



IGas Energy PLC

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PEDL 185 Relinquishment Report

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1. LICENCE INFORMATION

Licence Number: PEDL 185
 Licence Round: 13th Onshore Licencing Round
 Licence Effective Date: 1st July 2008
 Licence Type: Land
 Block Number: SJ33, SJ44
 Operator: Dart Energy (West England) Limited
 Licensees: Dart Energy (West England) Limited 75%
 Engie E&P UK Limited 25%

Dart Energy (West England) Limited, (a member of the IGas Energy group of companies) confirms that all permissions to publish this report have been obtained.

2. LICENCE SYNOPSIS

The licence was originally awarded to Composite Energy Limited and BG International Limited in the 13th onshore licencing round on the 1st July 2008. The licence was assigned several times, and in 2013 the current licence group were assigned licence and working interests as shown above. The location of PEDL 185 is displayed in Figure 1.

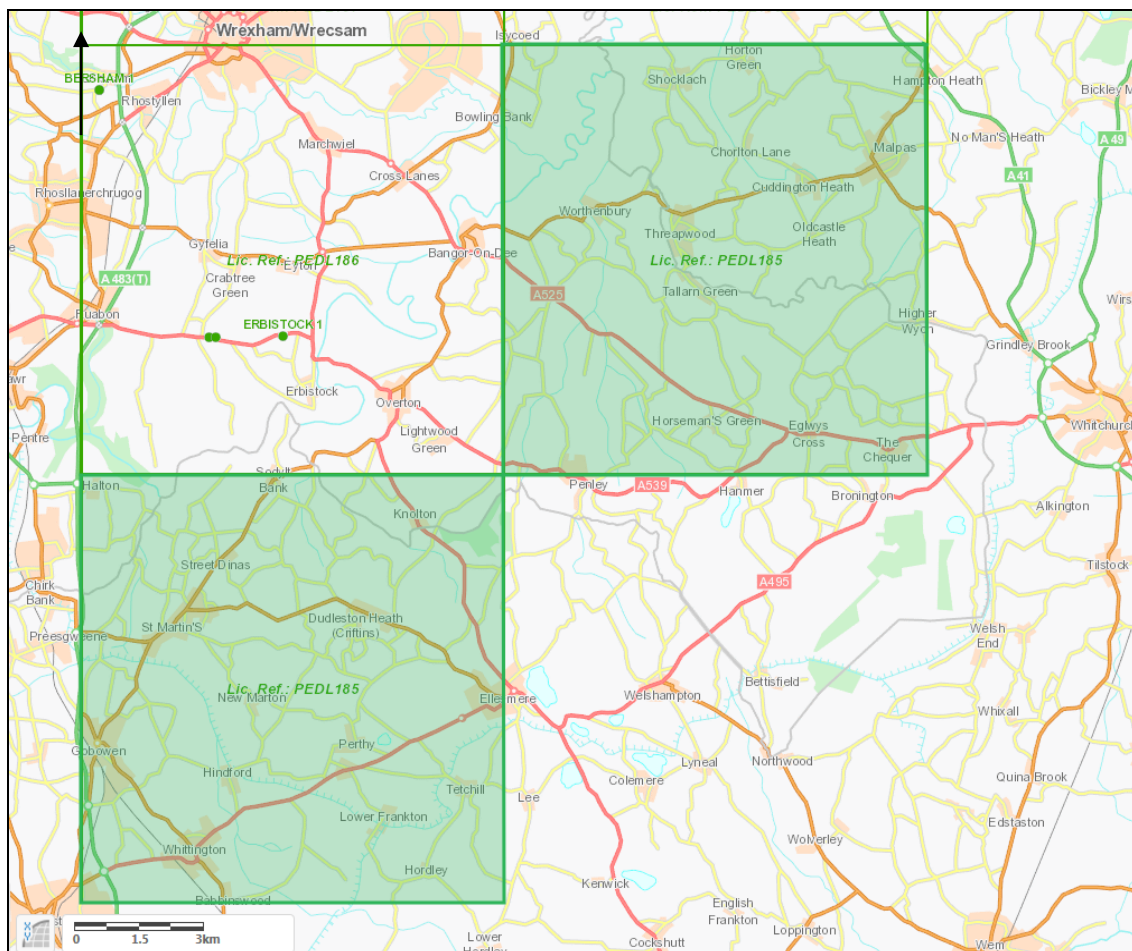


Figure 1 PEDL 185 Location Map

The primary reason for applying for PEDL 185 was to assess the CBM potential within the licence area.

The initial term work obligations:

- Obtain 40km of 2D seismic data
- Reprocess 20km of 2D seismic data
- Drill 1 well on Block SJ33 to a depth of 600m
- Drill 1 well on block SJ44 to a depth of 800m

The licence group have not been able to meet the initial term work programme due to circumstances beyond their control.

3. WORK PROGRAMME SUMMARY

352km of 2D seismic data was obtained from UKOGL and 157km over 17 lines was reprocessed by Seismic Image Processing (SIP) in 2015 with the remainder considered unprocessable or of too lower fold to warrant further review.

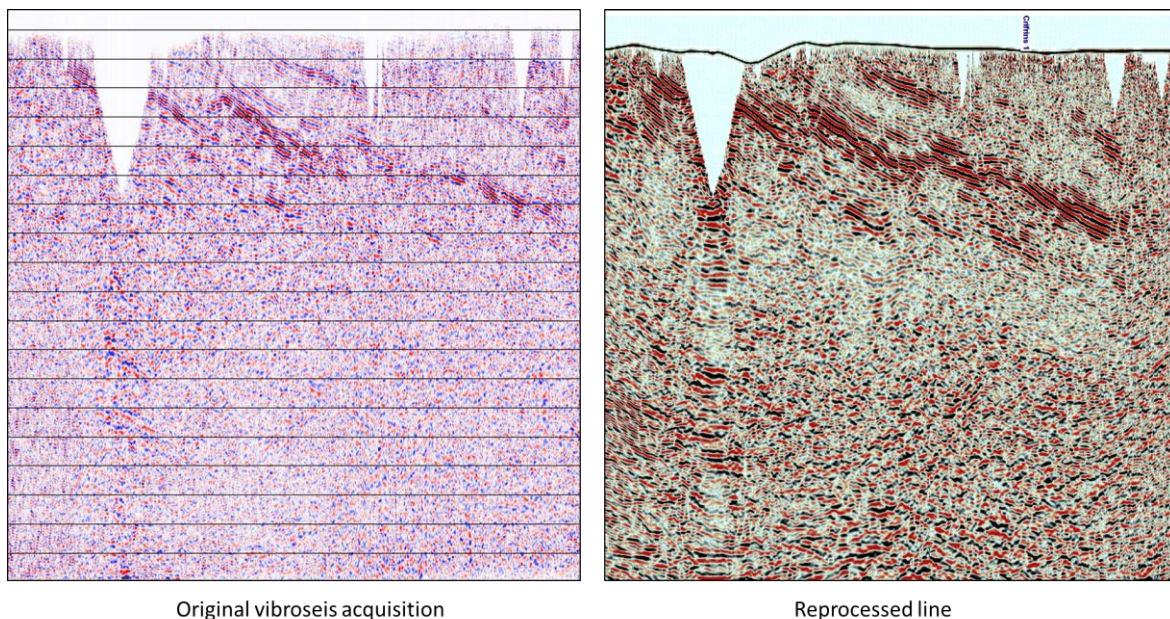


Figure 2 Pre and post reprocessed seismic line BP-83-110

The reprocessed line locations can be observed in Figure 3 below.

Following the reprocessing of 2D seismic data, no additional seismic data was acquired and no further wells were drilled.

4. DATABASE

The following lines in green were reprocessed or assessed for reprocessing.

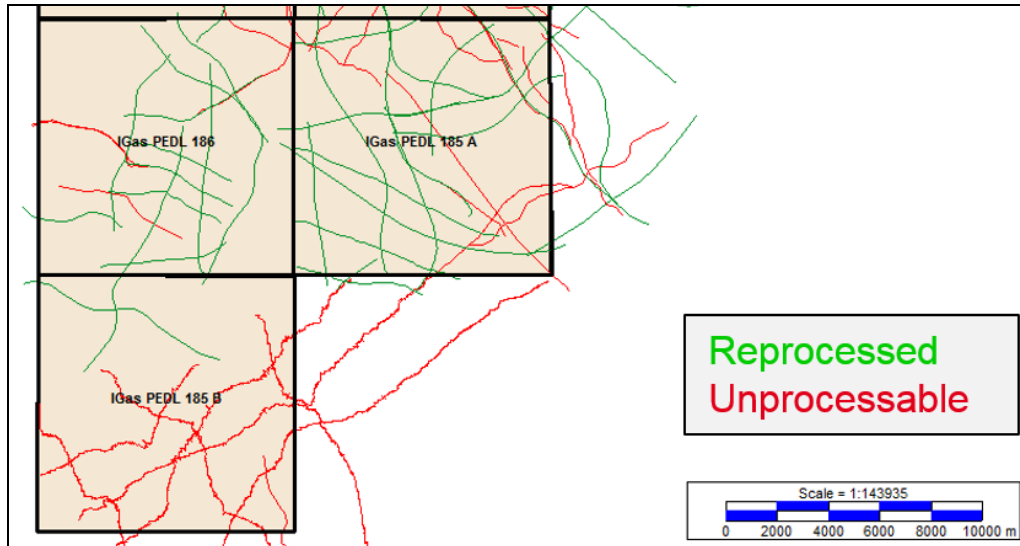


Figure 3 Seismic lines reprocessed as well as those considered unprocessable

No wells have been drilled in this licence to date.

5. PROSPECTIVITY UPDATE

Using the closest offset well, Erbistock-1, a stratigraphic column has been created for PEDL 185 and can be seen in Figure 3.

PEDL 185 Stratigraphic Column.

Key Offset Wells: Erbistock-1



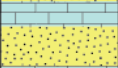

System	Stage	Substage	Formation	Lithology	Formation Tops
CARBONIFEROUS	WESTPHALIAN	LANGSETTIAN - BOLSOVIAN	Pennine Coal Measures Group		Top Westphalian D
					Top Westphalian C
					Top Westphalian B
					Top Westphalian A
	NAMURIAN				Top Brigantian
	VISEAN	BRIGANTIAN			
		ASBIAN			Top Asbian

Figure 4 Stratigraphic column expected in PEDL 185

The original licence application was submitted with the intent of assessing CBM targets within the Westphalian interval.

Existing 2D seismic was reprocessed with the intent to reduce risk.

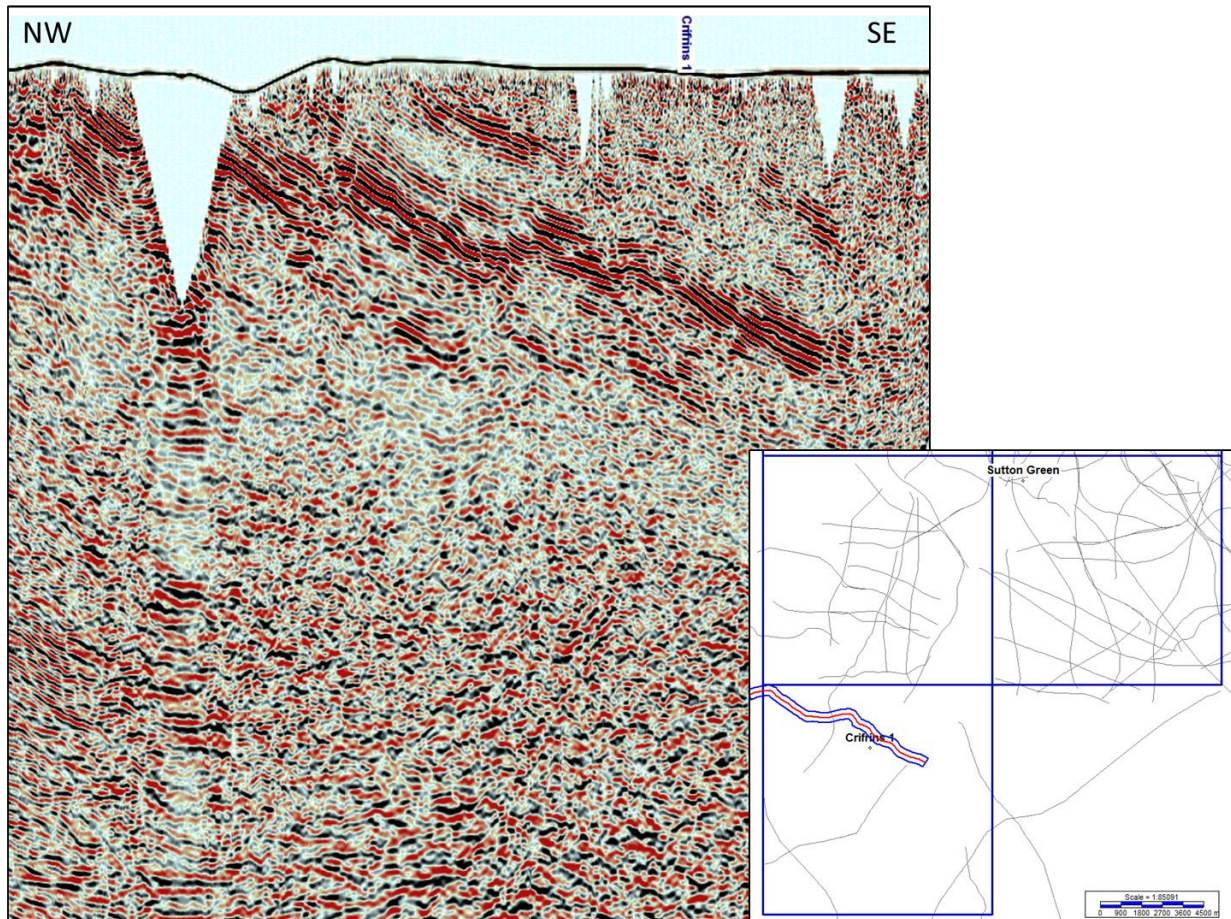


Figure 5 Seismic line BP83-110

No wells have been drilled on this licence, therefore identified structures have not been tested to date.

6. FURTHER TECHNICAL WORK UNDERTAKEN

Site locations were shortlisted as potential drill sites, however to date no wells have been drilled on the licence.

Dart Energy does not believe that there is sufficient prospectivity in PEDL 185 to warrant further technical work at this time. However, further exploration of the surrounding licence blocks may indicate the presence of shale or other hydrocarbon-bearing formations.

7. RESOURCE AND RISK SUMMARY

When investigating unconventional potential, it was found that PEDL 185 is located over a carbonate platform and margin setting during much of the Asbian and Lower Brigantian. Southerly sources pro delta and delta top facies are observed in the Upper Brigantian, Pendleian and Arnsbergian.

A CBM prospectivity report was completed by the Operator and the licensee in 2016. Coal Bed Methane prospectivity was analysed across the Dart Energy – Engie joint operated licence in PEDL 185. Four primary coal seams were identified over the north-west Cheshire area; the Two Yard, Main, Fireclay and the Nant. These four seams were identified as primary due to their good lateral extent and moderate thicknesses.

Secondary coal seams have been identified over the North West in the Cheshire area; the Upper Stinking, Lower Stinking, Powell, Brassy and Lower Yard. These five seams were identified as secondary due to their smaller lateral extents. Average primary coal seam thickness is approximately one and a half metres throughout the Cheshire area. Methodology for determining net coal seam thickness (*Figure 4*) is detailed in the *CSG Prospectivity Report*.

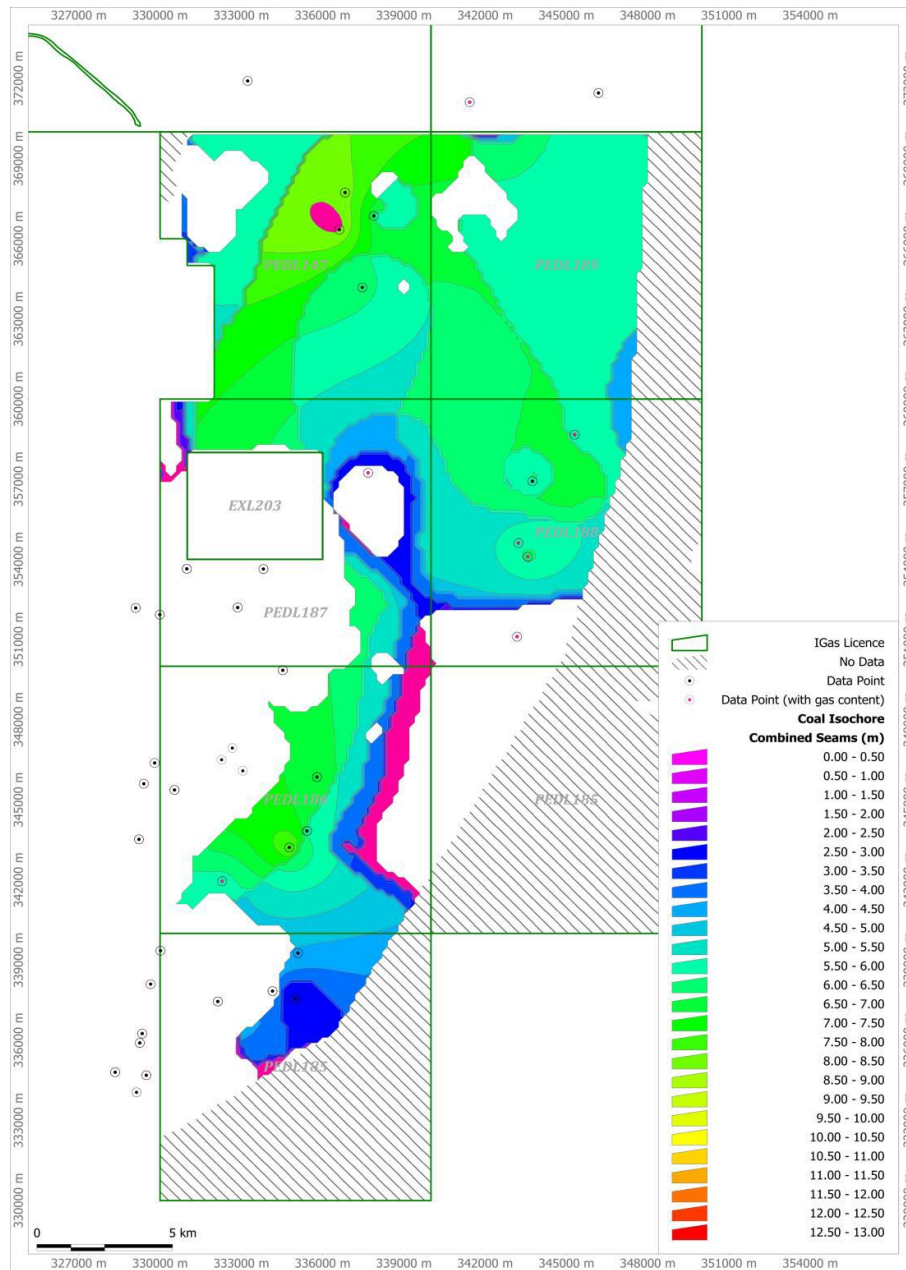


Figure 6 Primary Coal Seam Thickness (m)

The CSG Prospectivity Report concluded that the Cheshire area has low prospectivity due to insufficient coal volumes and lower than commercially viable coal seam gas content.

	Discovered Original Gas-in-Place (BCF)			Unrisked Contingent Gas Resources (BCF)					
				Gross (100%)			Net		
PEDL	Low Estimate	Best Estimate	High Estimate	Low Estimate	Best Estimate	High Estimate	Low Estimate	Best Estimate	High Estimate
185	367	757	1372	129	416	892	94	303	649

Table 1 Estimates of discovered original gas-in-place and unrisked contingent CSG resources

Following these observations, it was concluded that PEDL 185 offers no further conventional prospectivity and no economically viable unconventional prospectivity.

8. CONCLUSION

PEDL 185 is being relinquished due to lack of prospectivity.
Current economic and geopolitical conditions limit the viability and pace of a field development.

PEDL 185 was included in the BGS Shale Study as it was considered prospective for shale gas. Following the completion of internal technical studies, the Operator does not believe that there is sufficient prospectivity in PEDL 185 to warrant further technical work at this time. However, further exploration of the surrounding licence blocks may indicate the presence of shale or other hydrocarbon-bearing formations.

9. CLEARANCE

The Operator confirms that OGA is free to publish this report and that all ownership rights (on any contained data and / or interpretation) have been considered and appropriately cleared for publication purposes.

10. REFERENCE

- CSG Prospectivity Report – IGas, Engie Licence Assessment (<http://ukogl.org.uk/new-cbm-prospectivity-report/>)
- Dart Energy CPR, Feb 2014
- UKOGL (<http://ukogl.org.uk/>)
- 13th Round Application – Composite
- Erbistock-1 Well Completion Report