

PROJECT: KNOWES

CLIENT: KNOWES RENEWABLES LLP

FIGURE 3.18

Cumulative ZTV showing Knowes with the operational and proposed developments at Pitcairle and Demperston

Scale: 1:190,000

Checked by: AF

Drawn by: DT

Date: 11/03/2014

Key:

- Knowes Turbines
- 25km Study Area
- Knowes
- Knowes + Pitcairle
- Knowes + Demperston
- Knowes + Pitcairle + Demperston

Kilometers



ZTV generated using Ordnance Survey's Land-Form Panorama height contour dataset. The data does not take into account the screening effects of buildings or vegetation. Calculations were undertaken taking into account the earths curvature and are based on a view height of 2.0m.

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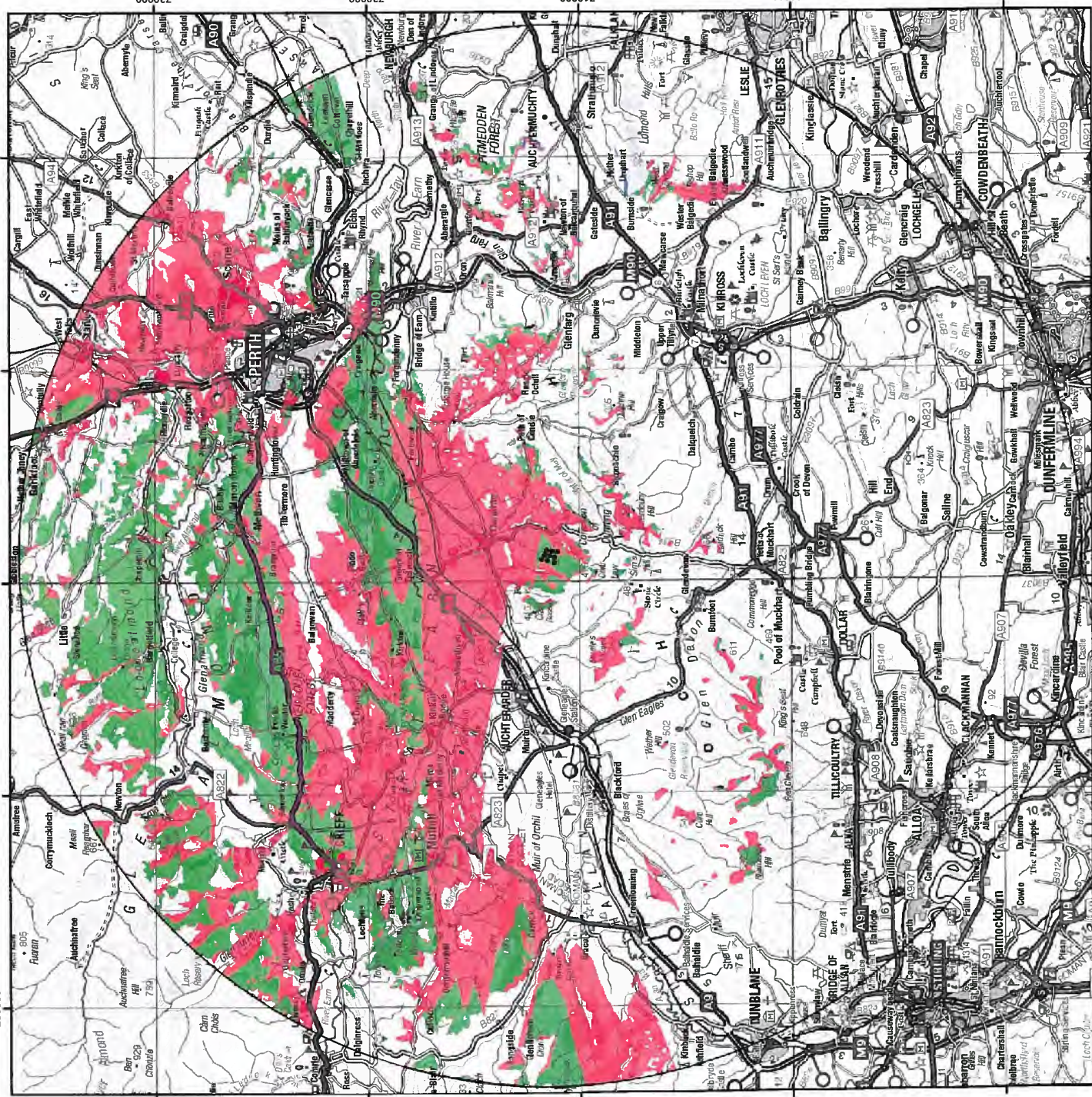
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Turiff

Aberdeenshire

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CLIENT: KNOWES RENEWABLES LLP

FIGURE 3.19

Cumulative ZTV showing Knowes with the consented and proposed developments at Kirkton Farm and Bogside

Scale: 1:190,000
Drawn by: DT
Checked by: AF
Date: 11/03/2014

Key:

- Knowes Turbines
- 25km Study Area
- Knowes
- Knowes + Kirkton Farm
- Knowes + Bogside
- Knowes + Kirkton Farm + Bogside



ZTV generated using Ordnance Survey's Land-Form Panorama height contour dataset. The data does not take into account the screening effects of buildings or vegetation. Calculations were undertaken taking into account the earths curvature and are based on a view height of 2.0m.

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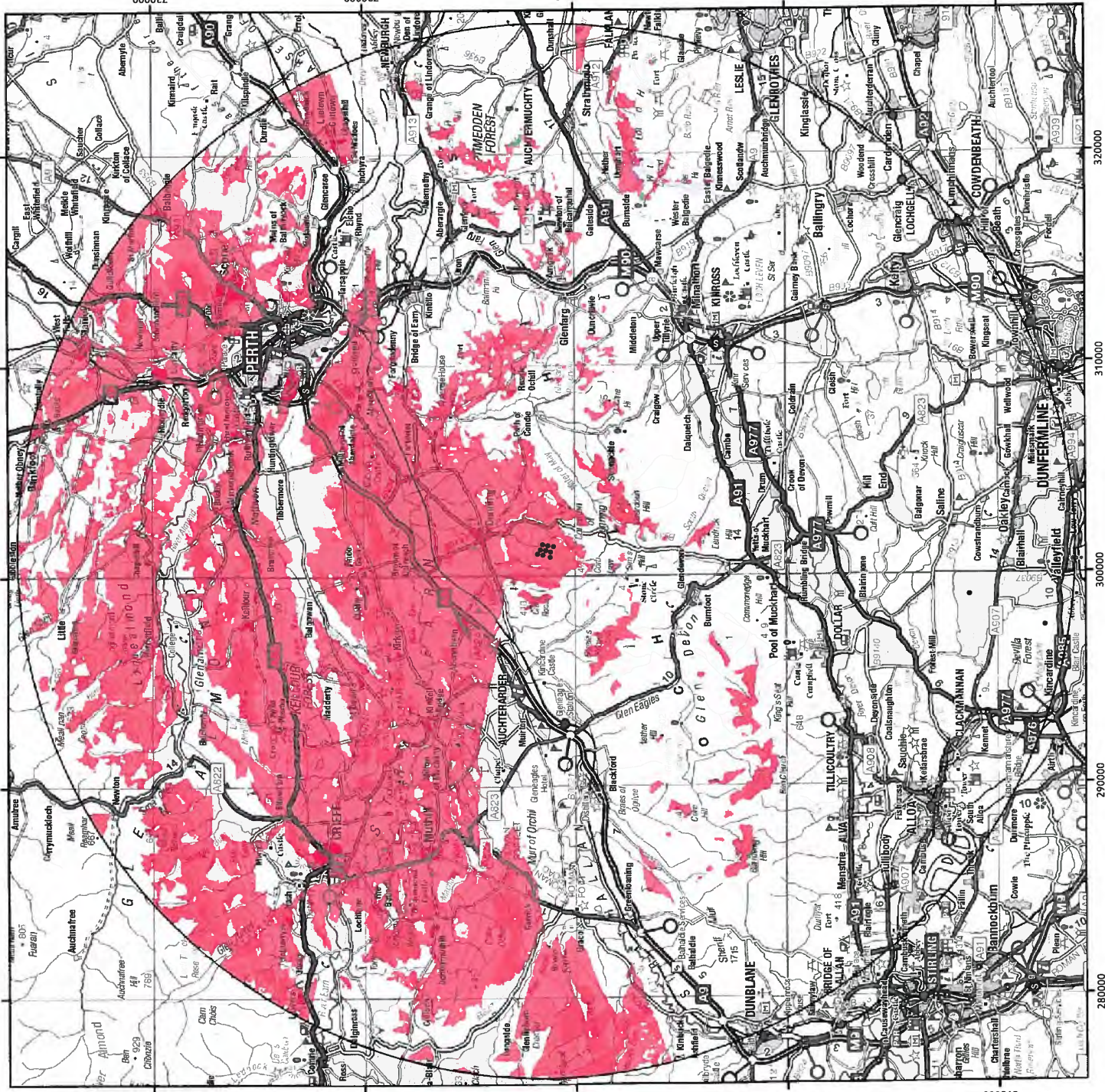
MURDEN ENERGY LLP

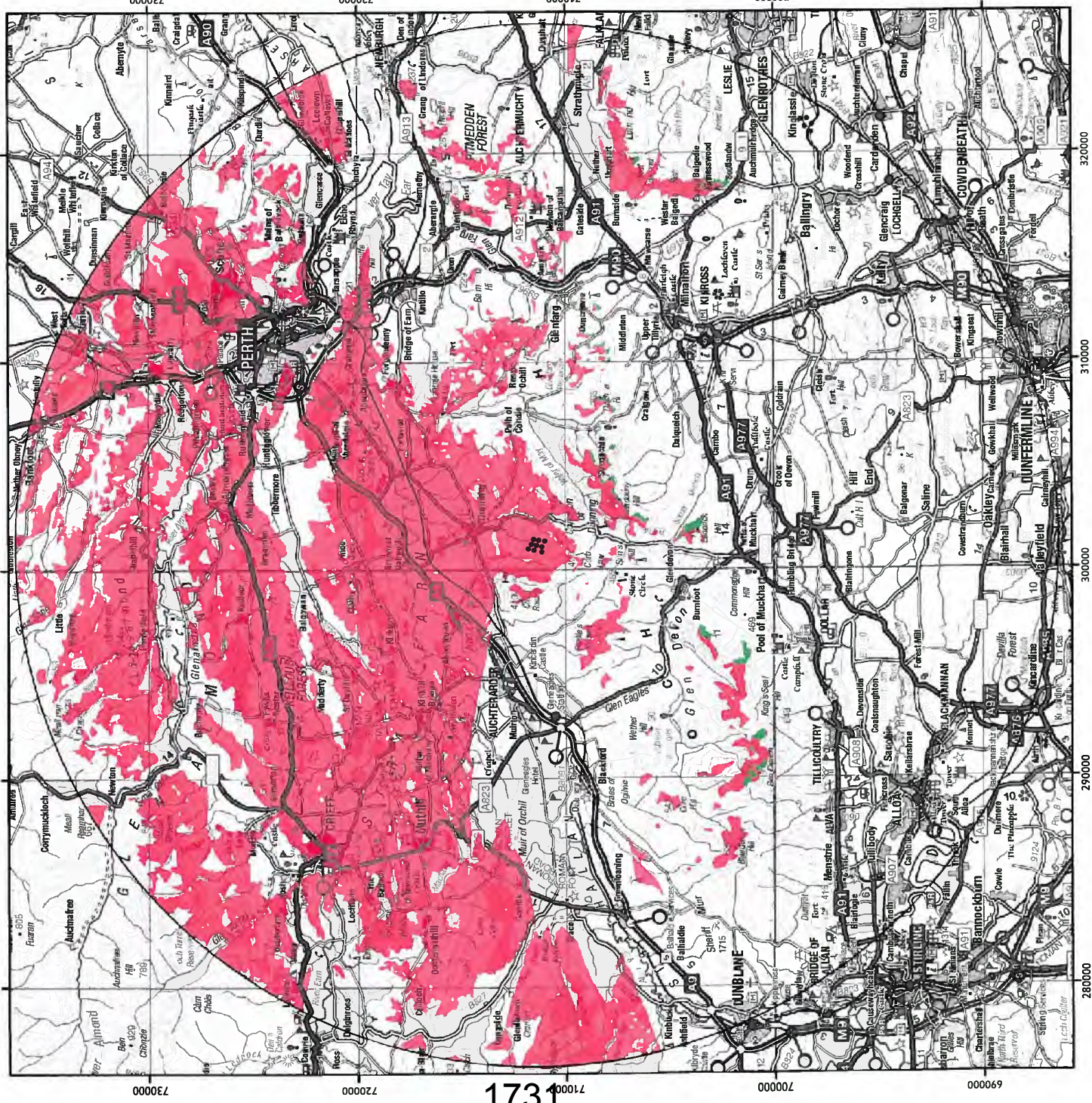
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FIGURE 3.20

Cumulative ZTV showing Knowles with the consented development at Westfield OCCS

Scale: 1:190,000

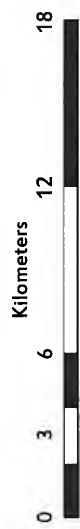
Drawn by: DT

Checked by: AF

Date: 11/03/2014

Key:

- Knowles Turbines
- 25km Study Area
- Knowles
- Knowles + Westfield OCCS



ZTV generated using Ordnance Survey's Land-Form Panorama height contour dataset. The data does not take into account the screening effects of buildings or vegetation. Calculations were undertaken taking into account the earths curvature and are based on a view height of 2.0m.

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FIGURE 3.21

Cumulative ZTV showing Knowes with the proposed development at Mull Hill

Scale: 1:190,000

Drawn by: DT

Checked by: AF

Date: 11/03/2014

Key:

- Knowes Turbines
- 25km Study Area
- Knowes
- Knowes + Mull Hill



ZTV generated using Ordnance Survey's Land-Form Panorama height contour dataset. The data does not take into account the screening effects of buildings or vegetation. Calculations were undertaken taking into account the earths curvature and are based on a view height of 2.0m.

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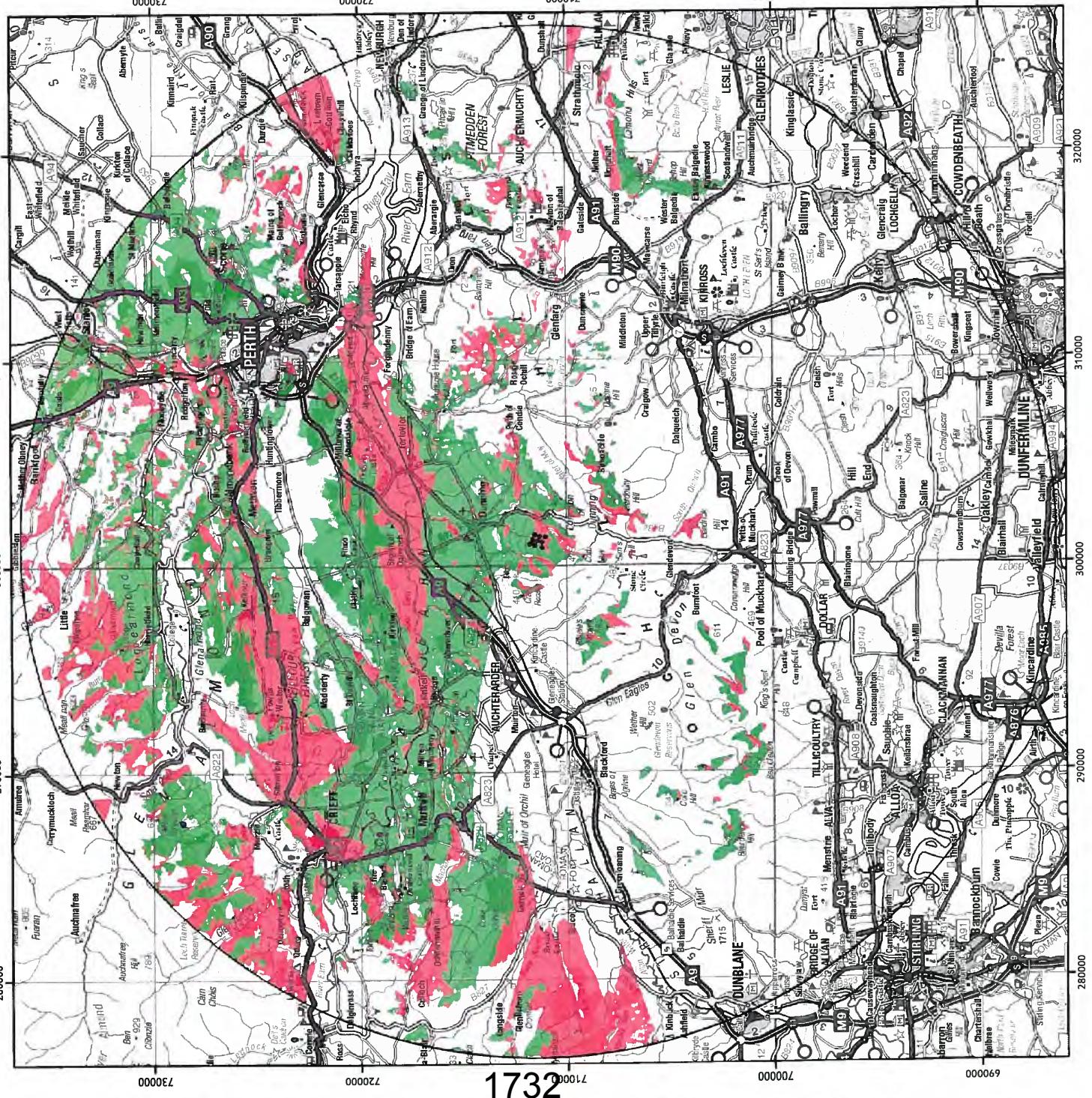
MUIRDEN ENERGY LLP

Muirden

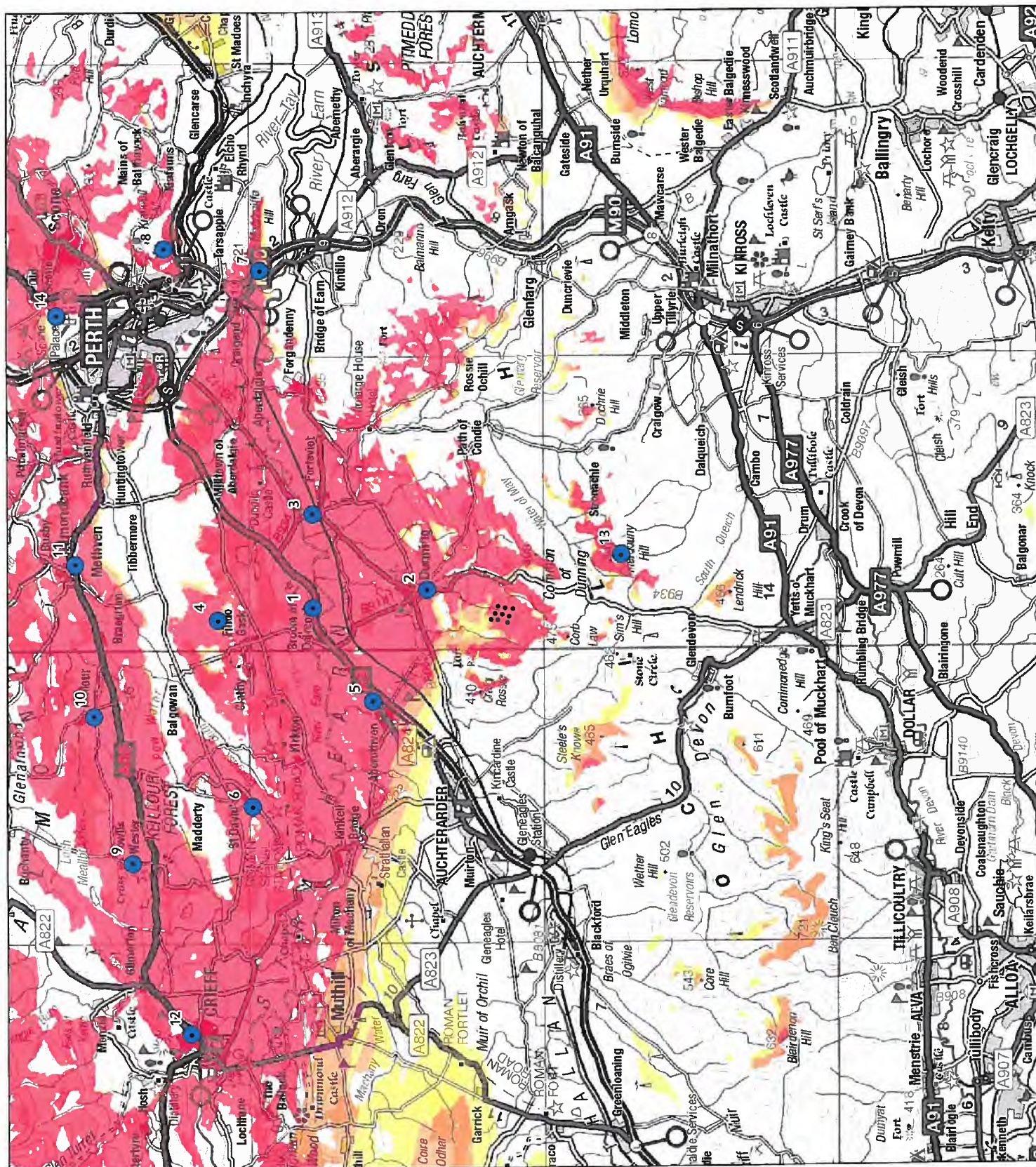
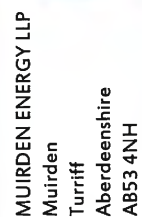
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Viewpoint Locations



PROJECT: KNOWES WIND FARM

CLIENT: KNOWES RENEWABLES LLP

FIGURE 3.23

Viewpoint 1 - A9

Taken beside the southbound carriageway.

Scale: 1:20,000
Checked by: AF
Drawn by: AE
Date: 04/04/2014

VIEWPOINT DATA

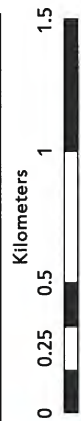
Grid Reference 301446, 717802
Elevation 32m
Distance to nearest turbine 6.1km

PHOTOGRAPHY

Height above ground 1.5m
Camera Canon EOS 5D
Focal length 50mm
Photography date 15/07/2013
Photography time 13:00

PREDICTED TURBINE VISIBILITY

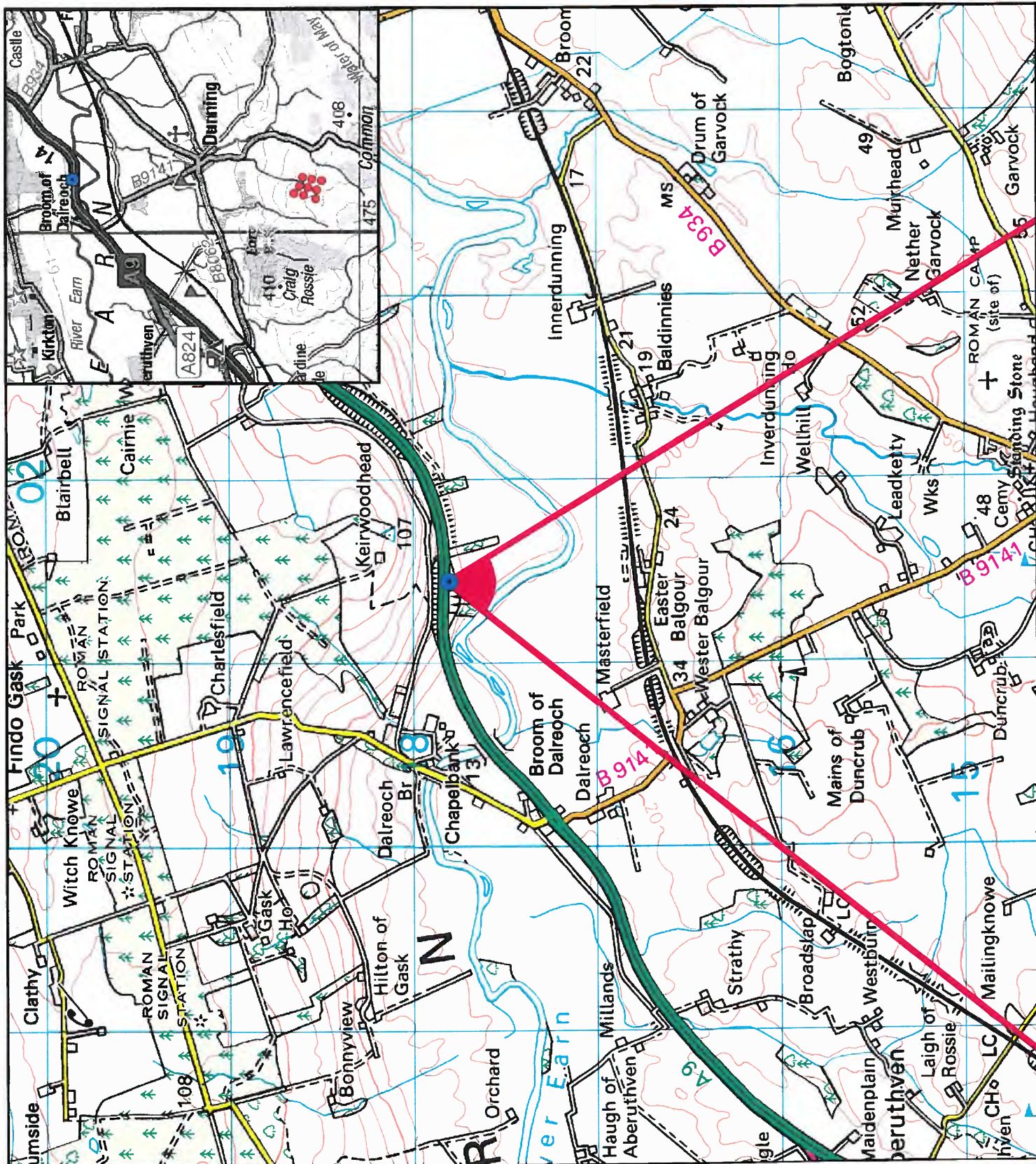
Number of turbine tips visible 25
Number of turbine hubs visible 9



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VIEWPOINT 1:A9

Photograph



VIEWPOINT 1a

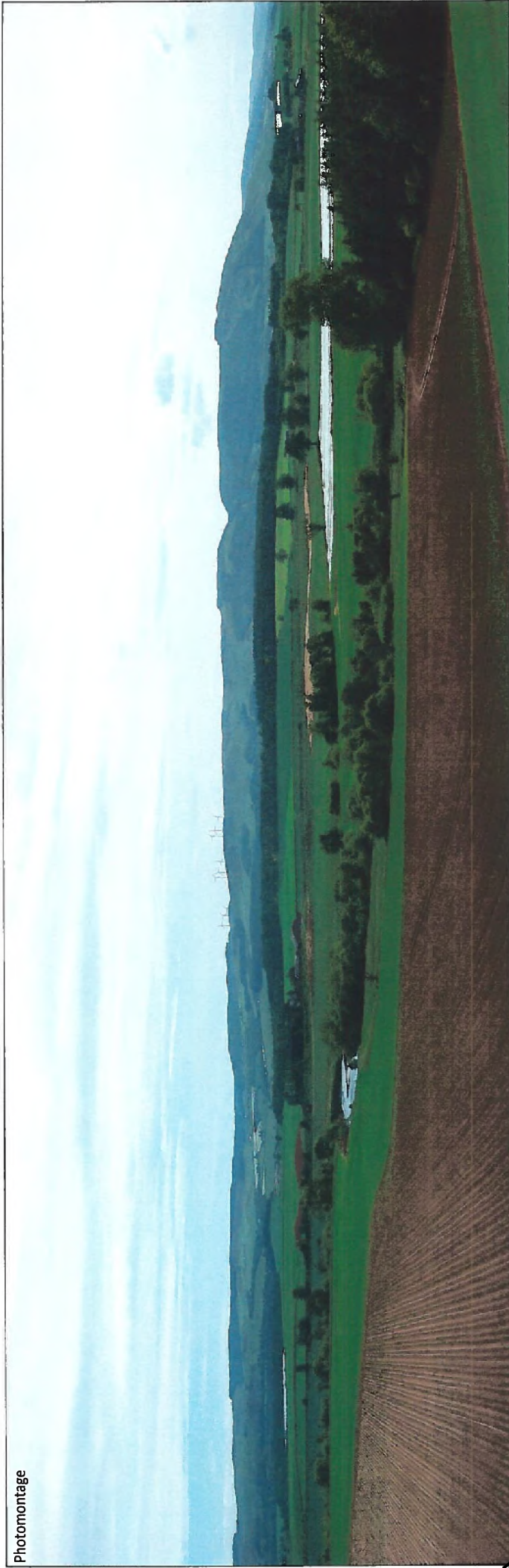
Recommended viewing distance when viewed with both eyes: 330mm

Horizontal View Angle: 70°

IMPORTANT VIEWING INSTRUCTIONS

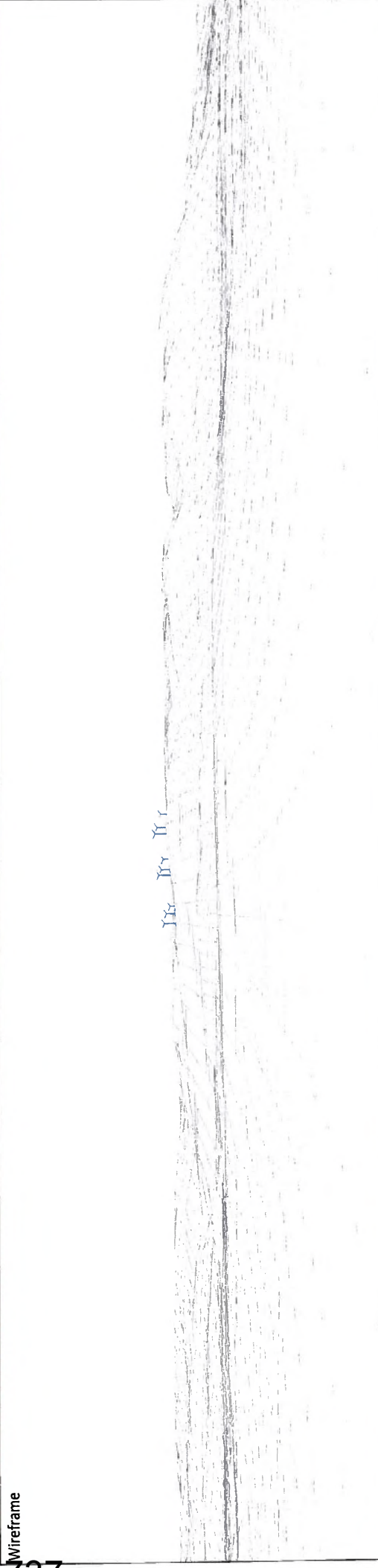
The following photomontages are composite images made up of multiple 50mm photographs joined together horizontally to form an overall field of view which may be wider than that seen in detail by the human eye. For correct perspective viewing, the following images must be viewed at their recommended viewing distance. This image should only be assessed in the real landscape from the same viewpoint.

Photomontage



Wireframe

1737



VIEWPOINT 1b

Recommended viewing distance when viewed with both eyes: 330mm

IMPORTANT VIEWING INSTRUCTIONS

The following photomontages are composite images made up of multiple 50mm photographs joined together horizontally to form an overall field of view which may be wider than that seen in detail by the human eye. For correct perspective viewing, the following images must be viewed at their recommended viewing distance. This image should only be assessed in the real landscape from the same viewpoint.

Horizontal View Angle: 70°

PROJECT: KNOWES WIND FARM

CLIENT: KNOWES RENEWABLES LLP

FIGURE 3.24

Viewpoint 2 - Dunning

Taken from the south of the village beside
Simon Howie buildings.

Scale: 1:190,000 Checked by: AF
Drawn by: AE Date: 08/04/2014

VIEWPOINT DATA

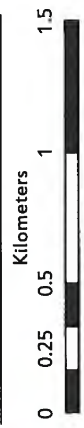
Grid Reference 302038, 713923
Elevation 76m
Distance to nearest turbine 2.4km

PHOTOGRAPHY

Height above ground 1.5m
Camera Canon EOS 5D
Focal length 50mm
Photography date 27/08/2013
Photography time 12:15

PREDICTED TURBINE VISIBILITY

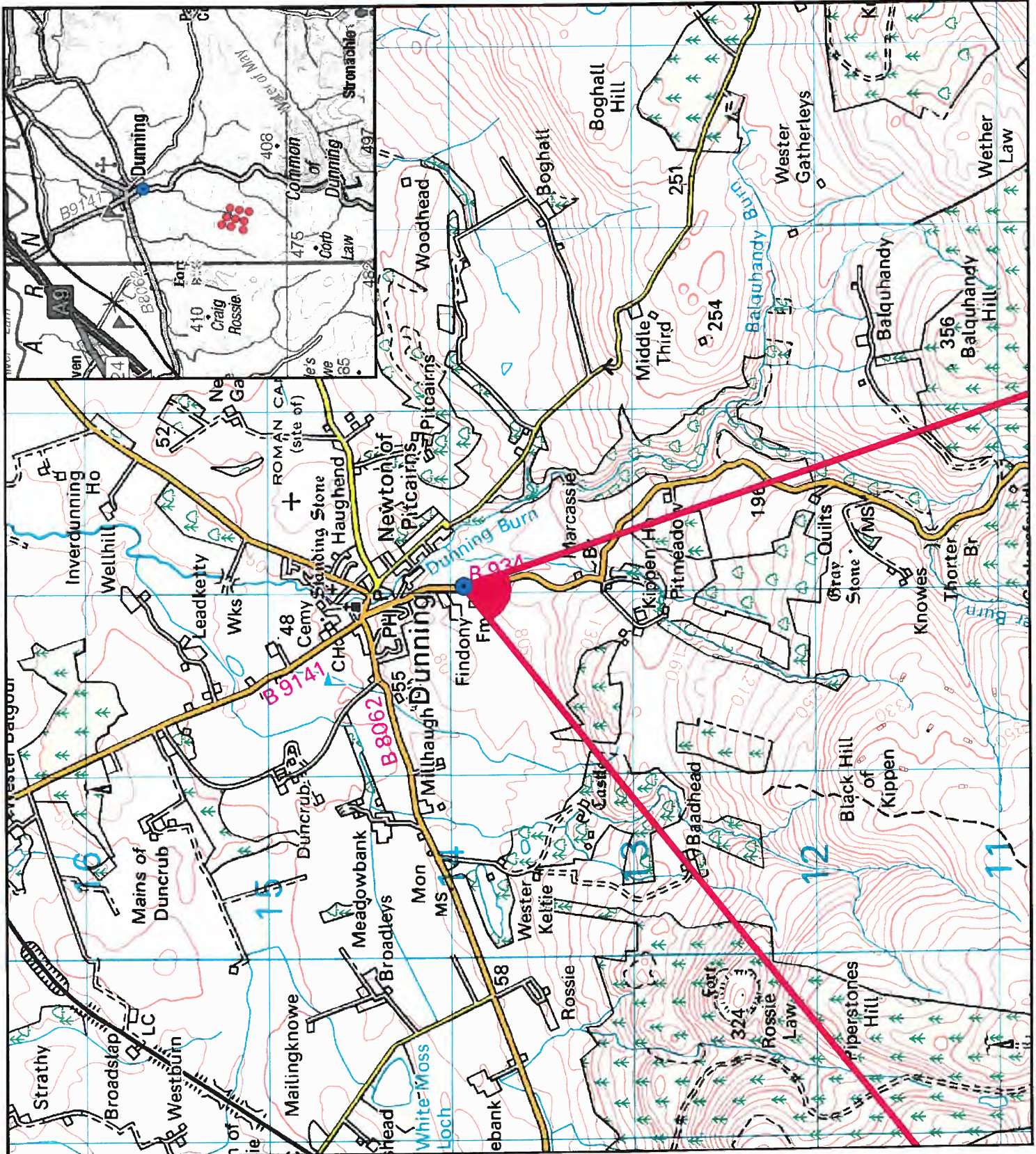
Number of turbine tips visible 23
Number of turbine hubs visible 7



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VIEWPOINT 2: Dunning

Photograph



VIEWPOINT 2a

Recommended viewing distance when viewed with both eyes: 330mm

IMPORTANT VIEWING INSTRUCTIONS

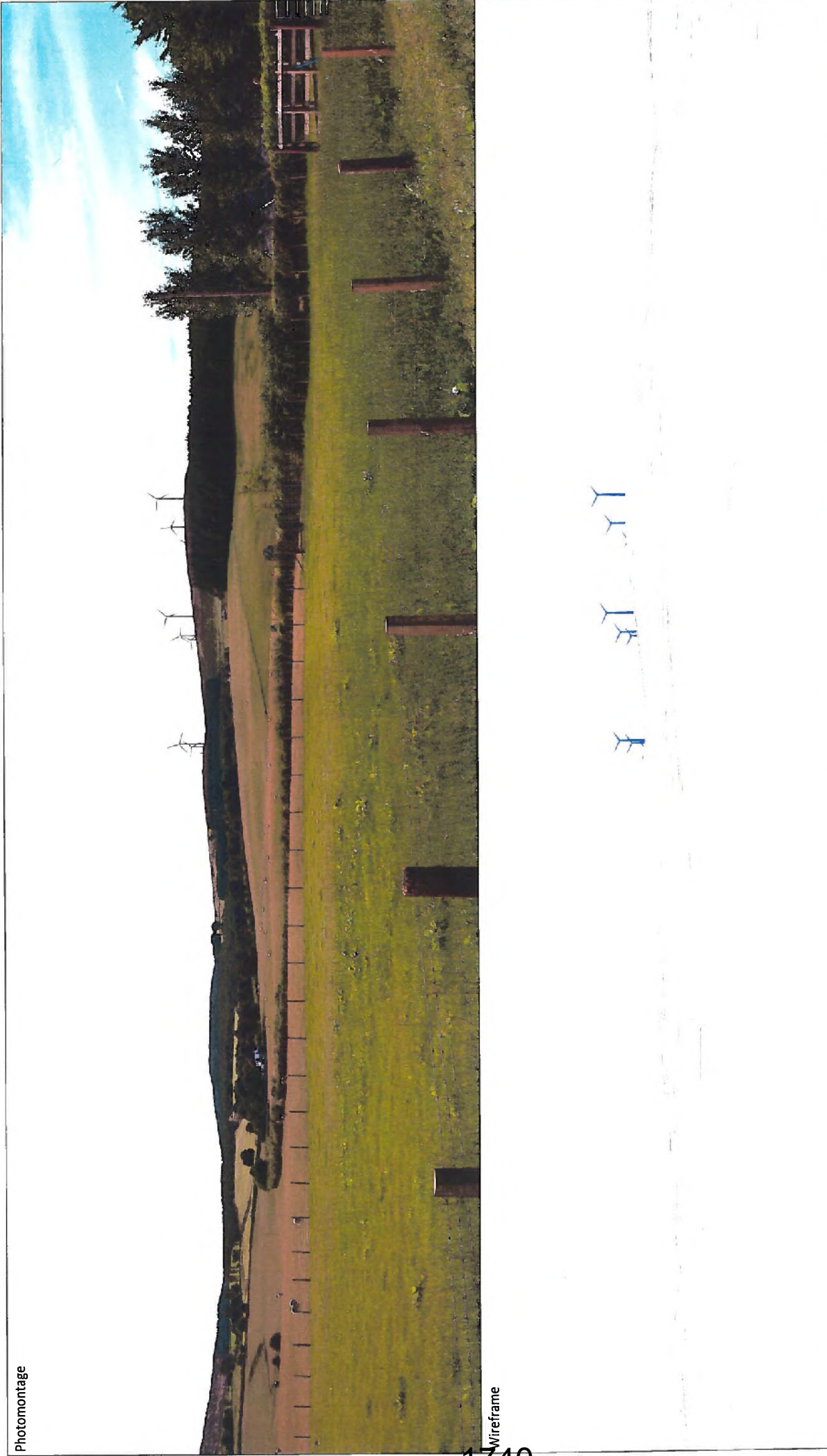
The following photomontages are composite images made up of multiple 50mm photographs joined together horizontally to form an overall field of view which may be wider than that seen in detail by the human eye. For correct perspective viewing, the following images must be viewed at their recommended viewing distance. This image should only be assessed in the real landscape from the same viewpoint.

Horizontal View Angle: 70°

Photomontage



Wireframe



VIEWPOINT 2b

Recommended viewing distance when viewed with both eyes: 330mm

IMPORTANT VIEWING INSTRUCTIONS

The following photomontages are composite images made up of multiple 50mm photographs joined together horizontally to form an overall field of view which may be wider than that seen in detail by the human eye. For correct perspective viewing, the following images must be viewed at their recommended viewing distance. This image should only be assessed in the real landscape from the same viewpoint.

Horizontal View Angle: 70°

PROJECT: KNOWES WIND FARM

CLIENT: KNOWES RENEWABLES LLP

FIGURE 3.25

Viewpoint 3 - Forteviot

Photo taken from north of the village on the B934.

Scale: 1:20,000
Checked by: AF
Drawn by: AE
Date: 04/04/2014

VIEWPOINT DATA

Grid Reference 304632, 717818
Elevation 12m
Distance to nearest turbine 7.0km

PHOTOGRAPHY

Height above ground 1.5m
Camera Canon EOS 5D
Focal length 50mm
Photography date 12/03/2014
Photography time 11:50

PREDICTED TURBINE VISIBILITY

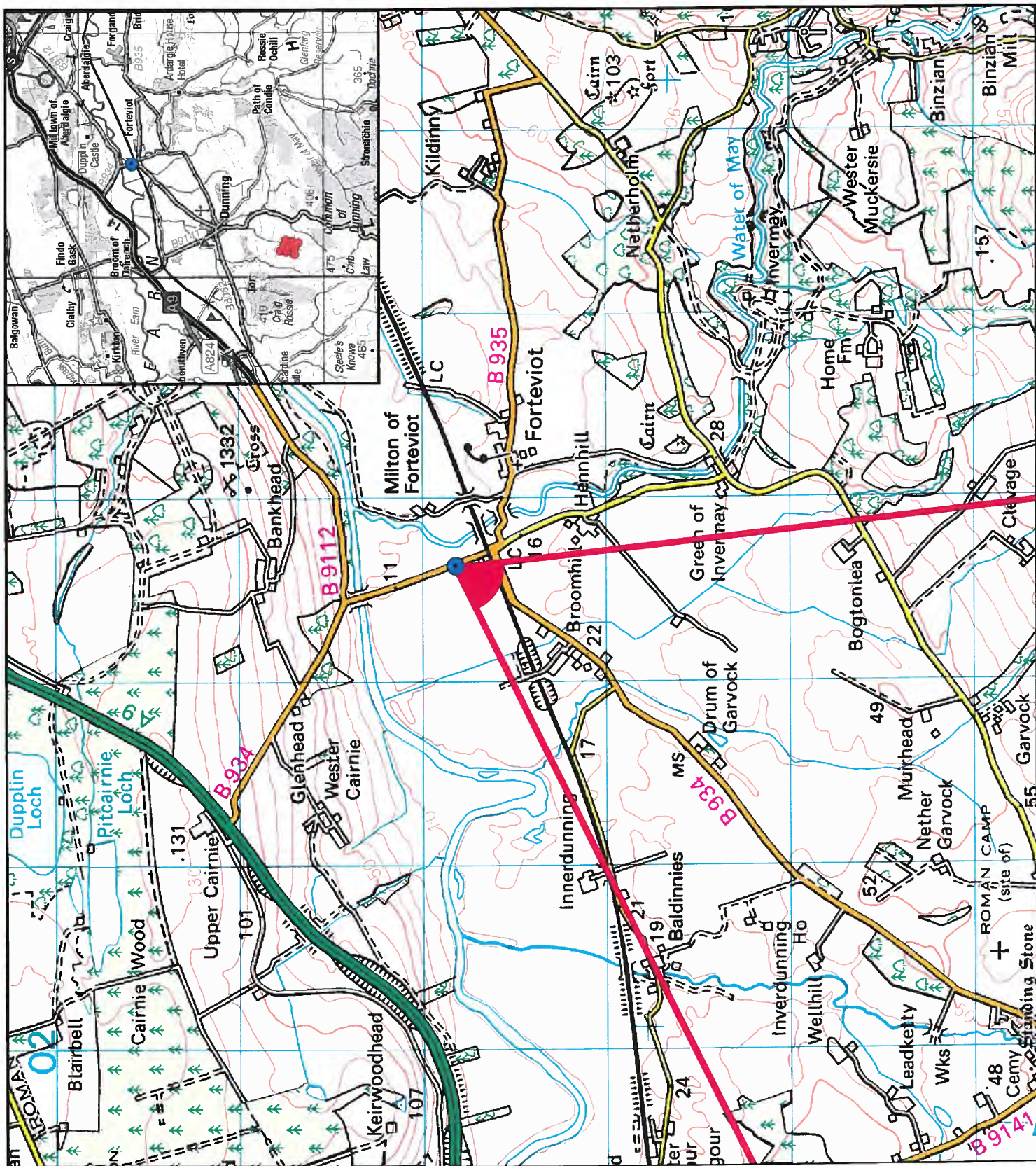
Number of turbine tips visible 27
Number of turbine hubs visible 9



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VIEWPOINT 3: Forteviot

Photograph



VIEWPOINT 3a

Recommended viewing distance when viewed with both eyes: 330mm

IMPORTANT VIEWING INSTRUCTIONS

The following photomontages are composite images made up of multiple 50mm photographs joined together horizontally to form an overall field of view which may be wider than that seen in detail by the human eye. For correct perspective viewing, the following images must be viewed at their recommended viewing distance. This image should only be assessed in the real landscape from the same viewpoint.

Horizontal View Angle: 70°

Photomontage



Wireframe



VIEWPOINT 3b

Recommended viewing distance when viewed with both eyes: 330mm

IMPORTANT VIEWING INSTRUCTIONS

The following photomontages are composite images made up of multiple 50mm photographs joined together horizontally to form an overall field of view which may be wider than that seen in detail by the human eye. For correct perspective viewing, the following images must be viewed at their recommended viewing distance. This image should only be assessed in the real landscape from the same viewpoint.

Horizontal View Angle: 70°

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FIGURE 3.26

Viewpoint 4 - Clathymore

Photo taken from edge of settlement.

Scale: 1:20,000

Checked by: AF

Drawn by: AE Date: 04/04/2014

VIEWPOINT DATA

Grid Reference 301033, 721031

Elevation 109m

Distance to nearest turbine 9.3km

PHOTOGRAPHY

Height above ground 1.5m

Camera Canon EOS 5D

Focal length 50mm

Photography date 10/03/2014

Photography time 15:50

PREDICTED TURBINE VISIBILITY

Number of turbine tips visible 0

Number of turbine hubs visible 0

Kilometers

0 0.25 0.5 1 1.5

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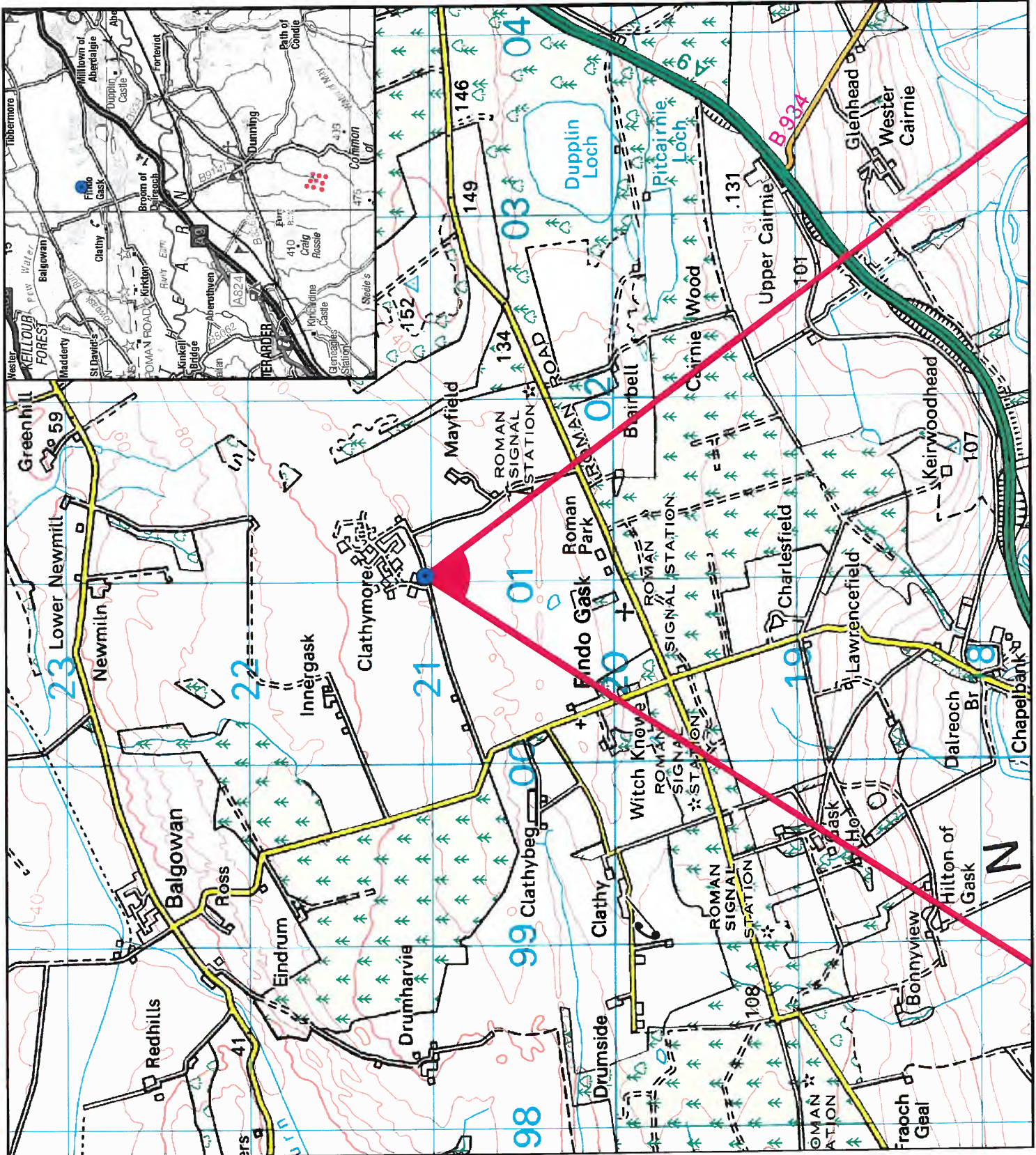
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VIEWPOINT 4: Clathymore

Photograph



VIEWPOINT 4a

Recommended viewing distance when viewed with both eyes: 330mm

Horizontal View Angle: 70°

IMPORTANT VIEWING INSTRUCTIONS

The following photomontages are composite images made up of multiple 50mm photographs joined together horizontally to form an overall field of view which may be wider than that seen in detail by the human eye. For correct perspective viewing, the following images must be viewed at their recommended viewing distance. This image should only be assessed in the real landscape from the same viewpoint.

Photomontage



Wireframe

1746

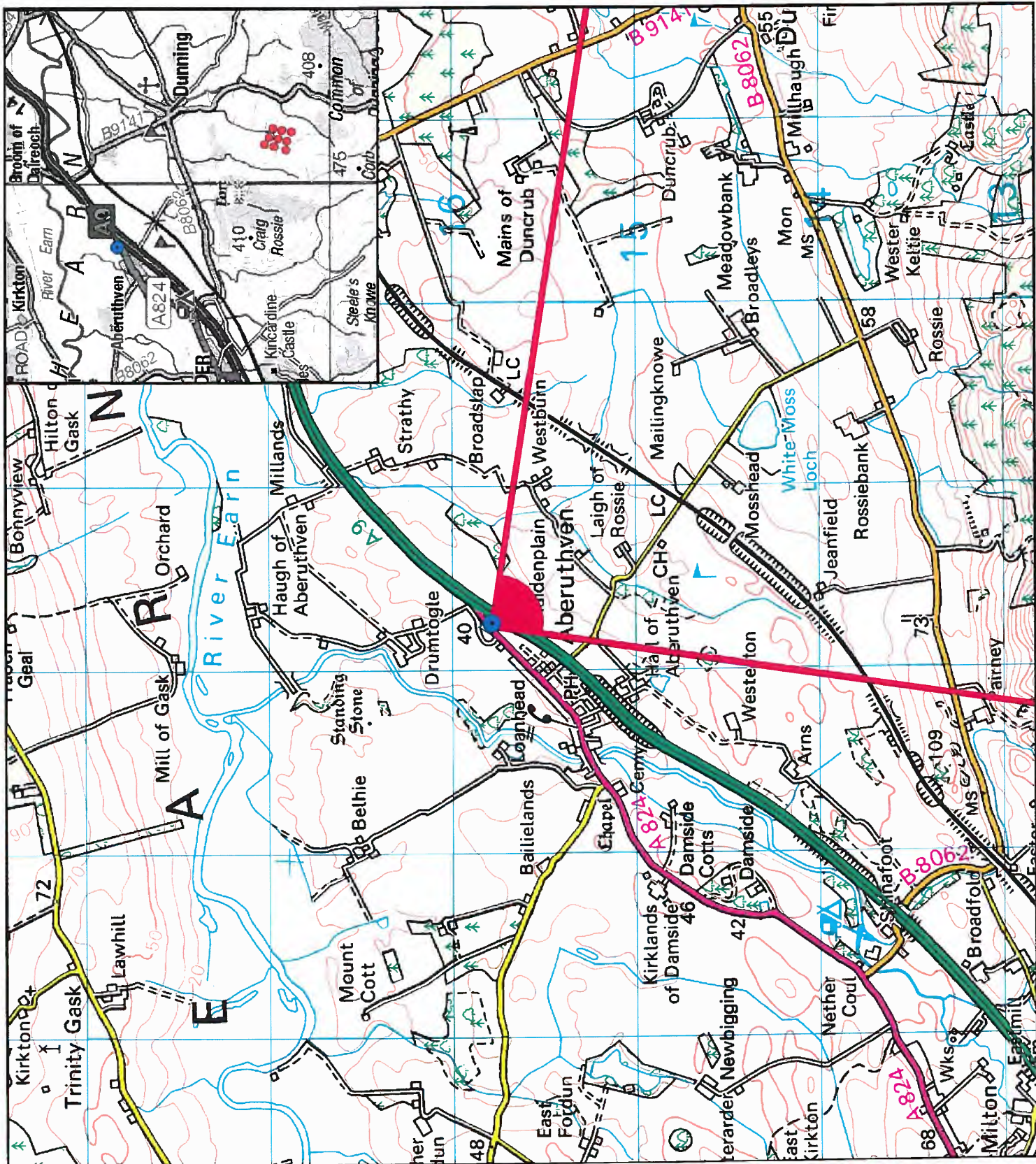
VIEWPOINT 4b

Recommended viewing distance when viewed with both eyes: 330mm

IMPORTANT VIEWING INSTRUCTIONS

The following photomontages are composite images made up of multiple 50mm photographs joined together horizontally to form an overall field of view which may be wider than that seen in detail by the human eye. For correct perspective viewing, the following images must be viewed at their recommended viewing distance. This image should only be assessed in the real landscape from the same viewpoint.

Horizontal View Angle: 70°



1747

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FIGURE 3.27

Viewpoint 5 - Aberuthven

Photo taken next to A90 dual carriageway.

Scale: 1:20,000
Drawn by: AE
Checked by: AF
Date: 04/04/2014

VIEWPOINT DATA

Grid Reference 298256, 715781
Elevation 40m
Distance to nearest turbine 4.9km

PHOTOGRAPHY

Height above ground 1.5m
Camera Canon EOS 5D
Focal length 50mm
Photography date 10/03/2014
Photography time 15:20

PREDICTED TURBINE VISIBILITY

Number of turbine tips visible 19
Number of turbine hubs visible 7



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VIEWPOINT 5: Aberuthven

Photograph



1748

VIEWPOINT 5a

Recommended viewing distance when viewed with both eyes: 260mm

IMPORTANT VIEWING INSTRUCTIONS

The following photomontages are composite images made up of multiple 50mm photographs joined together horizontally to form an overall field of view which may be wider than that seen in detail by the human eye. For correct perspective viewing, the following images must be viewed at their recommended viewing distance. This image should only be assessed in the real landscape from the same viewpoint.

Horizontal View Angle: 90°

Photomontage



Wireframe



VIEWPOINT 5b

Recommended viewing distance when viewed with both eyes: 260mm

IMPORTANT VIEWING INSTRUCTIONS

The following photomontages are composite images made up of multiple 50mm photographs joined together horizontally to form an overall field of view which may be wider than that seen in detail by the human eye. For correct perspective viewing, the following images must be viewed at their recommended viewing distance. This image should only be assessed in the real landscape from the same viewpoint.

Horizontal View Angle: 90°

Cumulative Photomontage



Cumulative Wireframe

Knowes

Green Knowes



VIEWPOINT 5c

Recommended viewing distance when viewed with both eyes: 260mm

IMPORTANT VIEWING INSTRUCTIONS

The following photomontages are composite images made up of multiple 50mm photographs joined together horizontally to form an overall field of view which may be wider than that seen in detail by the human eye. For correct perspective viewing, the following images must be viewed at their recommended viewing distance. This image should only be assessed in the real landscape from the same viewpoint.

Horizontal View Angle: 90°