

Devil's Hole Horst (DHH) Prospect

The biggest undeveloped oil discovery in the UKCS?

UK Offshore Farm in Opportunity

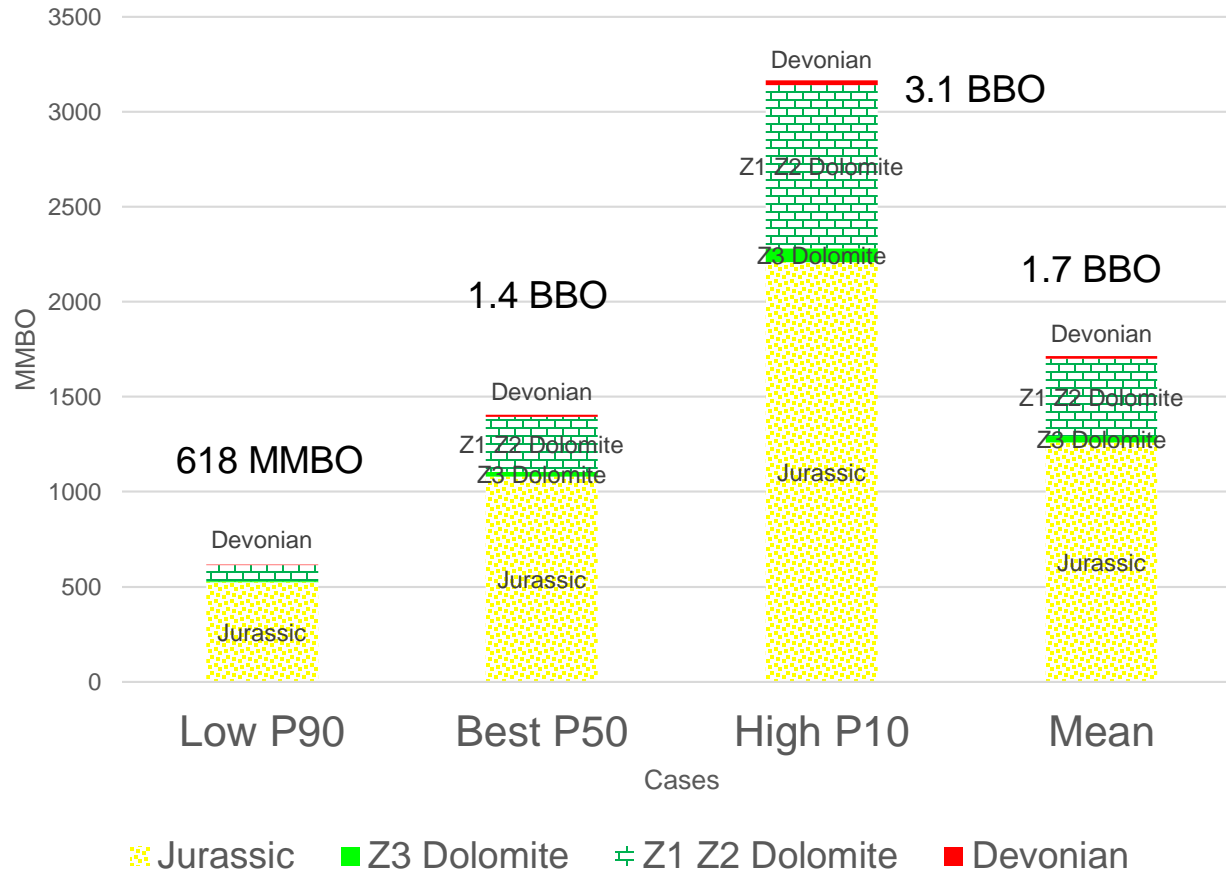
Disclaimer - This is an outline of prospect volumes with provisional recovery factors, resources and resource classification. These numbers are based on mapping and petrophysics dated October 2018. The seismic 2d spacing has improved from 15km spaced free OGA 2015/16 OGA WesternGeco 2d seismic, at the time of the application, to improved 3.5km spacing including more released proprietary 2d data and Western Geco licenced spec data. However definition of volumes will, of course, continue to improve with 3d acquisition and further drilling.

Prospex Fair 11th December 2019

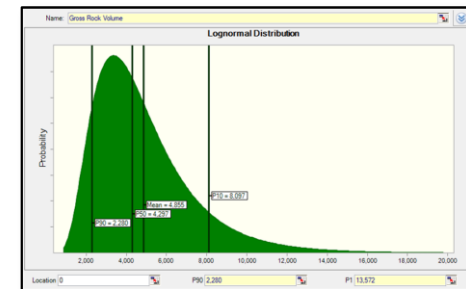
What's new with DHH this year?

- Game changing derisking high quality Geochem Oil Migration study
- Verified Volumes
- Redigitised Logs on discovery well
- Serious Interest for Farm down

Prospective Resources



LogNormal Distribution Skews GRV to low side



Jurassic Lead						
Monte Carlo Volumetric Estimation						
Parameter	Units	Low	Mid	High	Distribution	±5 Mean
Area	Km ²					
GRV Limits	m TVDiss	-930.0		-1041.20		
Gross Rock Volume	Mkm ³	2,280.3	4,295.9	13,572.1	Lognormal	4,160
Net to Gross		0.731	0.860	0.989	Normal	-0.960
Porosity		0.170	0.220	0.270	Normal	-0.250
Hydrocarbon Saturation		0.570	0.670	0.771	Normal	-0.670
Fill Factor		0.864	0.950	0.955	Triangular	-0.950
Gas Expansion Factor		0.850	0.900	0.950	Triangular	-0.900
Recovery Factor		0.35	0.40	0.45	Normal	-0.400
Probabilistic Results						
		P95	P50	P10	Mean	
N-PLACE VOLUME	Mbbl	1,332	2,714	5,485	3,149	-3,162
ESTIMATED ULTIMATE RECOVERABLE	MMbbl	524	1,081	2,209	1,259	-1,262

Third Party Verified Resources by a Global Auditor Using Crystal Ball

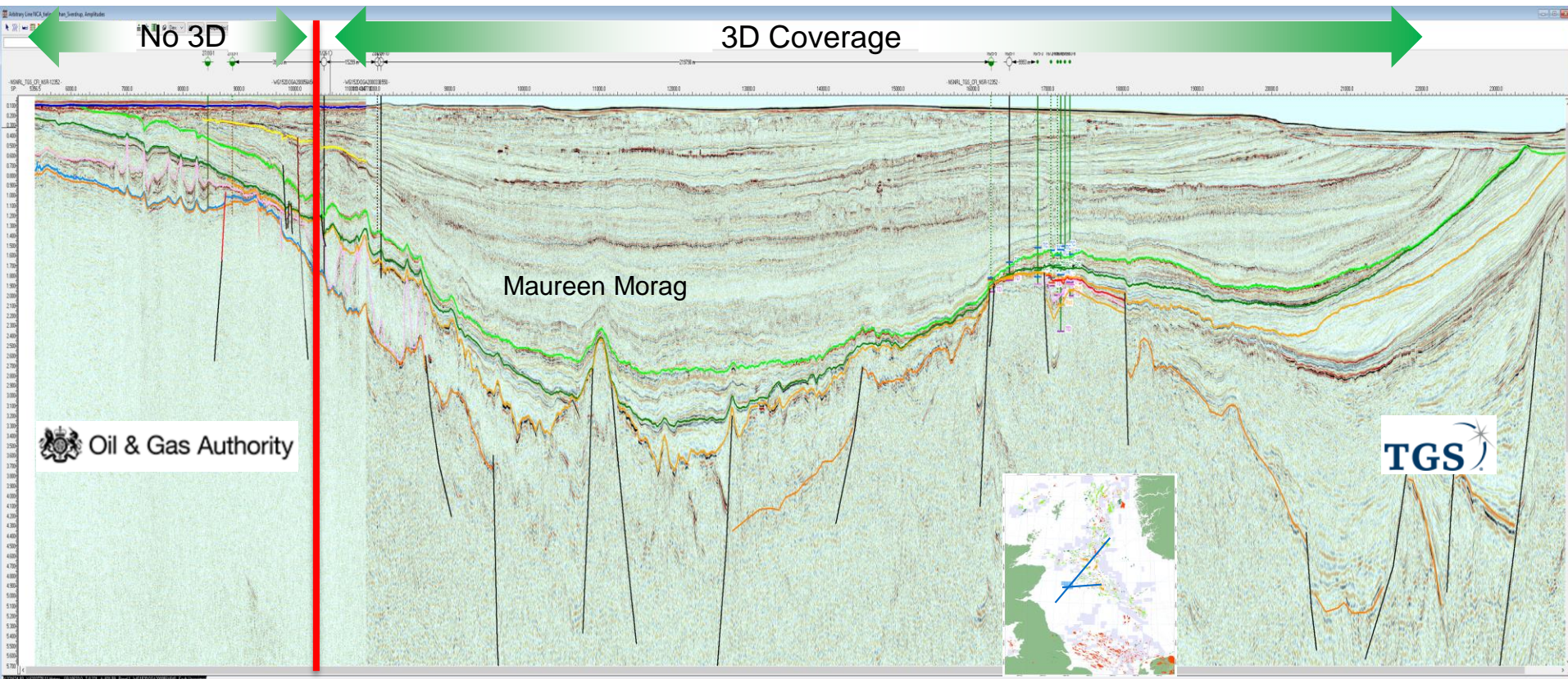
DHH - Play - A basin margin Palaeozoic High

DHH is a confirmed analogue of the giant Johan Sverdrup Oil Field

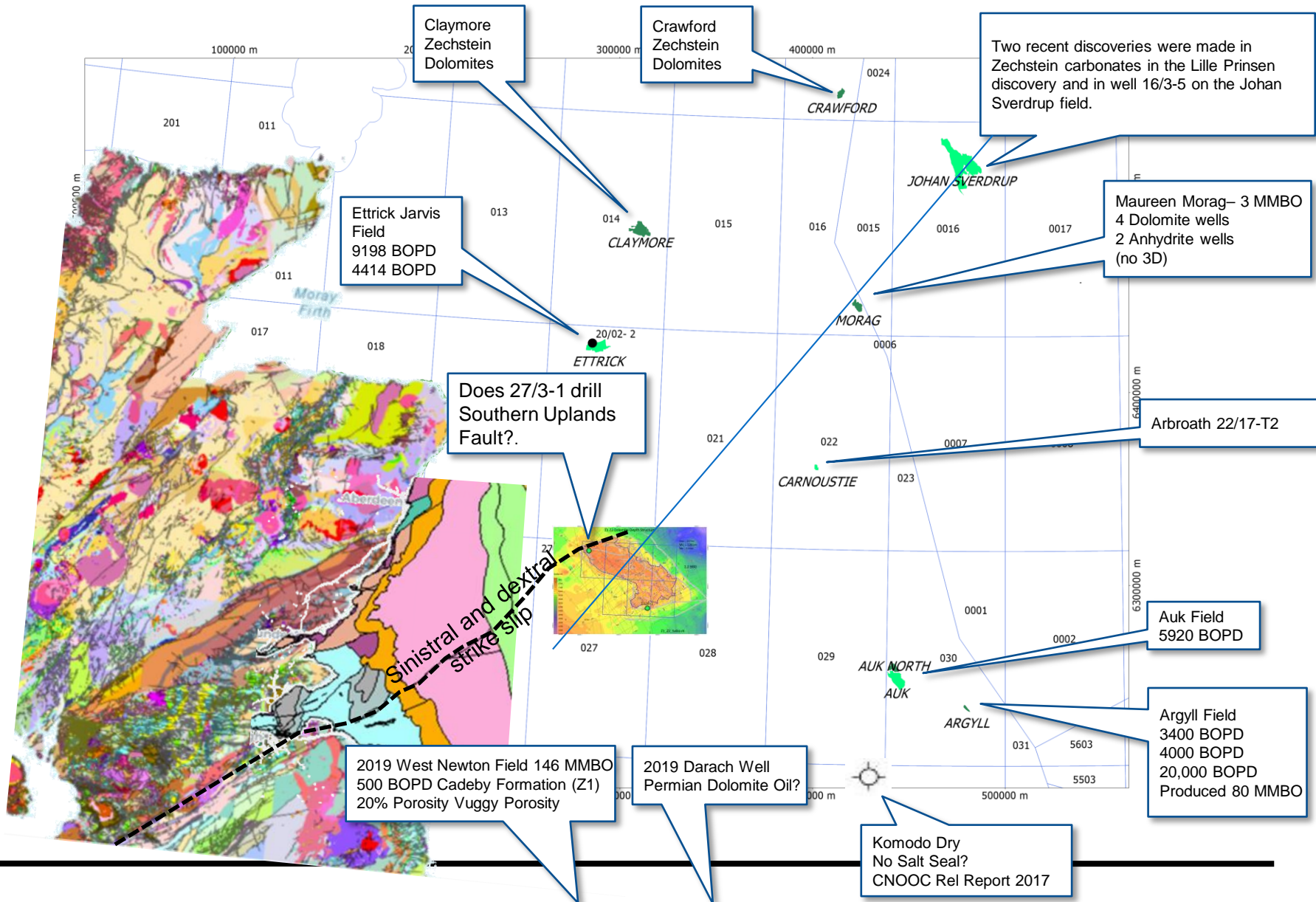
SW Devil's Hole Horst Oil Discovery 1.4 BBO Resources

Johan Sverdrup Oil Field 2.7 BBO Reserves

NE

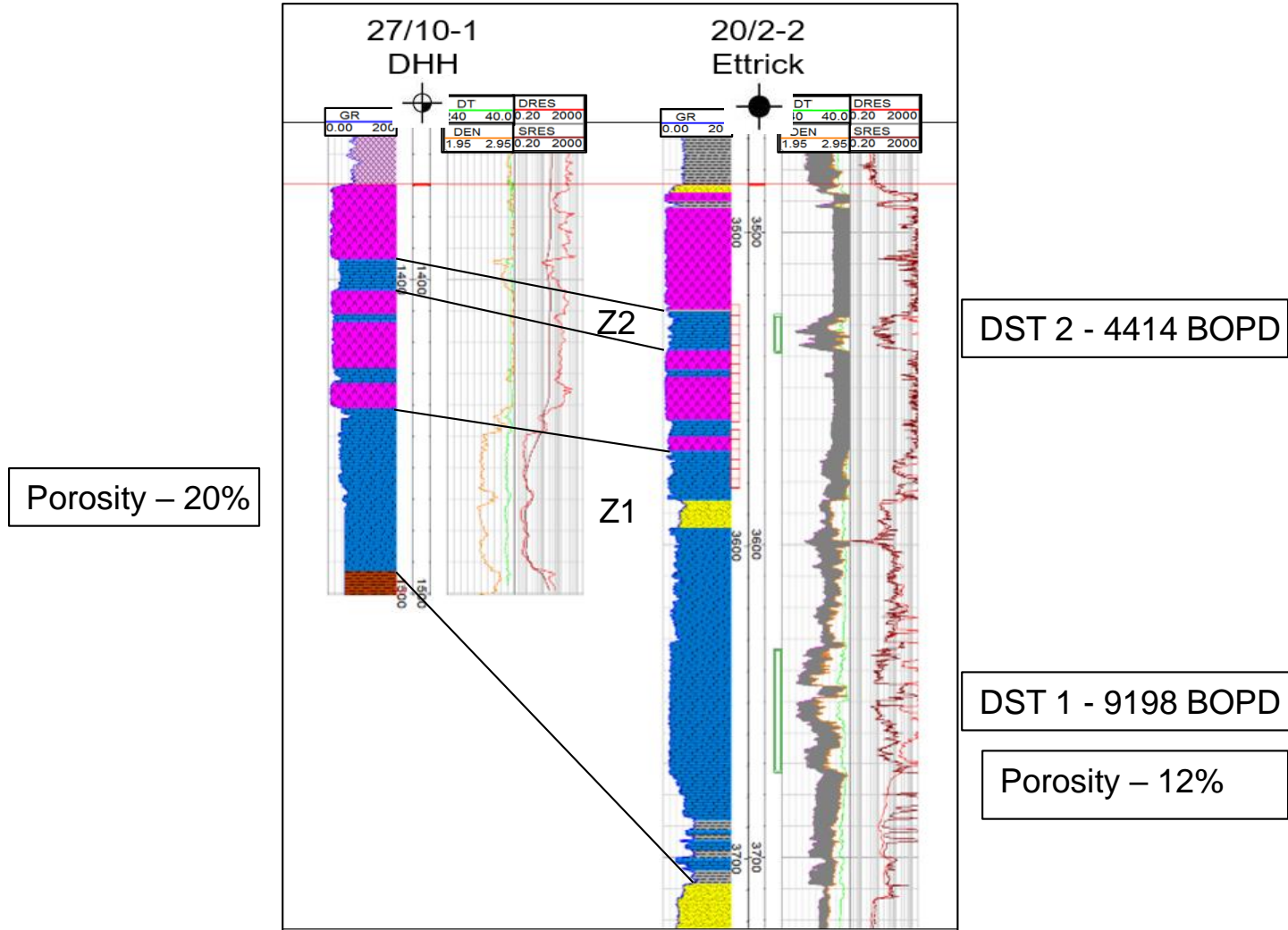


DHH - Proven Permian Reservoirs



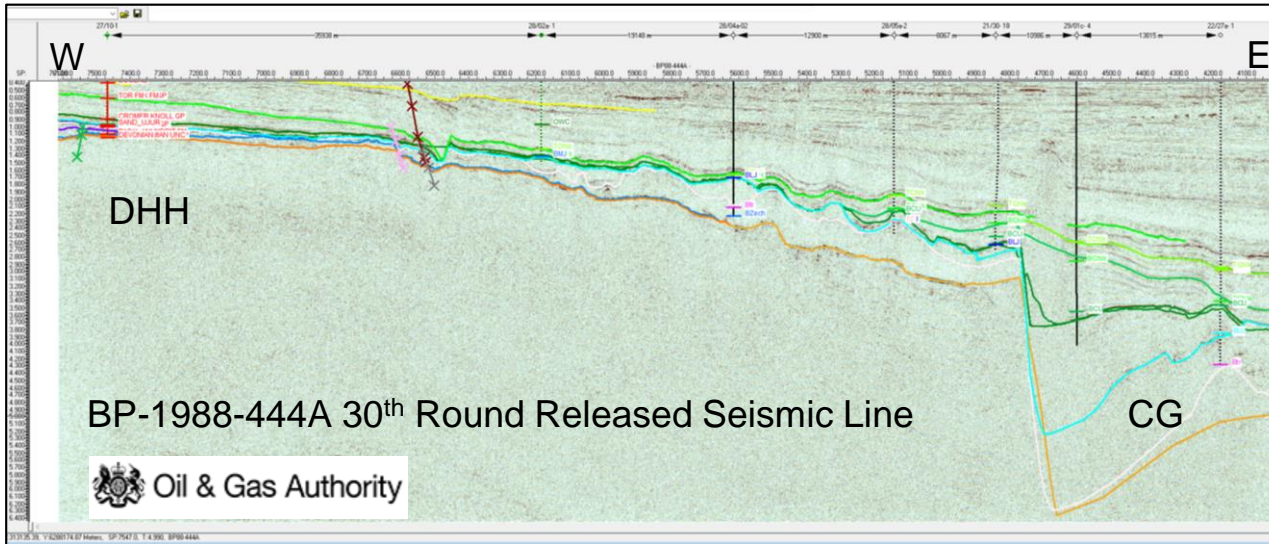
DHH - Well Correlation

27/10-1 DHH well and Ettrick (Jarvis) Well.

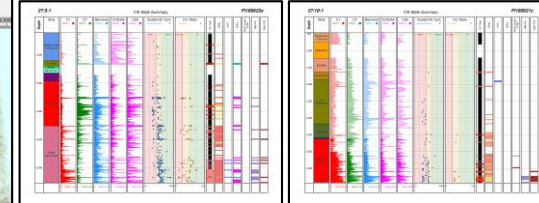


DHH - Derisked

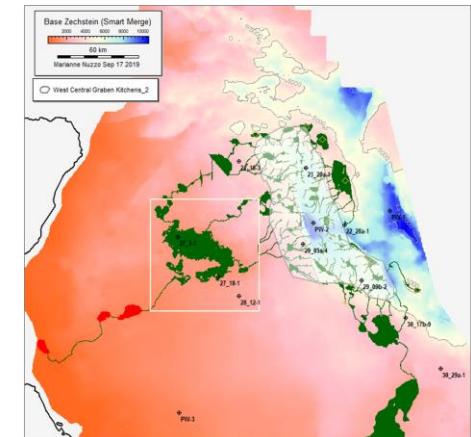
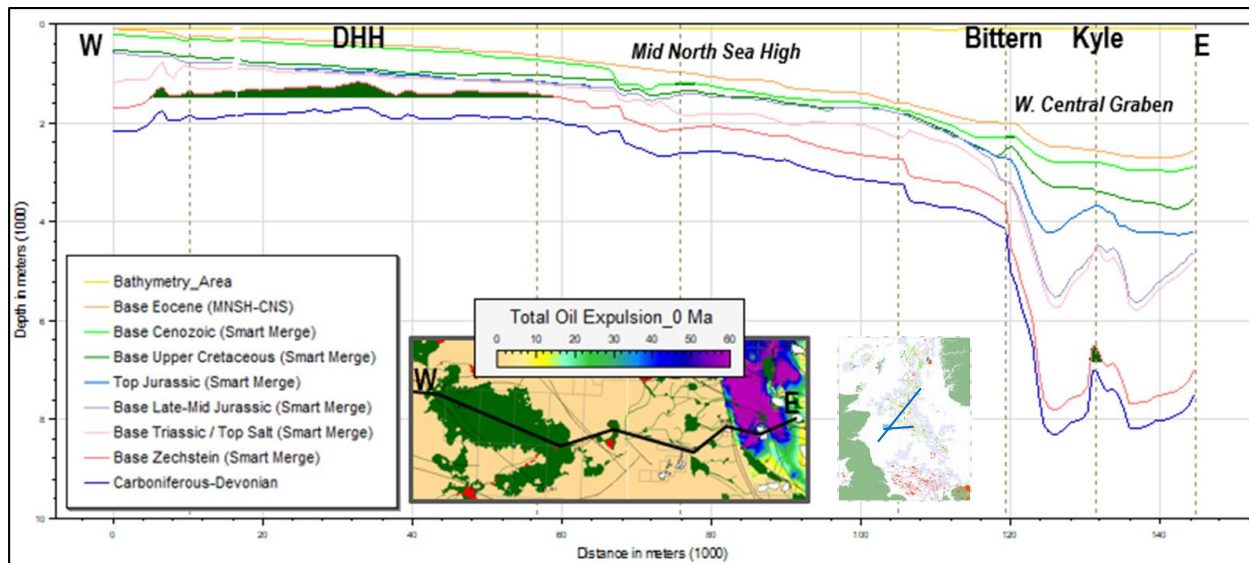
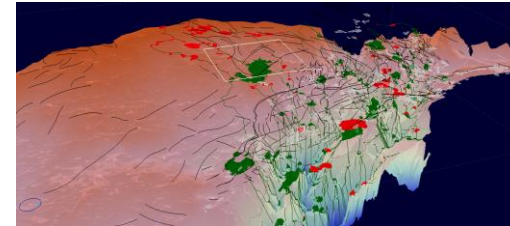
FI and Geochem Jurassic Source and Oil Migration Studies - IGI Talk on at 14:40

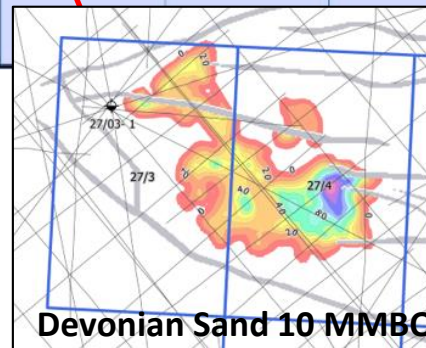
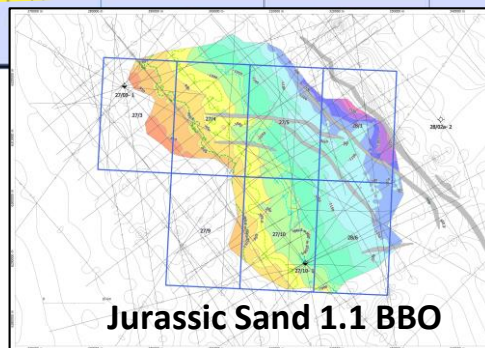
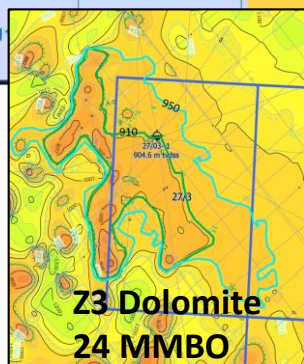
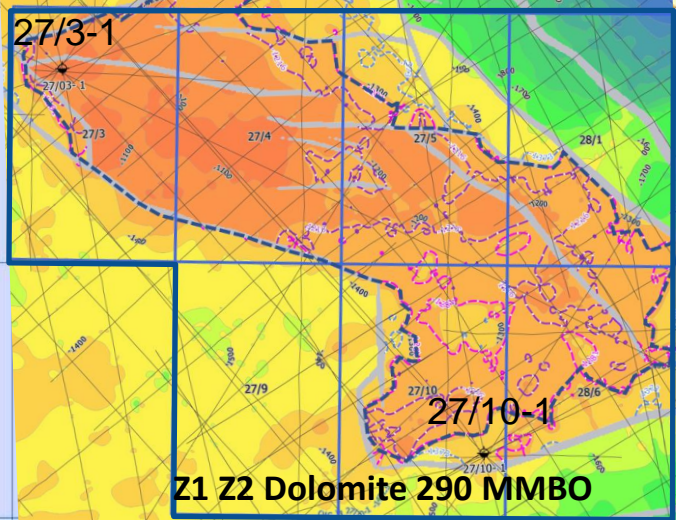
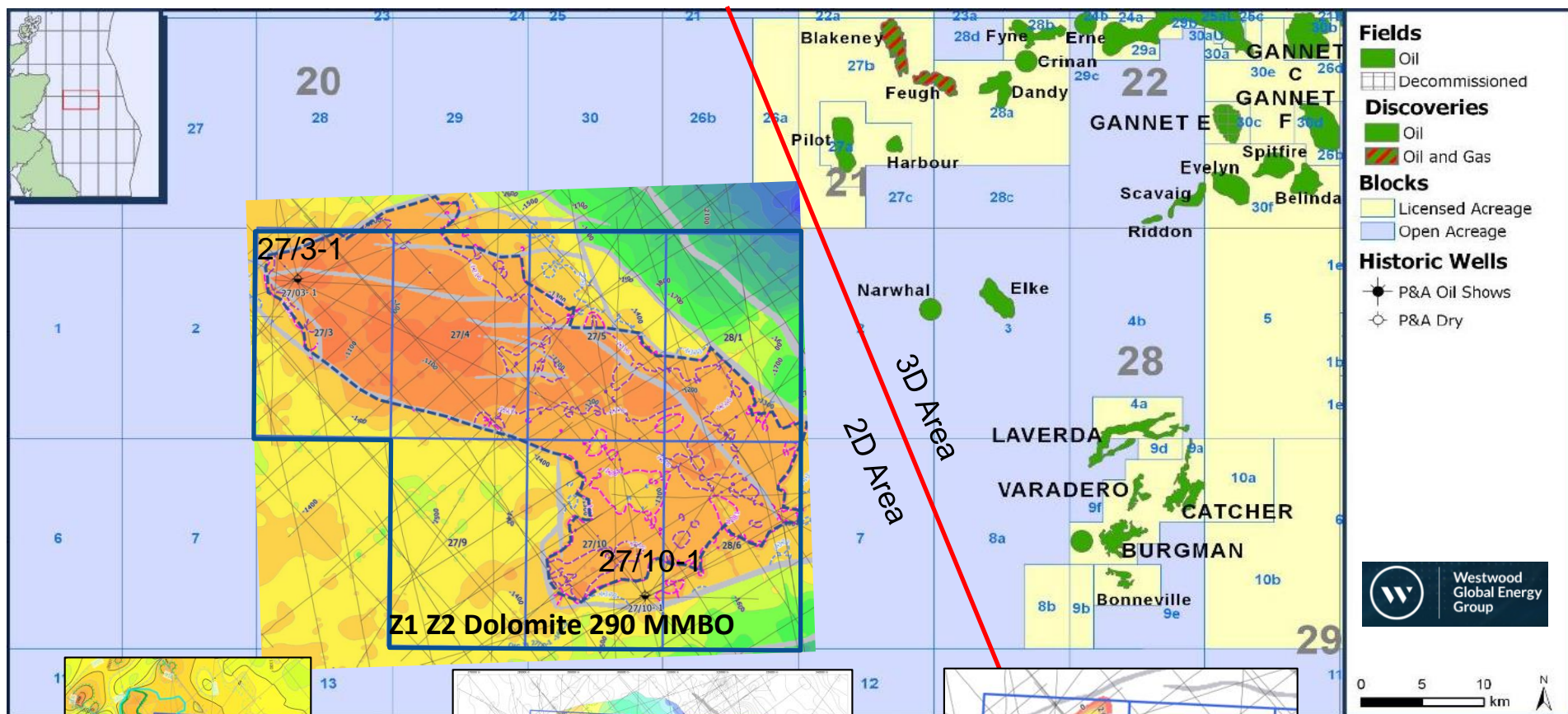


DHH Well Fluid Inclusions



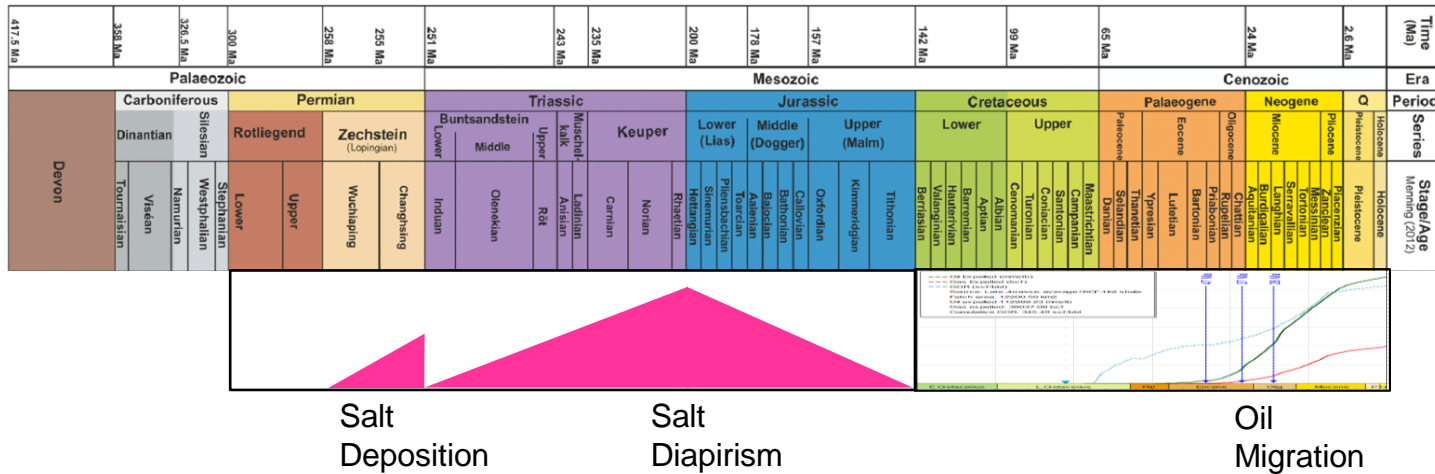
3D NE view of Oil Migration



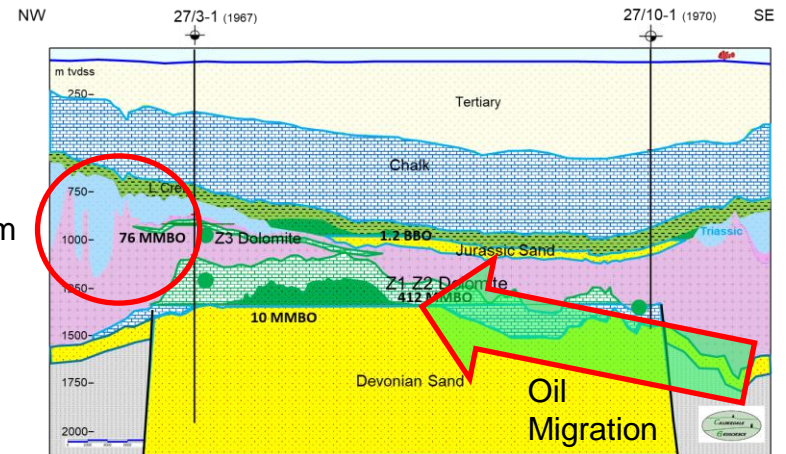
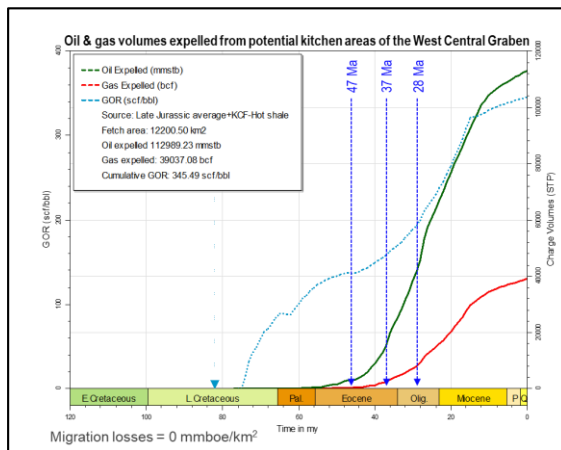


DHH – Geological Timing of Salt Diapirism and Oil Migration

No diapiric salt and thicker Reef Carbonates and Dolomites deposited on buoyant Horst
Connected Dolomites allow oil migration across structure and further westwards.

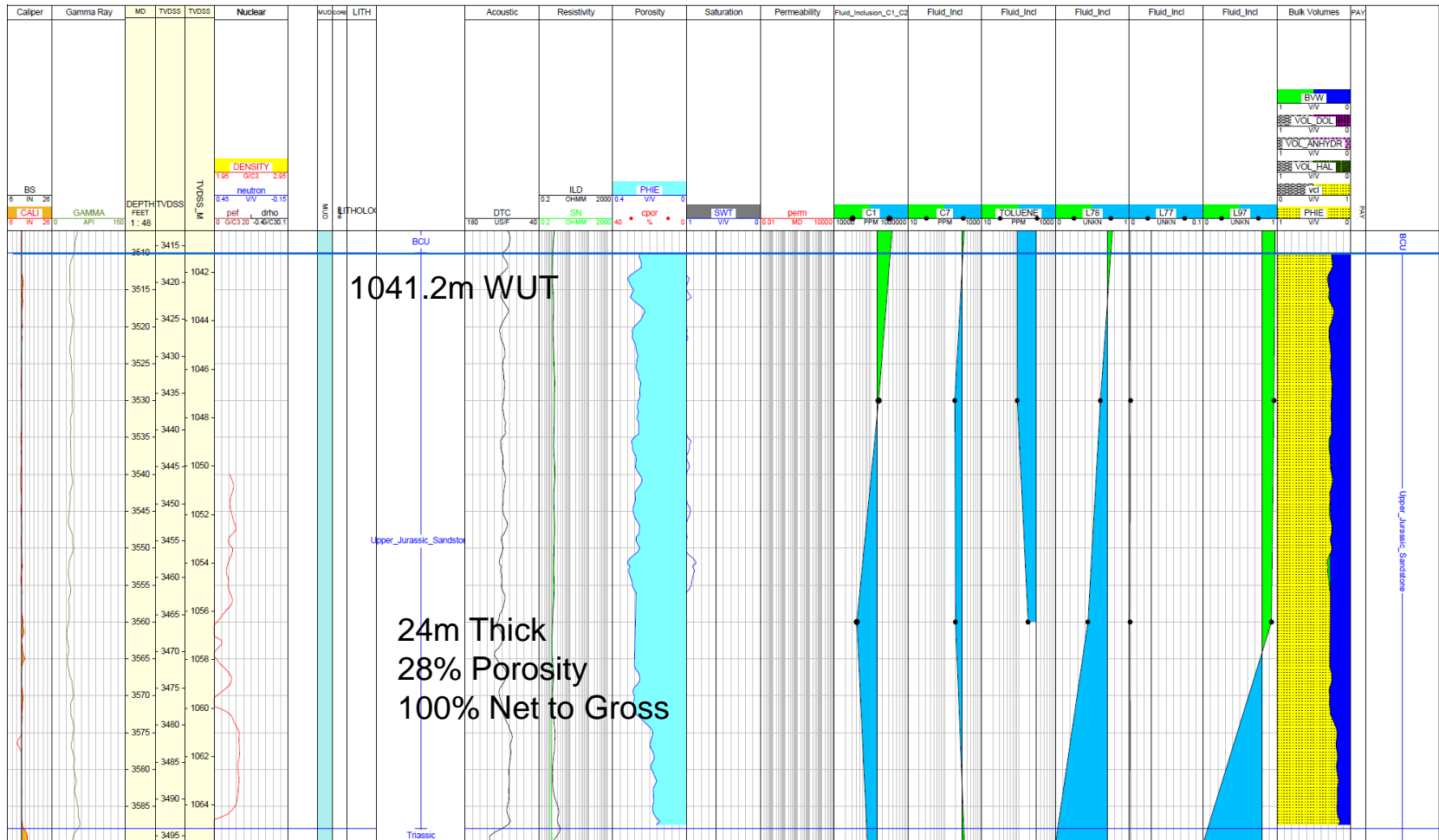


Oil Migration timing



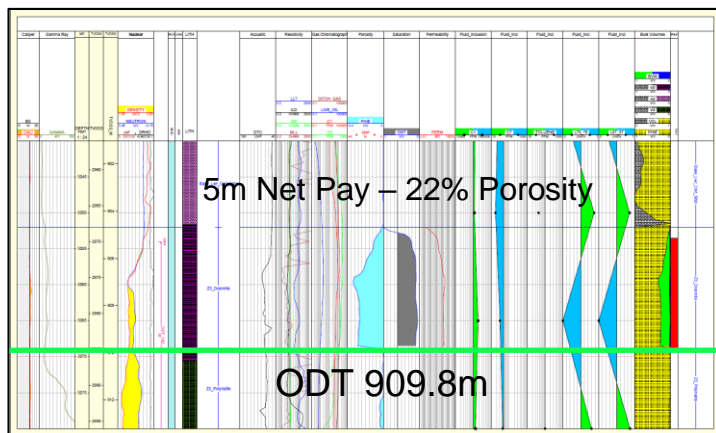
DHH – Petrophysics - 27/10-1 Jurassic Sand

27/10-1

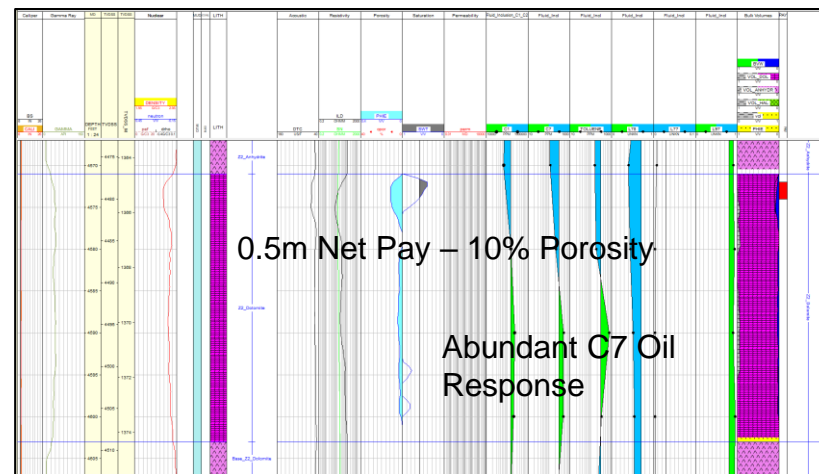


DHH - Petrophysics - 27/3-1 and 27/10-1 Permian Dolomites

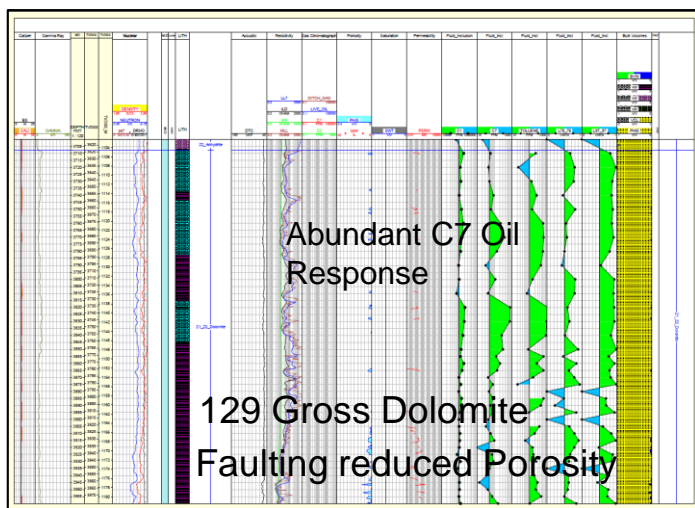
27/3-1



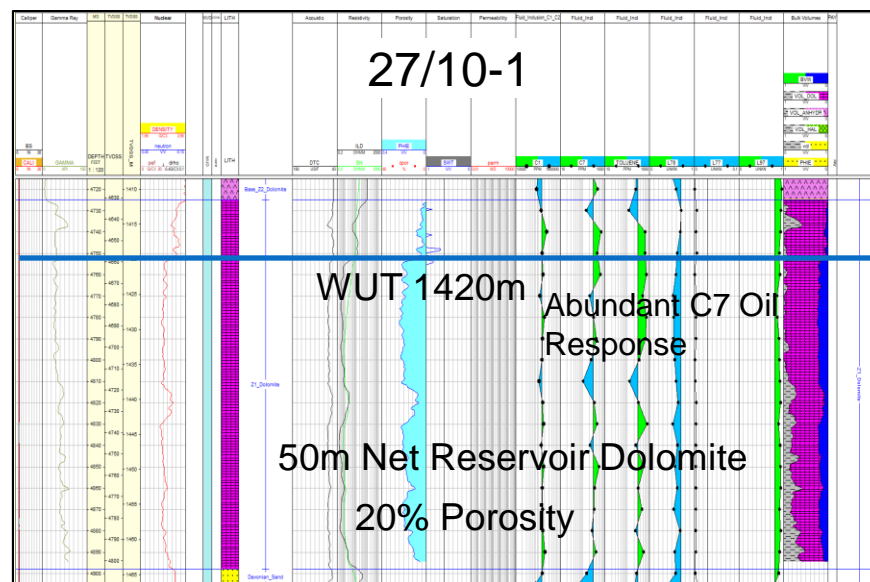
27/10-1



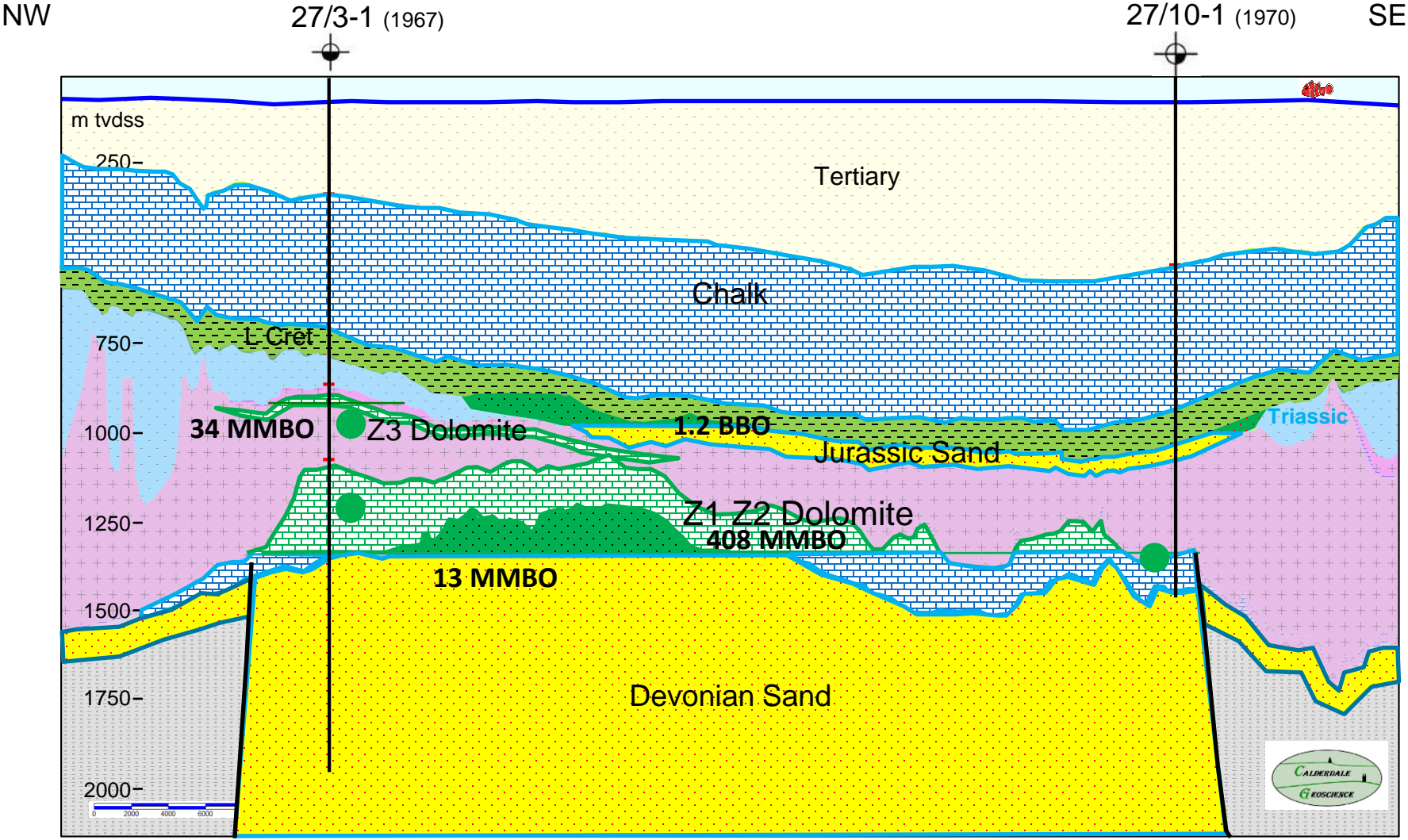
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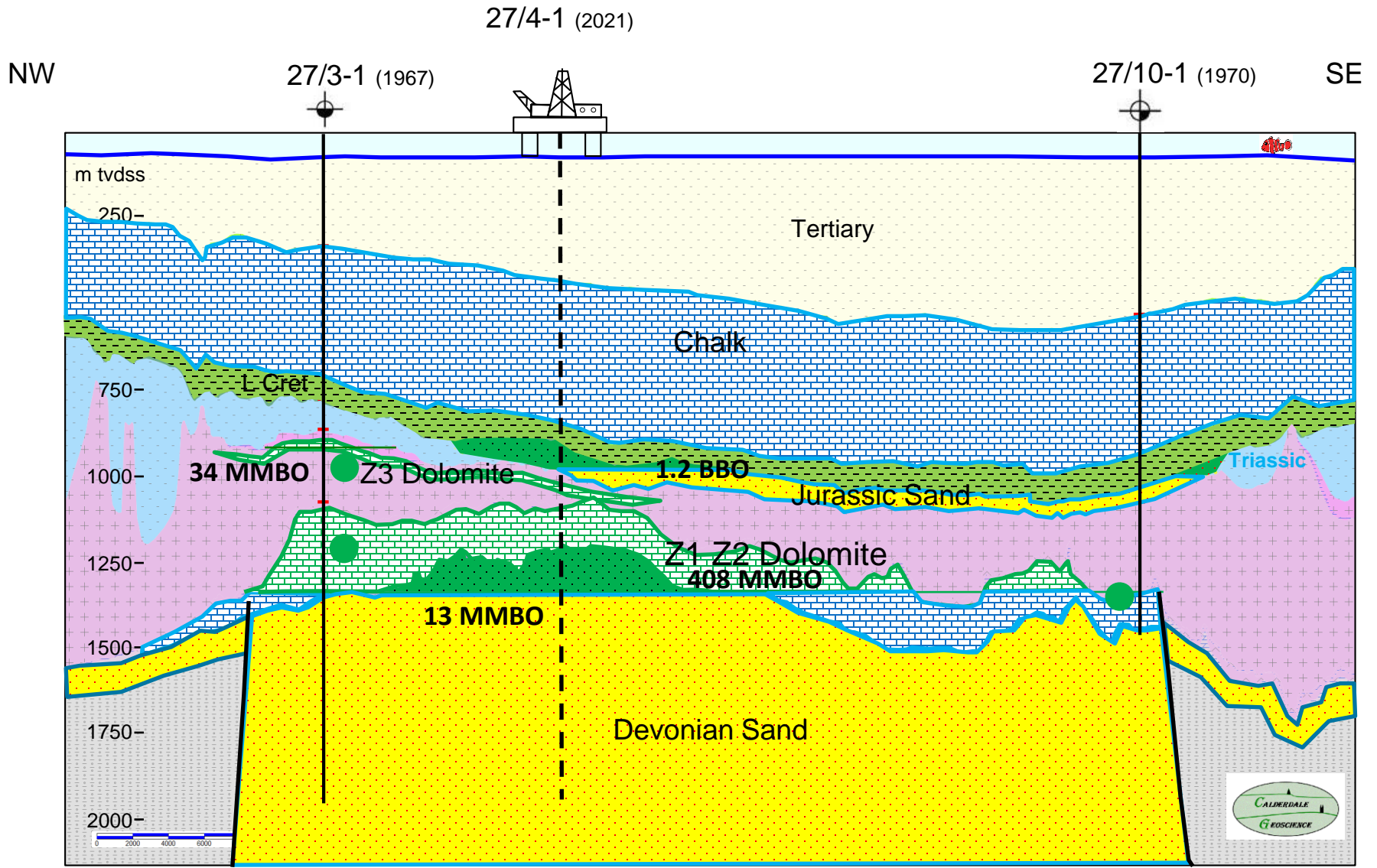
27/10-1



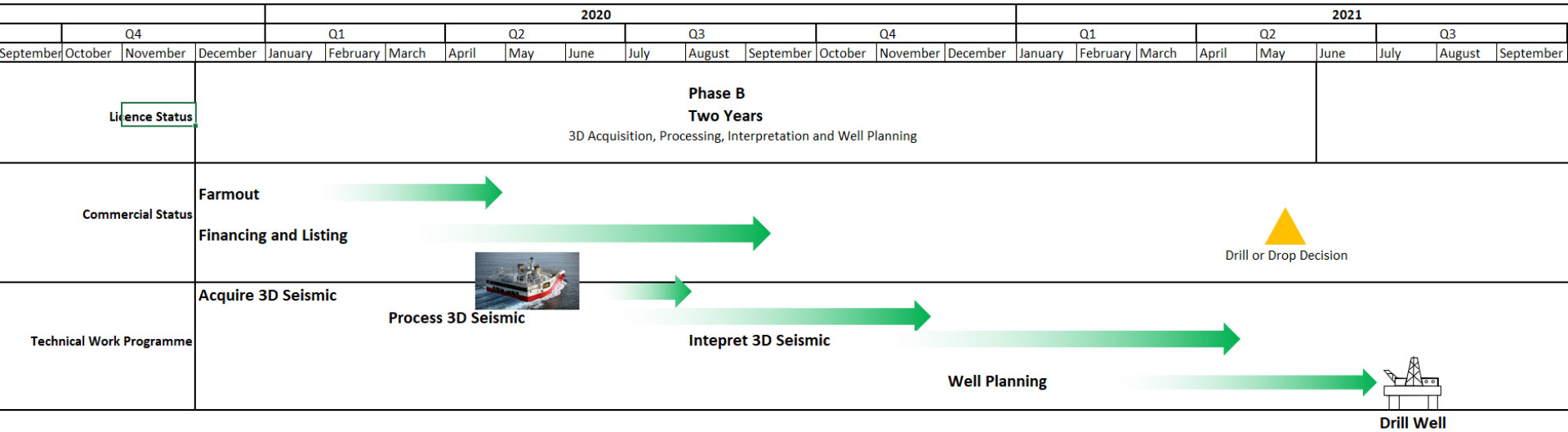
DHH - A rare opportunity in a mature basin.



DHH – Appraisal Well Concept



DHH – Timetable



- DHH is the biggest undeveloped Oil Discovery opportunity on the UKCS
 - Estimated Resource Range - 0.6 – 1.4 – 1.7 - 3.1 BBO.
 - Vintage wells drilled in the wrong place – 1967 well drills major fault zone. 1970 well drills too far downdip.
 - Two Wells, Fluid Inclusions and Oil Migration Modelling all derisk prospect.
 - 3D Seismic acquisition planned 2020 – Well planned 2021
 - **DEADLINE FOR SUBMISSIONS OF FARM IN OFFERS IS 31ST JANUARY 2020**
 - Any Questions?
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