



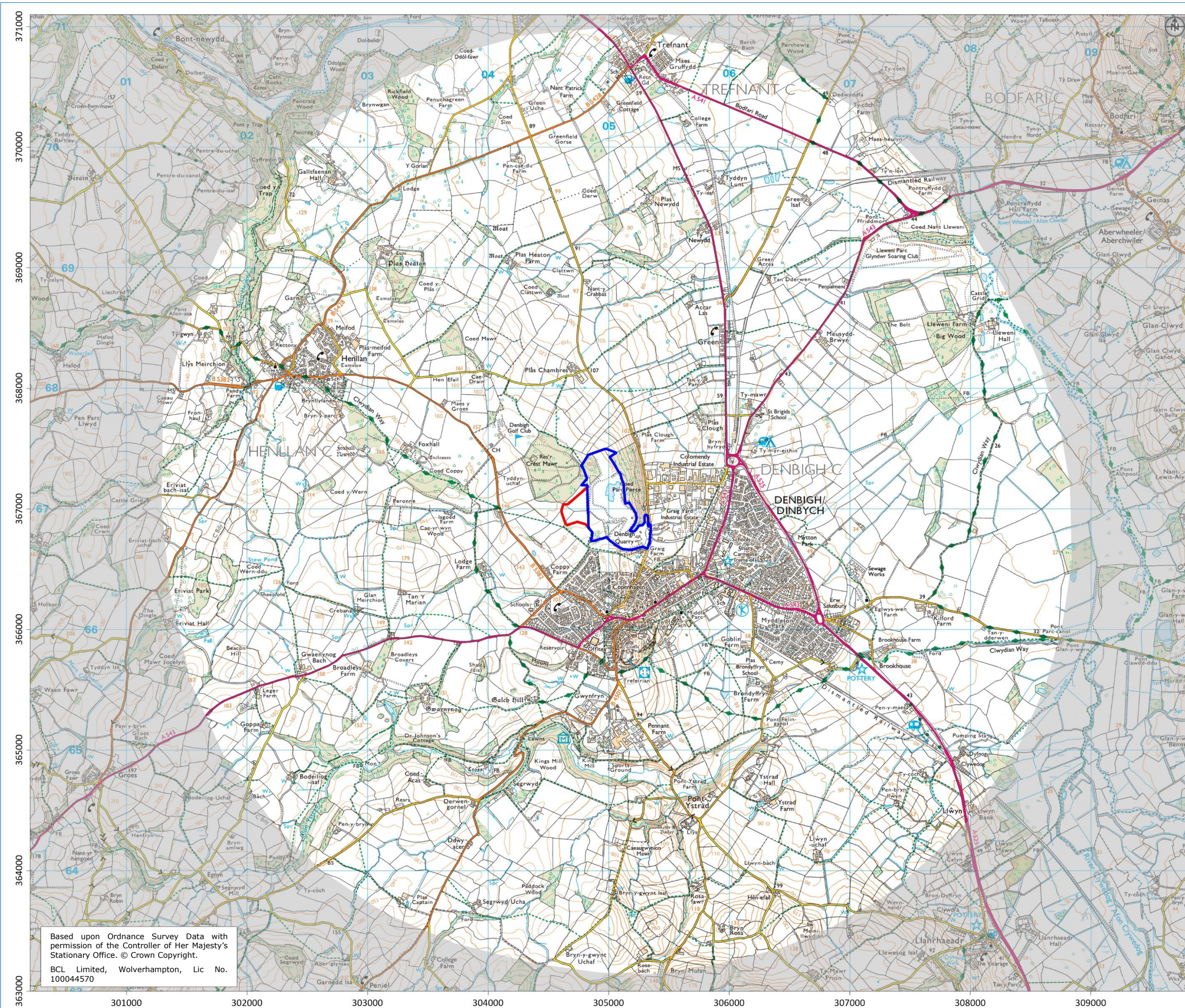
Breedon Trading Limited
Denbigh Quarry
Denbigh, Denbighshire

Extension to Existing Mineral Workings

Hydrological & Hydrogeological Impact Assessment

02nd Febuary 2022

Figures



Site Boundary



Extension Boundary

S/BSLDQ/H&HIA/003



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Denbigh Quarry, Denbigh, Denbighshire

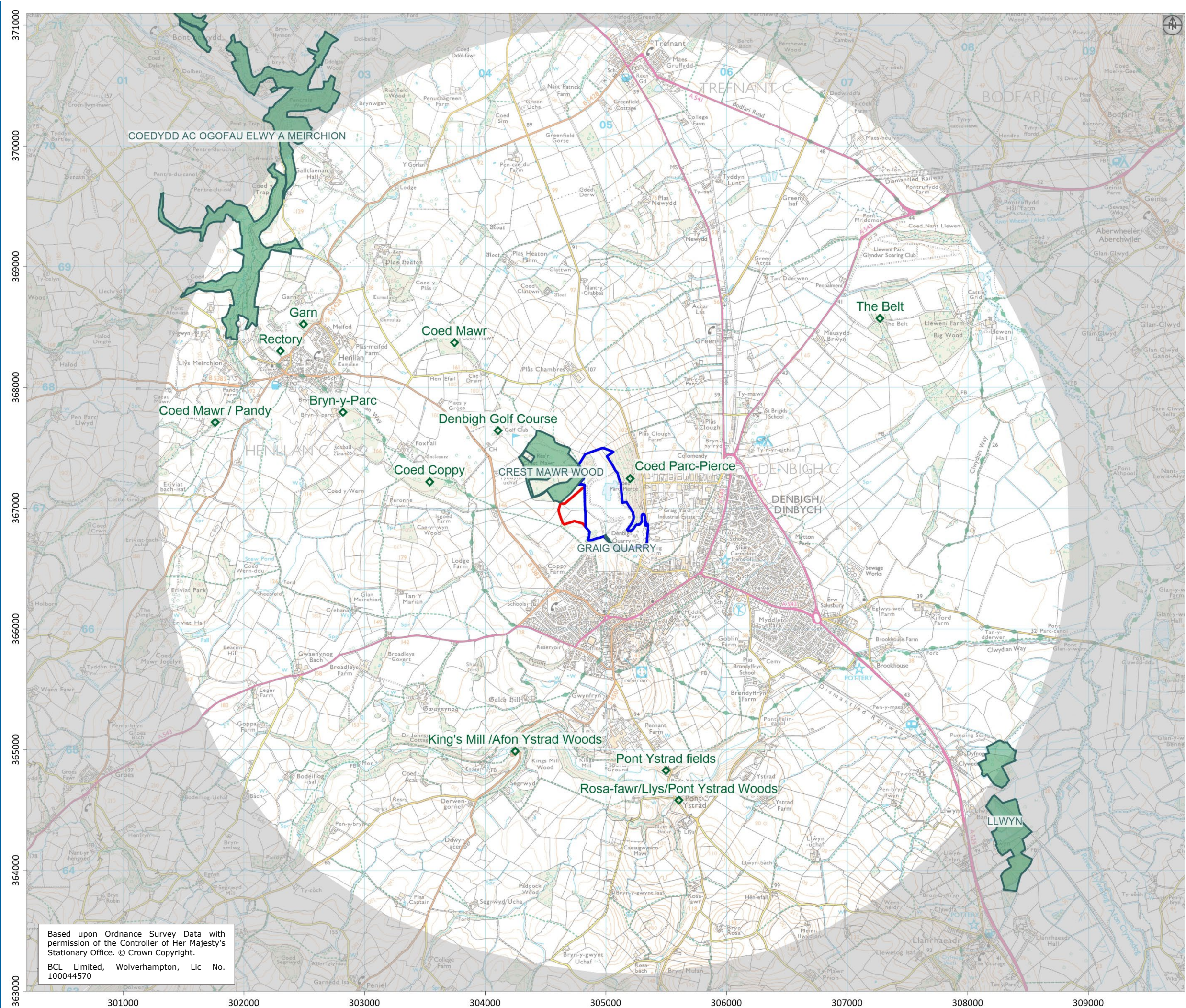
Hydrological & Hydrogeological Impact Assessment

Figure 1 Site Location and Study Area

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Format: A3L

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Site Boundary



Extension Boundary



SSSI



Wildlife Site

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Hydrological & Hydrogeological Impact Assessment

Figure 2 Sites of Ecological Importance

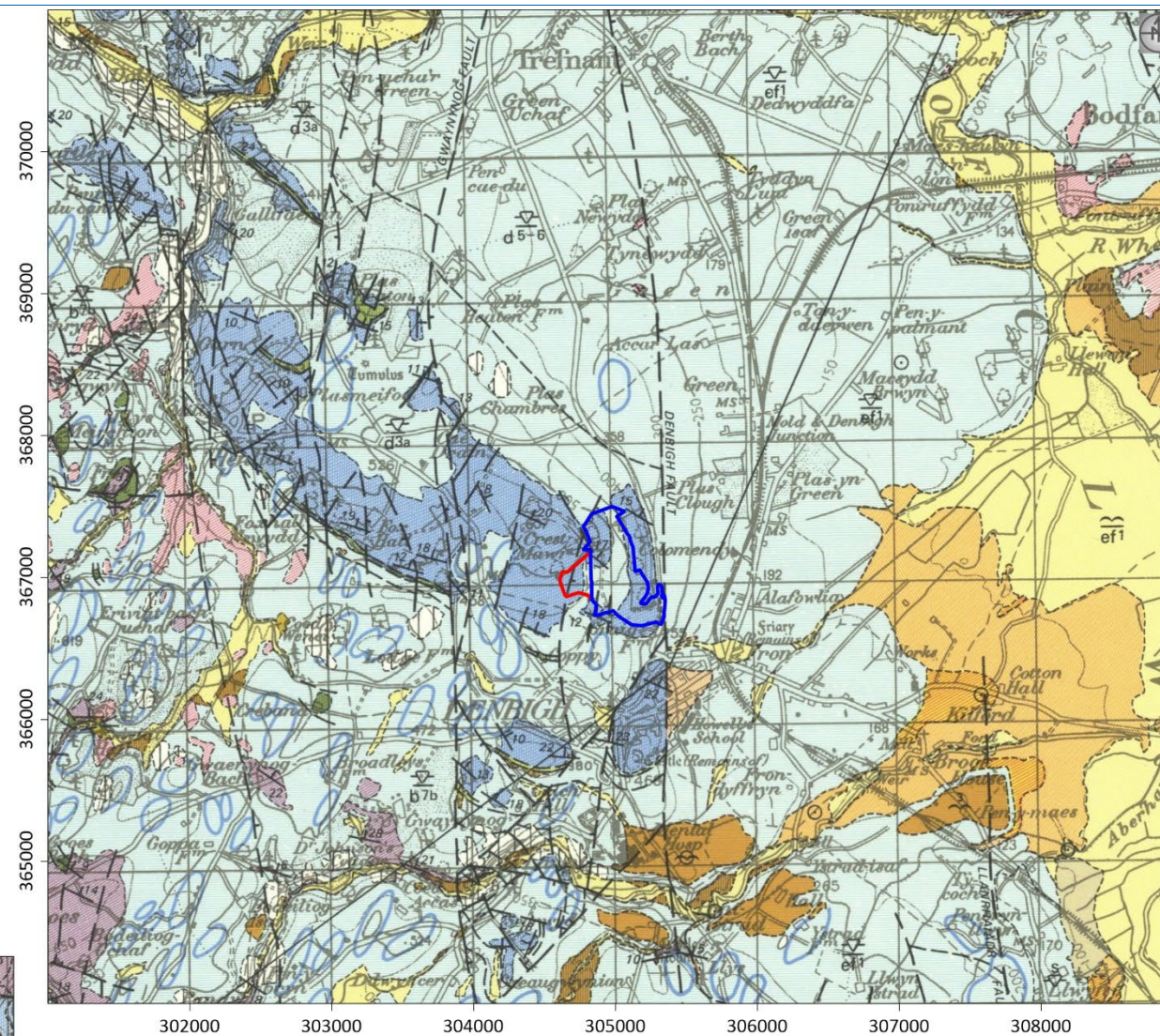
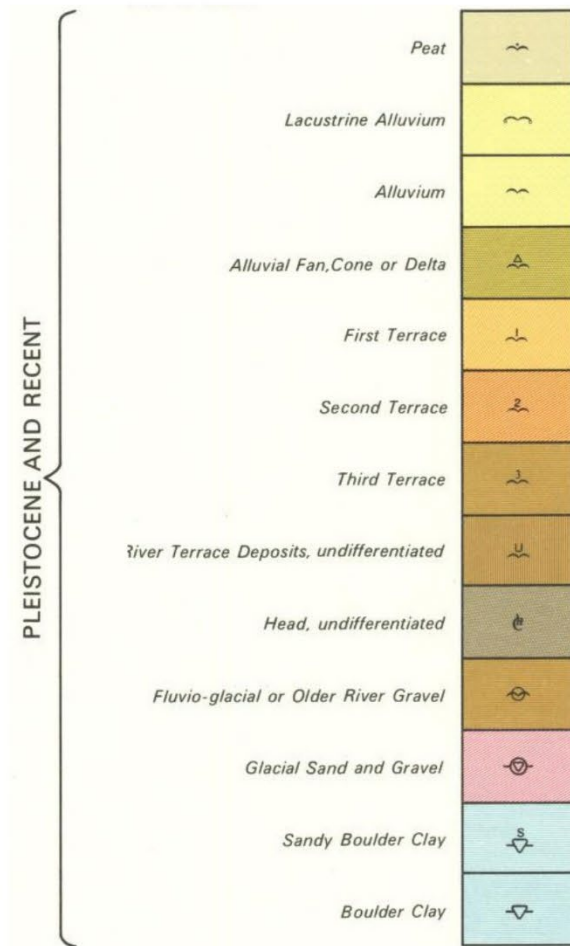
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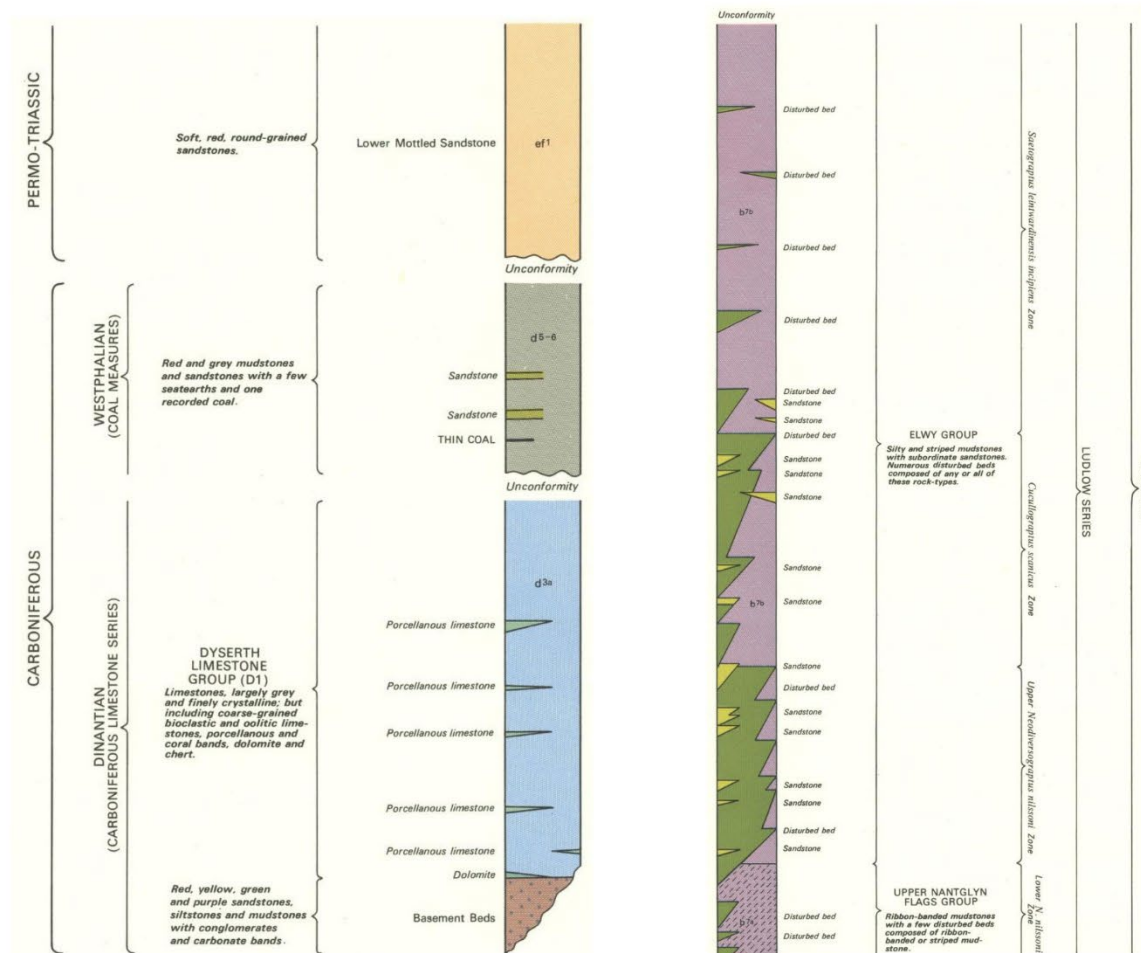
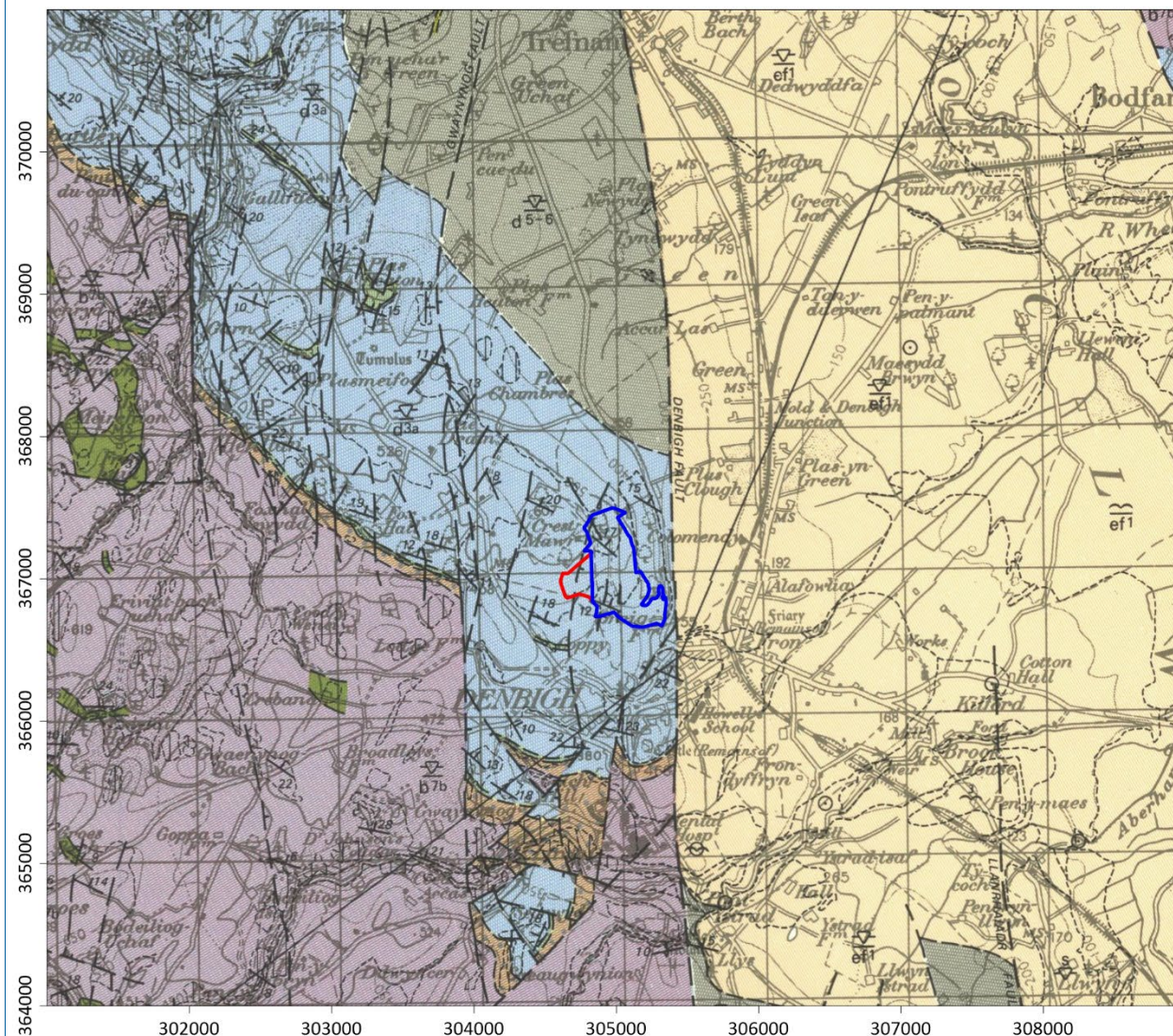
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Site Boundary



Extension Boundary



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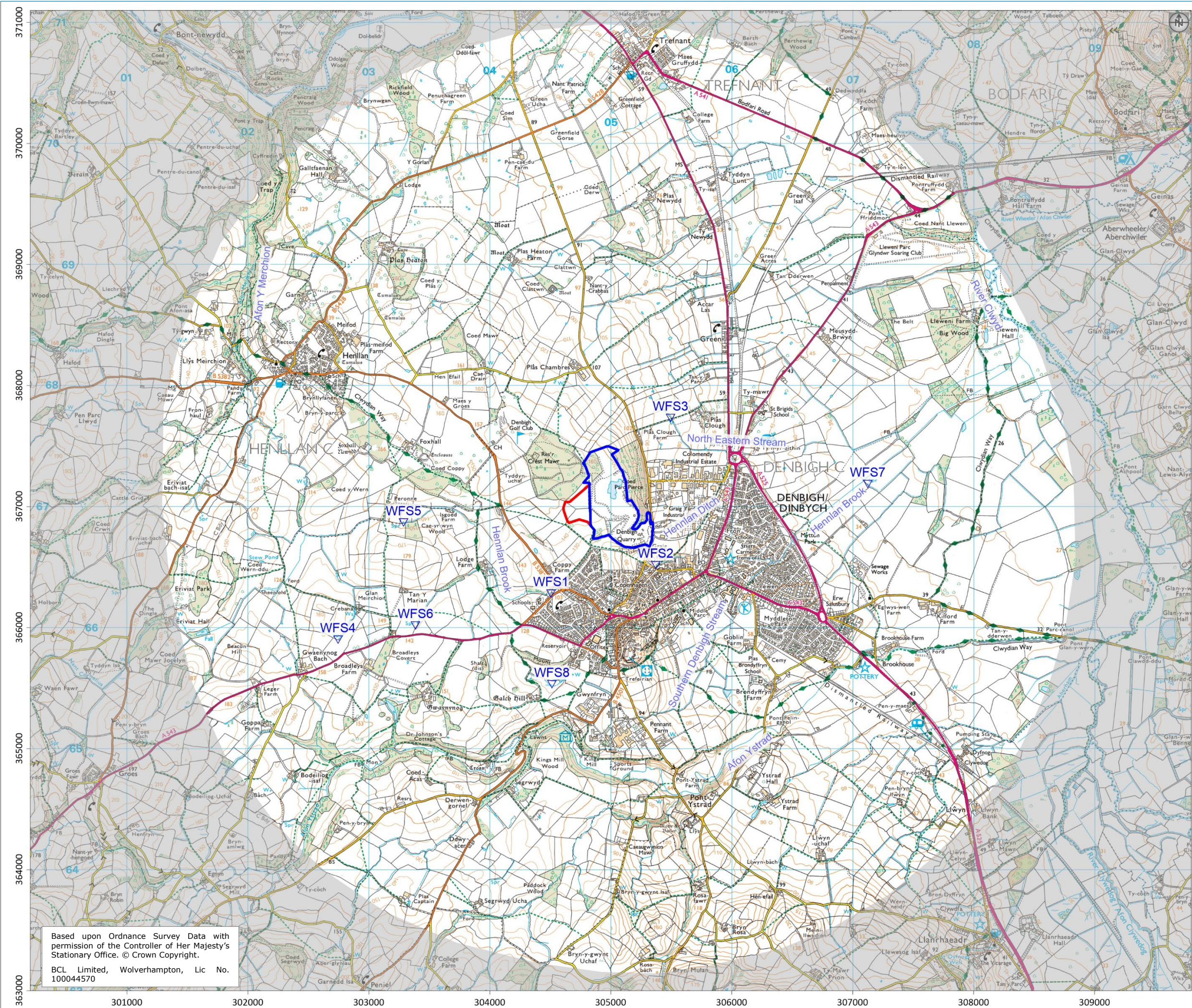


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Hydrological & Hydrogeological Impact Assessment

Figure 3 Geological Mapping

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Site Boundary



Extension Boundary



Survey Location

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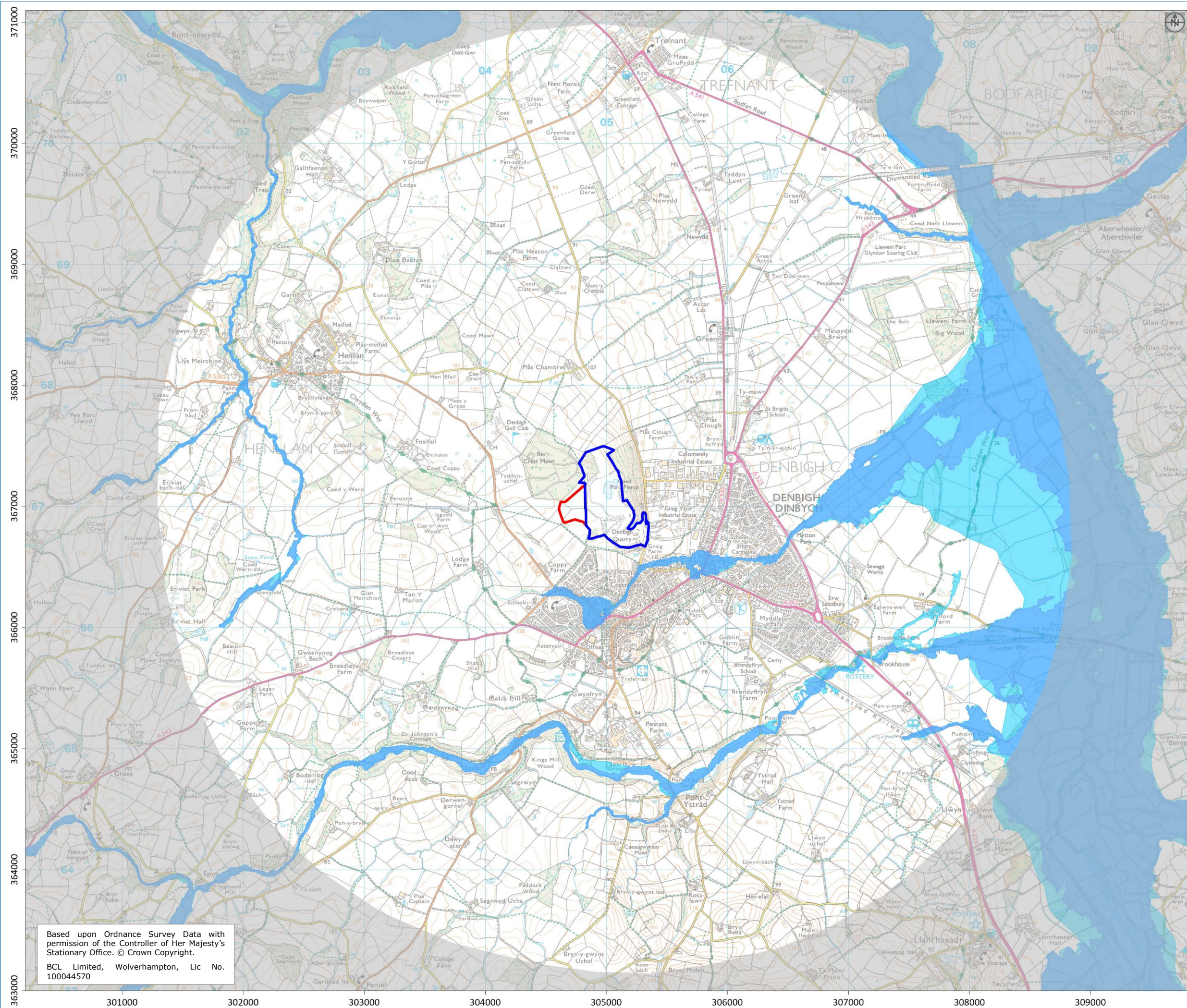
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Hydrological & Hydrogeological Impact Assessment

Figure 4 Hydrological Setting

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Format: A3L



Site Boundary



Extension Boundary



FR1



FR2



FR3

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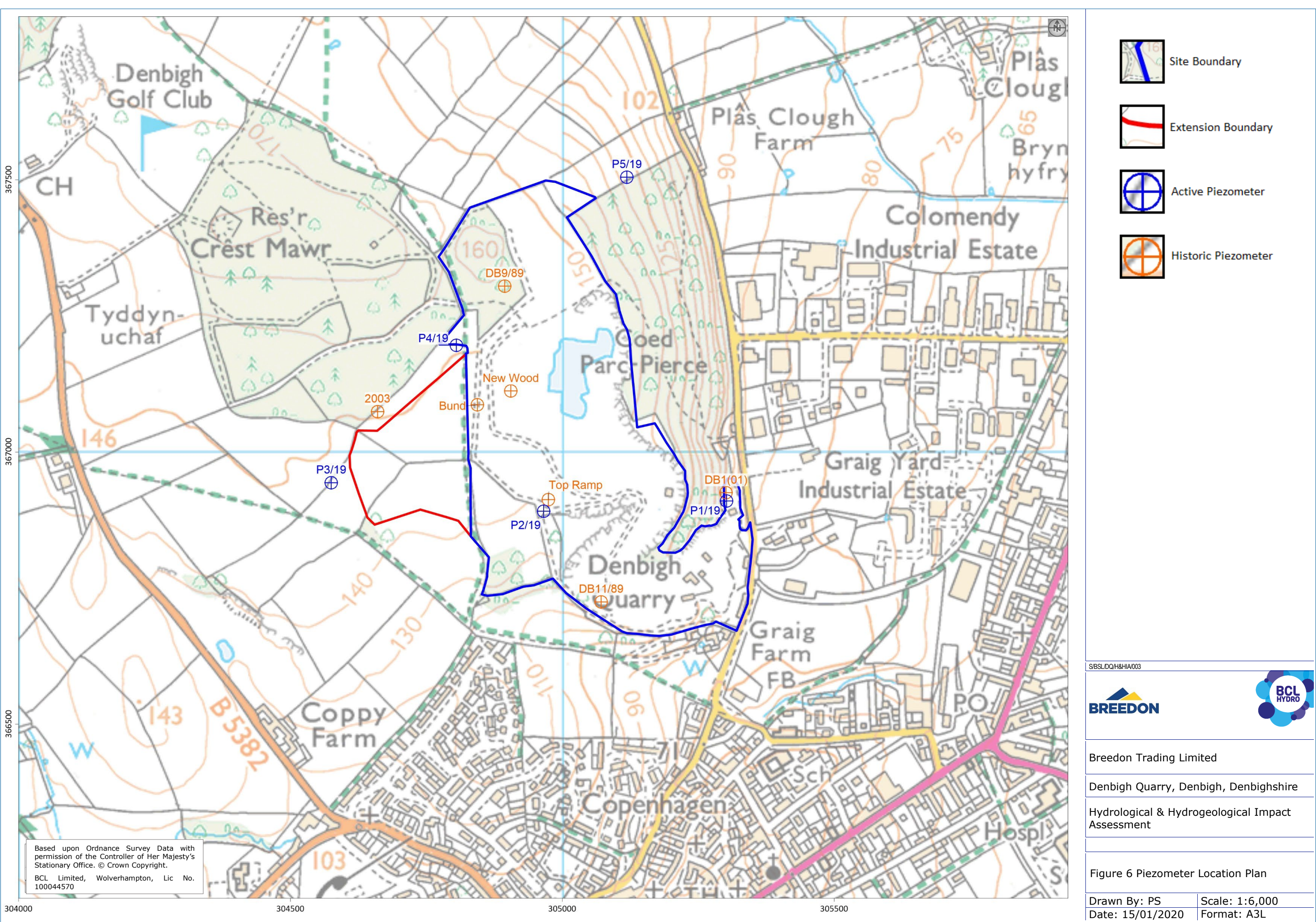
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Hydrological & Hydrogeological Impact Assessment

Figure 5 Flood Risk Mapping

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Scale: 1:6,000
Format: A3L



Site Boundary



Extension Boundary



Active Piezometer



Historic Piezometer

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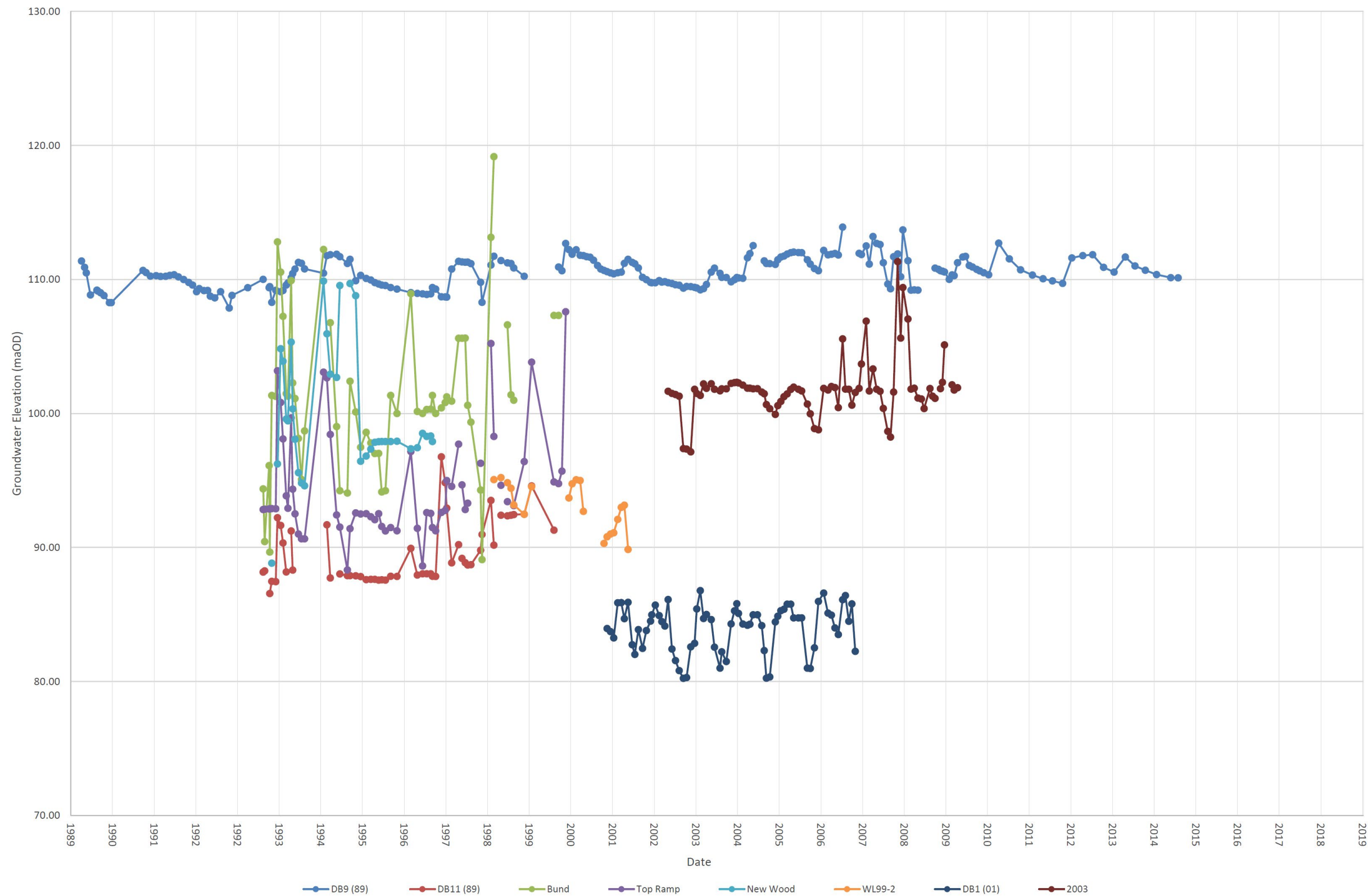
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Figure 6 Piezometer Location Plan

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Date: 15/01/2020	Format: A3L



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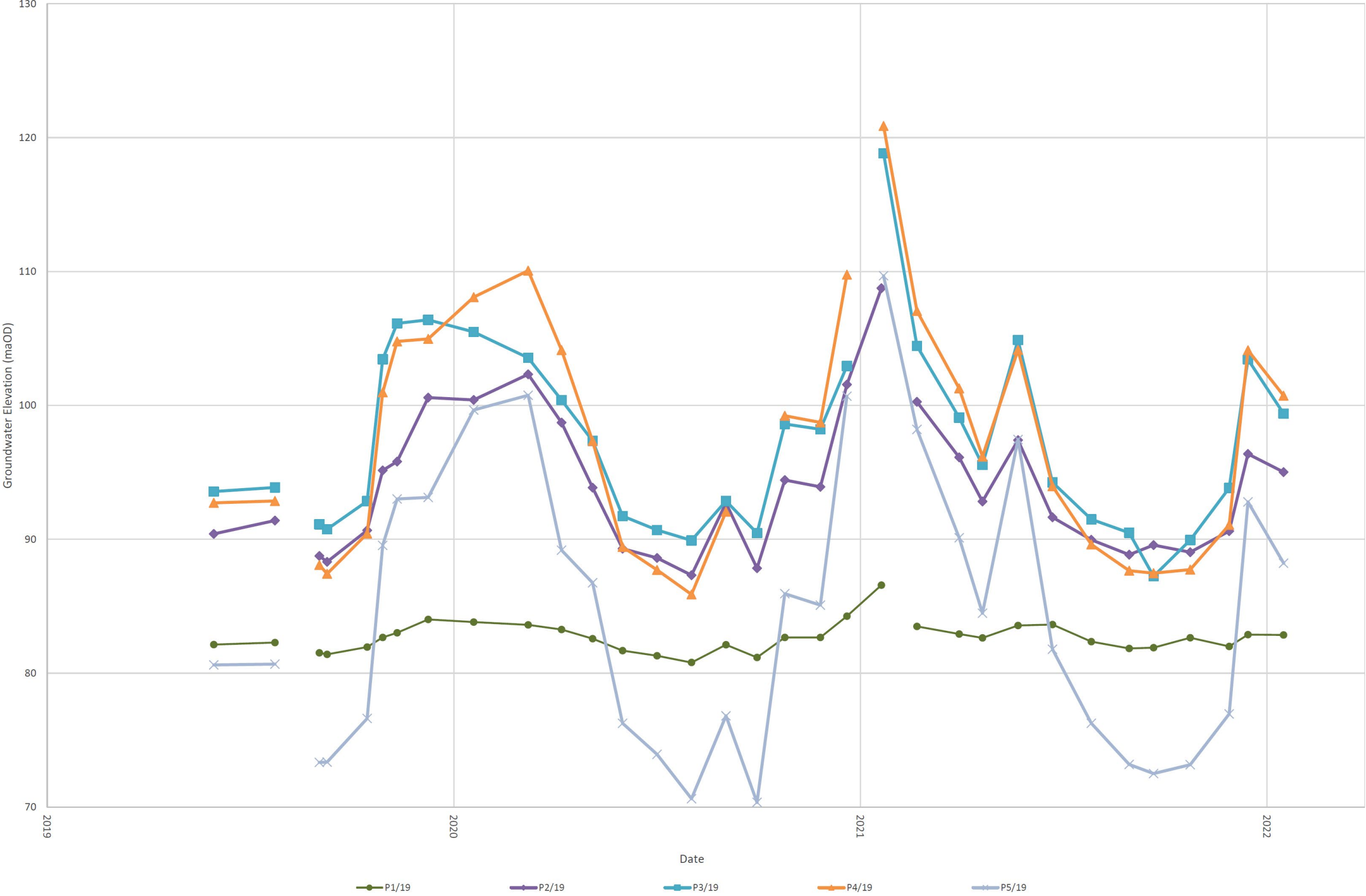
Denbigh Quarry, Denbigh, Denbighshire

Hydrological & Hydrogeological Impact
Assessment

Figure 7 Historic Piezometer Hydrograph

Drawn By: PS
Date: 15/01/2020

Scale: maOD
Format: A3L



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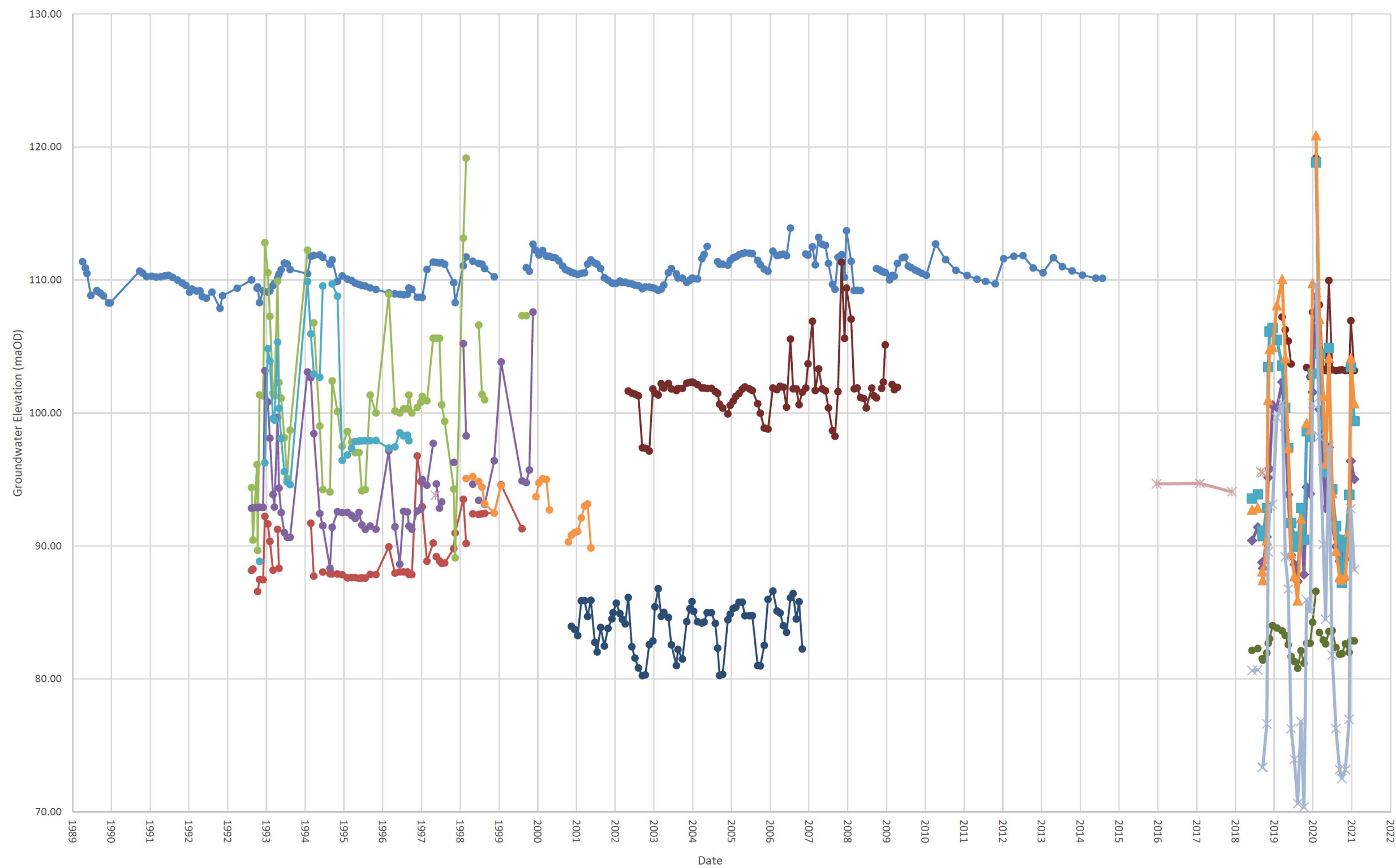
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Hydrological & Hydrogeological Impact Assessment

Figure 8 2019 Series Piezometer Hydrograph

Drawn By: PS	Scale: maOD
Date: 15/01/2020	Format: A3L



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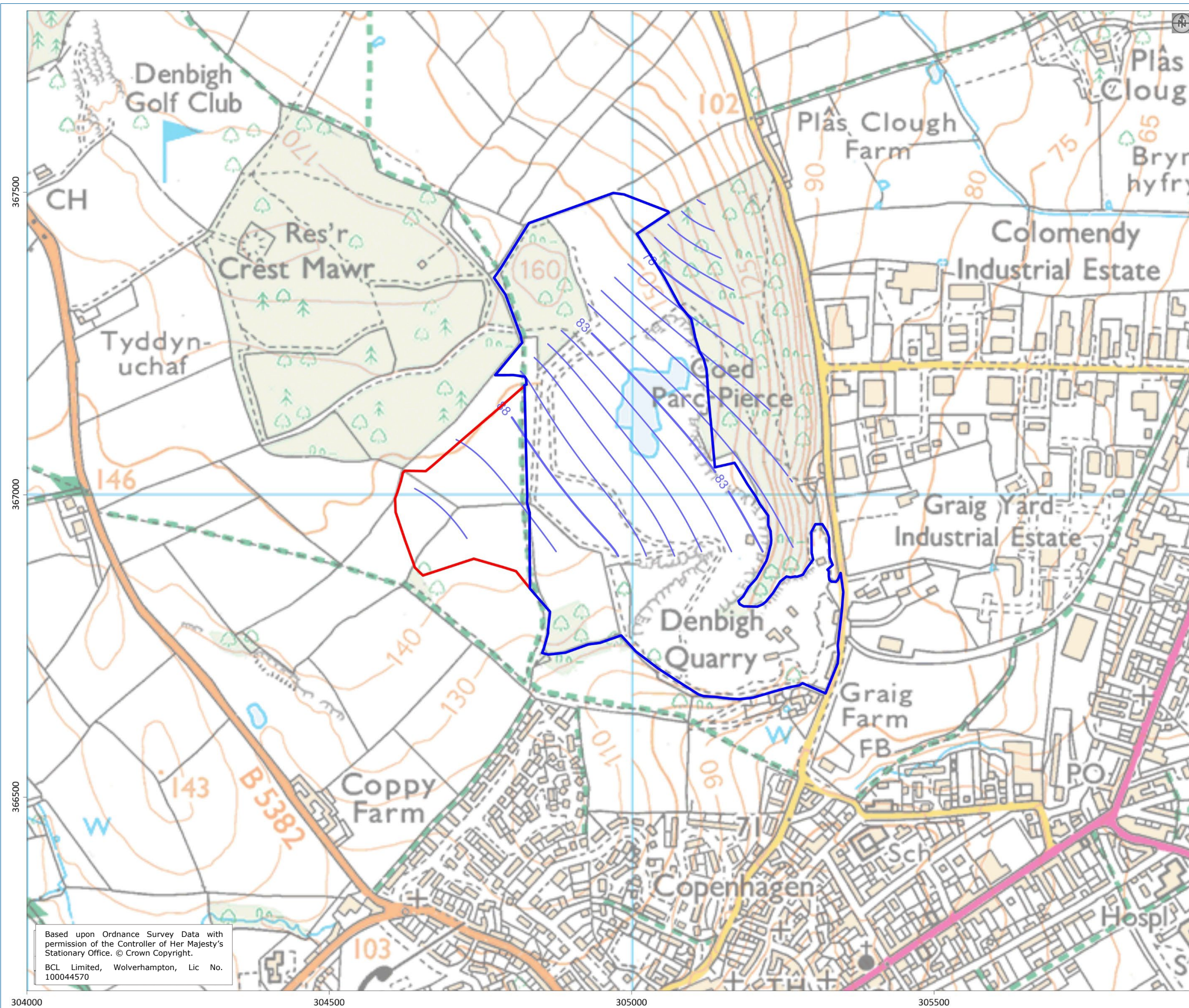
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Hydrological & Hydrogeological Impact Assessment

Figure 9 Combined Data Series Hydrograph

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Scale: maOD
Format: A3L



Site Boundary



Extension Boundary



Groundwater Elevation maOD

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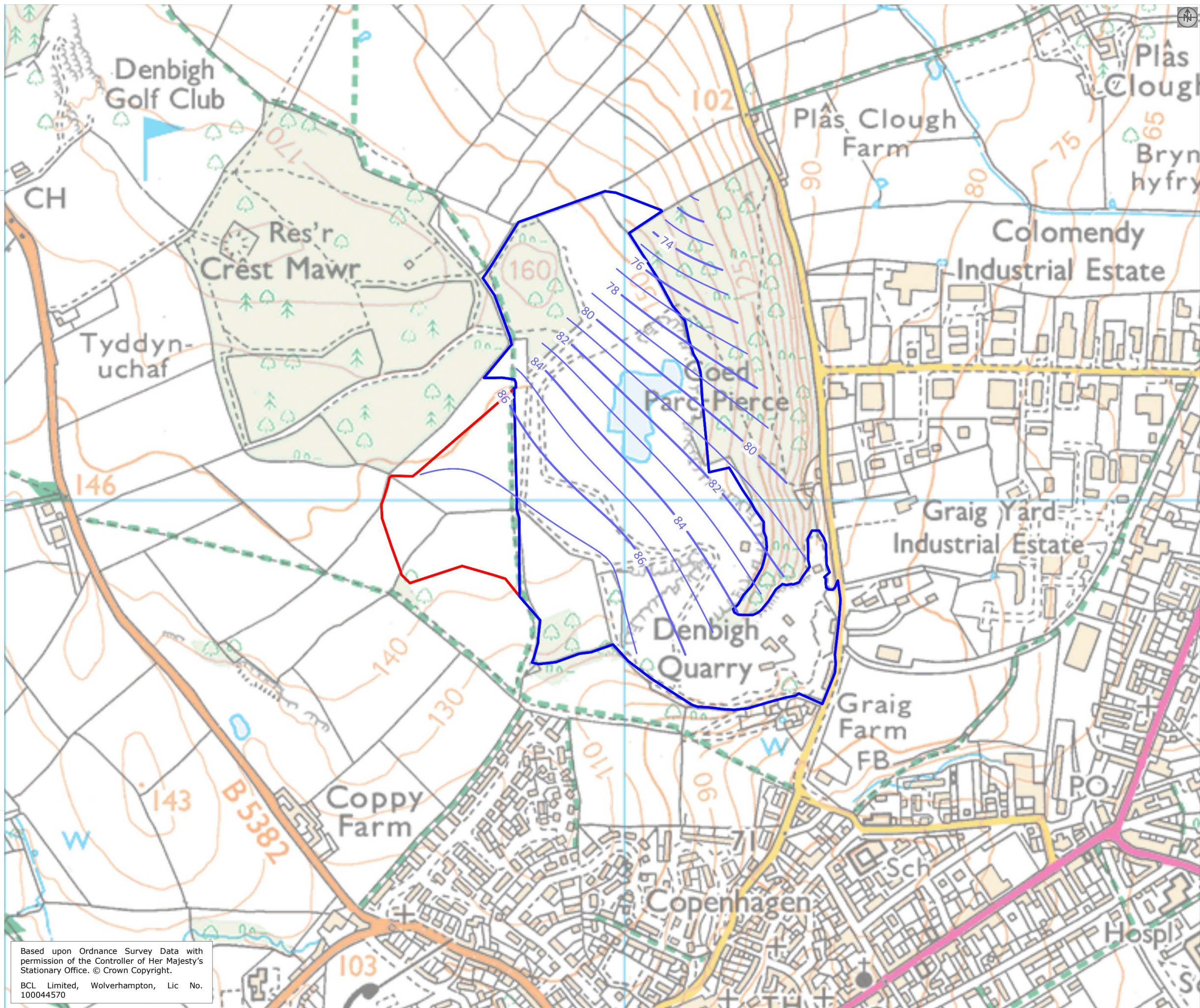
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Hydrological & Hydrogeological Impact Assessment

Figure 10 Groundwater Contours, September 2019

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Date: 15/01/2020

Scale: 1:6,000
Format: A3L



Site Boundary



Extension Boundary



Groundwater Elevation maOD

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Hydrological & Hydrogeological Impact
Assessment

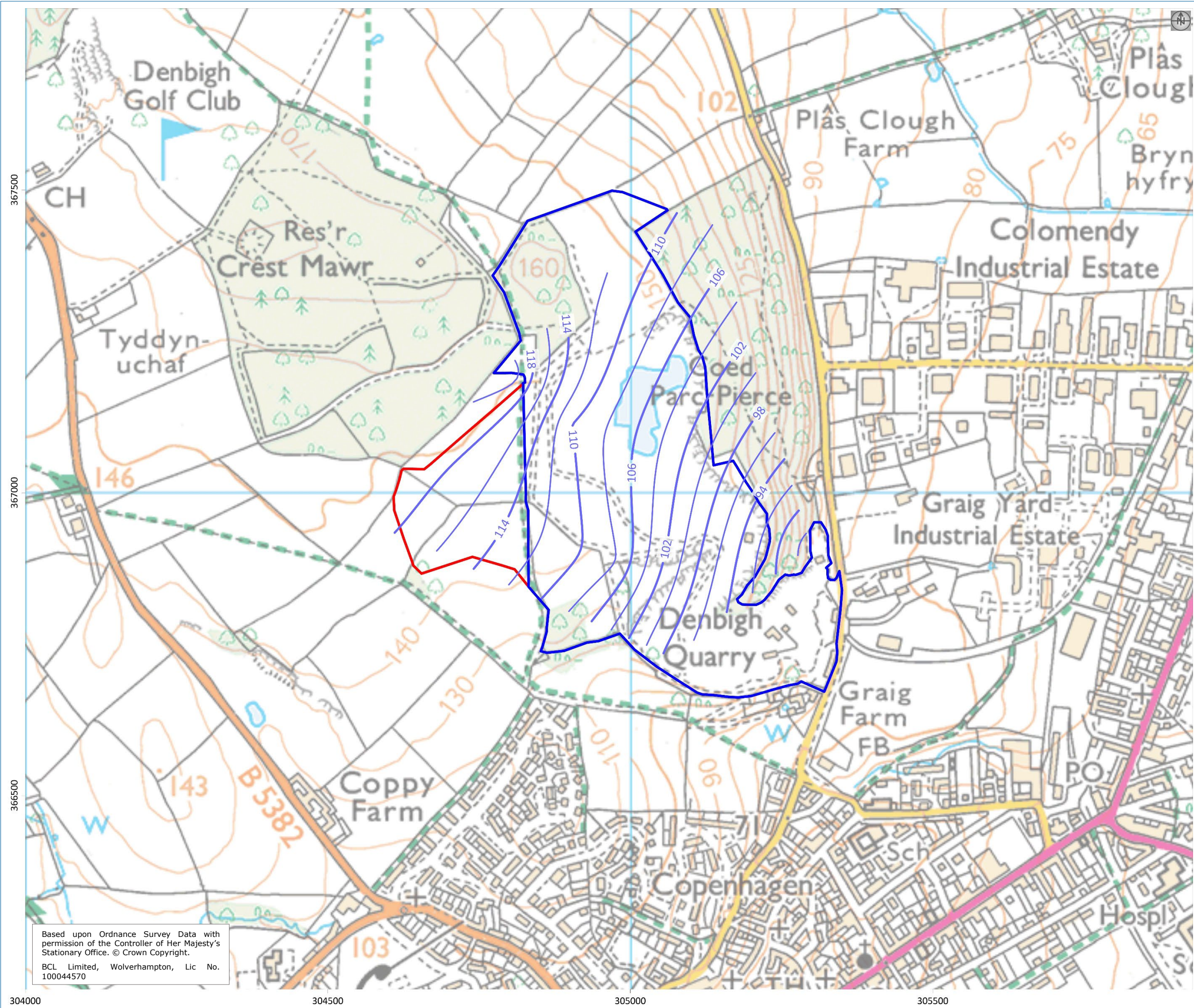
Figure 11 Groundwater Contours,
Minimum Levels




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Scale: 1:6,000
Format: A3L

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-  Site Boundary
-  Extension Boundary
-  Groundwater Elevation maOD

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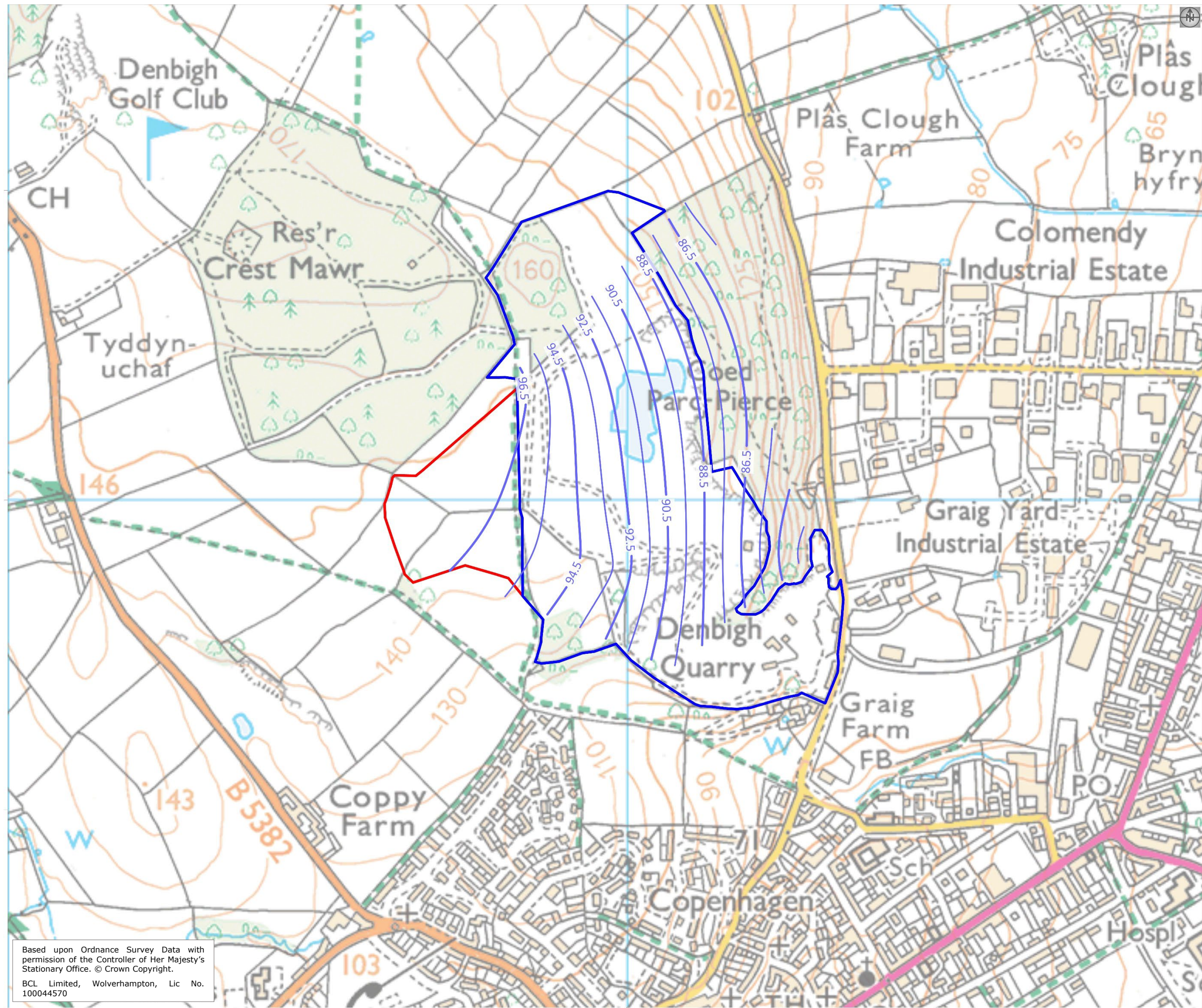
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Hydrological & Hydrogeological Impact Assessment

Figure 12 Groundwater Contours, Maximum Levels

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Site Boundary



Extension Boundary



Groundwater Elevation maOD

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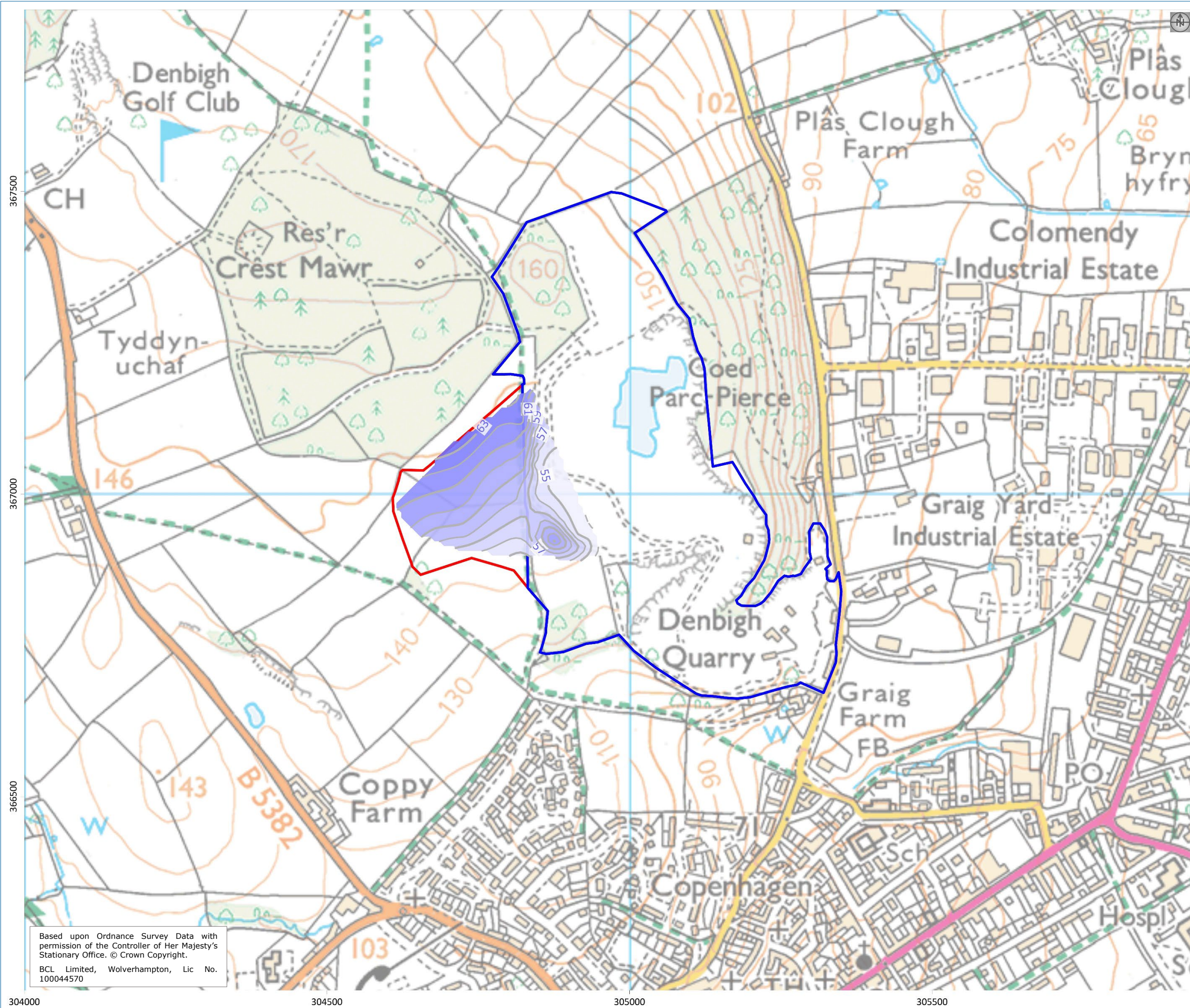
Hydrological & Hydrogeological Impact Assessment

Figure 13 Groundwater Contours, Average Levels

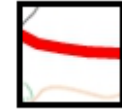
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Site Boundary



Extension Boundary



Unsaturated
Thickness (m)

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Assessment

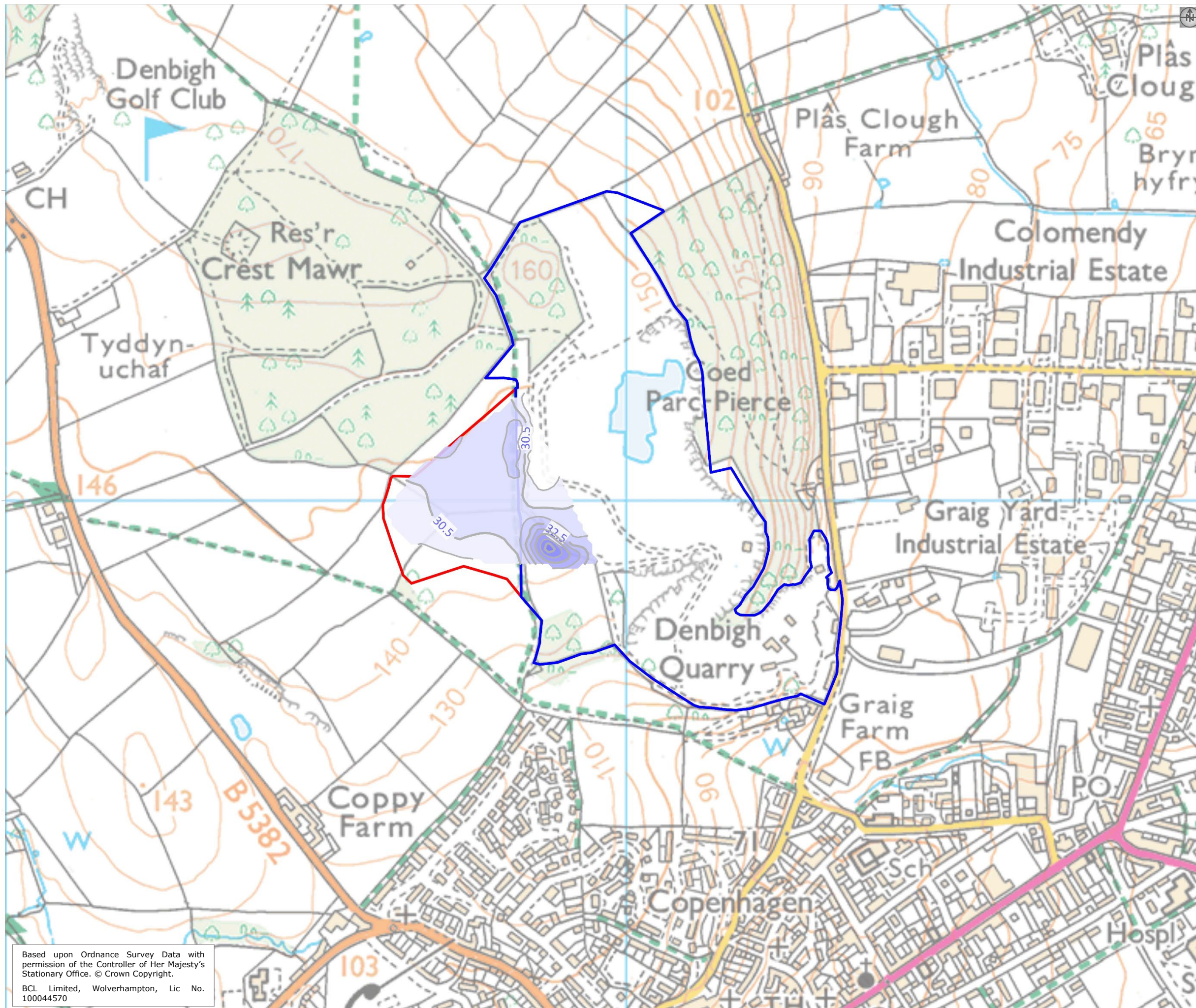
Figure 14 Maximum Unsaturated
Thickness

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Scale: 1:6,000
Format: A3L

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Site Boundary



Extension Boundary



Unsaturated
Thickness (m)

S/BSLDQ/H&HIA/003



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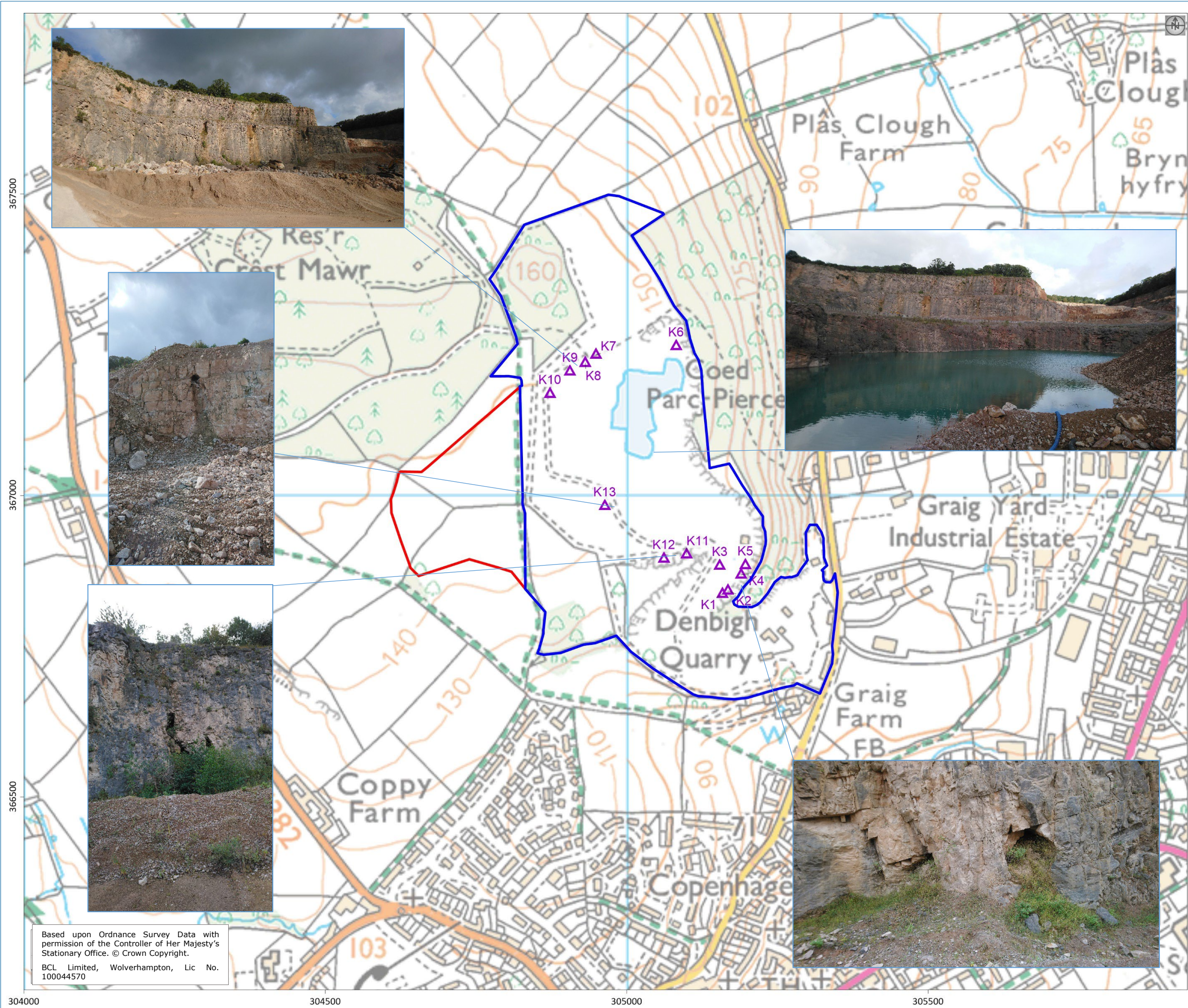
Hydrological & Hydrogeological Impact
Assessment




Figure 15 Minimum Unsaturated
Thickness

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Scale: 1:6,000
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-  Site Boundary
-  Extension Boundary
-  Karst Feature

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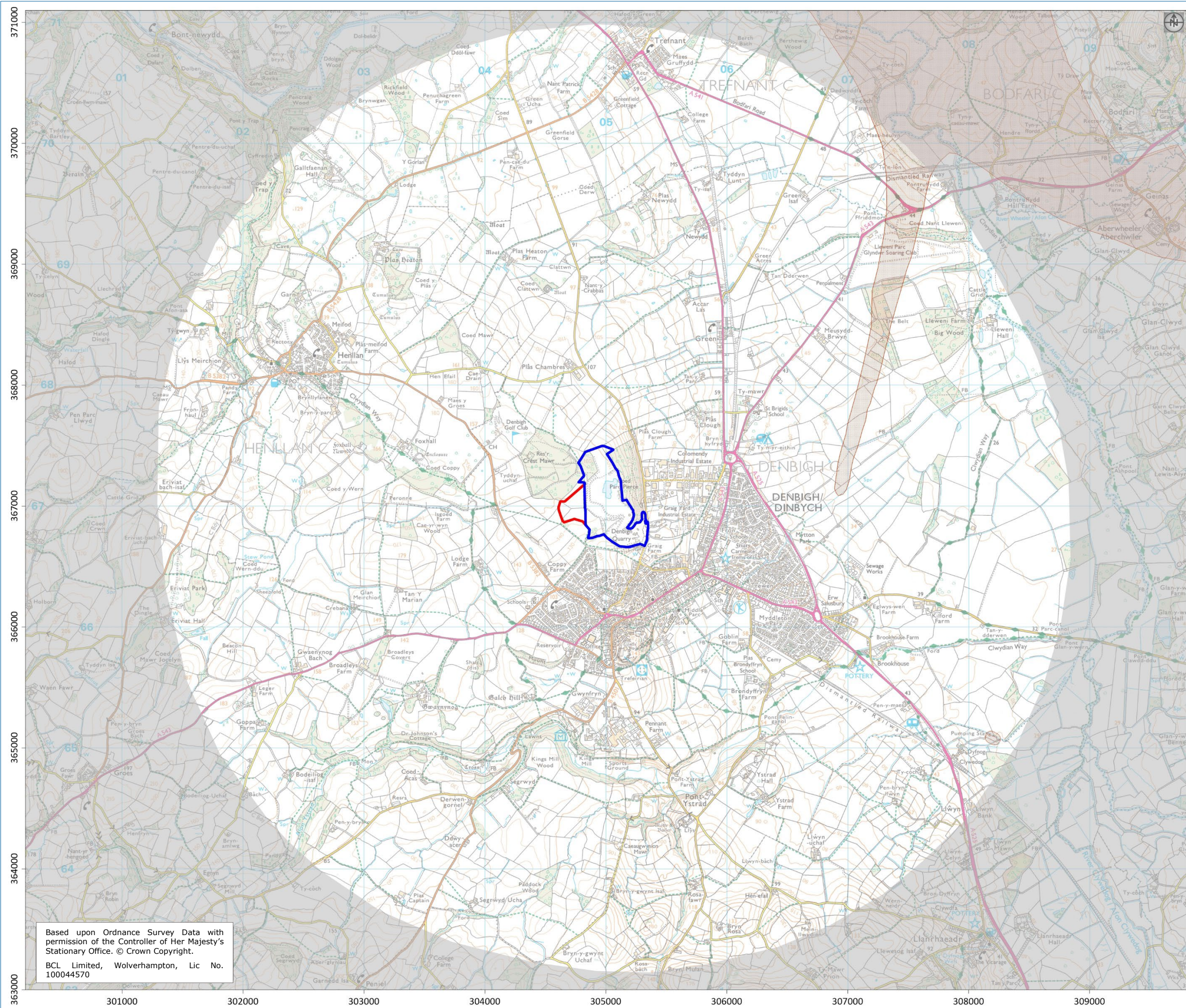
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Figure 16 Karst Features

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Site Boundary



Extension Boundary



SPZ

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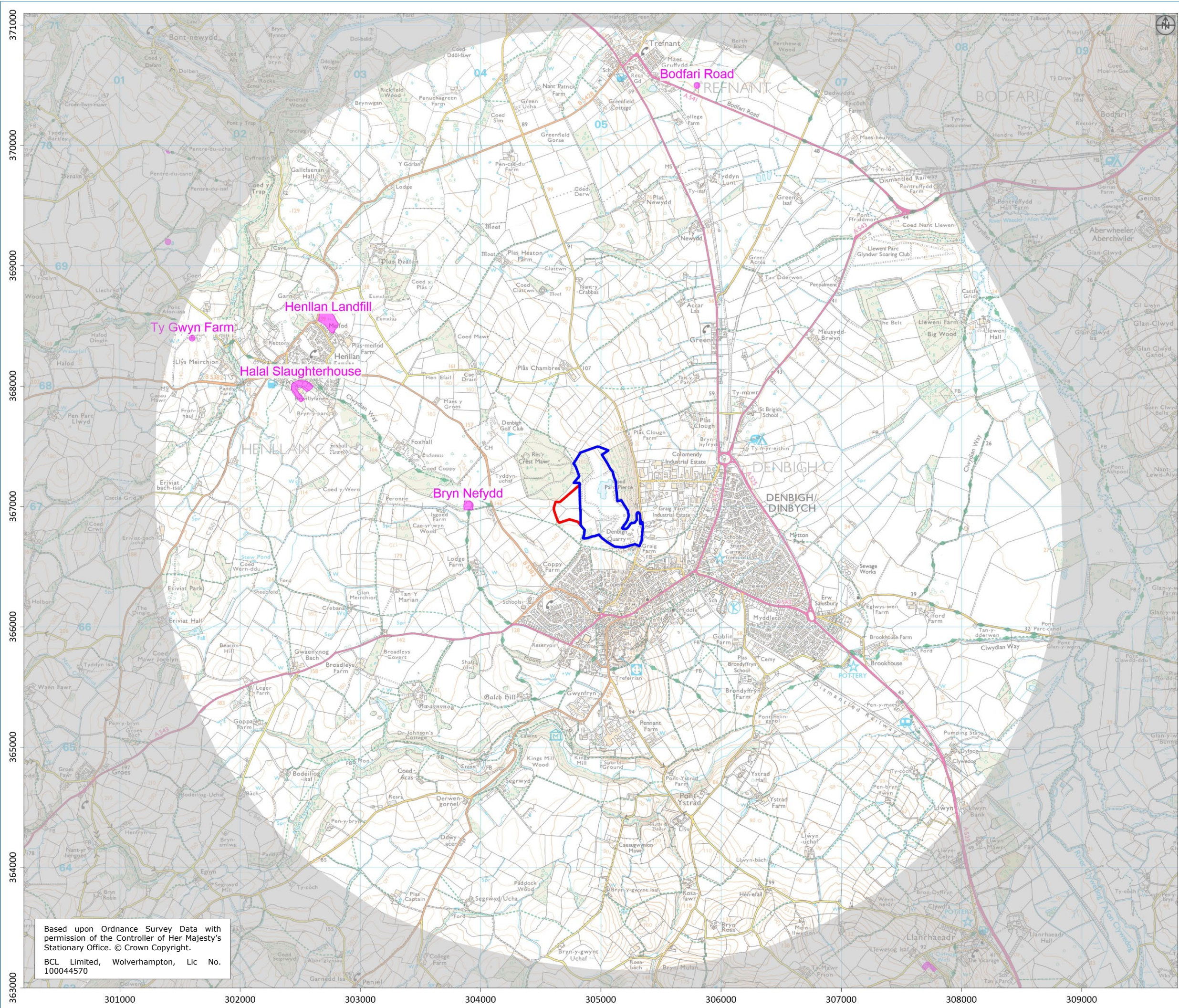
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Hydrological & Hydrogeological Impact Assessment

Figure 18 Source Protection Zones

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Scale: 1:30,000
Format: A3L



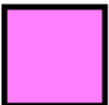
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Site Boundary



Extension Boundary



Landfill Site

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Hydrological & Hydrogeological Impact Assessment

Figure 19 Landfill Sites

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Scale: 1:30,000
Format: A3L



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M18.155.D.004

-  Site Boundary
-  Extension Boundary
-  Runoff
-  Drain
-  Pipe (Gravity)
-  Pipe (Pumped)

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Hydrological & Hydrogeological Impact
Assessment

Figure 20 Existing Site Water
Management

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Hydrological & Hydrogeological Impact
Assessment

Figure 21 Phasing Plan, Phase 1

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Hydrological & Hydrogeological Impact
Assessment

Figure 22 Phasing Plan, Phase 2

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Date: 15/01/2020	Format: A3L



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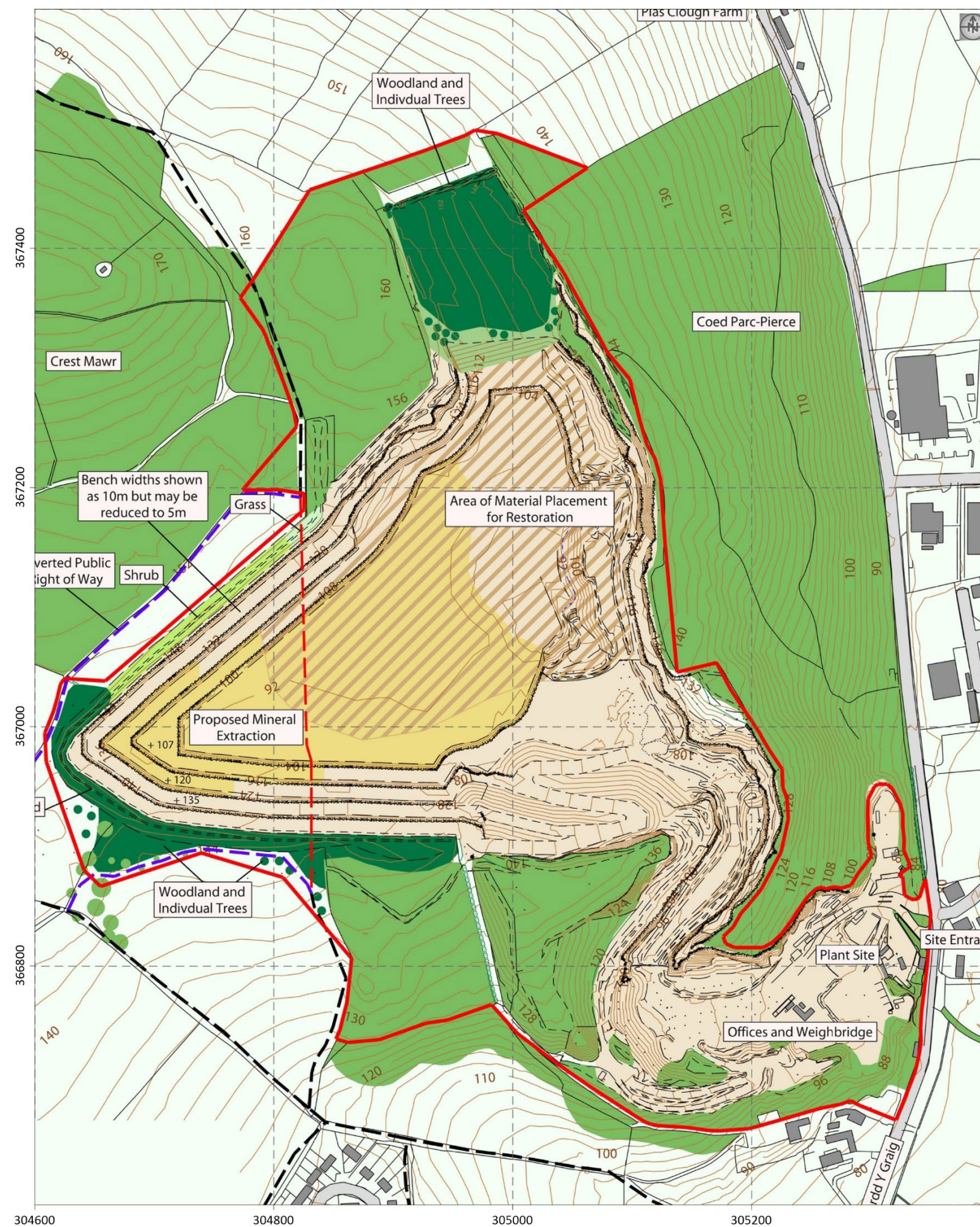
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Hydrological & Hydrogeological Impact
Assessment

Figure 23 Phasing Plan, Phase 3

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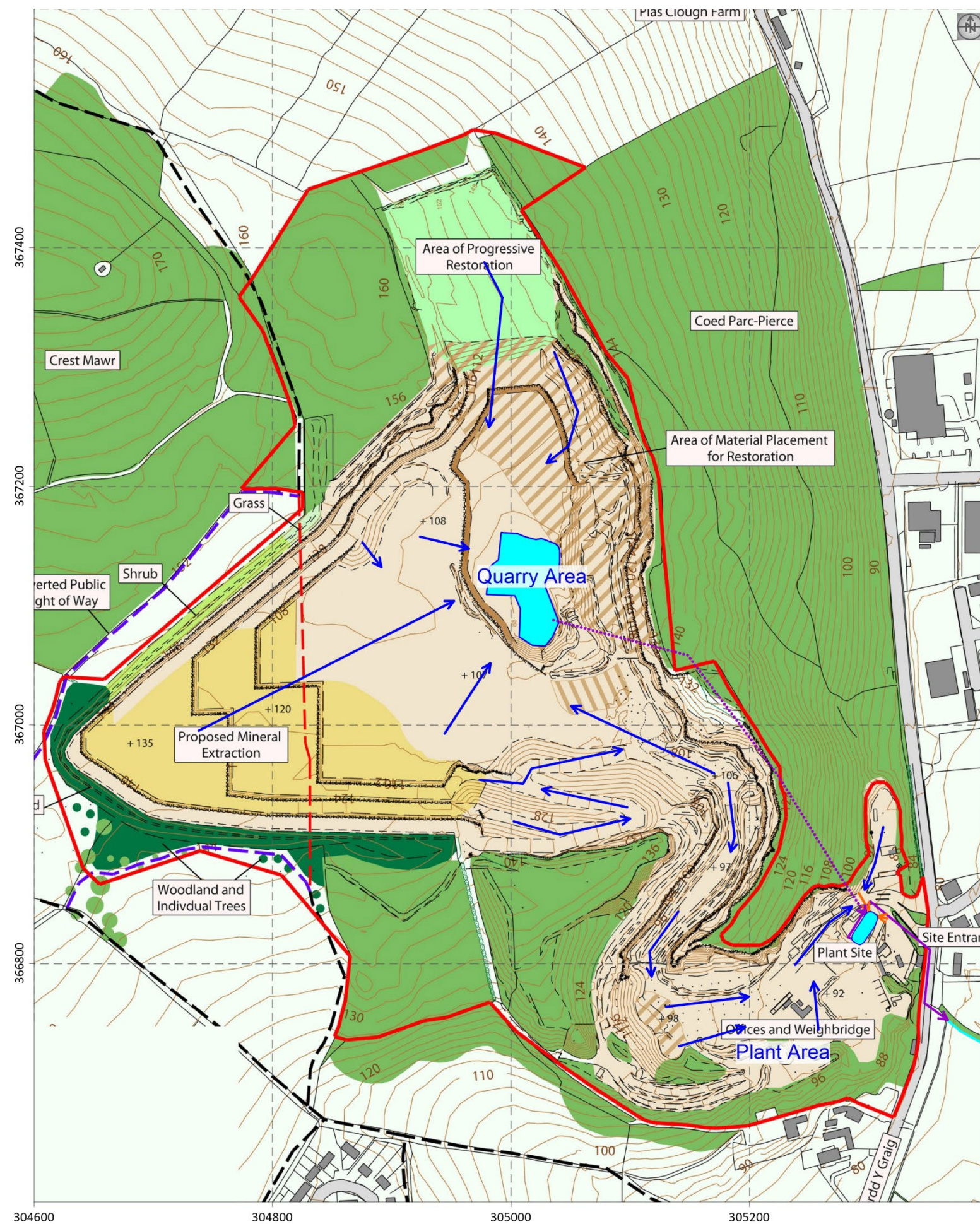
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Hydrological & Hydrogeological Impact
Assessment

Figure 24 Phasing Plan, Phase 4

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-  Site Boundary
-  Extension Boundary
-  Runoff
-  Drain
-  Pipe (Gravity)
-  Pipe (Pumped)

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Denbigh Quarry, Denbigh, Denbighshire

Hydrological & Hydrogeological Impact
Assessment

Figure 25 Development Water
Management

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Denbigh Quarry, Denbigh, Denbighshire



Hydrological & Hydrogeological Impact
Assessment

Figure 26 Concept Restoration

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-  Site Boundary
-  Extension Boundary
-  Runoff
-  Drain
-  Pipe (Gravity)
-  Extent of Infill
-  Restoration Lake Attenuating Level
-  Restoration Lake Maximum Level
-  Ditch 1

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Hydrological & Hydrogeological Impact
Assessment

Figure 27 Restoration Water Management

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