

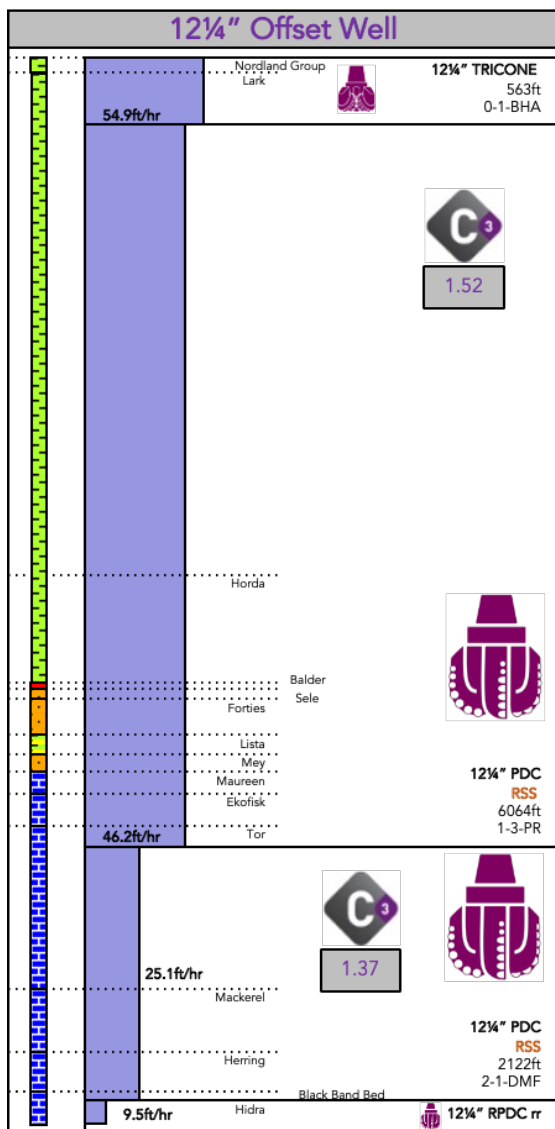
In this example, we were tasked with examining the drilling performance in the 12 1/4" section of an offset well, where 3x products and 4x runs were required to drill to section TD through the clean chalk in the upper Cretaceous.

By following the Aurora process, and utilising our proprietary C3 software, we ascertained that through proper bit selection (>C3) would result in only two products being required to drill to TD without sacrificing ROP.

For the first run, six products from different vendors were assessed within C3 and the results were compared:

Bit #	C3	Bit #	C3
1	2.12	4	2.19
2	2.32	5	2.39
3	1.65	6	1.89

It was proposed to the client that bit #5 be selected for the the 1st run to drill into the clean chalk before POOH for a planned bit change to reach section TD.



Actual Performance

Bit #	Drilled	ROP	Dull
1	6736'	38.1	1-1-BHA
2	1972'	34.5	0-0-TD

- ✔ Achieved benchmarked goal of drilling section in 2 bits runs
- ✔ Least number of assemblies used for section vs offset wells



Aurora's C3 software establishes the durability delivered by fixed cutter products versus product characteristics of previously used bits across all bit sizes and all relevant applications.