

**INFINERGY**

**Pegasus**

Group



**SHEPHERDS' RIG** WIND FARM

ADDITIONAL ENVIRONMENTAL INFORMATION (AEI) II

TECHNICAL APPENDIX A2.1

ASSESSMENT OF CUMULATIVE EFFECTS WITH SCOPING SITES

MARCH 2021

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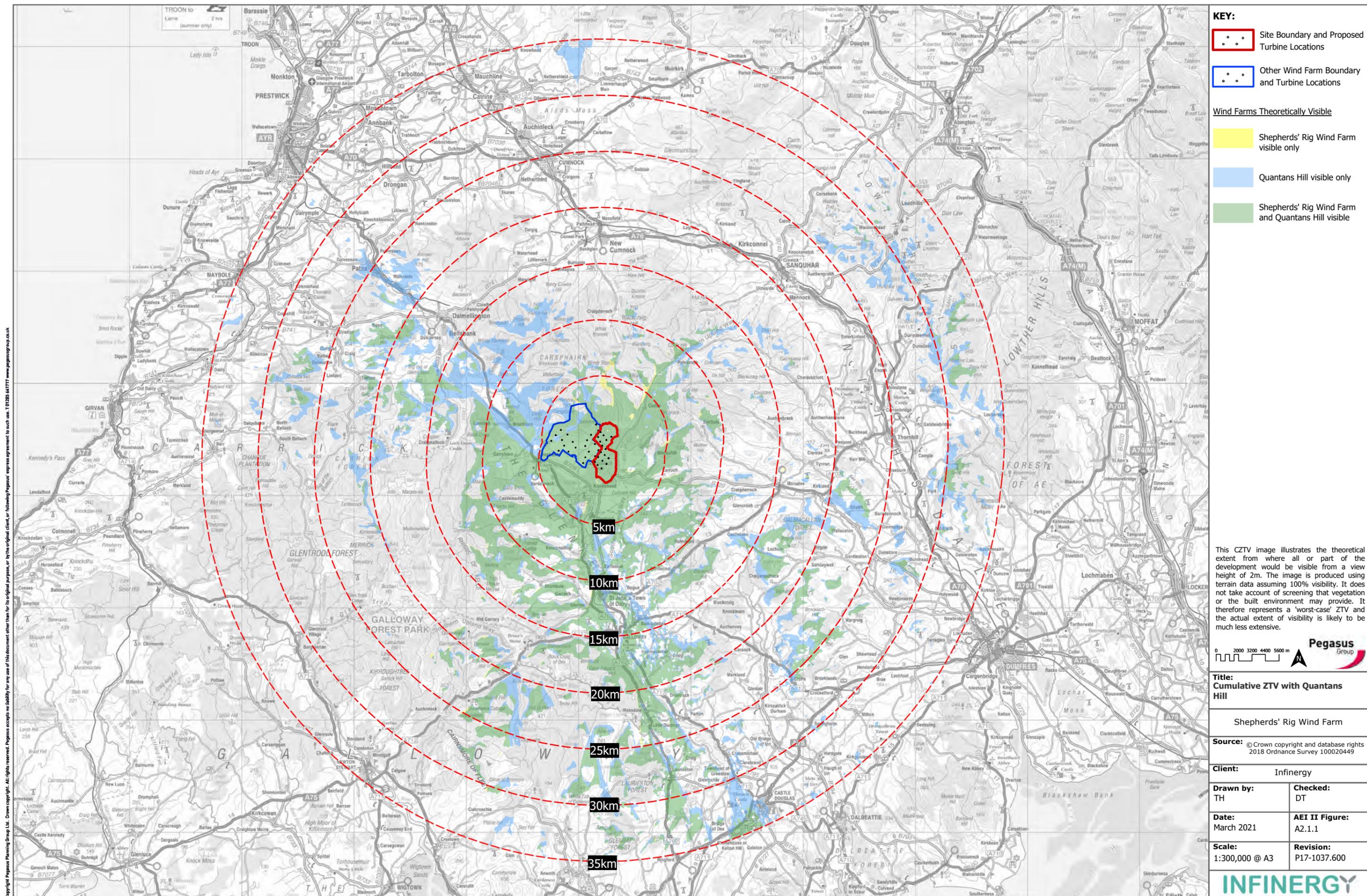
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1. Assessment of Cumulative Effects with Scoping Sites
    - 1.1.1. The current cumulative situation within the 15km detailed study area is illustrated on AEI II Figure 2.1 **'Other Wind Farms within 15km' of this AEI II** submission.
    - 1.1.2. In addition to those schemes which have been considered within the updated CLVIA, it is understood that there are two further schemes within 10km of the site, where either a Scoping Request has been made, or there is **information on the developer's website that a scheme is at an early stage:**
      - Quantans Hill;
      - Glenshimmeroch (Revised Tip Height)
    - 1.1.3. This Appendix therefore considers the scenario whereby these schemes were also to form part of the baseline landscape into which the Revised Development is located in addition to the other operational, consented and proposed schemes considered in the main cumulative assessment.
    - 1.1.4. A cumulative ZTV (CZTV) has been produced to illustrate the theoretical visibility between each of the above schemes and the **Shepherds' Rig Wind Farm** layout (AEI II Figures A2.1.1 – A2.1.2). In turn an updated set of visualisations have been prepared which also show these additional two schemes (AEI II Figures A2.1.3 – A2.1.24), as have 360-degree wireframes at six more elevated viewpoint locations (AEI II Figures A2.1.25 – A2.1.30).
  - 1.2. Glenshimmeroch (Revised Tip Height)
    - 1.2.1. The main cumulative assessment has already considered the consented Glenshimmeroch scheme of 10no. 149.9m turbines. It is understood that a proposal may be submitted for a revised tip height of 160m-180m for the 10 turbines. It is noted that such a revision would require aviation lighting to be included on the turbines as they would be greater than 150m.
    - 1.2.2. Given the distance between the Glenshimmeroch site and the **Shepherds' Rig Wind Farm** it is not considered the increase in tip height would have the potential to bring about any additional significant cumulative effects beyond those already identified in the main cumulative assessment. For the most part the increase of 10-30m to the tip height of the turbines would not be perceptible when compared to the consented development.
  - 1.3. Quantans Hill
    - 1.3.1. The Quantans Hill scheme lies immediately adjacent to the west of the **Shepherds' Rig Wind Farm and is presently at a scoping stage.** Its proposed scale would be far larger than the Revised Development (potentially by as much as 100m) and would require aviation lighting to be included on the turbines. As can be seen with regard to the alternative version of the visualisations, the scheme would appear in the same part of the view as the Revised Development and would generally be highly noticeable in the landscape.

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**1.3.2.** In this context if the Quantans Hill scheme were already to form part of the baseline landscape the effect of the **Shepherds'** Rig Wind Farm on both landscape character and visual amenity would reduce. This is because views of a much larger wind energy development would already be an established element of this part of the landscape. It is recognised that the overall combined effect would be greater, but the greater part of that effect would arise from Quantans Hill rather than the Revised Development. In particular it is noted that the Quantans Hill scheme lies closer to the Galloway Hills RSA and would be much more prominent in views from it.

2. Figures: Assessment of Cumulative Effects with Scoping Sites



**KEY:**

- Site Boundary and Proposed Turbine Locations
- Other Wind Farm Boundary and Turbine Locations

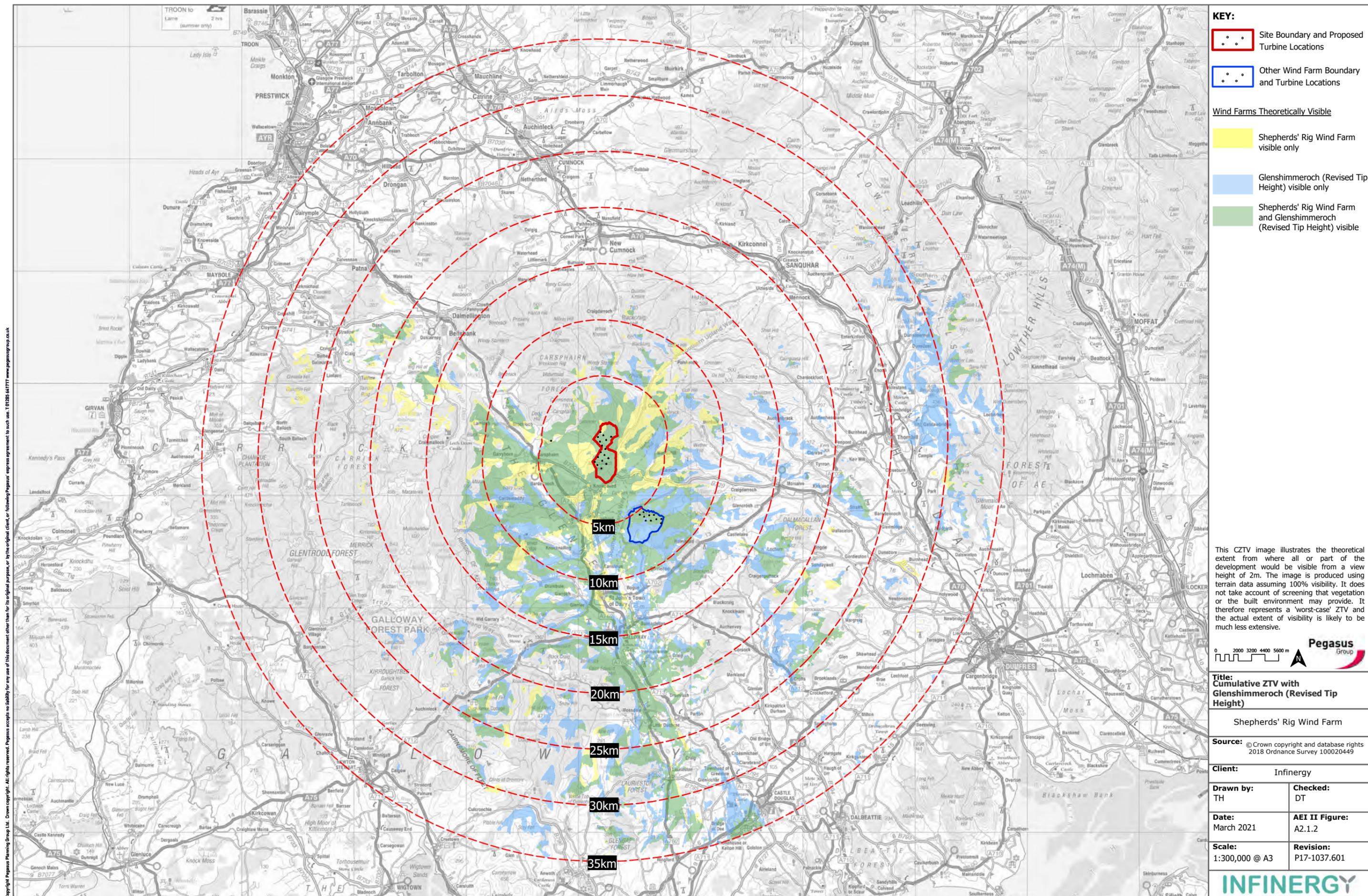
**Wind Farms Theoretically Visible**

- Shepherds' Rig Wind Farm visible only
- Quantans Hill visible only
- Shepherds' Rig Wind Farm and Quantans Hill visible

This CZTV image illustrates the theoretical extent from where all or part of the development would be visible from a view height of 2m. The image is produced using terrain data assuming 100% visibility. It does not take account of screening that vegetation or the built environment may provide. It therefore represents a 'worst-case' ZTV and the actual extent of visibility is likely to be much less extensive.

0 2000 3200 4400 5600 m

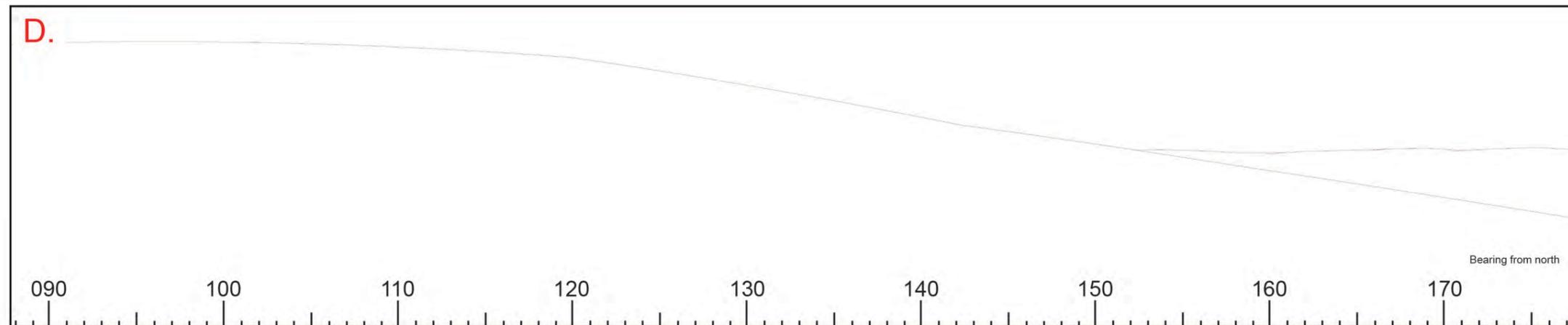
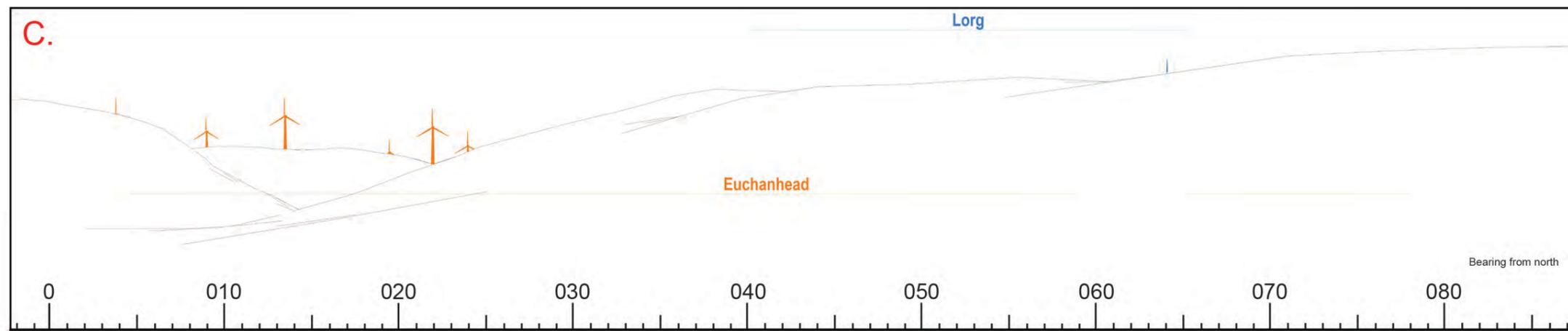
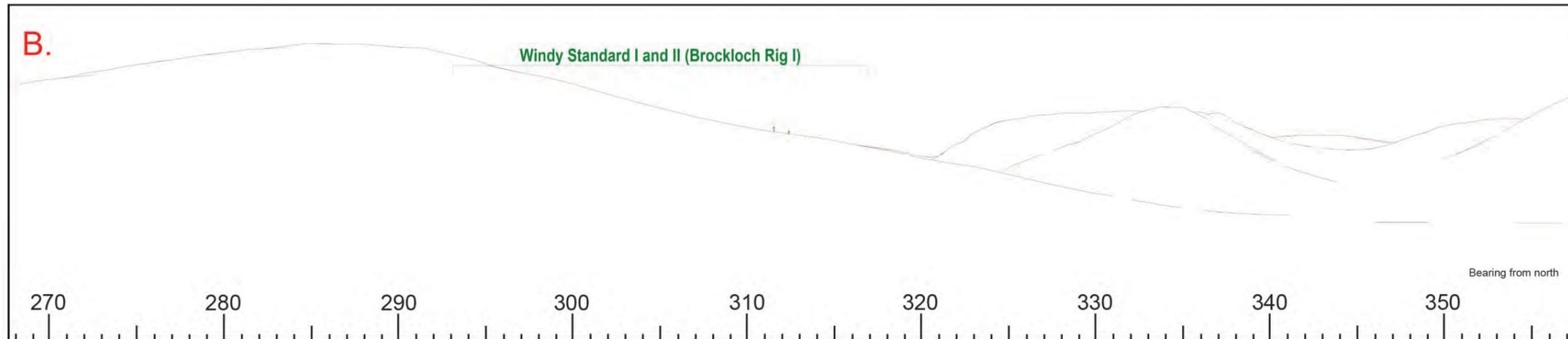
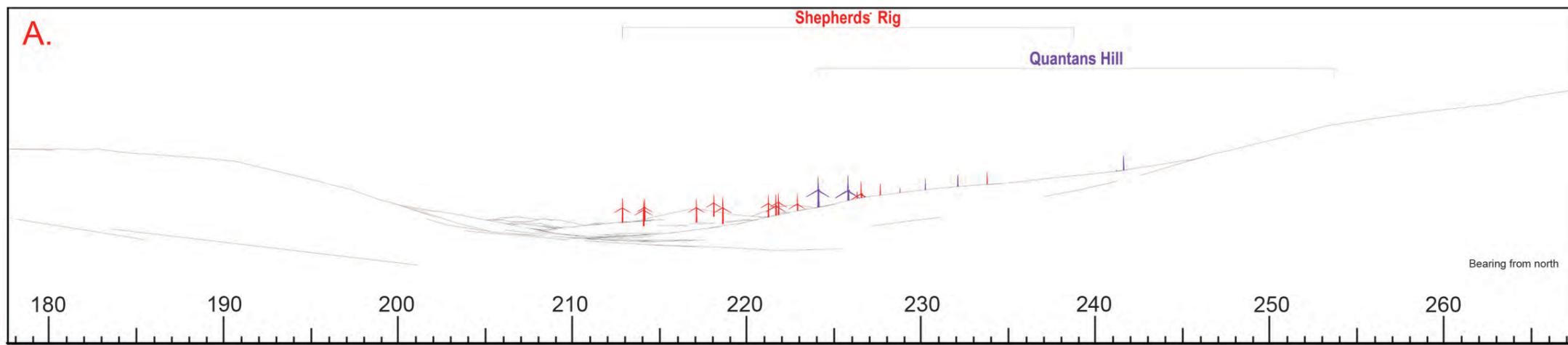
<b>Title:</b> Cumulative ZTV with Quantans Hill	
Shepherds' Rig Wind Farm	
<b>Source:</b> © Crown copyright and database rights 2018 Ordnance Survey 100020449	
<b>Client:</b> Infinergy	
<b>Drawn by:</b> TH	<b>Checked:</b> DT
<b>Date:</b> March 2021	<b>AEI II Figure:</b> A2.1.1
<b>Scale:</b> 1:300,000 @ A3	<b>Revision:</b> P17-1037.600



Appendix A2.1

AEI II Figures A2.1.3 – A2.1.24

Are found in Volume 2b: AEI II Landscape and Visual Visualisations



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**Viewpoint Information**

OS Reference: E 265860 N 598002

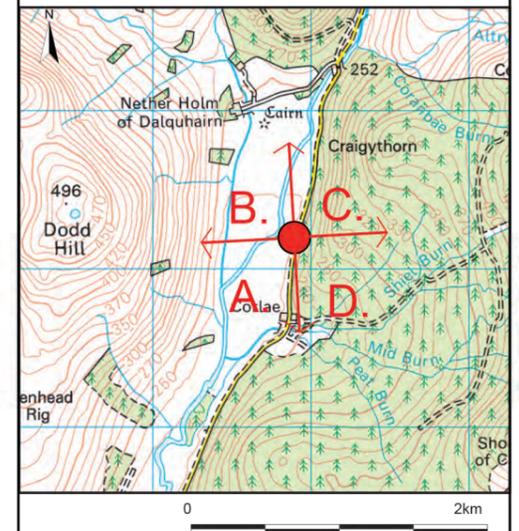
Viewpoint height: 251m (AOD)

Distance to nearest turbine: 4048m (T17)

Direction from site: Northeast

Angle of view: 90 degrees

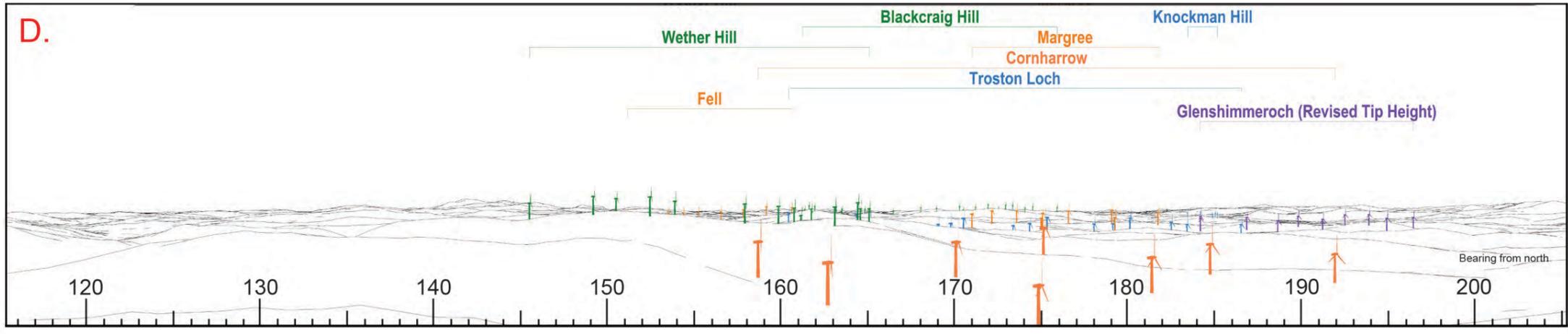
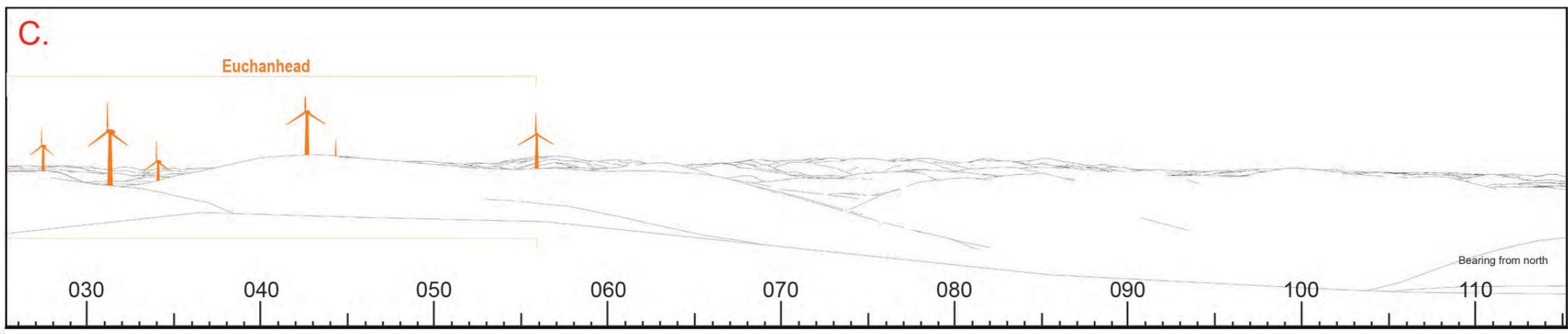
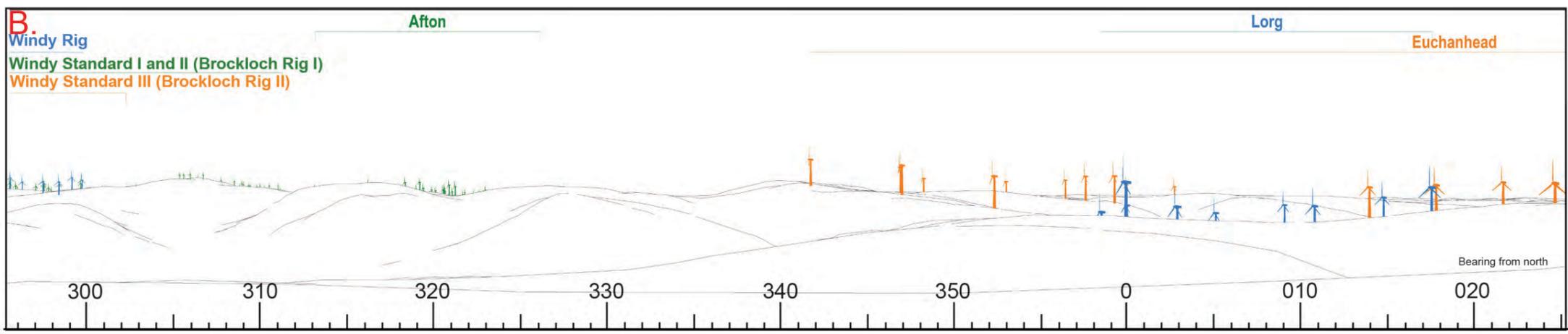
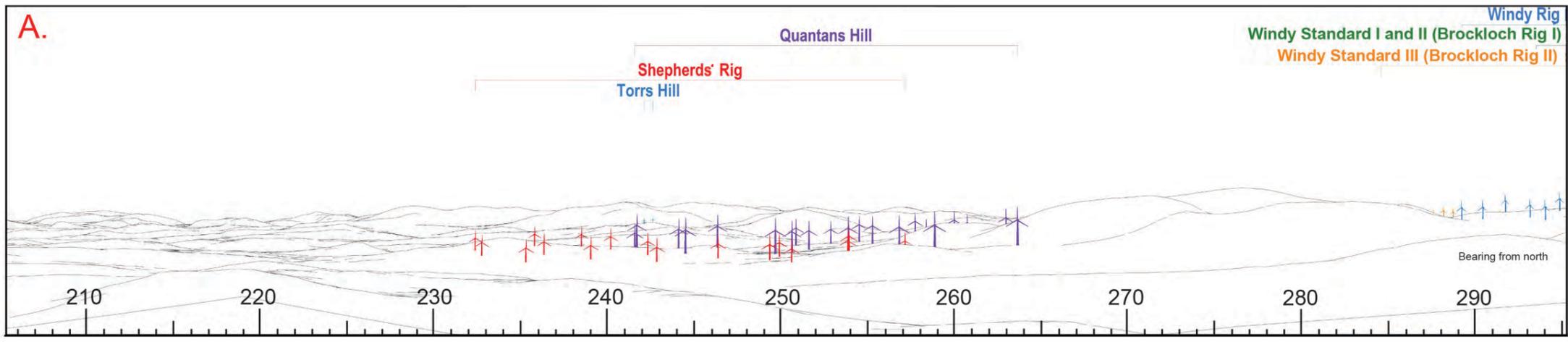
-  Proposed Shepherd's Rig Turbines
-  Operational & Under Construction Turbines
-  Consented Turbines
-  Other Turbines in planning
-  Other Turbines in Scoping



Produced By: TH	Ref: P17-1037.206	Rev:
Produced By: FH	Date: 18_02_2021	

**AEI II Figure A2.1.25  
360 Degree Cumulative Wireframes  
Viewpoint 6: Head of Ken Valley**

SHEPHERDS' RIG WIND FARM



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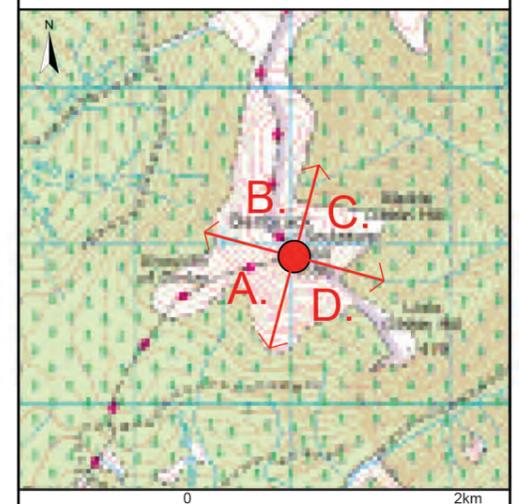


**Viewpoint Information**

OS Reference: E 268029 N 597036  
Viewpoint height: 574m (AOD)  
Distance to nearest turbine: 5425m (T3)  
Direction from site: Northeast

Angle of view: 90 degrees

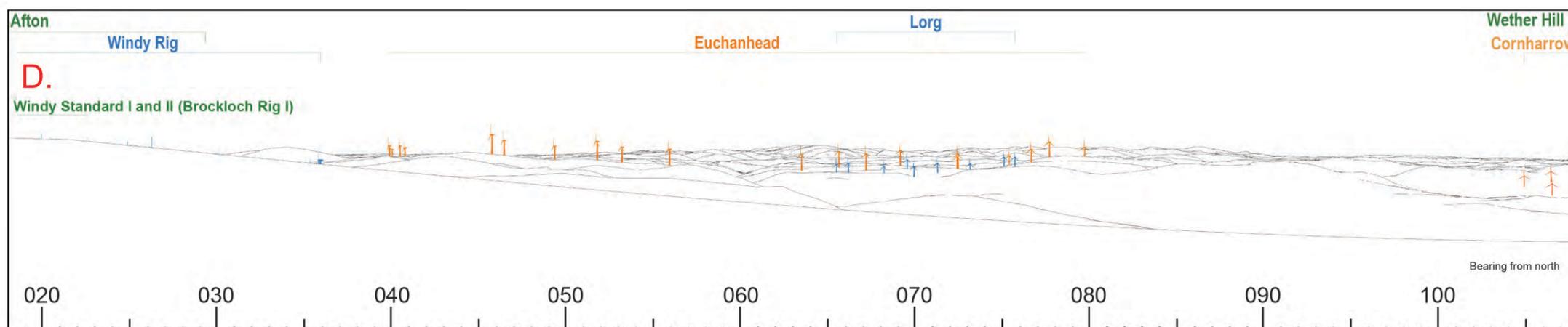
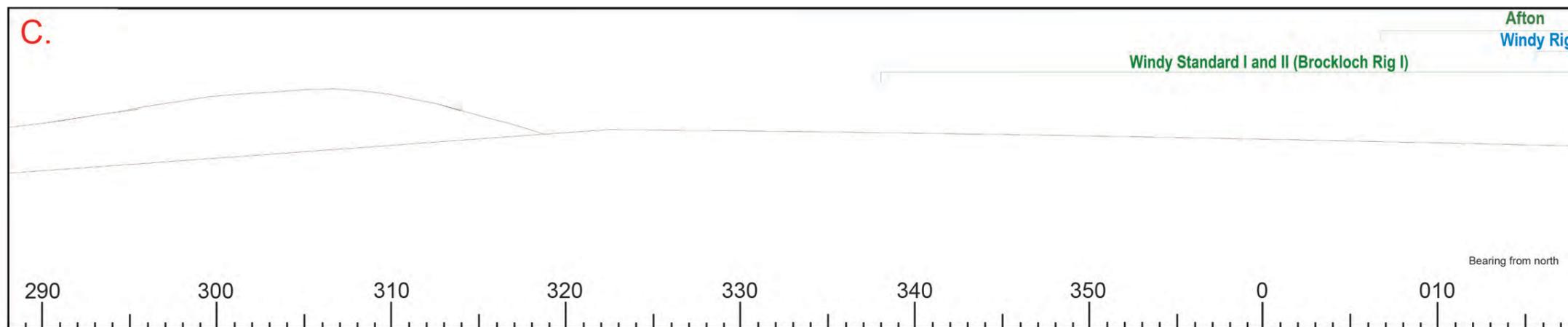
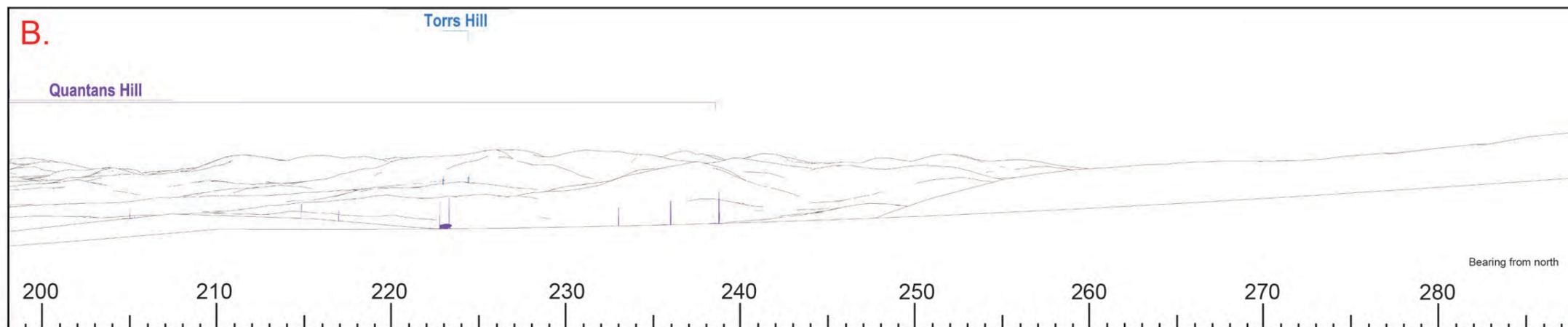
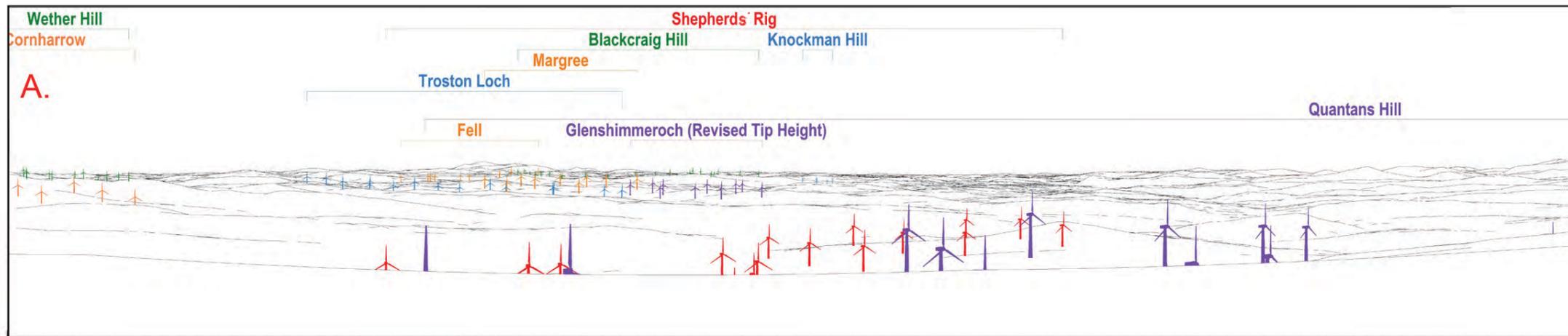
-  Proposed Shepherds' Rig Turbines
-  Operational & Under Construction Turbines
-  Consented Turbines
-  Other Turbines in planning
-  Other Turbines in Scoping



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**AEI II Figure A2.1.26**  
**360 Degree Cumulative Wireframes**  
**Viewpoint 10: Southern Upland Way, Benbrack (Striding Arch)**

SHEPHERDS' RIG WIND FARM



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**Viewpoint Information**

OS Reference: E 260583 N 597157

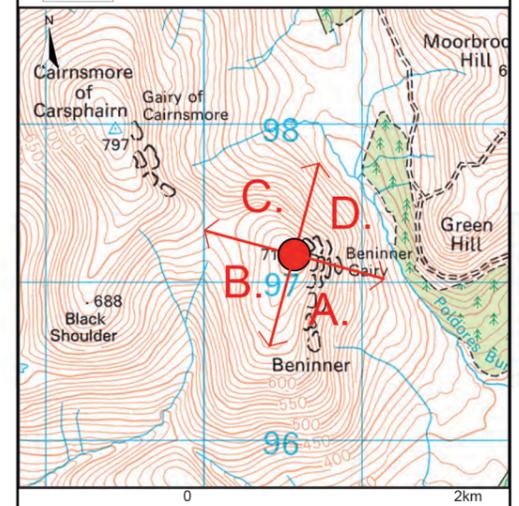
Viewpoint height: 153m (AOD)

Distance to nearest turbine: 2045m (T1)

Direction from site: Northwest

Angle of view: 90 degrees

-  Proposed Shepherds' Rig Turbines
-  Operational & Under Construction Turbines
-  Consented Turbines
-  Other Turbines in planning
-  Other Turbines in scoping

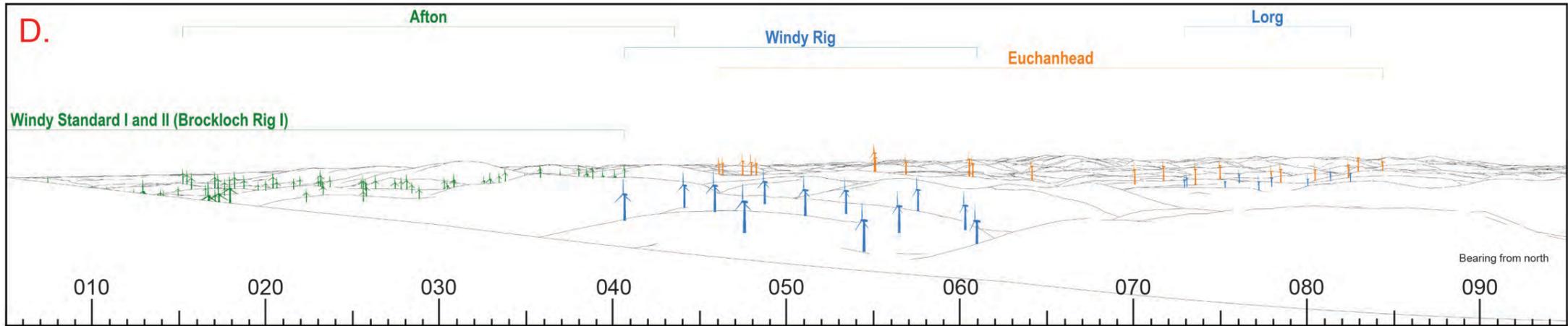
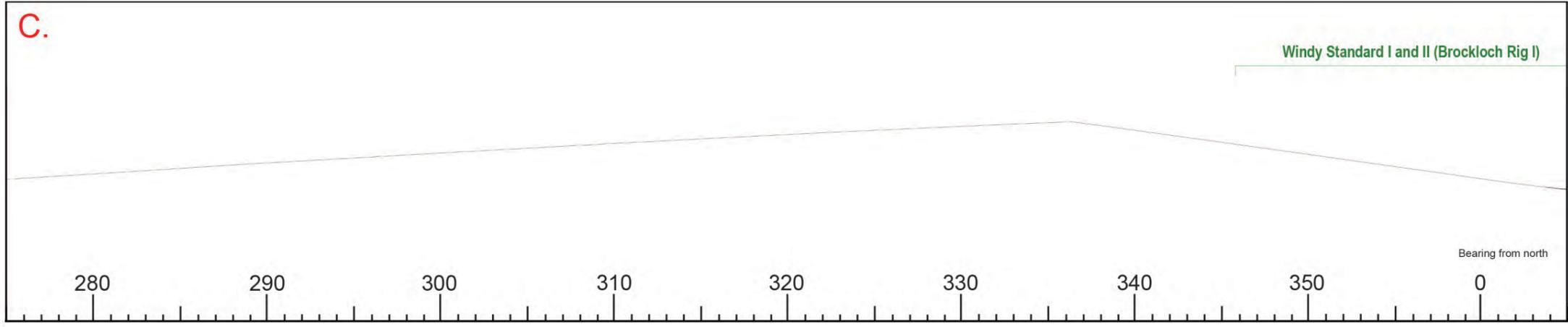
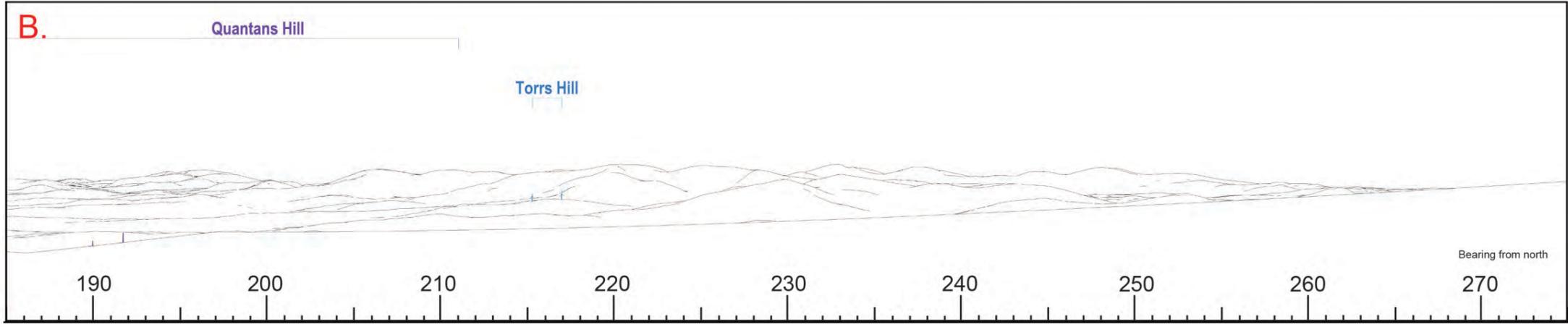
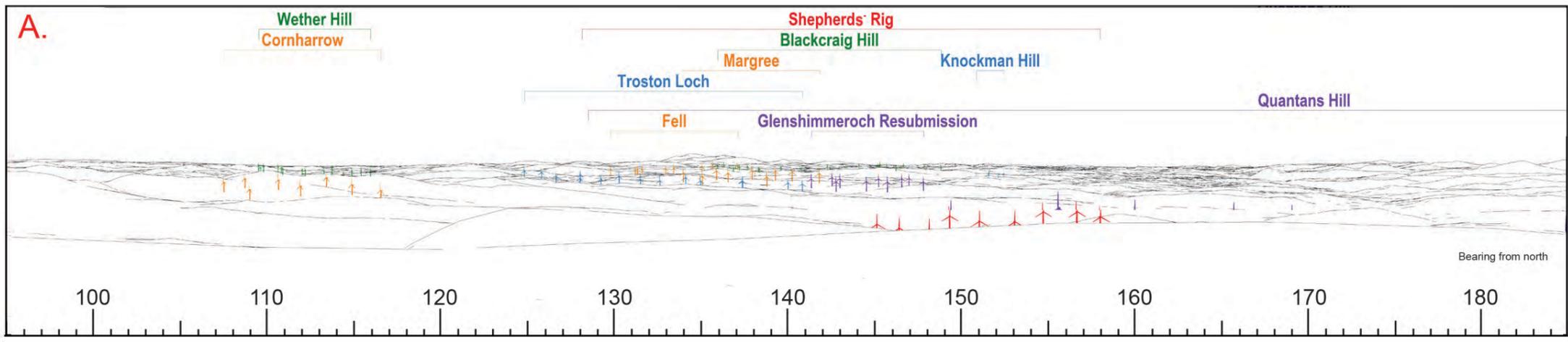


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**AEI II Figure A2.1.27**  
**360 Degree Cumulative Wireframes**  
**Viewpoint 13: Beninner**

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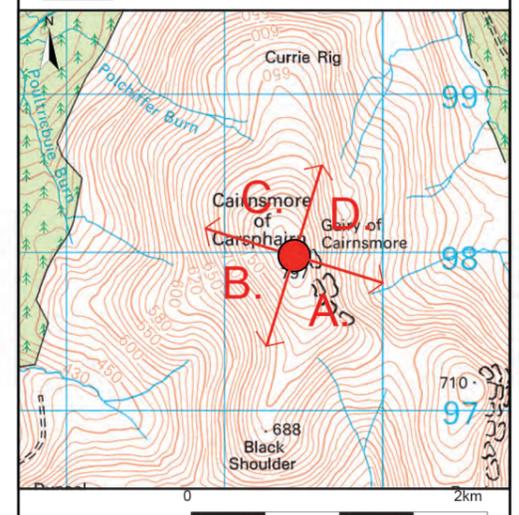
SHEPHERDS' RIG WIND FARM



**Viewpoint Information**

OS Reference: E 259459 N 597979  
 Viewpoint height: 794m (AOD)  
 Distance to nearest turbine: 3420m (T1)  
 Direction from site: Northwest  
 Angle of view: 90 degrees

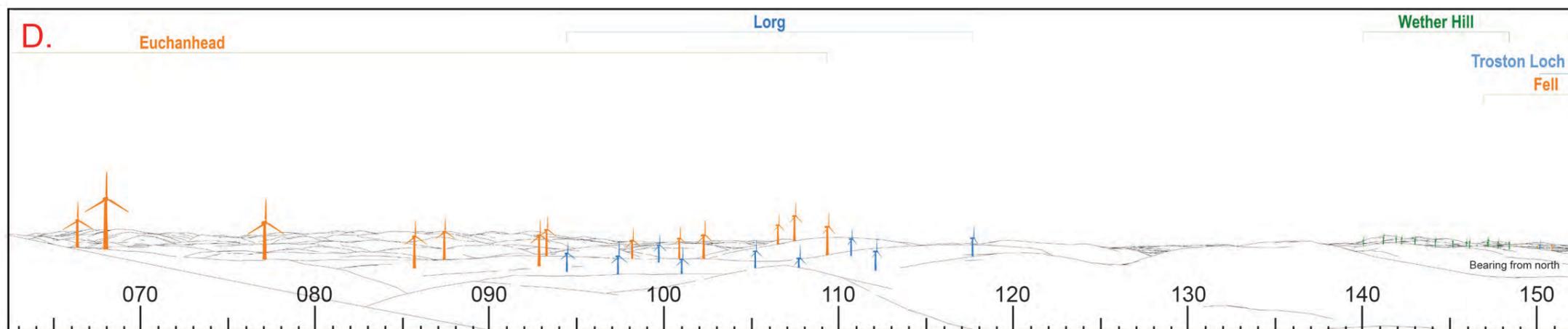
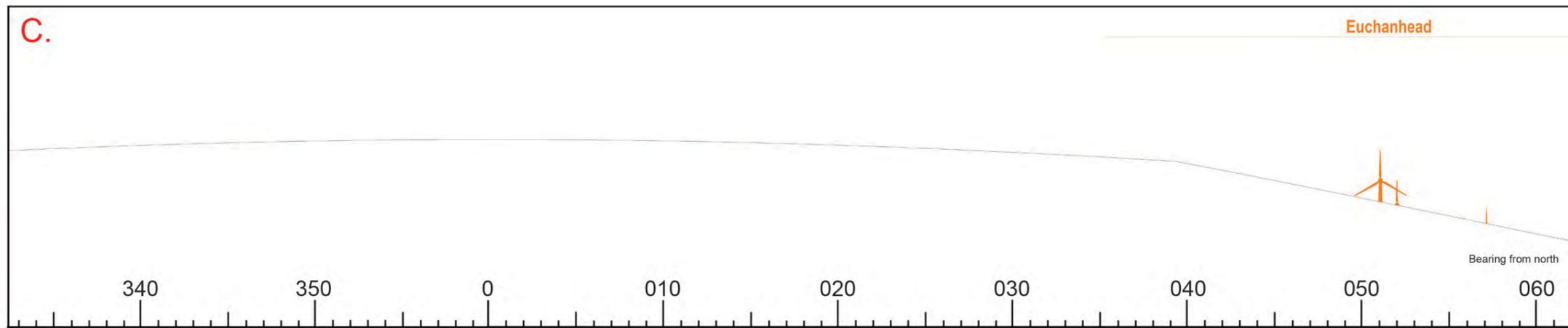
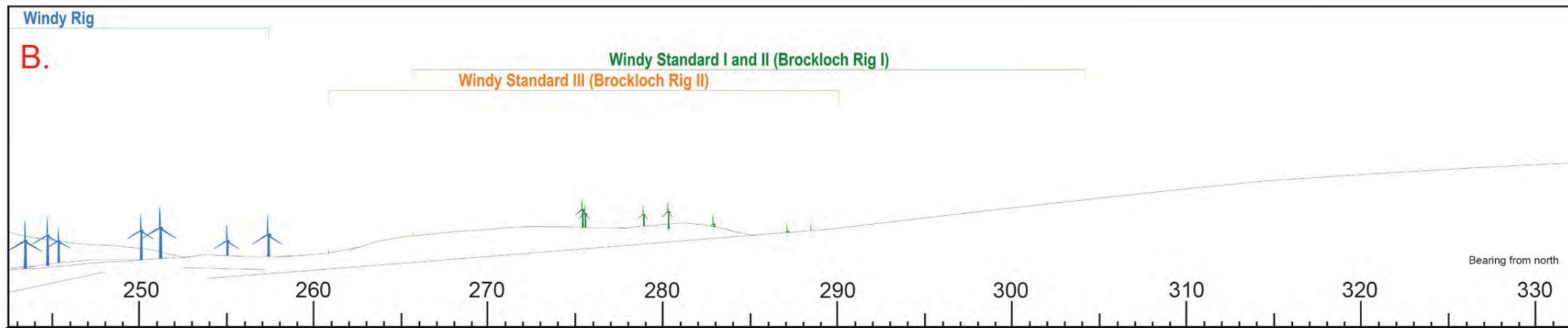
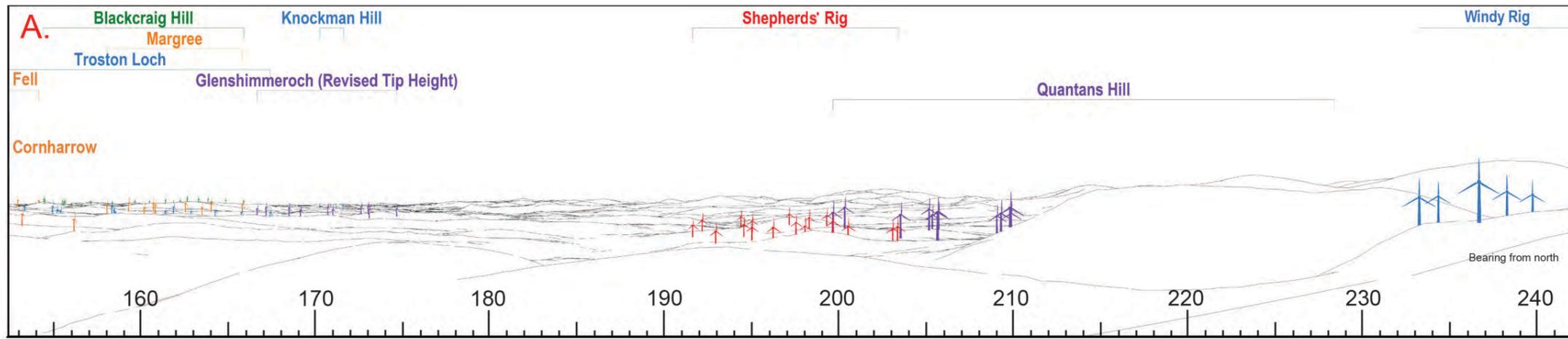
-  Proposed Shepherds' Rig Turbines
-  Operational & Under Construction Turbines
-  Consented Turbines
-  Other Turbines in planning
-  Other Turbines in scoping



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**AEI II Figure A2.1.28**  
**360 Degree Cumulative Wireframes**  
**Viewpoint 14: Cairnsmore of Carsphairn**

SHEPHERDS' RIG WIND FARM



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**Viewpoint Information**

OS Reference: E 264228 N 601023

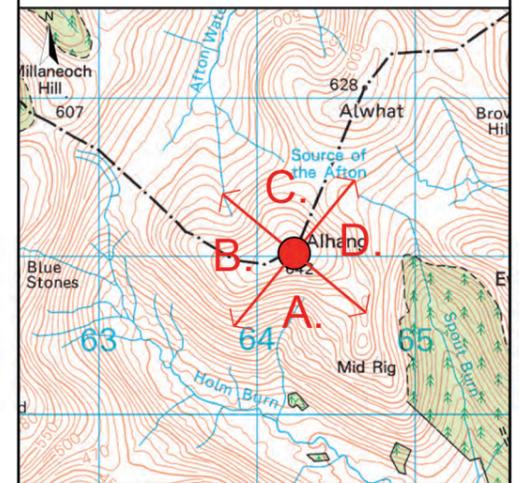
Viewpoint height: 636m (AOD)

Distance to nearest turbine: 5847m (T1)

Direction from site: North

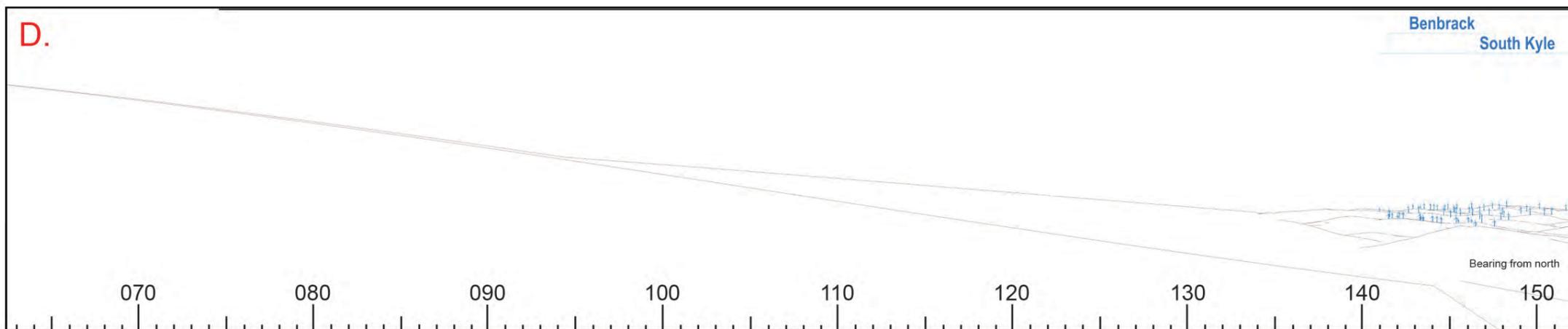
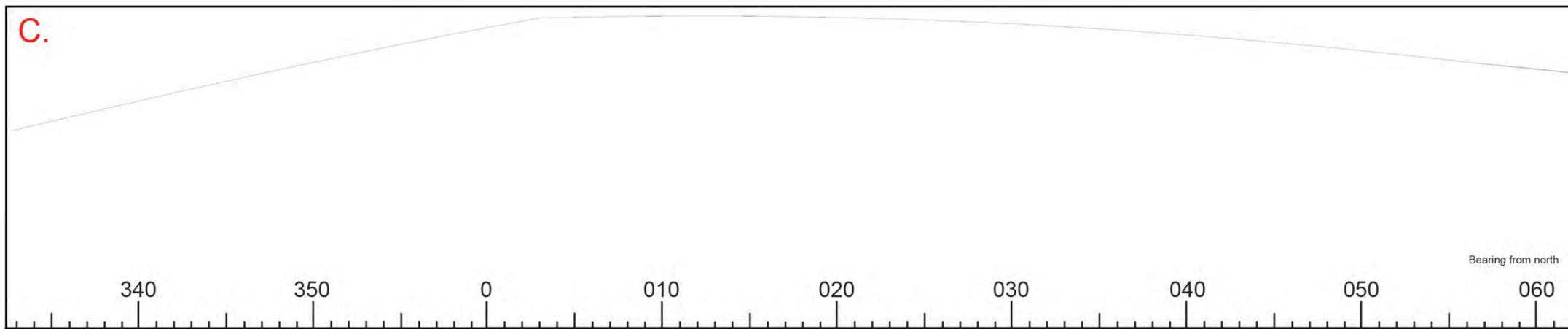
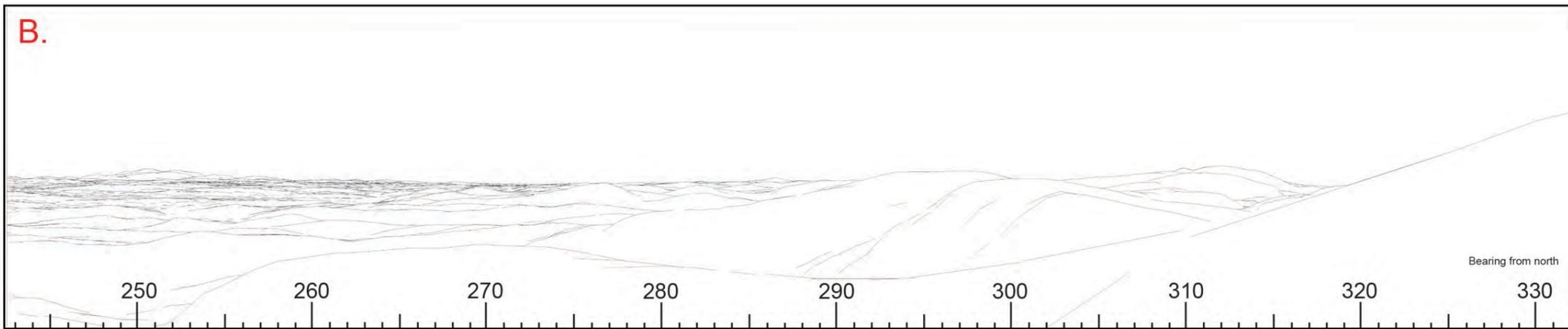
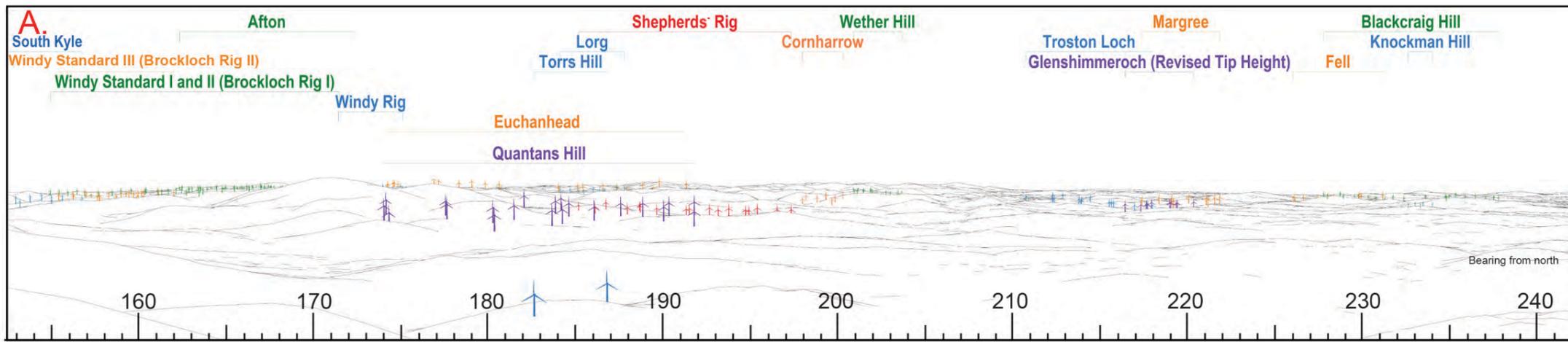
Angle of view: 90 degrees

-  Proposed Shepherds' Rig Turbines
-  Operational & Under Construction Turbines
-  Consented Turbines
-  Other Turbines in planning
-  Other Turbines in scoping



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**AEI II Figure A2.1.29**  
**360 Degree Cumulative Wireframes**  
**Viewpoint 16: Alhang**  
 SHEPHERDS' RIG WIND FARM



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**Viewpoint Information**

OS Reference: E 250447 N 587287

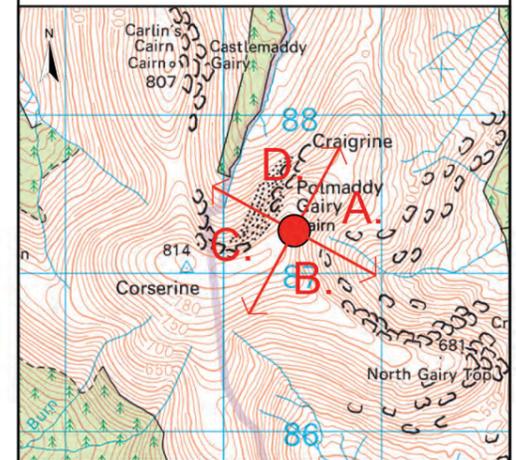
Viewpoint height: 793m (AOD)

Distance to nearest turbine: 12,380m (T16)

Direction from site: West-southwest

Angle of view: 90 degrees

-  Proposed Shepherds' Rig Turbines
-  Operational & Under Construction Turbines
-  Consented Turbines
-  Other Turbines in planning
-  Other Turbines in scoping



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**AEI II Figure A2.1.30**  
**360 Degree Cumulative Wireframes**  
**Viewpoint 21: Corserine (Hennessey's Shelter)**

SHEPHERDS' RIG WIND FARM