

# Triassic

## New upside in the northern Dutch offshore

The Triassic play in the northern Dutch offshore remains underexplored, although it is a proven play elsewhere in the Southern North Sea. Numerous Triassic leads have been identified recently in the open A09 and A11 blocks, which are located in proximity of infrastructure.

Within the A09 and A11 blocks several leads can be drilled from a single location. There is a strong risk-dependency between the leads and a discovery would de-risk and open up a significant portfolio and volume.

Despite modest in-place volumes per individual lead, the aggregated volumes are substantial and could warrant economic development in case of success.

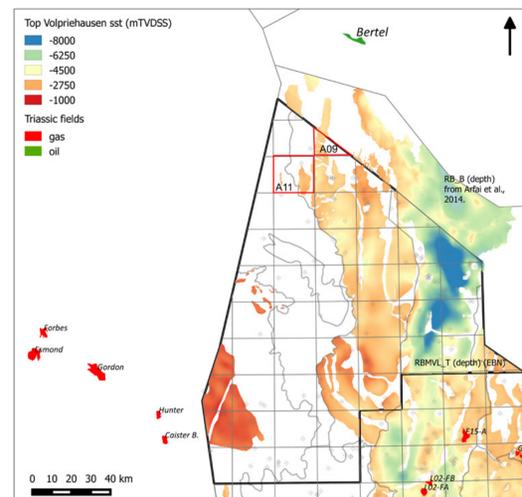


Figure 1. Good geological understanding at the regional play level. Extensive 3D and 2D seismic coverage over Triassic leads. All data is publicly available.

## Triassic opportunities in A09 and A11

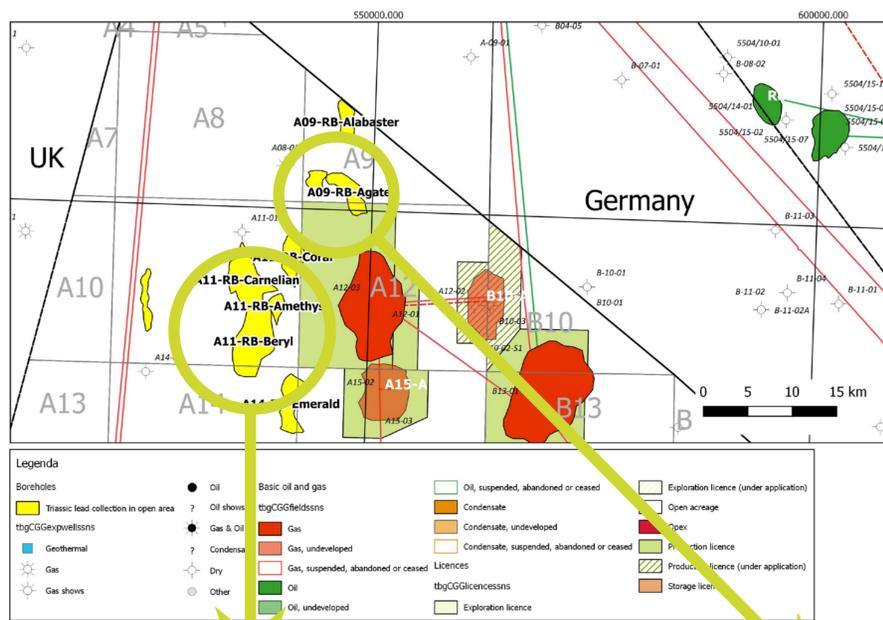


Figure 2. Triassic leads

### Probability of success Triassic play elements

- |                                       |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Structure</b>                      | 80% | <ul style="list-style-type: none"> <li>Seismic data supports the presence of traps</li> </ul>                                                                                                                                                                                                                                                                                                                                                       |
| <b>Charge &amp; migration</b>         | 80% | <ul style="list-style-type: none"> <li>Wells A09-01 and UK 39/07-01 drilled 30m and 23m of coal respectively, proving the presence of Lower Carboniferous gas-prone source rocks. The presence of high contrast seismic facies suggests the presence of coal and allows regional mapping of these coal intervals</li> <li>Basin modelling: source rock currently in gas maturity window</li> <li>Zechstein windows to allow HC migration</li> </ul> |
| <b>Seal presence &amp; efficiency</b> | 50% | <ul style="list-style-type: none"> <li>Seismic interpretation supports the presence of Röt salt (bright reflector), which is a proven seal</li> <li>Well data is scarce and overpressures may have caused seal breach or limitation of hydrocarbon column</li> </ul>                                                                                                                                                                                |
| <b>Reservoir presence</b>             | 90% | <ul style="list-style-type: none"> <li>Adequate reservoir rock parameters successfully tested in nearby wells</li> <li>Seismic data shows the presence of local depocentres</li> </ul>                                                                                                                                                                                                                                                              |

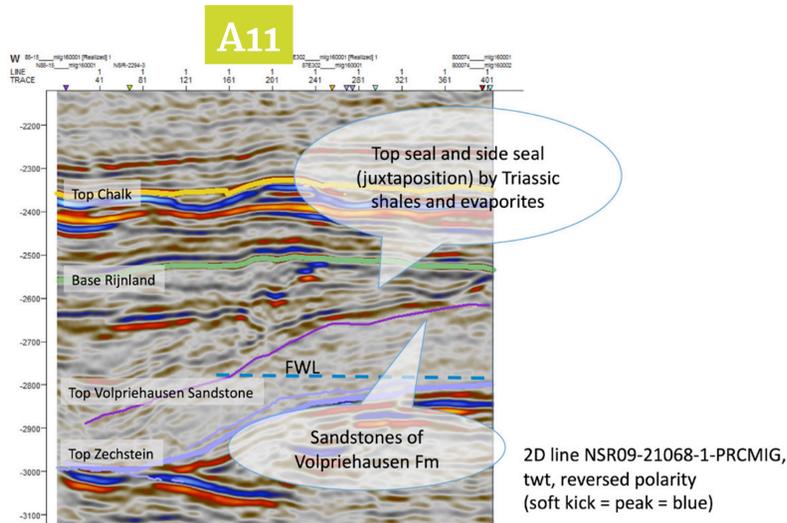


Figure 3. A11-RB-Beryl structure.

Riskd recoverable bcm	P90	P50	P10
A11-RB-Beryl	0.1	0.3	0.8
Total in block	0.5	2.3	5.5

A11 is covered by 2D high density seismic data and partly by 3D seismic data  
POSp A11-RB-Beryl: 35%

A successful first well would open up the portfolio and the combination of at least two discoveries per block would warrant a multi-well, stand-alone platform development concept.

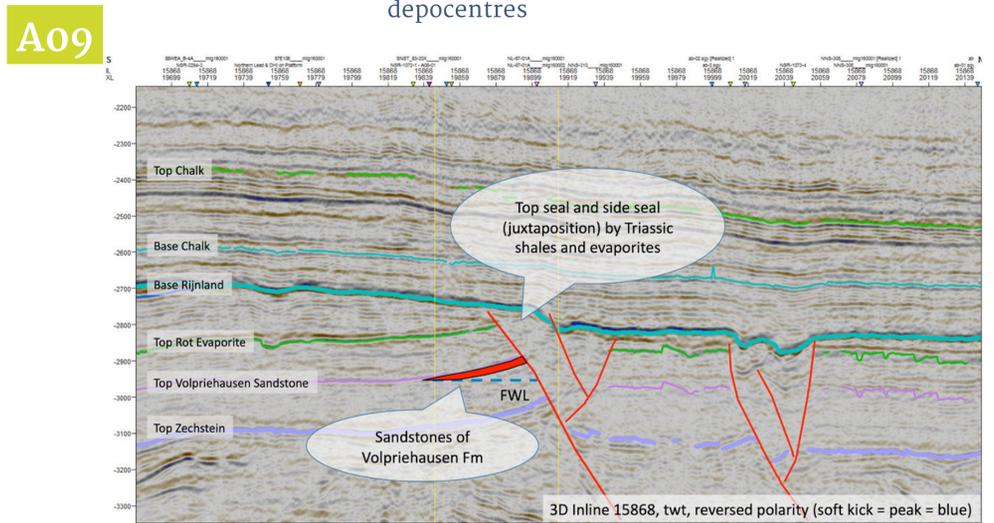


Figure 4. A09-RB-Agate structure.

Riskd recoverable bcm	P90	P50	P10
A09-RB-Agate	0.1	0.3	0.8
Total in block	0.5	1.5	4.4

A09 is covered by 3D seismic data  
POSp A09-RB-Agate: 22%

In case of success, A09 or A11 could support a stand-alone development. The prospects can be drilled with deviated wells from a single, central platform location. An alternative option would be a tie-back to the A12 facilities in case A09 volumes < P50 volumes.