

A47 North Tuddenham to Easton Dualling

Scheme Number: TR010038

Volume 6

6.3 Environmental Statement Appendices

**Appendix 6.2 - Geophysical Survey,
Part 2 of 2**

APFP Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed
Forms and Procedure) Regulations 2009

March 2021

Infrastructure Planning

Planning Act 2008

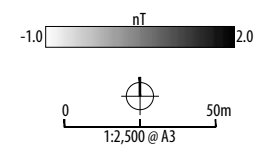
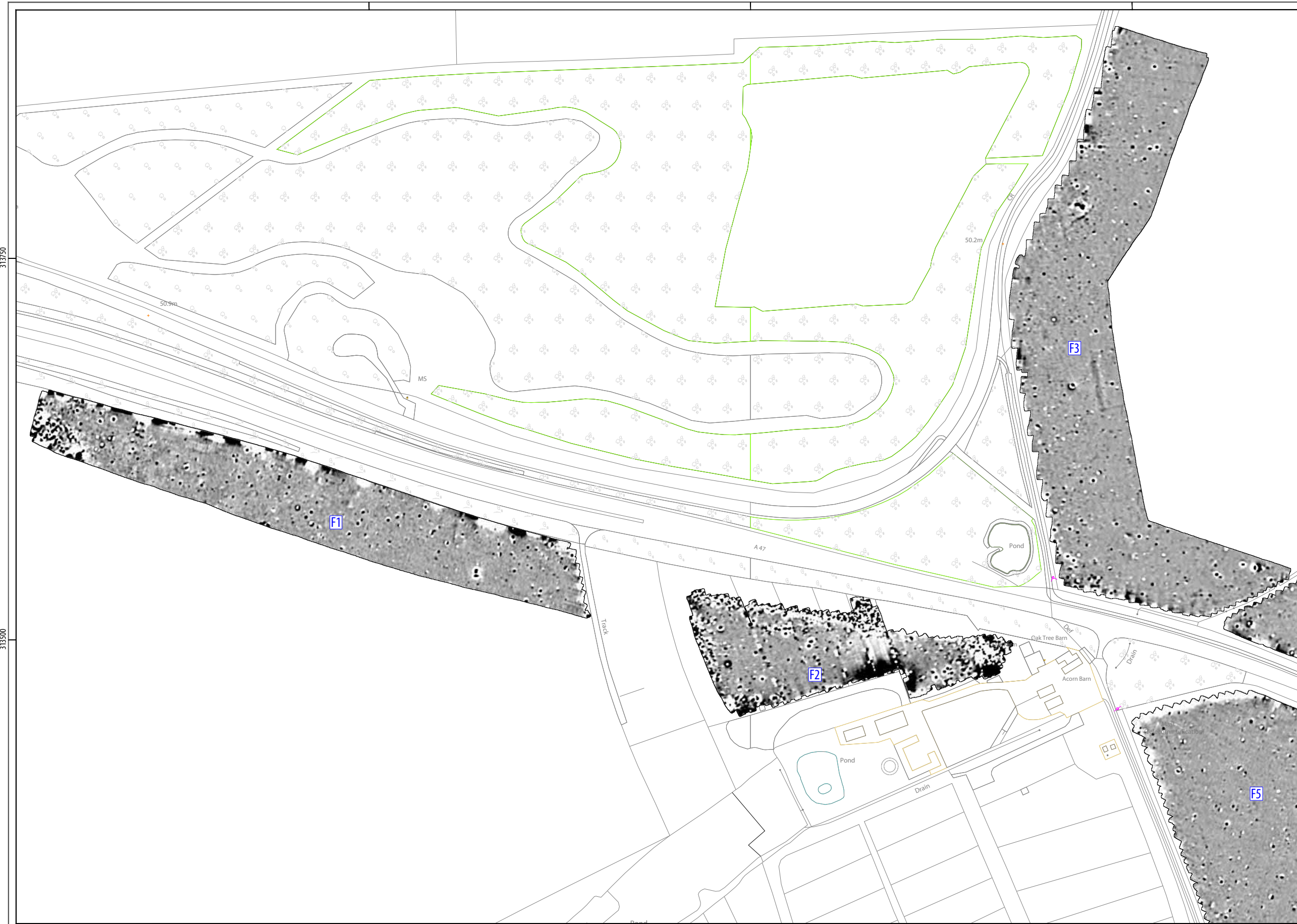
**The Infrastructure Planning
(Applications: Prescribed Forms and
Procedure) Regulations 2009**

The A47 North Tuddenham to Easton
Development Consent Order 202[x]

ENVIRONMENTAL STATEMENT APPENDICES
Appendix 6.2 - Geophysical Survey,
Part 2 of 2

Regulation Number:	5(2)(a)
Planning Inspectorate Scheme Reference	TR010038
Application Document Reference	TR010038/APP/6.3
BIM Document Reference	HE551489-GTY-VES-000-RP-LH-30001
Author:	A47 North Tuddenham to Easton Dualling Project Team, Highways England

Version	Date	Status of Version
Rev 0	March 2021	Application Issue



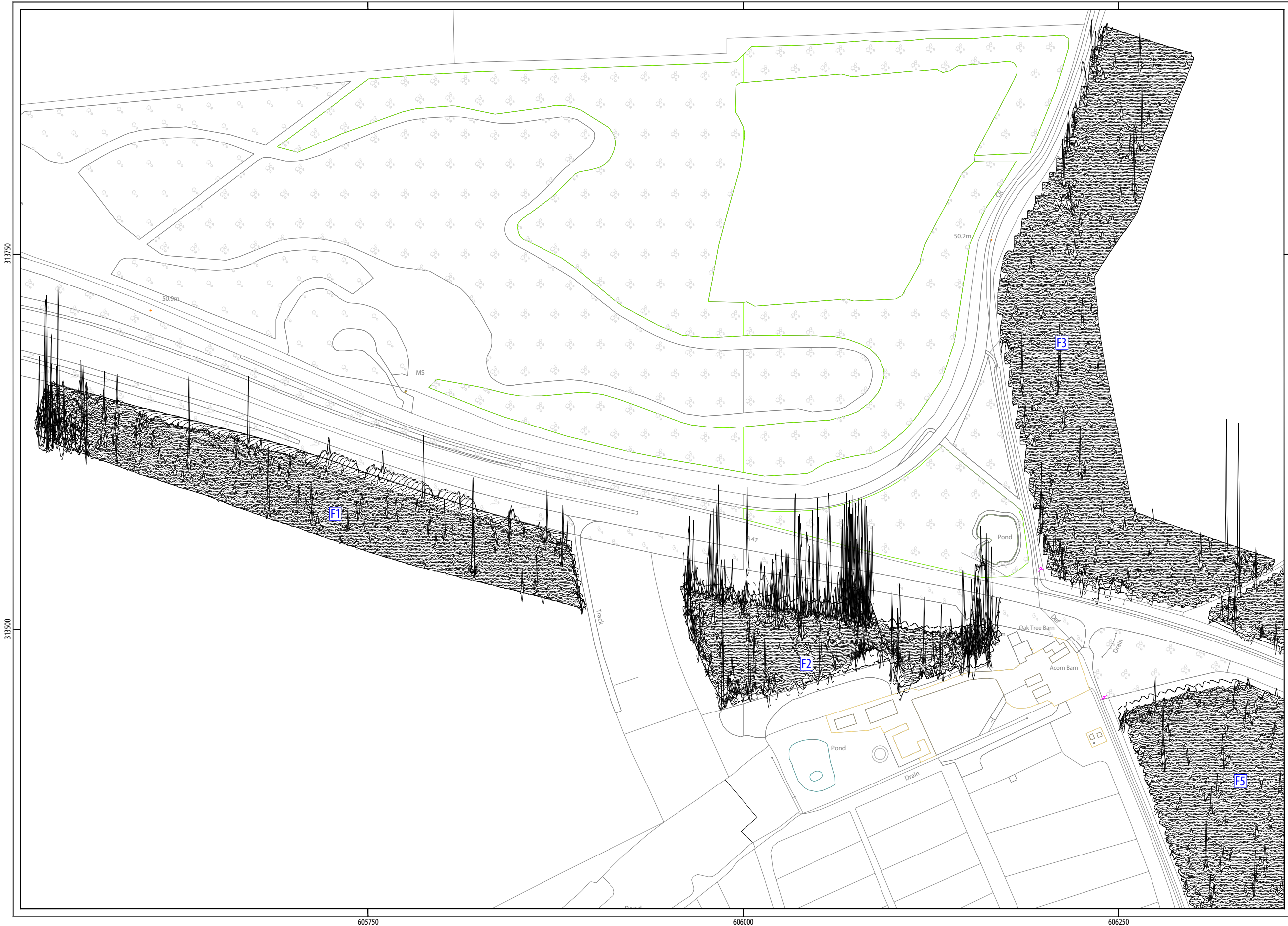
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ILLUS 14 Processed greyscale magnetometer data; Sector 1



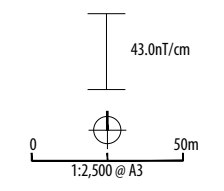
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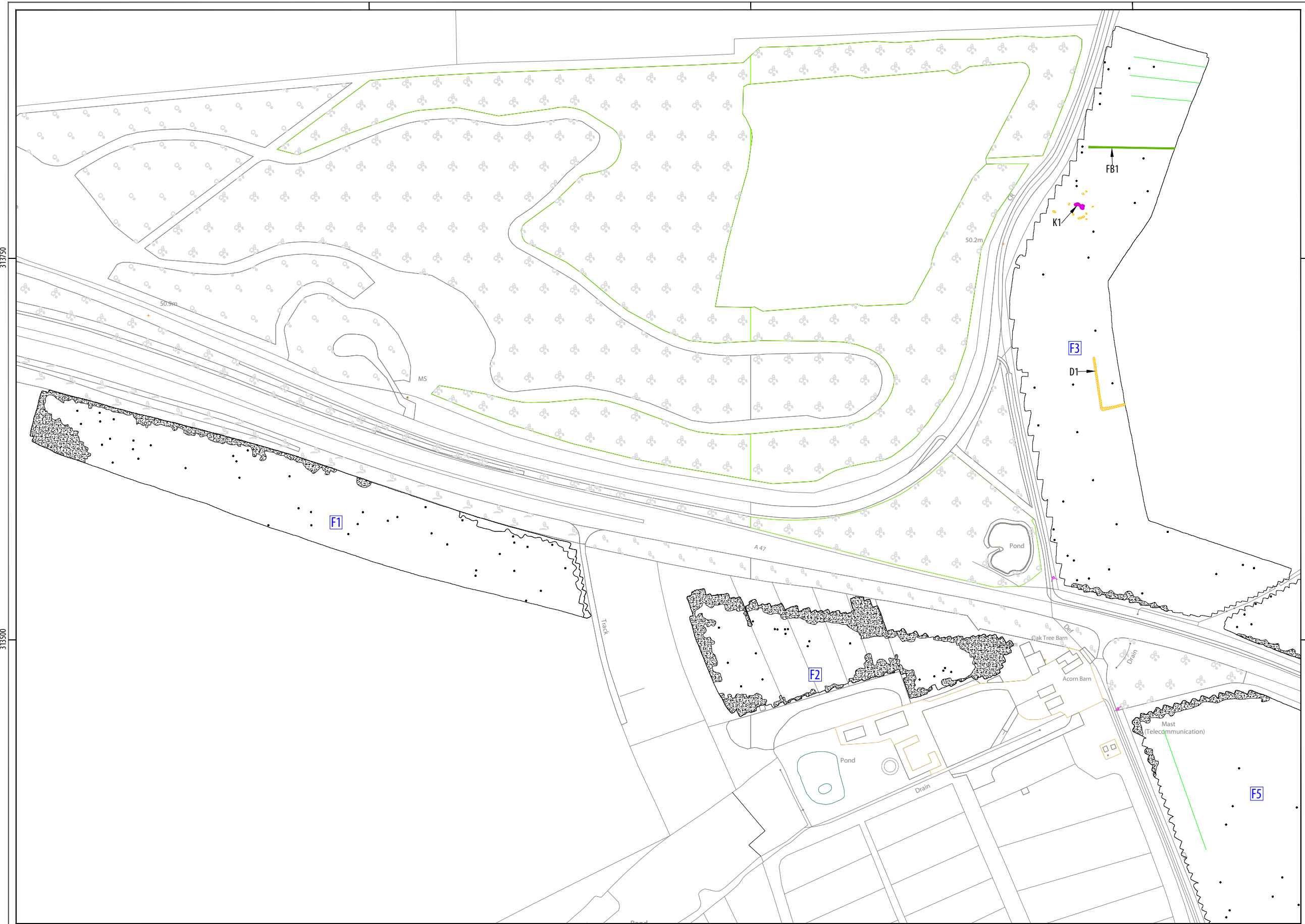
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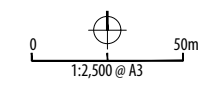
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ILLUS 15 XY trace plot of minimally processed magnetometer data; Sector 1



TYPE OF ANOMALY	INTERPRETATION
● dipolar isolated	ferrous material
● magnetic disturbance	ferrous material
— linear trend	agricultural
— linear	former field boundary
● magnetic enhancement	kiln/burning
● magnetic enhancement	archaeology?

ABBREVIATIONS
 D ditch
 FB field boundary
 K kiln/area of burning



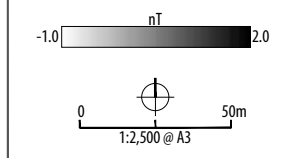
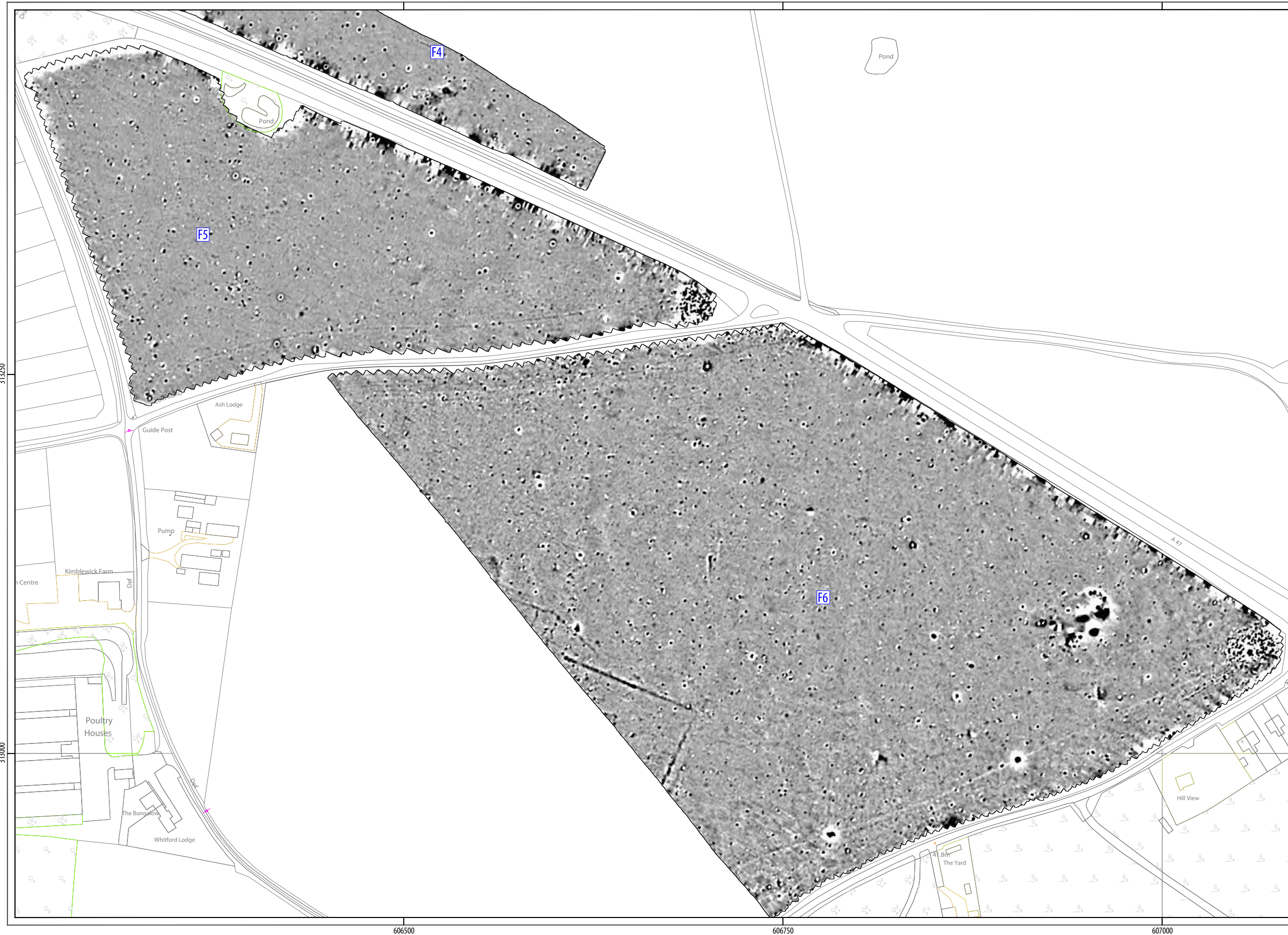
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ILLUS 16 Interpretation of magnetometer data; Sector 1



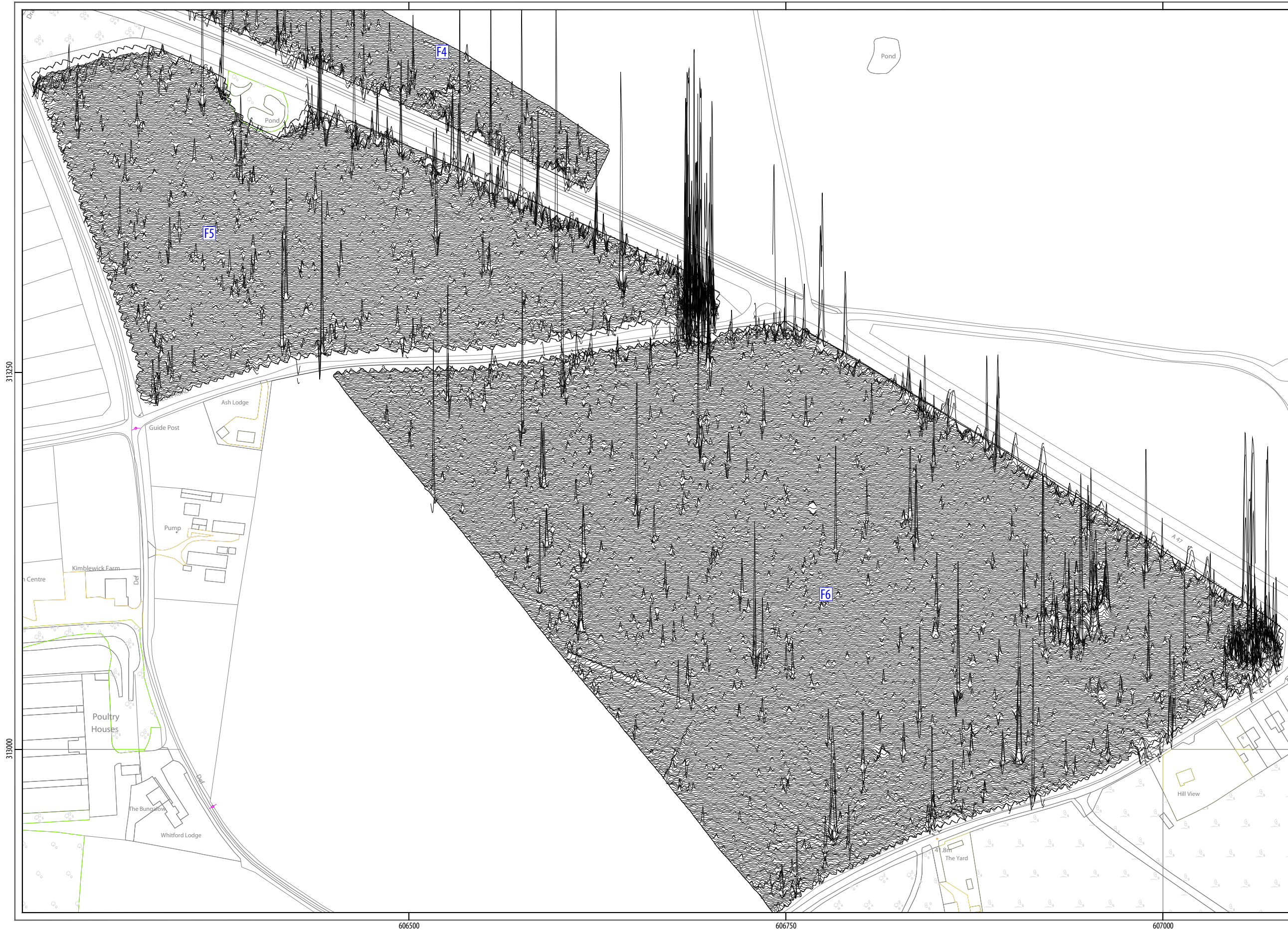
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ILLUS 17 Processed greyscale magnetometer data; Sector 2



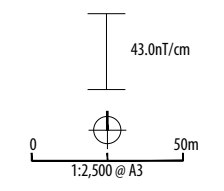
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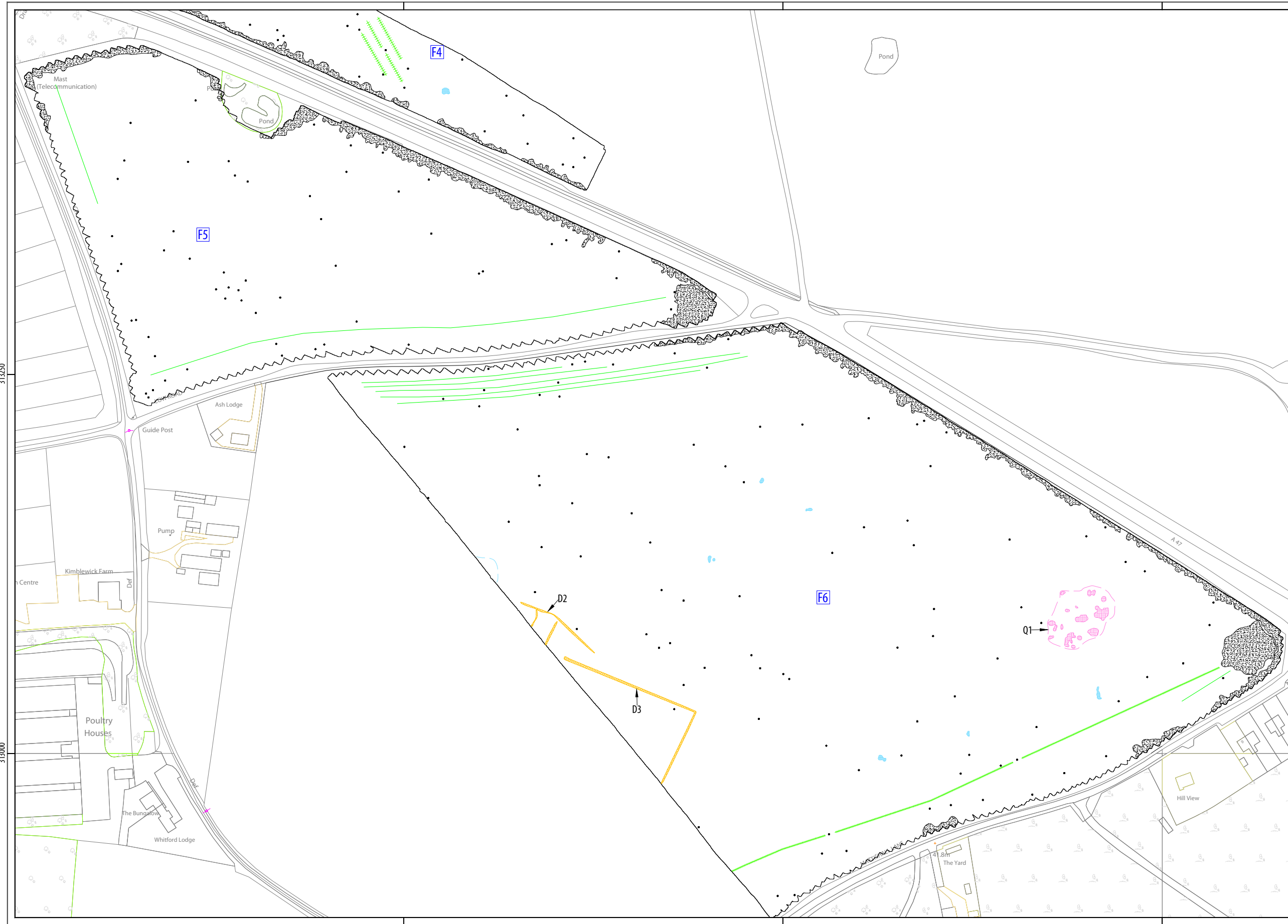
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ILLUS 18 XY trace plot of minimally processed magnetometer data; Sector 2



TYPE OF ANOMALY	INTERPRETATION
● dipolar isolated	ferrous material
● magnetic disturbance	ferrous material
● magnetic disturbance	quarrying
— linear trend	agricultural
— linear trend	field drain
— linear trend	geological variation
● magnetic enhancement	geology
● magnetic enhancement	archaeology?

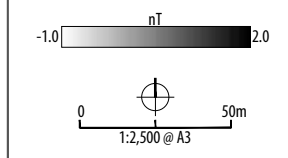
ABBREVIATIONS
 D ditch
 Q extraction

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ILLUS 19 Interpretation of magnetometer data; Sector 2

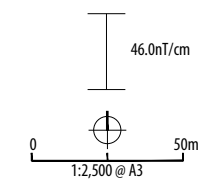


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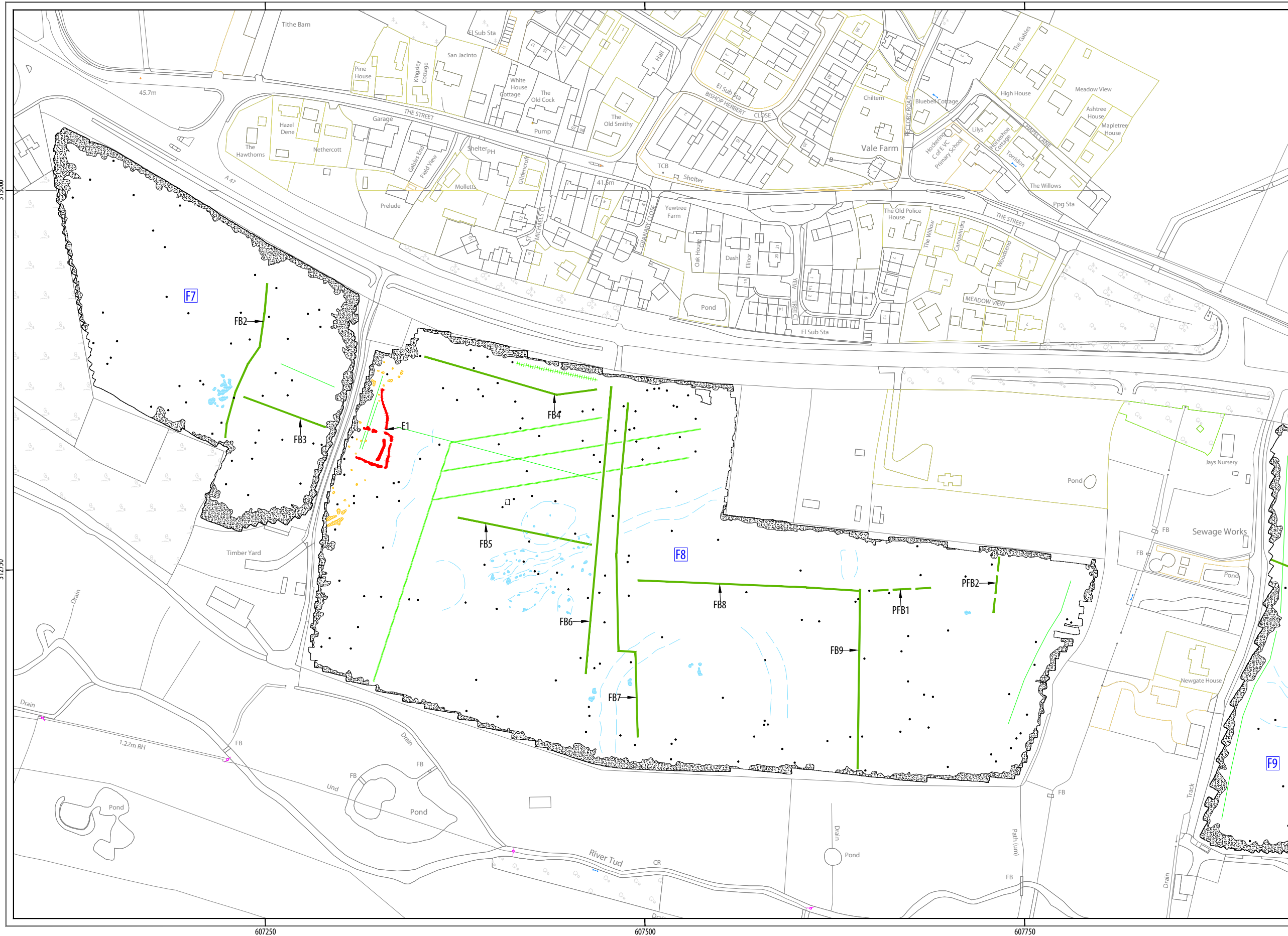
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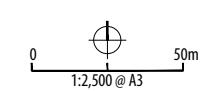
ILLUS 21 XY trace plot of minimally processed magnetometer data; Sector 3



TYPE OF ANOMALY	INTERPRETATION
● dipolar isolated	ferrous material
● magnetic disturbance	ferrous material
— linear trend	agricultural
— linear trend	field drain
— linear	former field boundary
— linear	former field boundary?
— linear trend	geological variation
● magnetic enhancement	geology
● magnetic enhancement	archaeology?
● magnetic enhancement	archaeology

ABBREVIATIONS

E	enclosure
FB	field boundary
PFB	field boundary

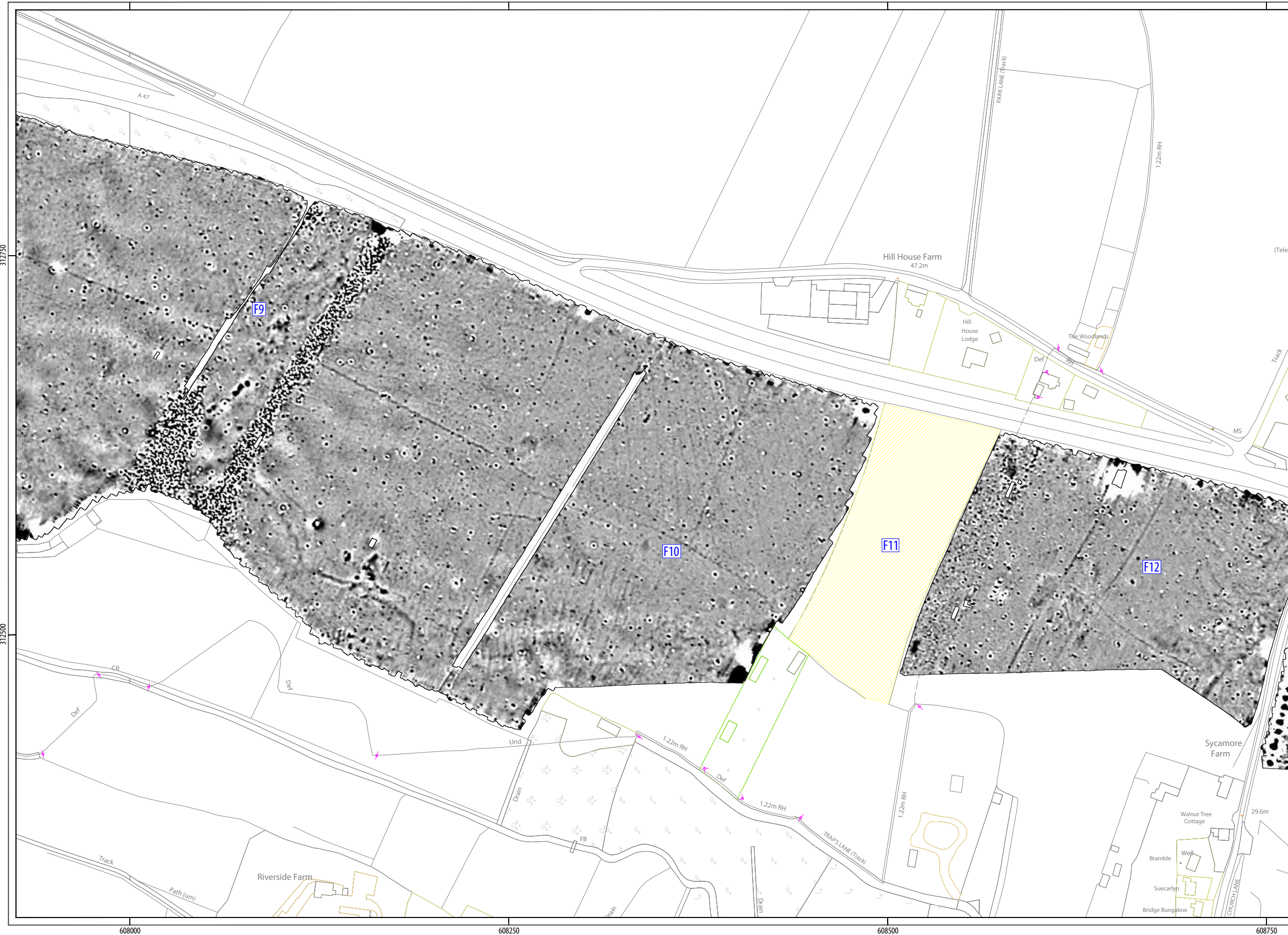


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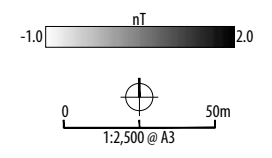
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area unsuitable for survey

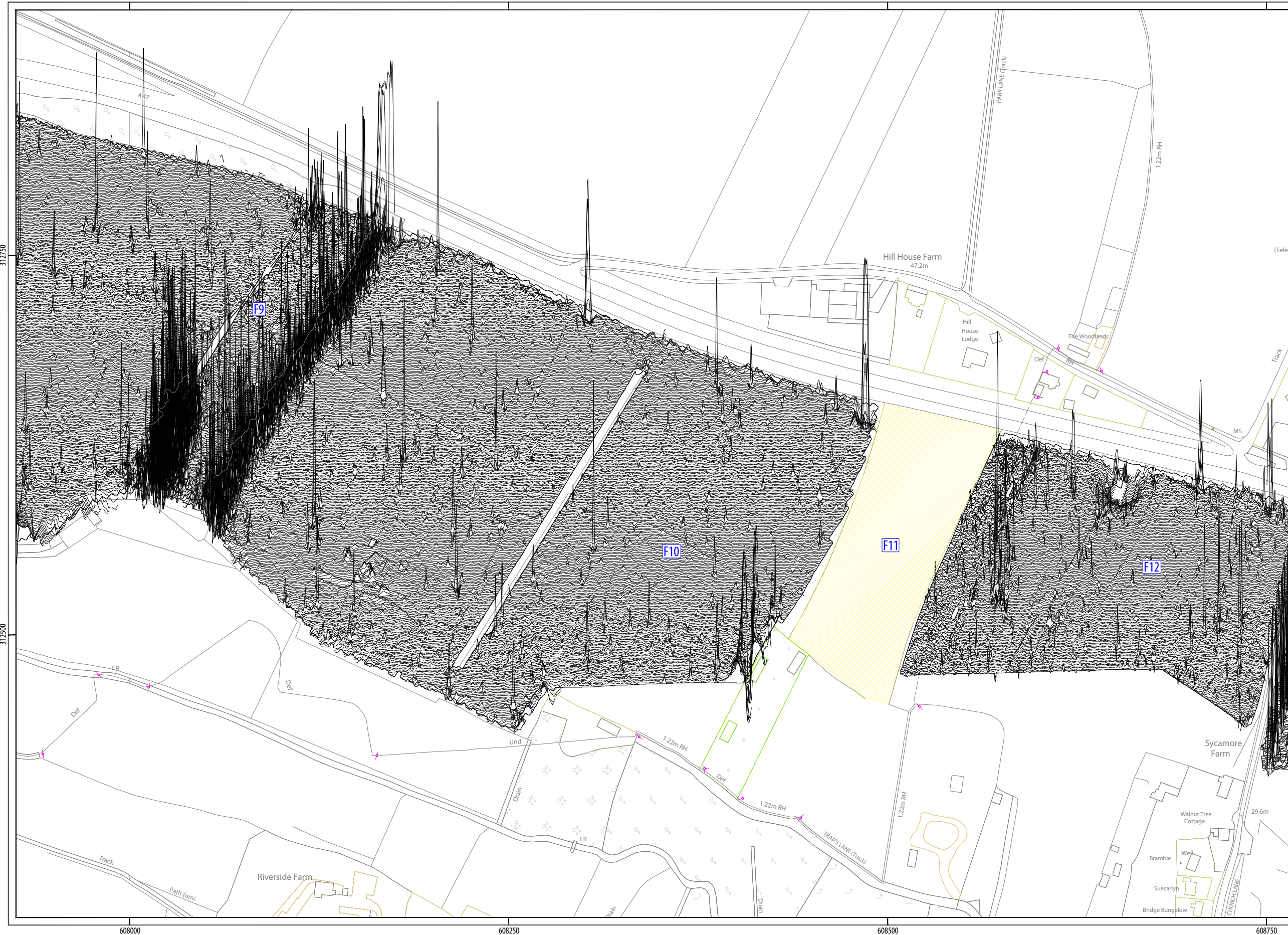


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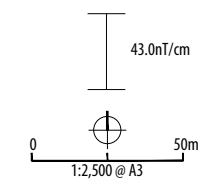
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area unsuitable for survey

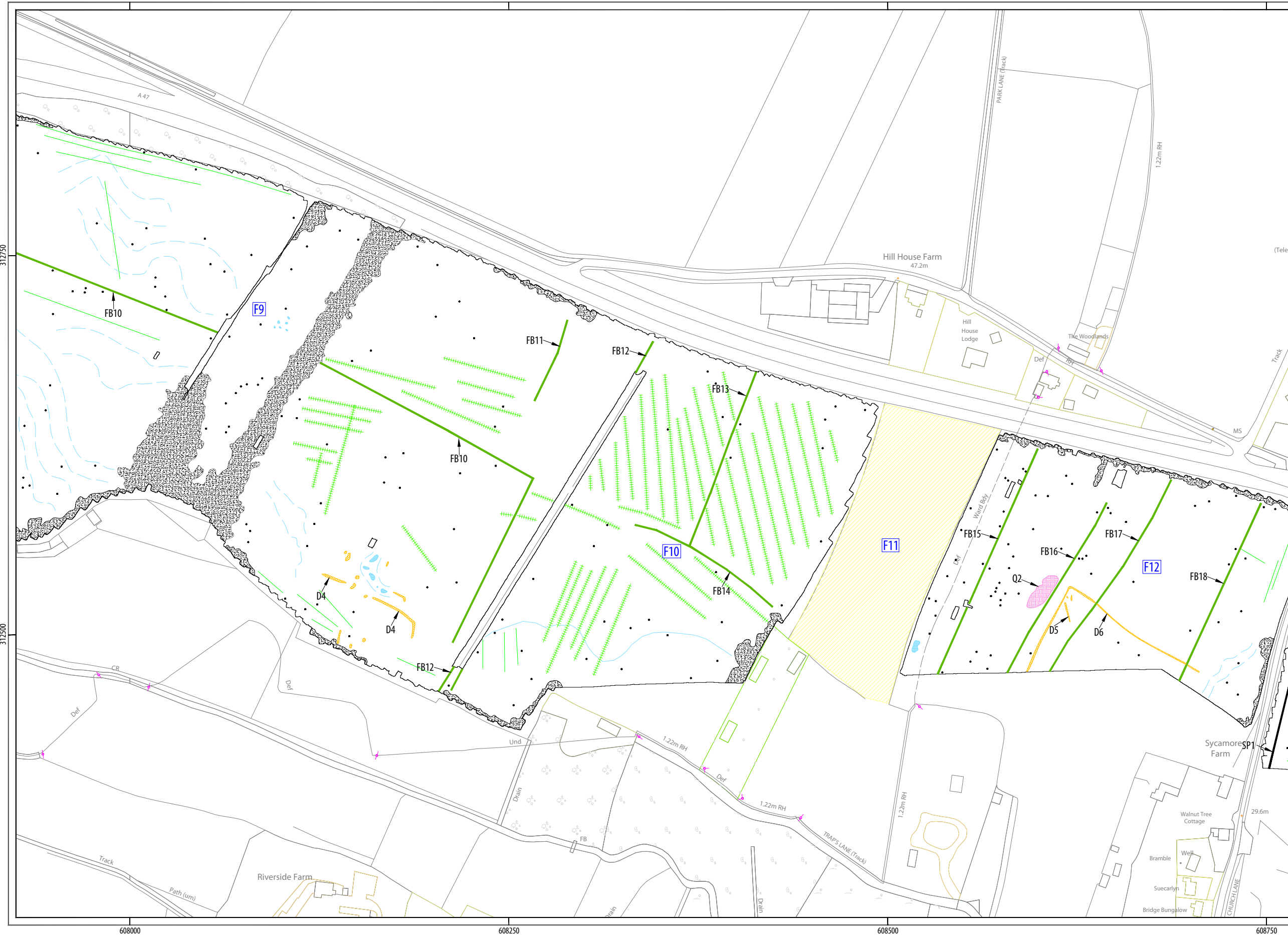


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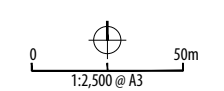
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ILLUS 24 XY trace plot of minimally processed magnetometer data; Sector 4



TYPE OF ANOMALY	INTERPRETATION
● dipolar isolated	ferrous material
● magnetic disturbance	ferrous material
— dipolar linear	service pipe
● magnetic disturbance	quarrying
— linear trend	agricultural
— linear trend	field drain
— linear	former field boundary
— linear trend	geological variation
● magnetic enhancement	geology
● magnetic enhancement	archaeology?

ABBREVIATIONS	MEANING
E	enclosure
FB	field boundary
SP	service pipe
Q	extraction



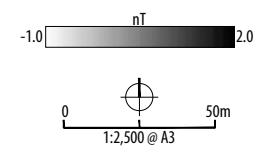
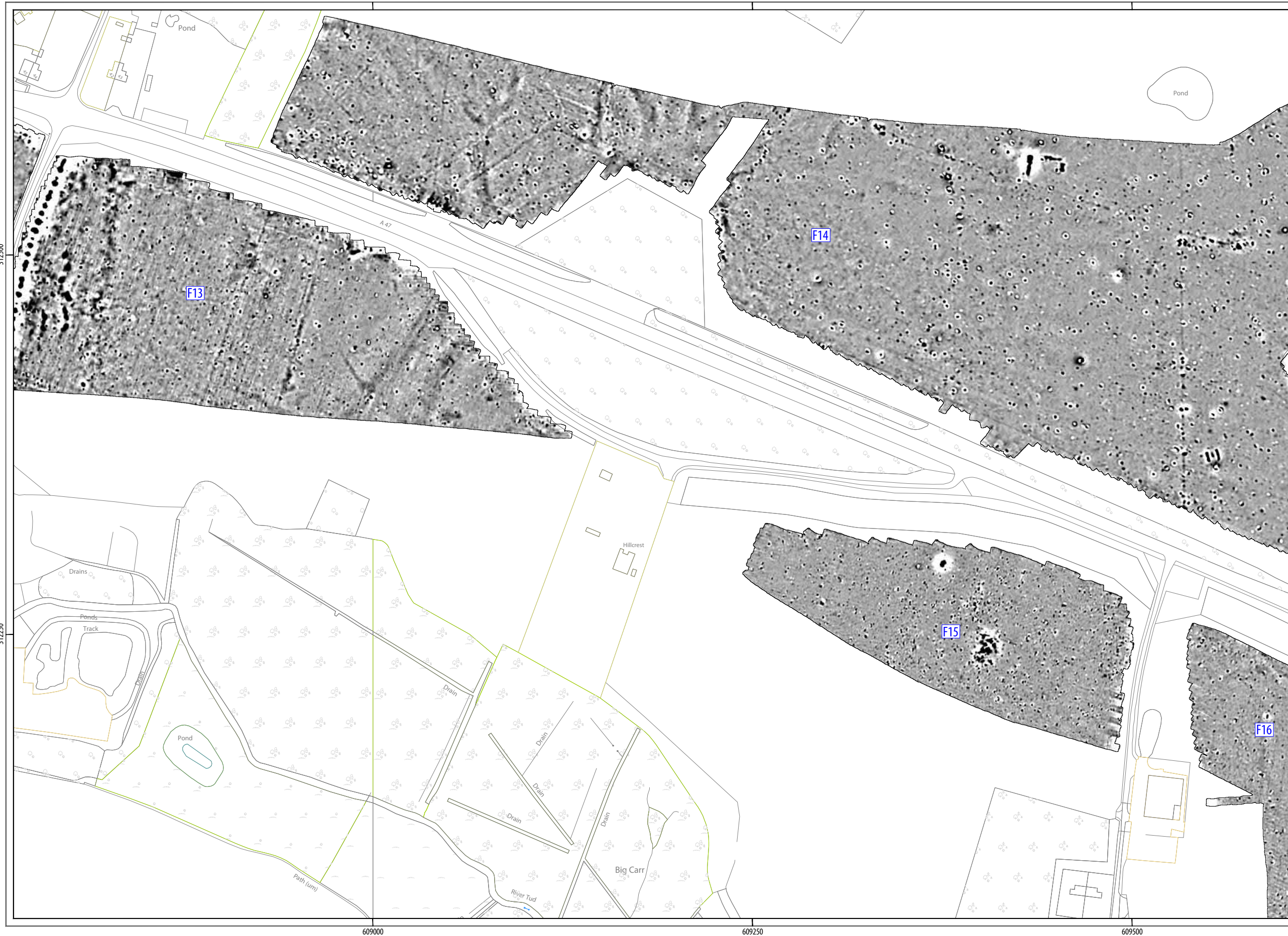
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ILLUS 25 Interpretation of magnetometer data; Sector 4



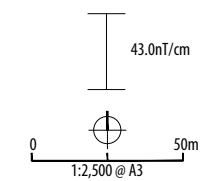
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ILLUS 26 Processed greyscale magnetometer data; Sector 5



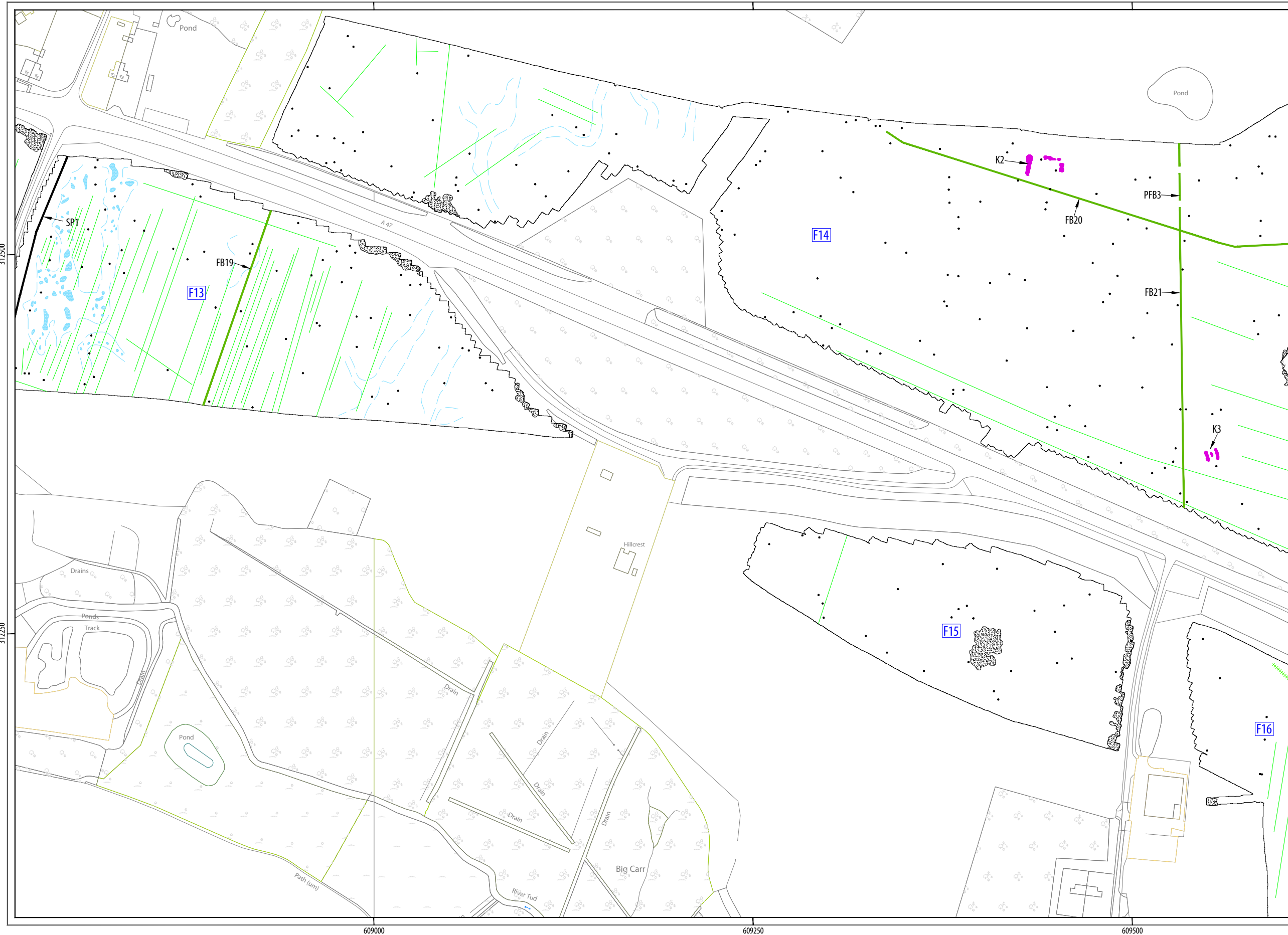
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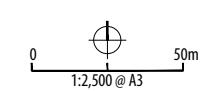
ILLUS 27 XY trace plot of minimally processed magnetometer data; Sector 5



TYPE OF ANOMALY	INTERPRETATION
● dipolar isolated	ferrous material
● magnetic disturbance	ferrous material
— dipolar linear	service pipe
— linear trend	agricultural
— linear trend	field drain
— linear	former field boundary
— linear	former field boundary?
— linear trend	geological variation
● magnetic enhancement	geology
● magnetic enhancement	kiln/burning

ABBREVIATIONS

FB	field boundary
PFB	possible field boundary
SP	service pipe
K	kiln/area of burning



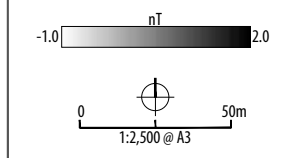
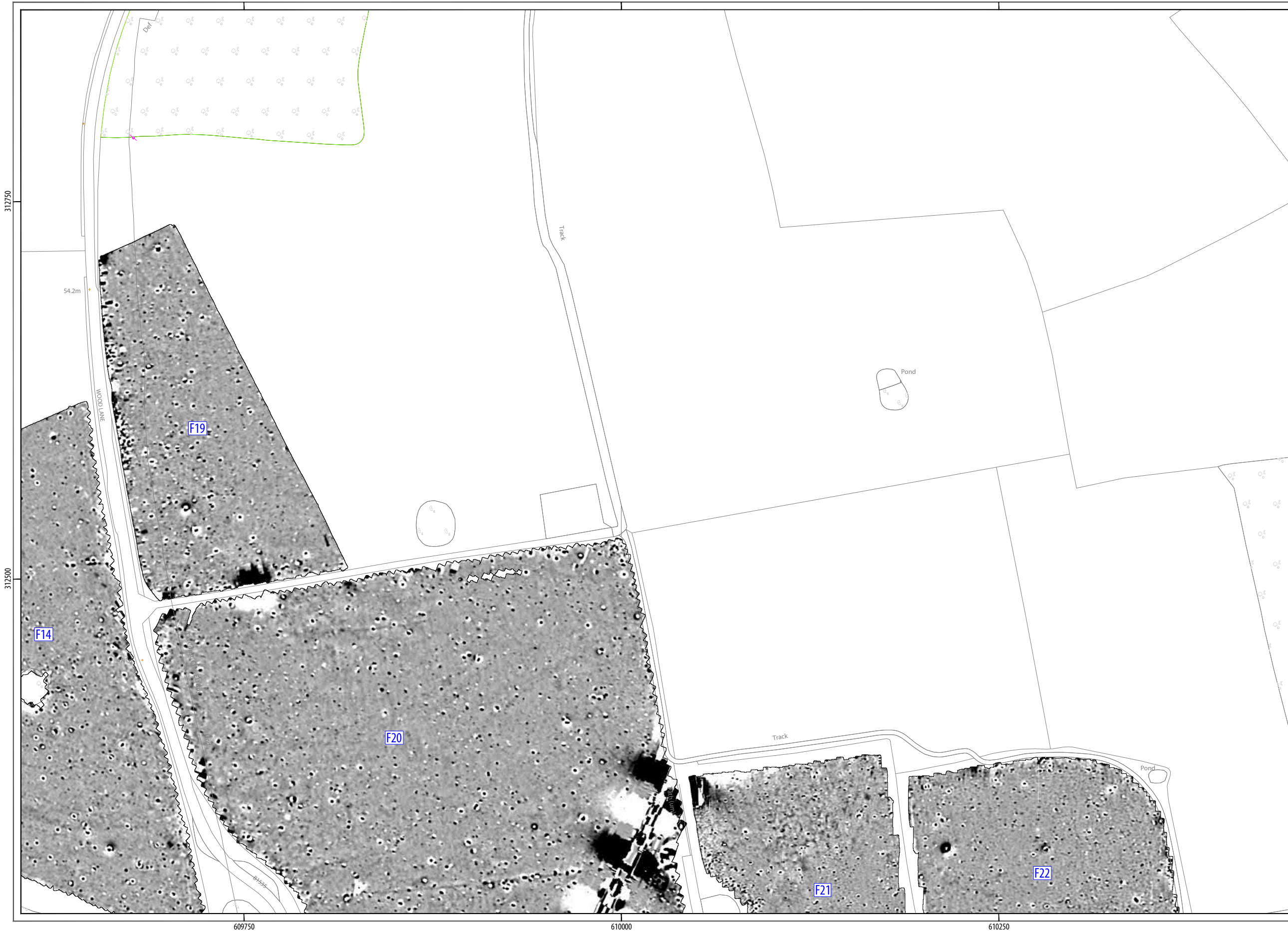
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ILLUS 28 Interpretation of magnetometer data; Sector 5



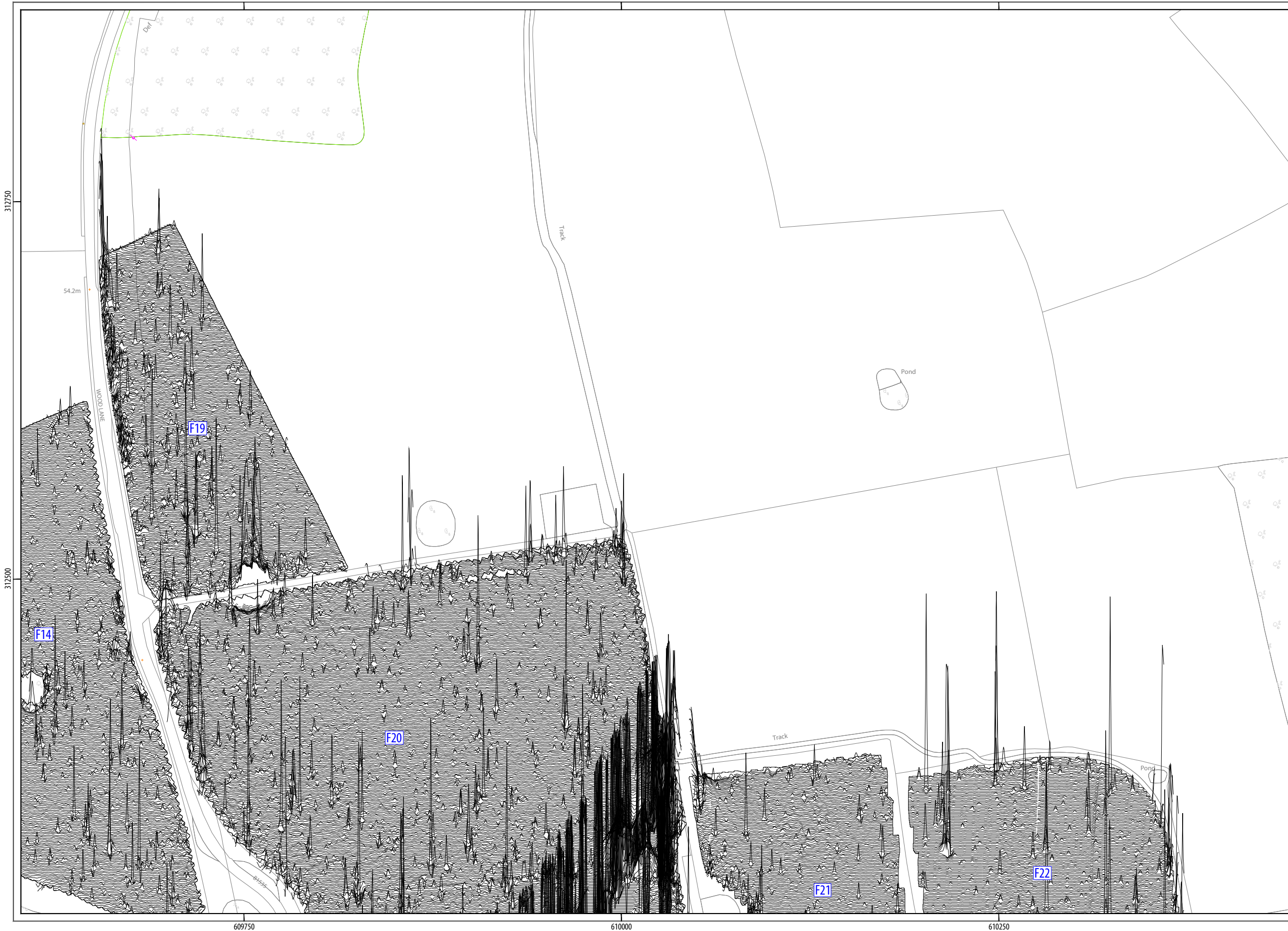
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ILLUS 29 Processed greyscale magnetometer data; Sector 6



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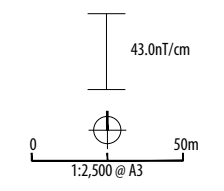
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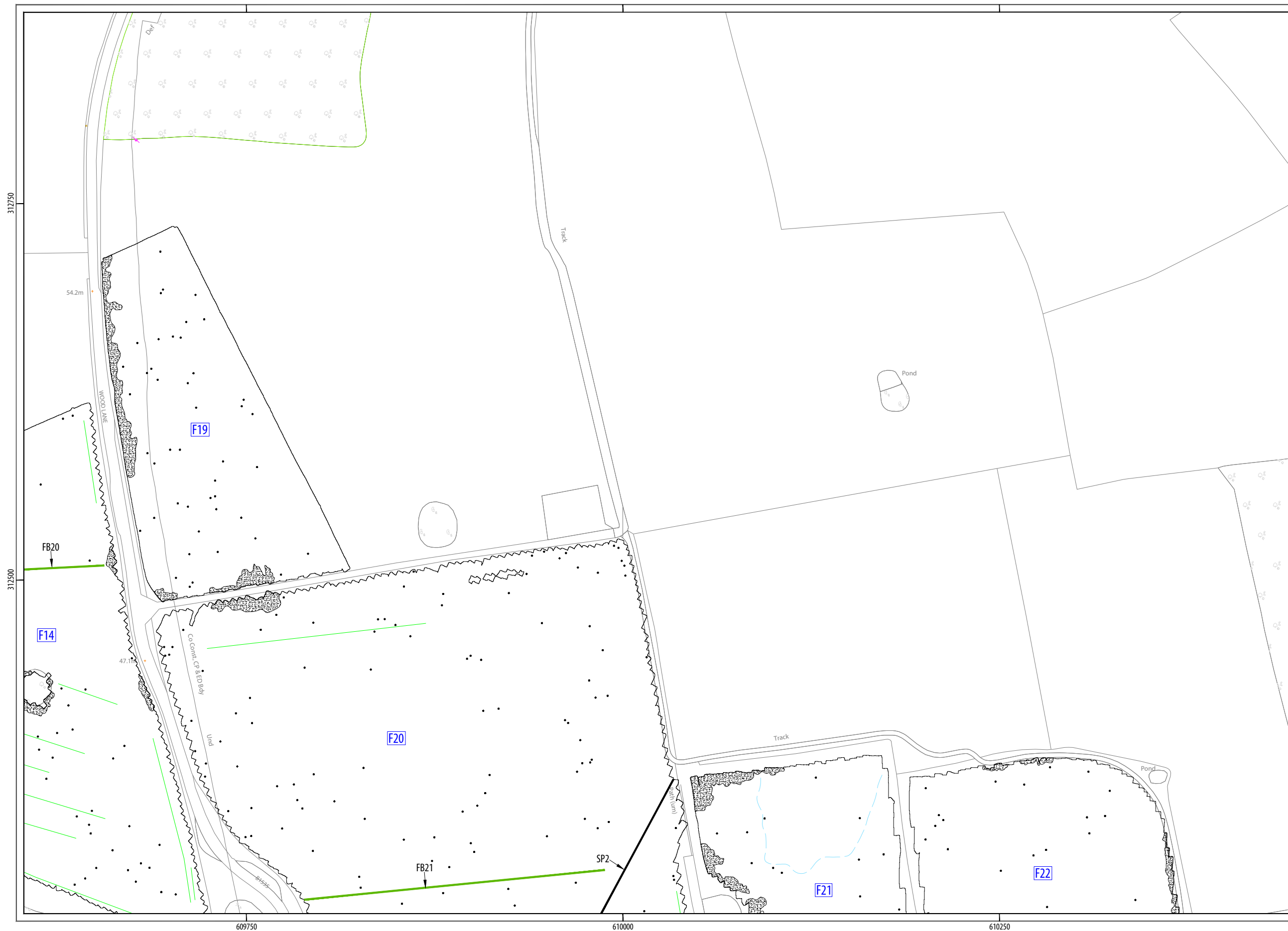
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ILLUS 30 XY trace plot of minimally processed magnetometer data; Sector 6



TYPE OF ANOMALY	INTERPRETATION
• dipolar isolated	ferrous material
— dipolar linear	service pipe
• magnetic disturbance	ferrous material
— linear trend	agricultural
— linear	former field boundary
— linear trend	geological variation

ABBREVIATIONS	
FB	field boundary
SP	service pipe



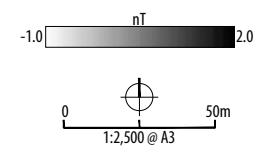
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ILLUS 31 Interpretation of magnetometer data; Sector 6



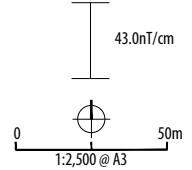
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ILLUS 32 Processed greyscale magnetometer data; Sector 7



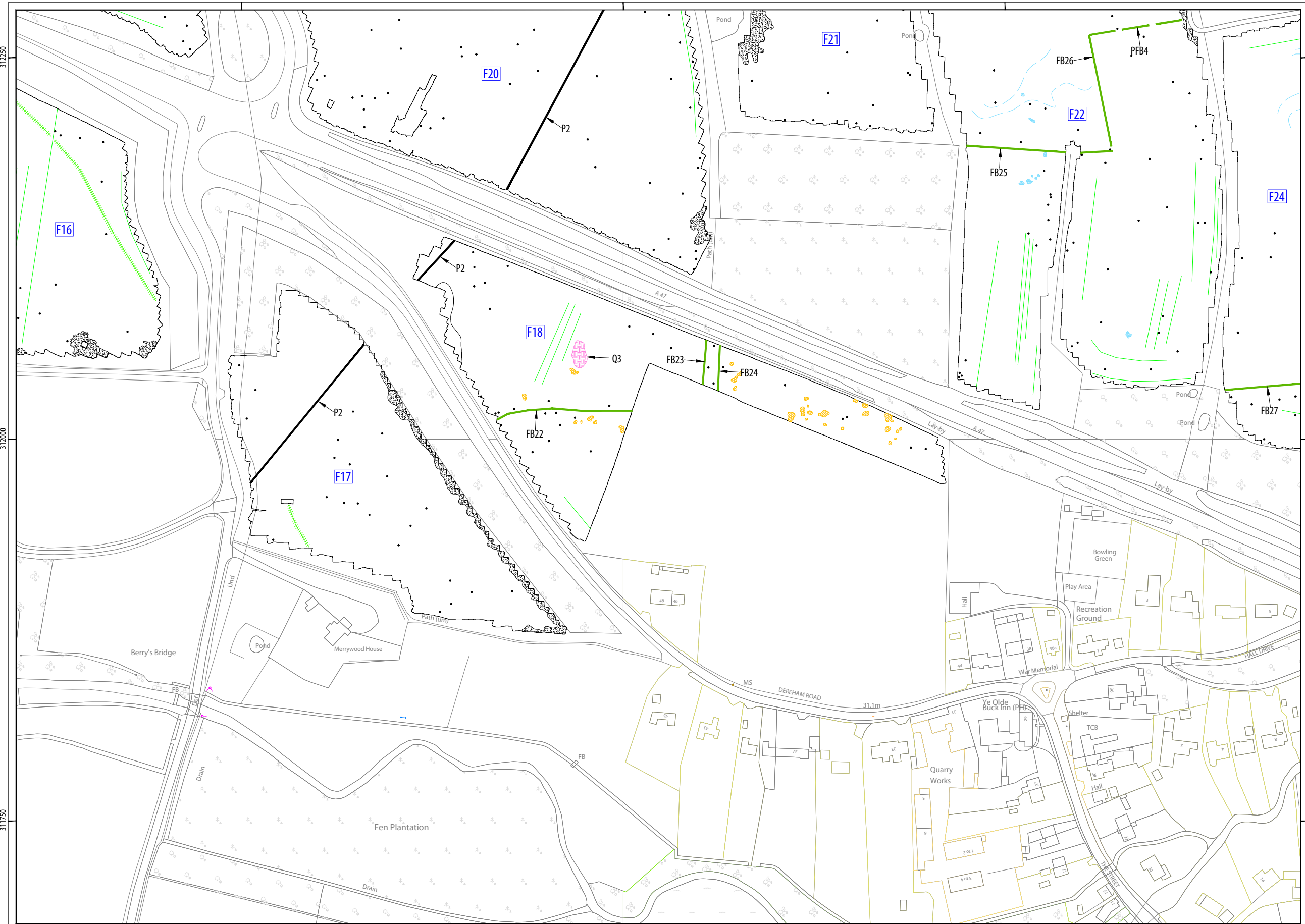
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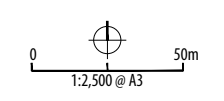


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ILLUS 33 XY trace plot of minimally processed magnetometer data; Sector 7



- | TYPE OF ANOMALY | INTERPRETATION |
|------------------------|------------------------|
| • dipolar isolated | ferrous material |
| • magnetic disturbance | ferrous material |
| — dipolar linear | service pipe |
| • magnetic disturbance | quarrying |
| — linear trend | field drain |
| — linear | agricultural |
| — linear trend | former field boundary? |
| — linear | former field boundary |
| • magnetic enhancement | geology |
| — linear trend | geological variation |
| • magnetic enhancement | archaeology? |
-
- | ABBREVIATIONS | |
|---------------|-------------------------|
| FB | field boundary |
| SP | service pipe |
| PFB | possible field boundary |
| Q | extraction |

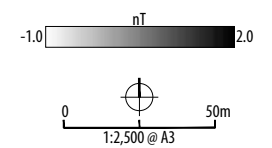


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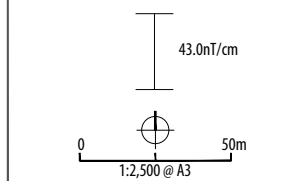
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ILLUS 35 Processed greyscale magnetometer data; Sector 8



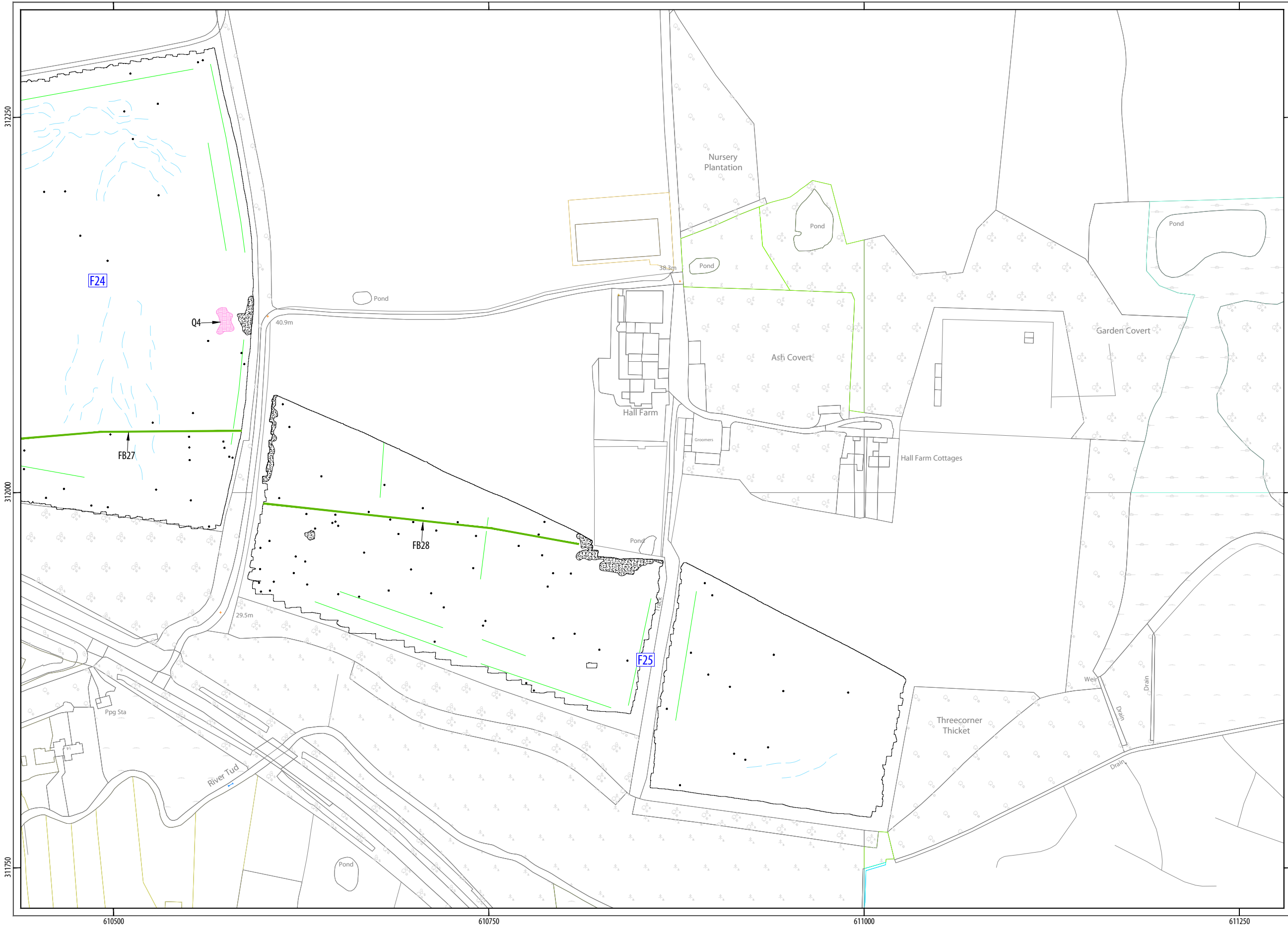
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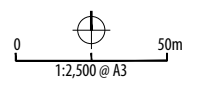


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ILLUS 36 XY trace plot of minimally processed magnetometer data; Sector 8



- TYPE OF ANOMALY**
- dipolar isolated
 - magnetic disturbance
 - magnetic disturbance
 - linear trend
 - linear
 - linear trend
- INTERPRETATION**
- ferrous material
 - ferrous material
 - quarrying
 - agricultural
 - former field boundary
 - geological variation
- ABBREVIATIONS**
- FB field boundary
 - Q extraction



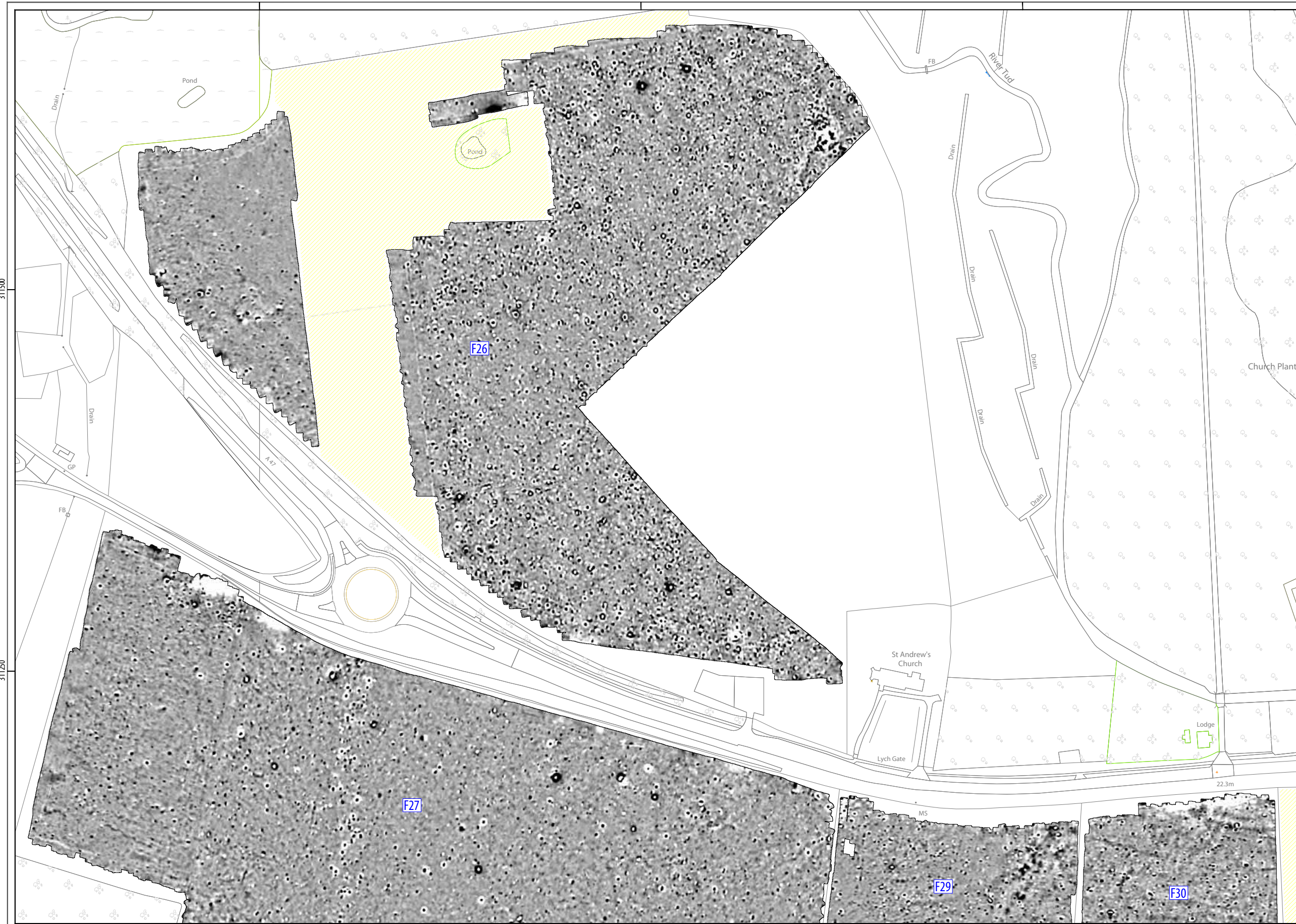
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ILLUS 37 Interpretation of magnetometer data; Sector 8



area unsuitable for survey

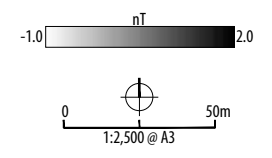
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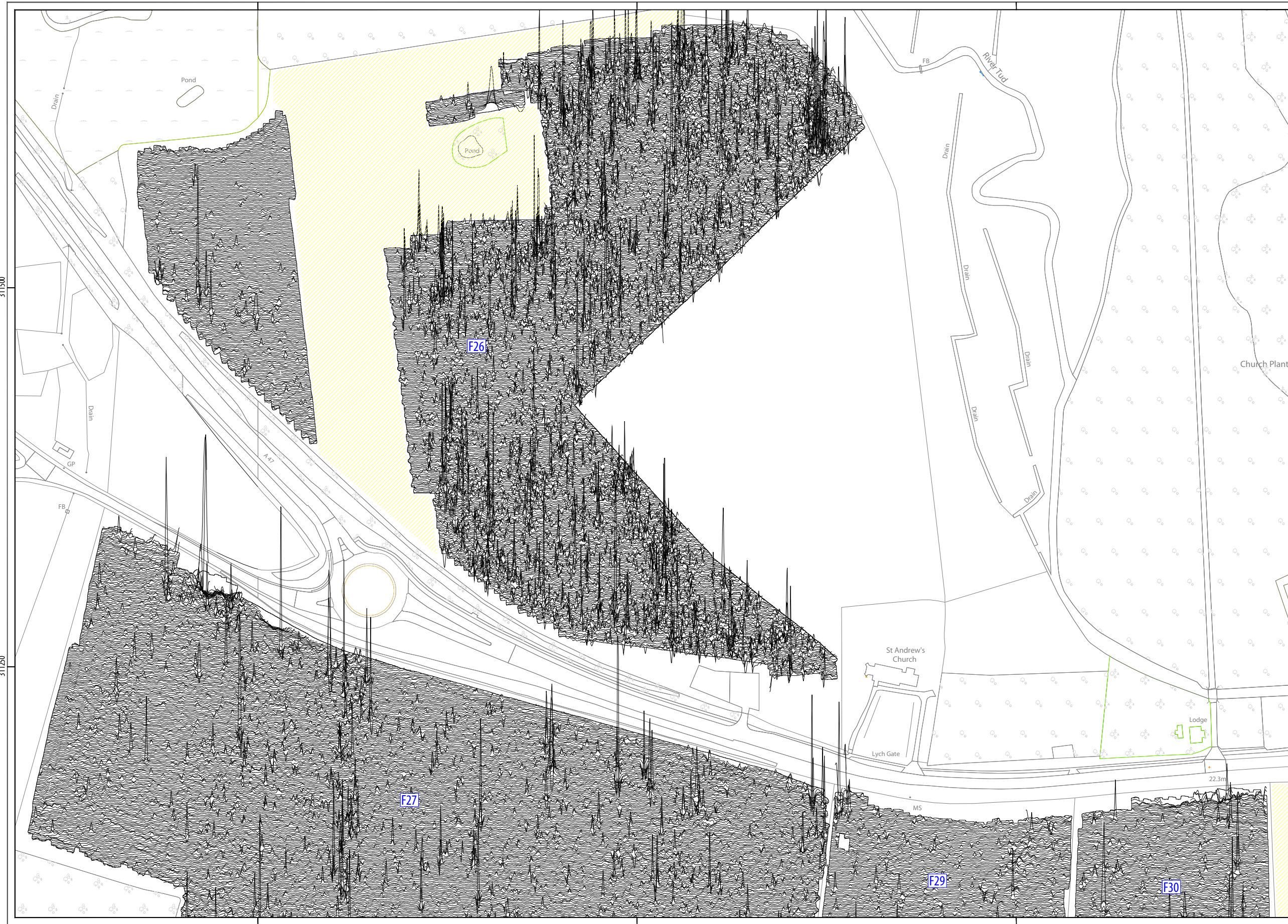


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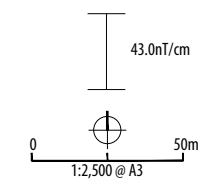
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area unsuitable for survey

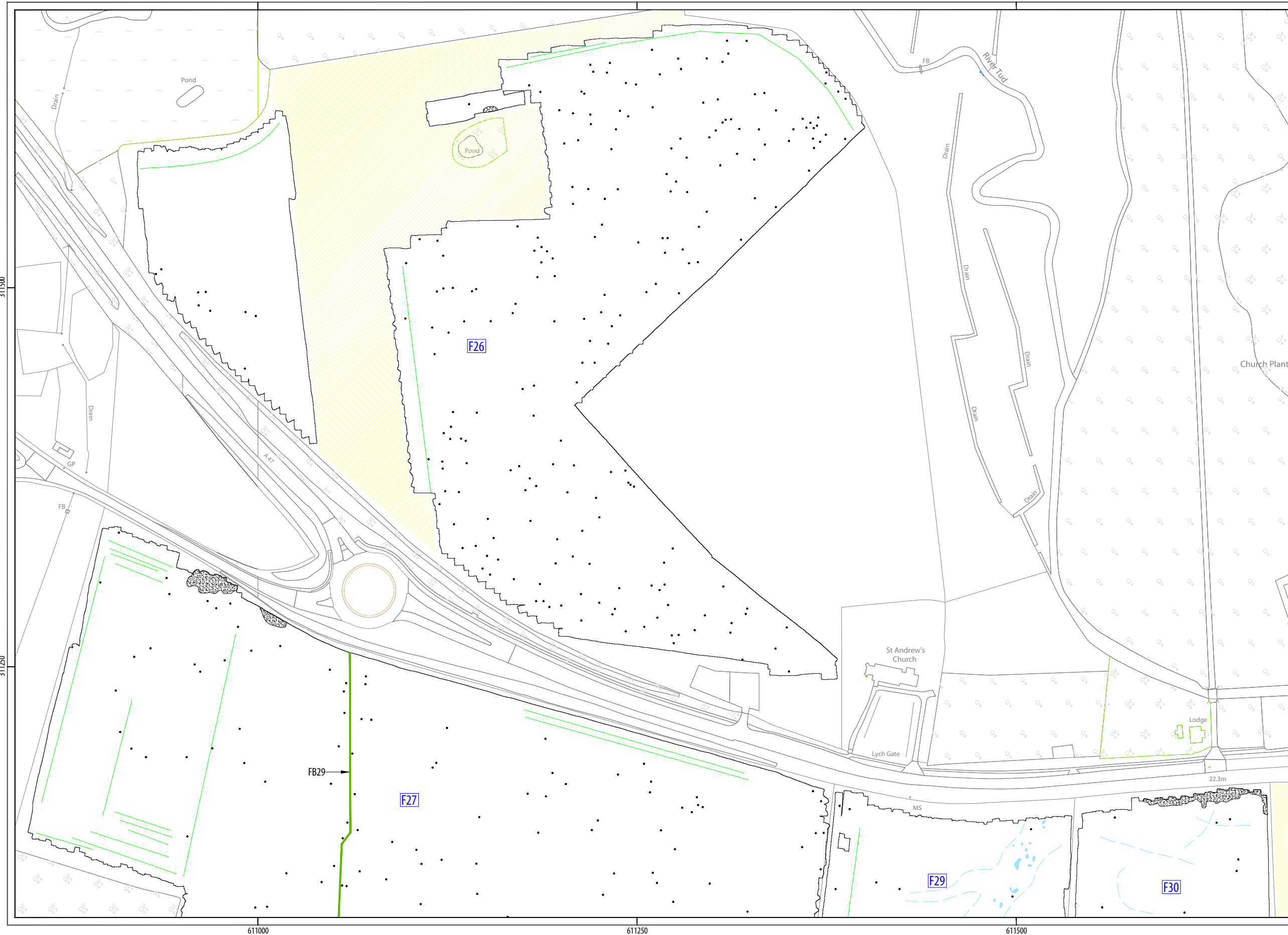


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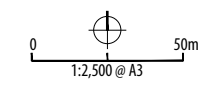
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ILLUS 39 XY trace plot of minimally processed magnetometer data; Sector 9



TYPE OF ANOMALY	INTERPRETATION
● dipolar isolated	ferrous material
● magnetic disturbance	ferrous material
— linear trend	agricultural
— linear	former field boundary
— magnetic enhancement	geology
— linear trend	geological variation

ABBREVIATIONS
 FB field boundary



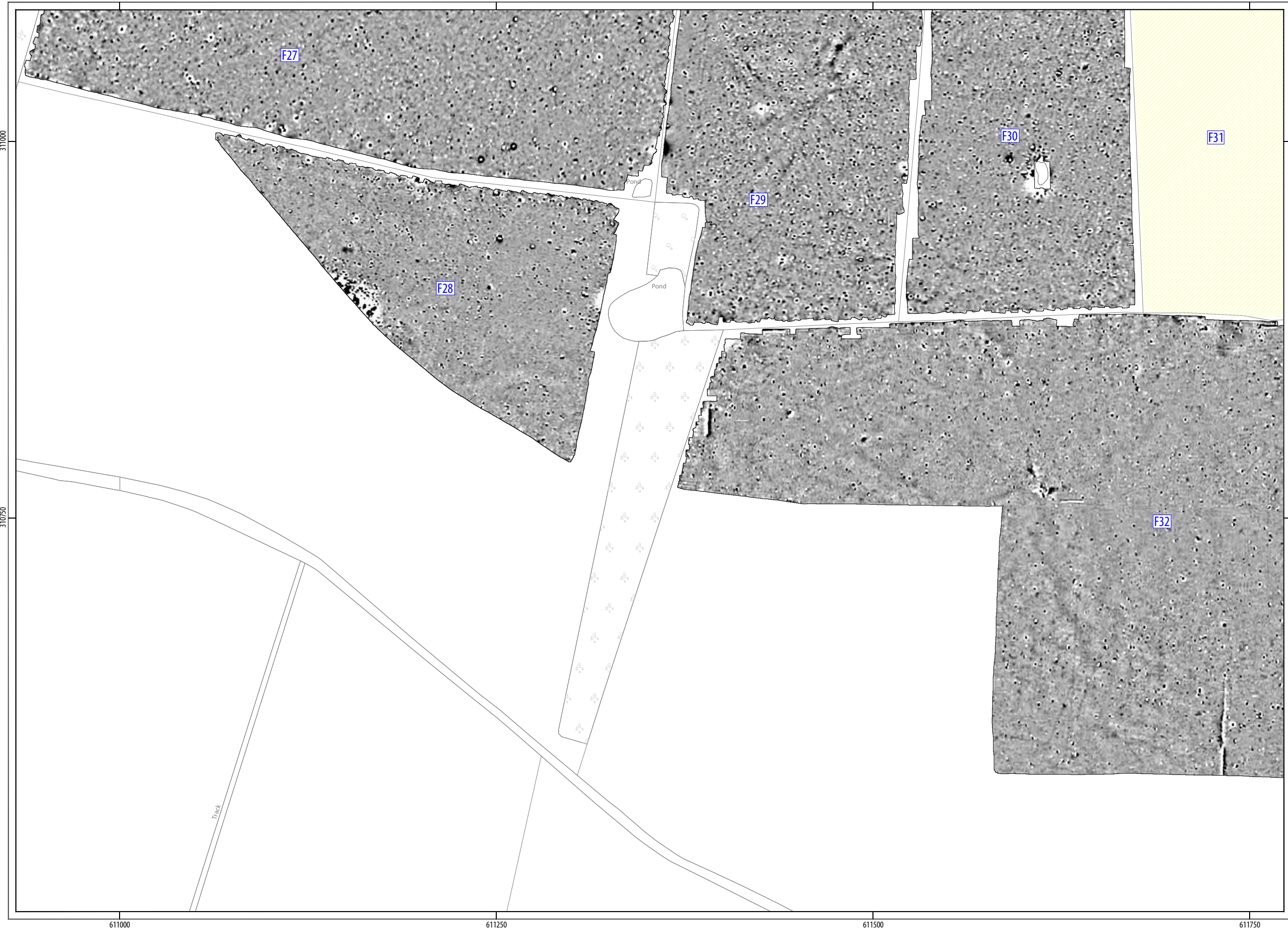
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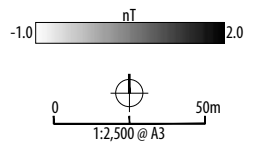
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ILLUS 40 Interpretation of magnetometer data; Sector 9



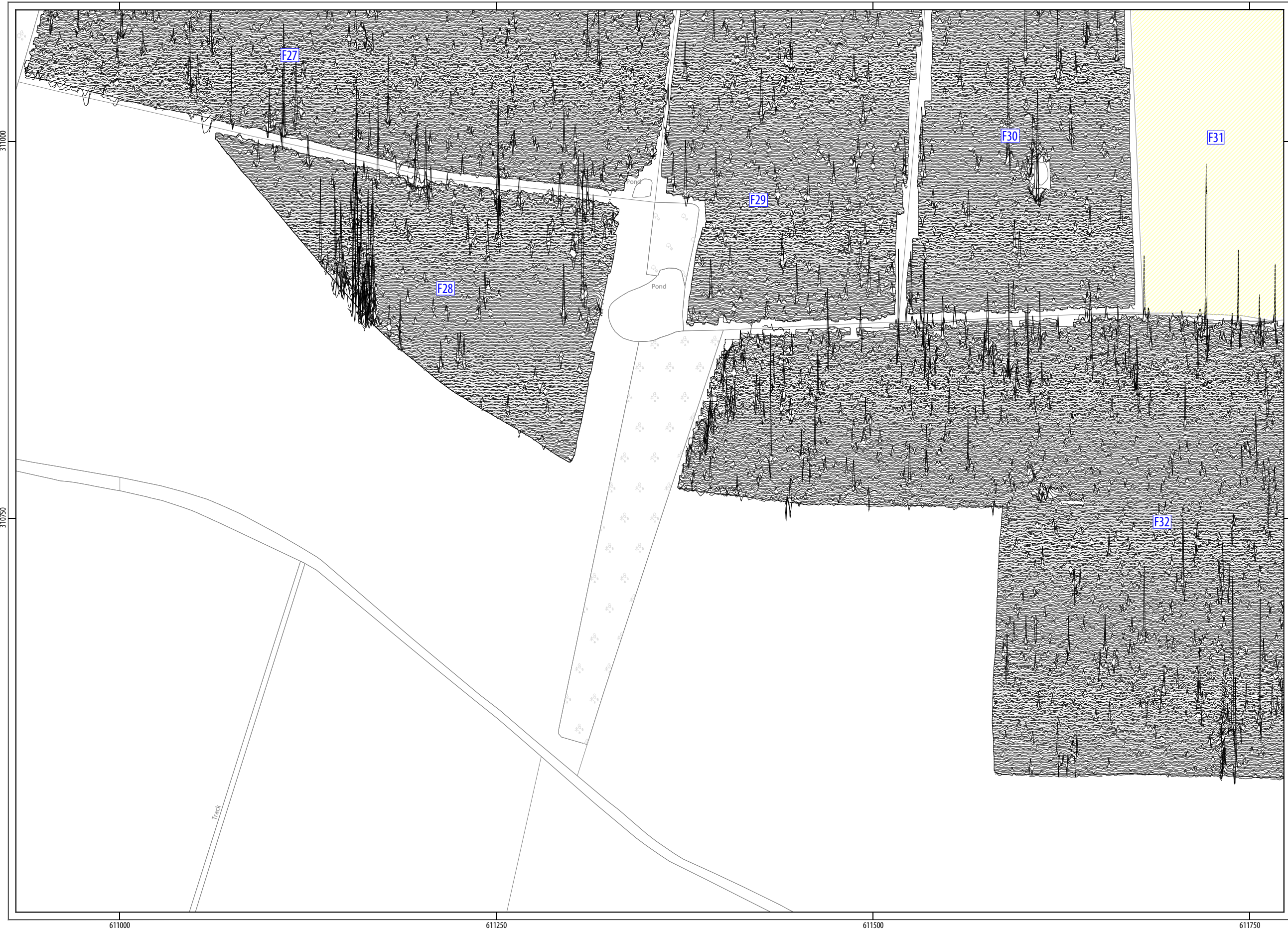
area unsuitable for survey



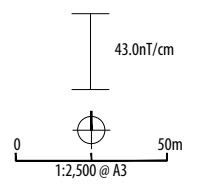
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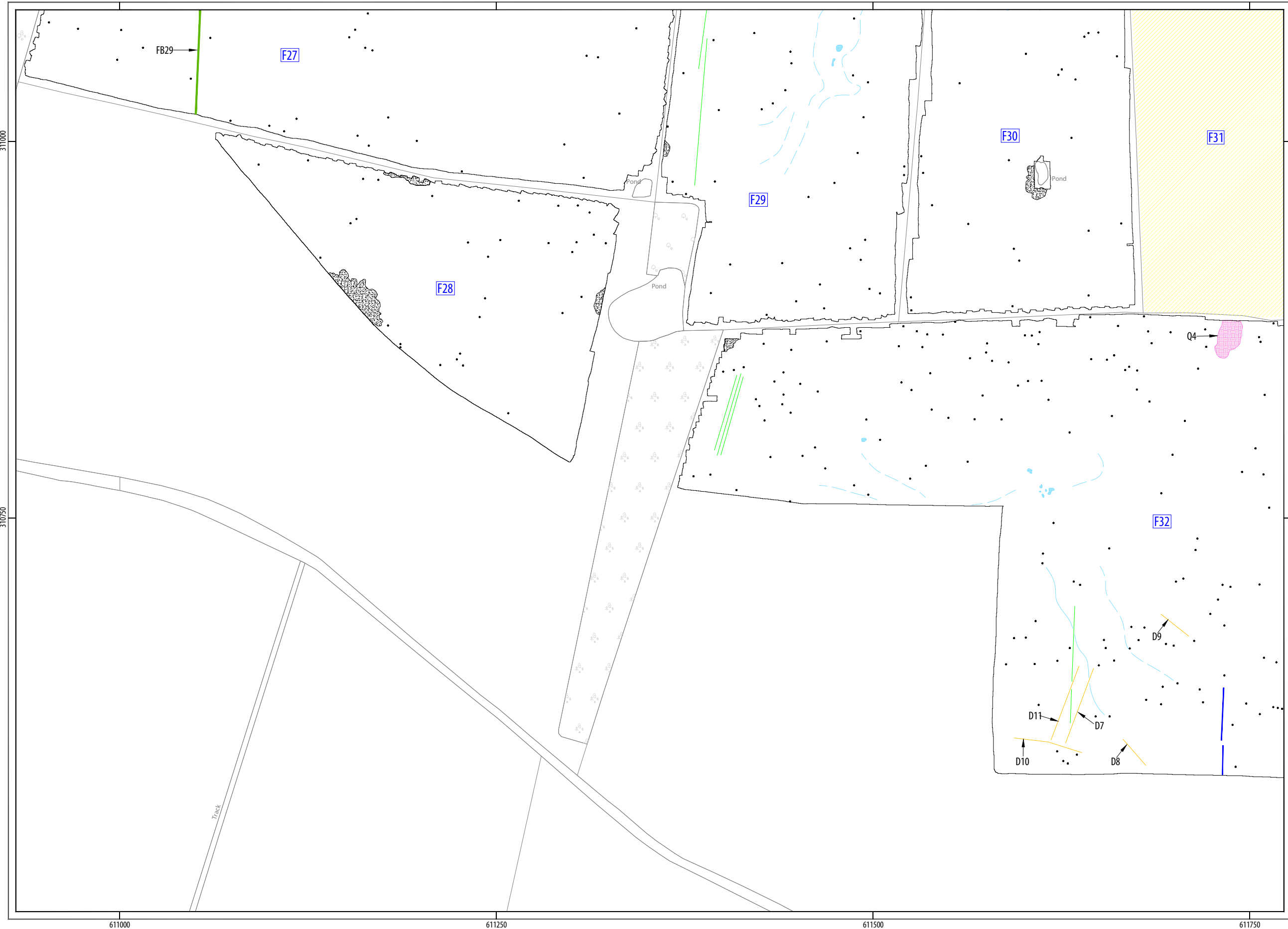
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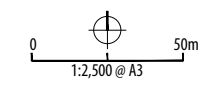
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ILLUS 42 XY trace plot of minimally processed magnetometer data; Sector 10



- | TYPE OF ANOMALY | INTERPRETATION |
|------------------------|-----------------------|
| ● dipolar isolated | ferrous material |
| ● magnetic disturbance | ferrous material |
| ● magnetic disturbance | quarrying |
| — magnetic enhancement | LIRM |
| — linear trend | agricultural |
| — linear | former field boundary |
| — magnetic enhancement | geology |
| — linear trend | geological variation |
| — linear trend | archaeology? |
-
- ABBREVIATIONS
- D ditch
 - FB field boundary
 - Q extraction



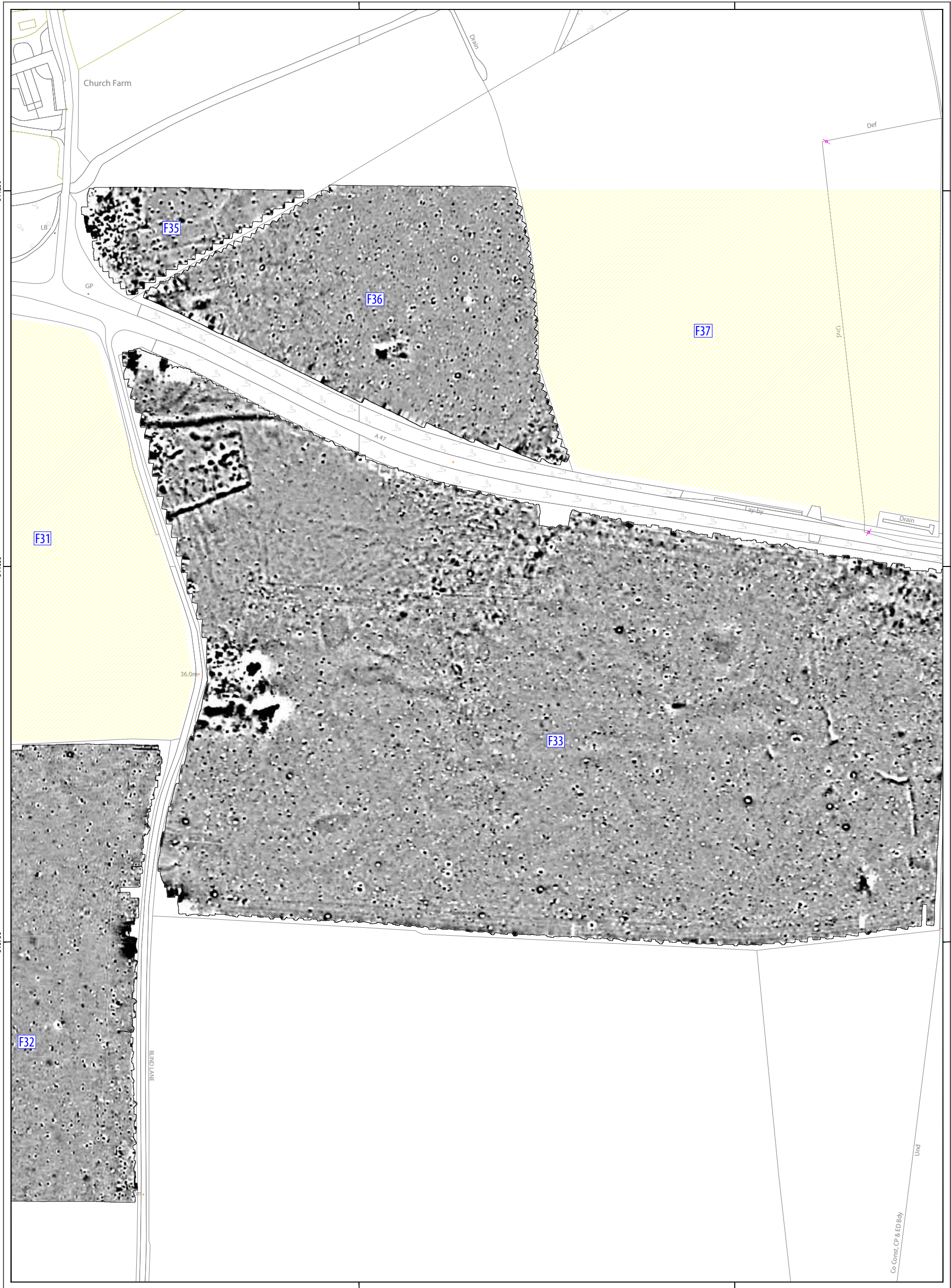
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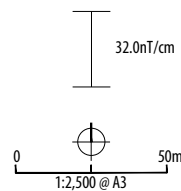
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ILLUS 43 Interpretation of magnetometer data; Sector 10



area unsuitable for survey

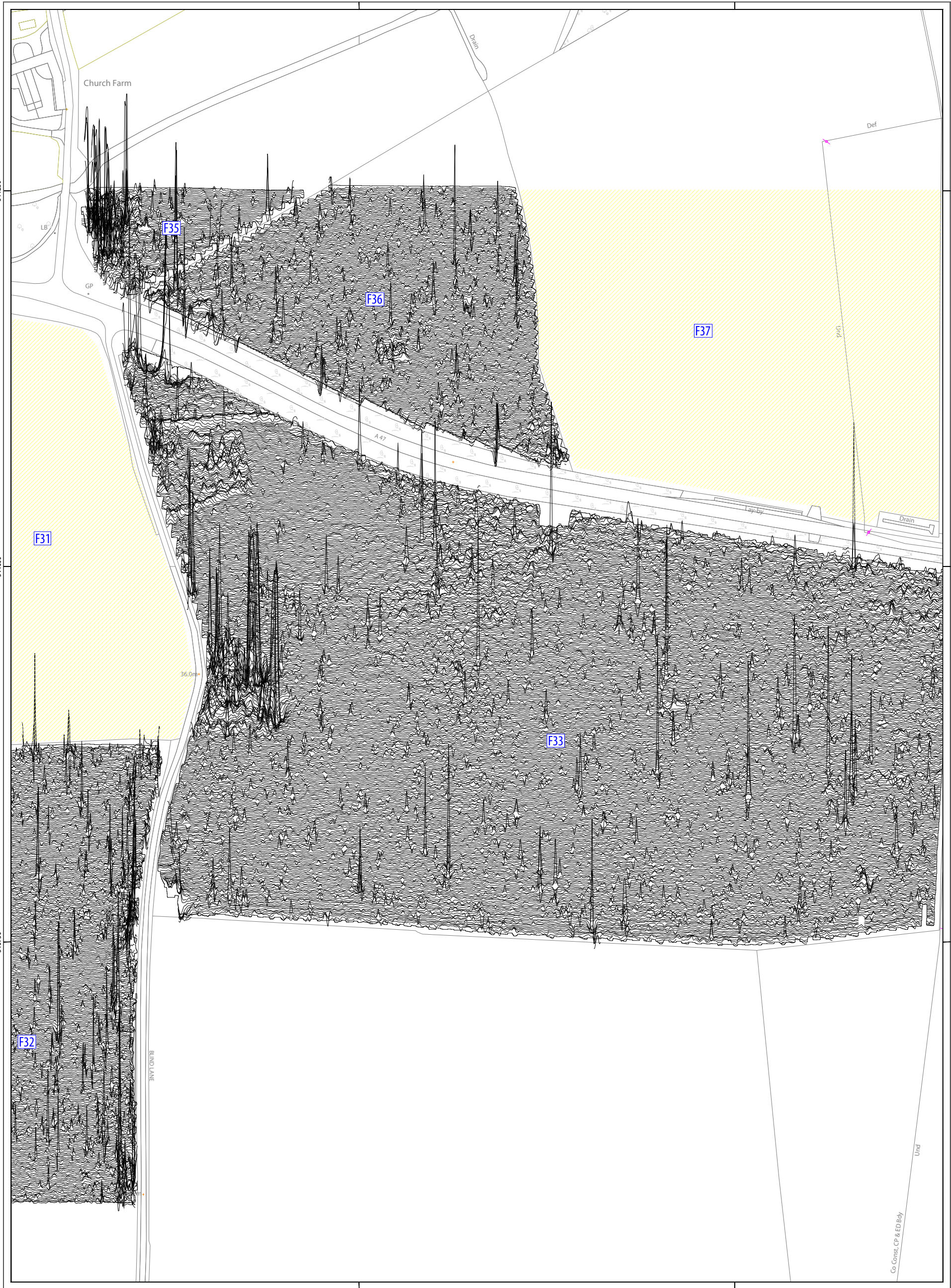


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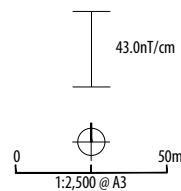
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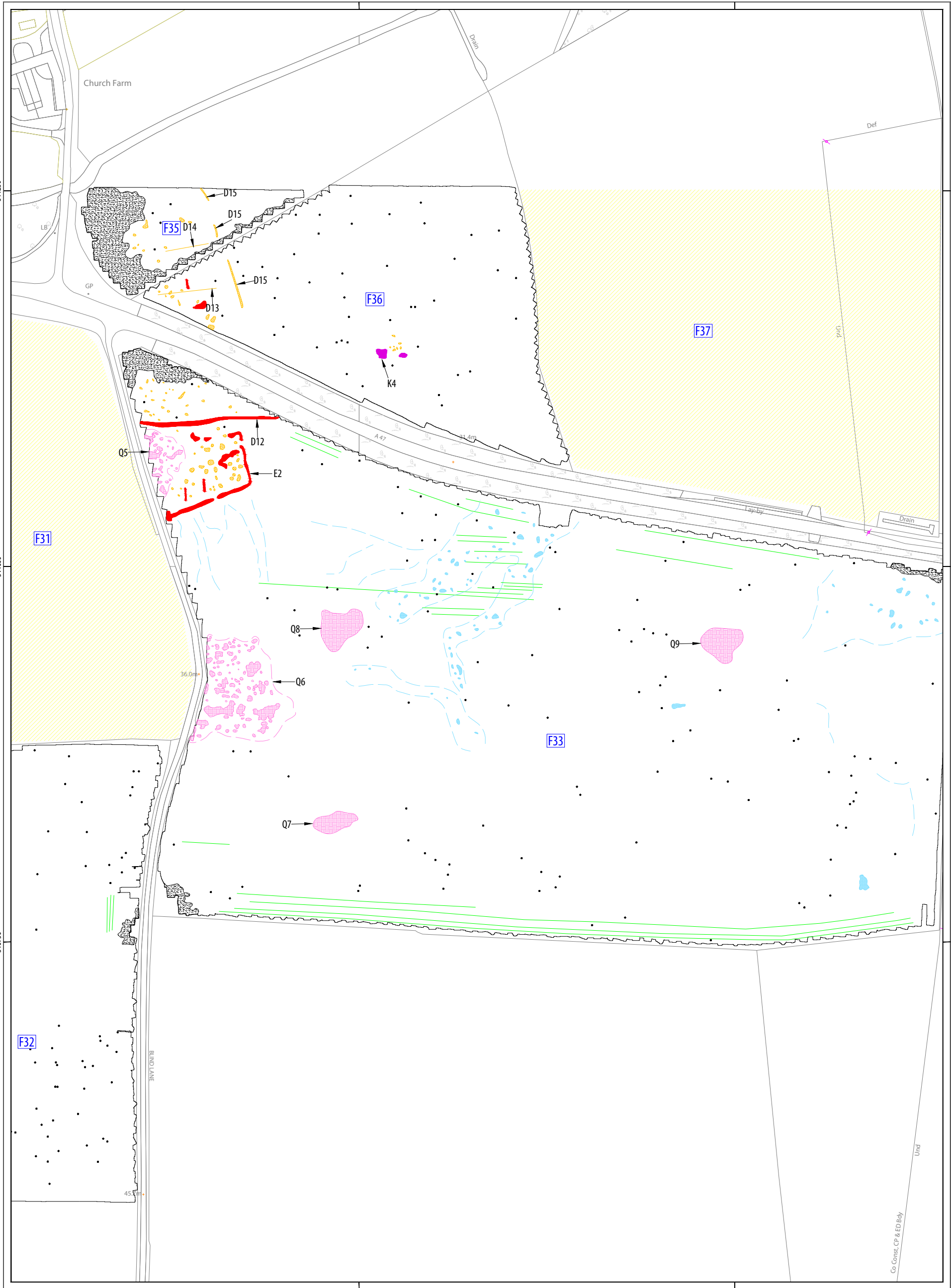


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TYPE OF ANOMALY	INTERPRETATION	TYPE OF ANOMALY	INTERPRETATION
● dipolar isolated	ferrous material	● magnetic enhancement	kiln/burning
● magnetic disturbance	ferrous material	— linear trend	archaeology?
● magnetic disturbance	quarrying	⊗ magnetic enhancement	archaeology?
— linear trend	agricultural	● magnetic enhancement	archaeology
— linear trend	geological variation		
● magnetic enhancement	geology		

ABBREVIATIONS	
D	ditch
E	enclosure
Q	extraction
K	kiln/area of burning
■	area unsuitable for survey



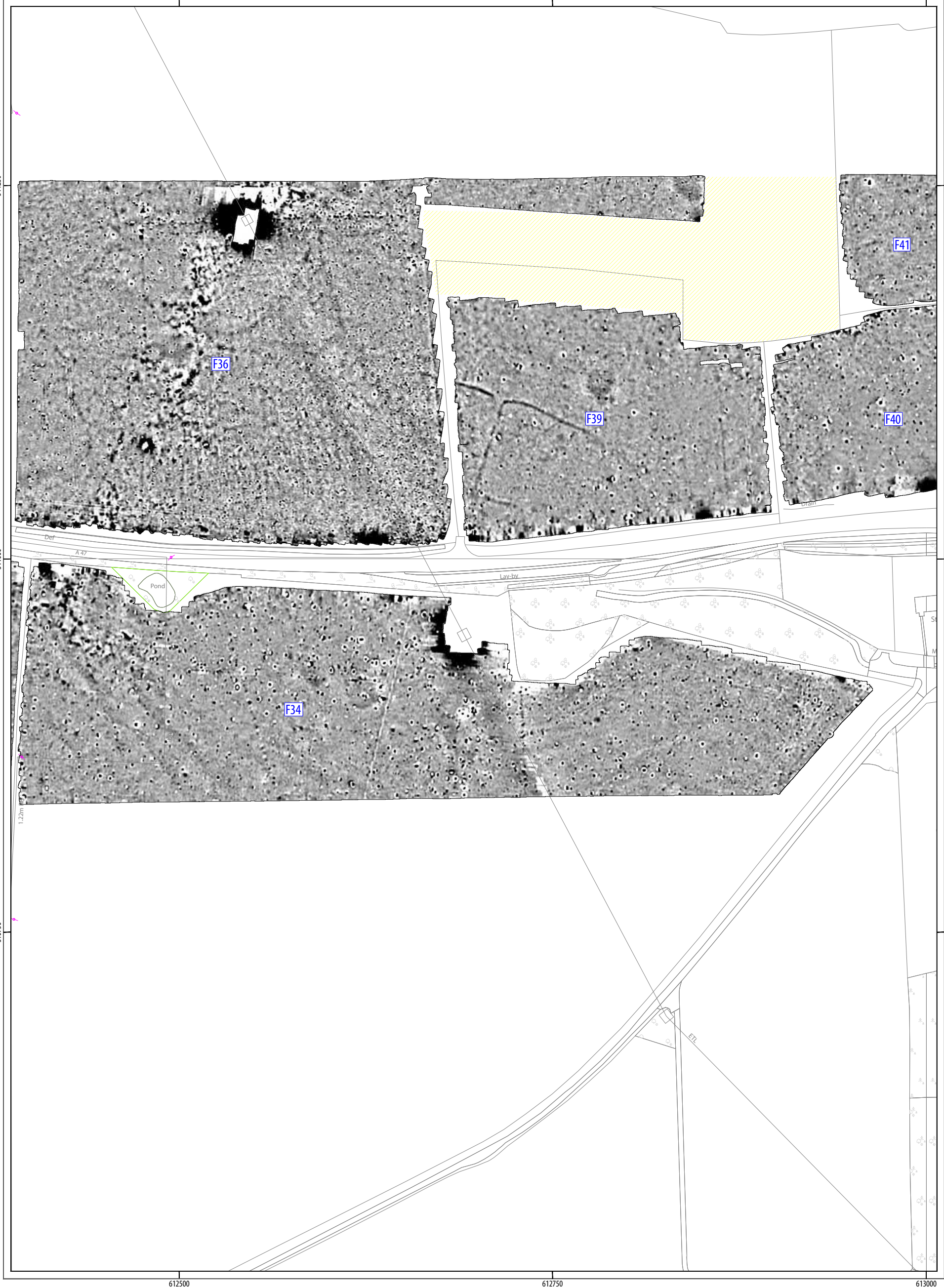
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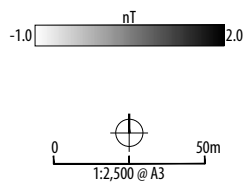
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ILLUS 46 Interpretation of magnetometer data, Sector 11



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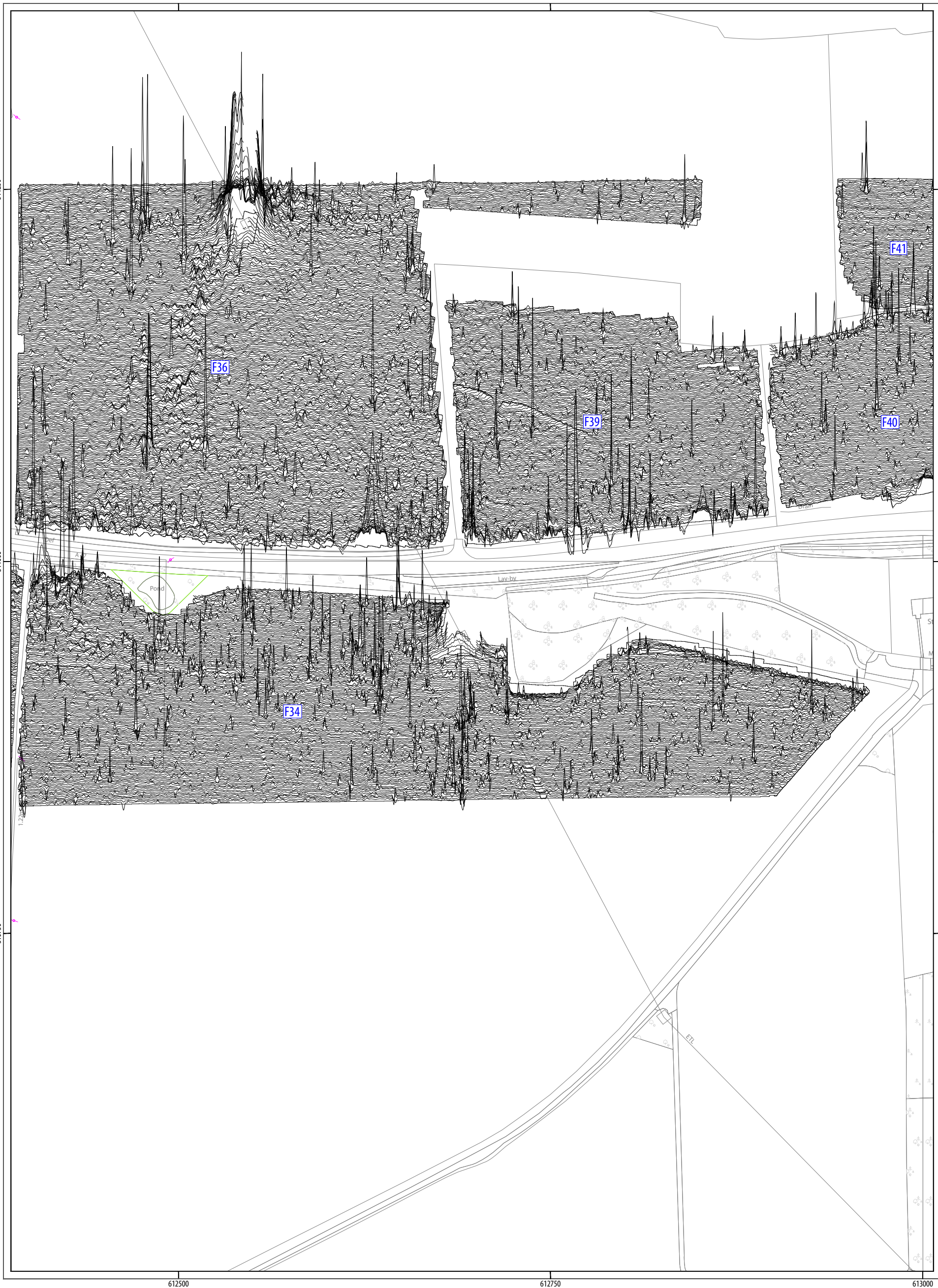


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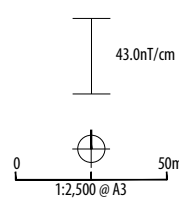
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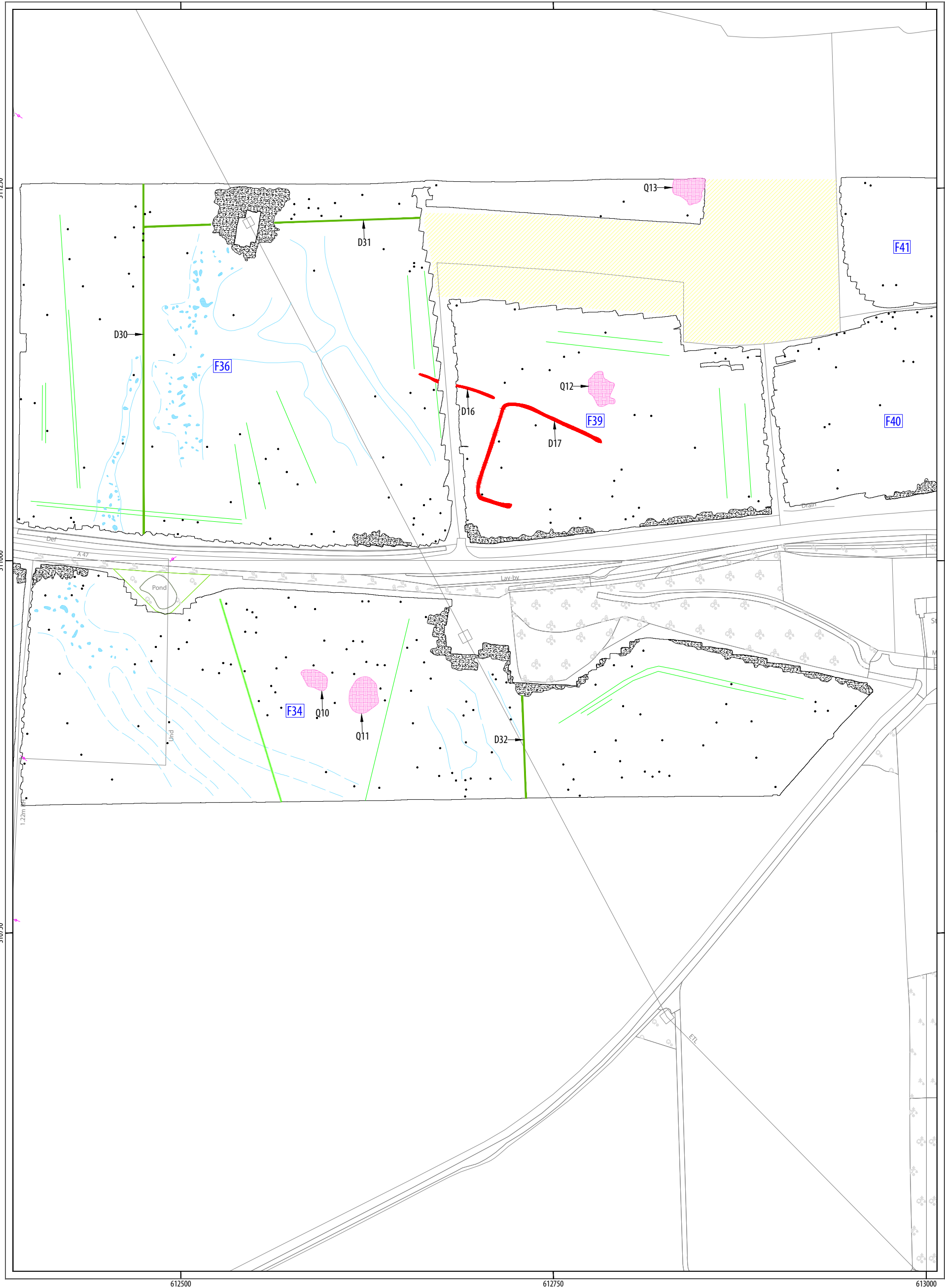
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ILLUS 48 XY trace plot of minimally processed magnetometer data, Sector 12



TYPE OF ANOMALY	INTERPRETATION	TYPE OF ANOMALY	INTERPRETATION
● dipolar isolated	ferrous material	● magnetic enhancement	geology
● magnetic disturbance	ferrous material	● magnetic enhancement	archaeology
● magnetic disturbance	quarrying		
— linear trend	agricultural		
— linear trend	former field boundary		
— linear trend	geological variation		

ABBREVIATIONS
D ditch
FB field boundary
Q extraction
■ area unsuitable for survey



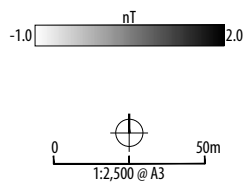
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ILLUS 49 Interpretation of magnetometer data, Sector 12

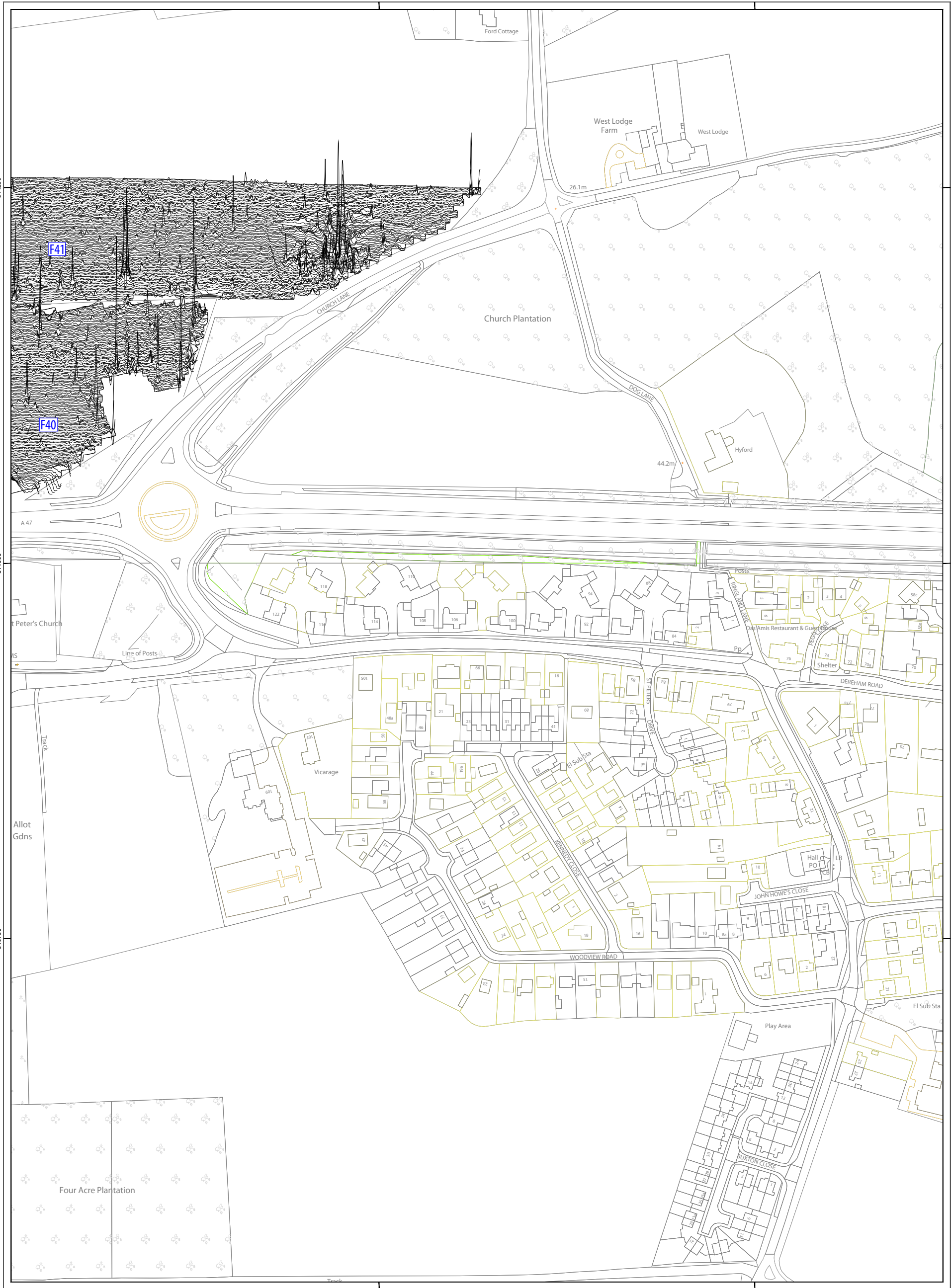


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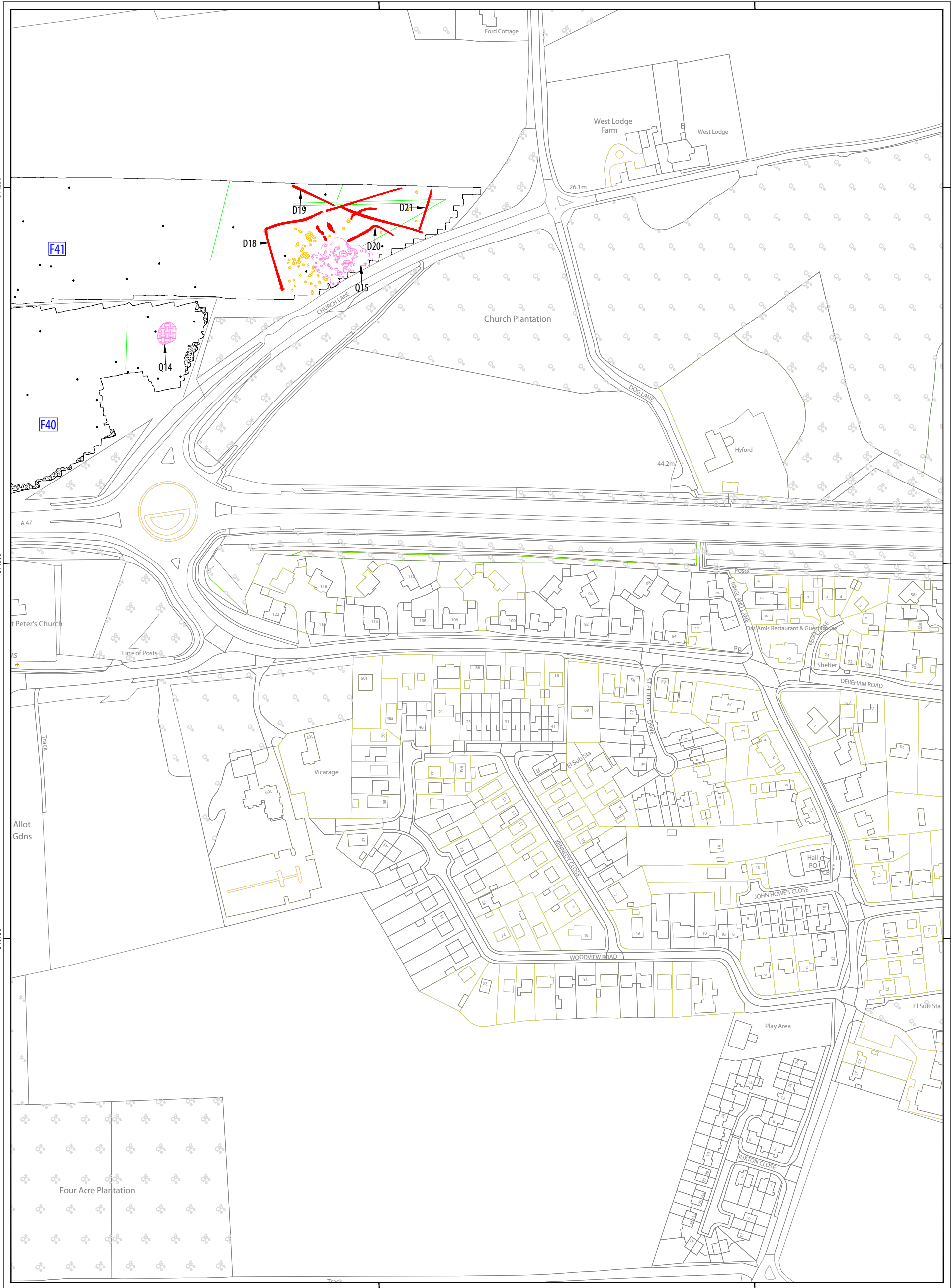
ILLUS 51 XY trace plot of minimally processed magnetometer data, Sector 13

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TYPE OF ANOMALY	INTERPRETATION
● dipolar isolated	ferrous material
● magnetic disturbance	ferrous material
● magnetic disturbance	quarrying
— linear trend	agricultural
○ magnetic enhancement	archaeology?
● magnetic enhancement	archaeology

ABBREVIATIONS
D ditch
Q extraction

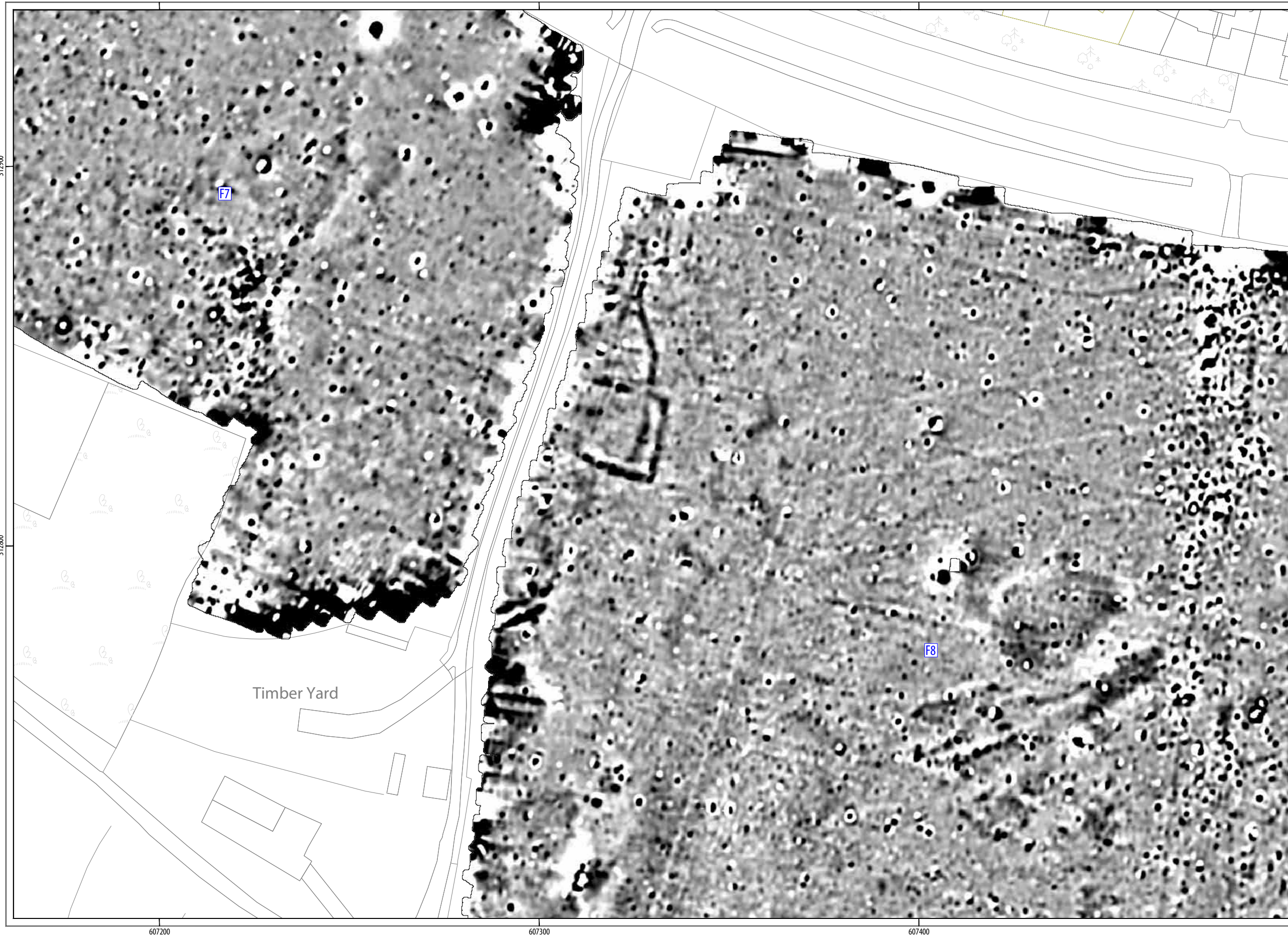
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ILLUS 52 Interpretation of magnetometer data, Sector 13



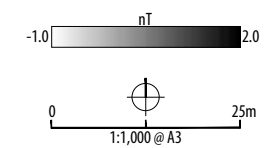
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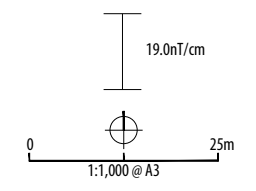
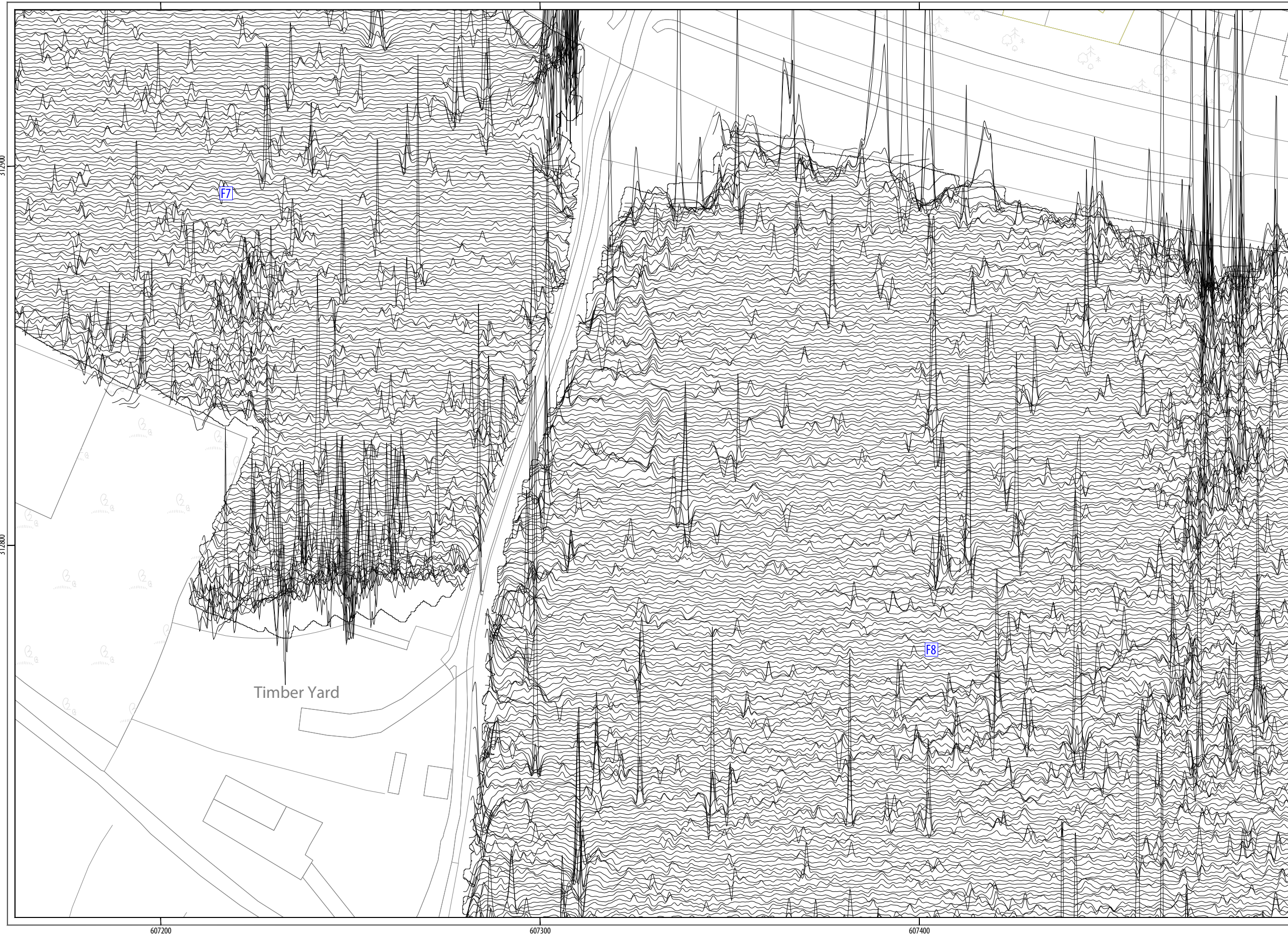


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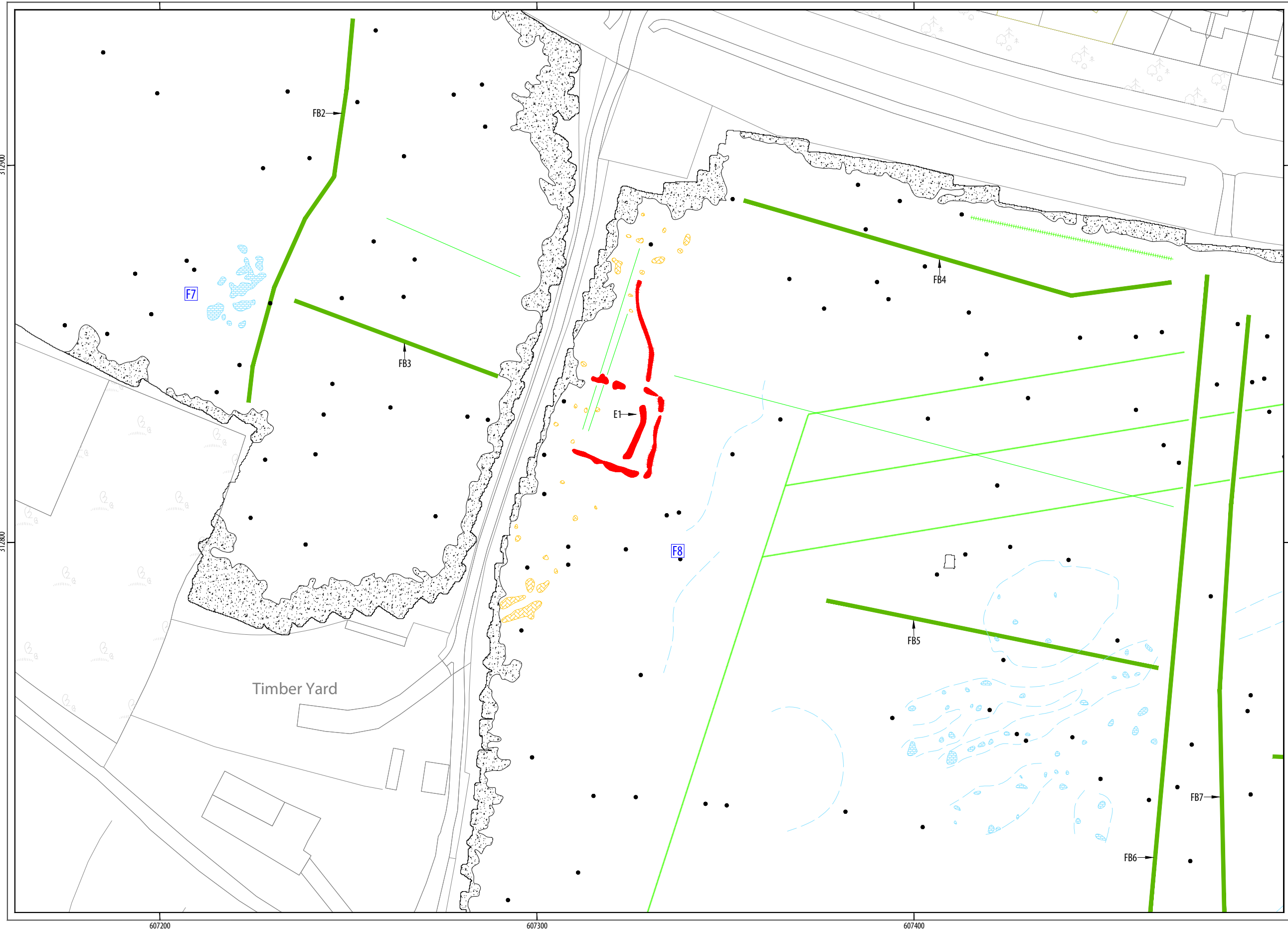
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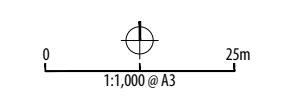
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ILLUS 54 XY trace plot of minimally processed magnetometer data; AAA 1



TYPE OF ANOMALY	INTERPRETATION
● dipolar isolated	ferrous material
● magnetic disturbance	ferrous material
— linear trend	agricultural
— linear trend	field drain
— linear	former field boundary
— linear trend	geological variation
⊕ magnetic enhancement	geology
⊗ magnetic enhancement	archaeology?
● magnetic enhancement	archaeology

ABBREVIATIONS	
E	enclosure
FB	field boundary



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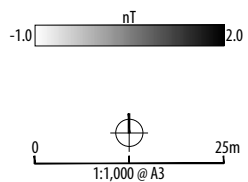
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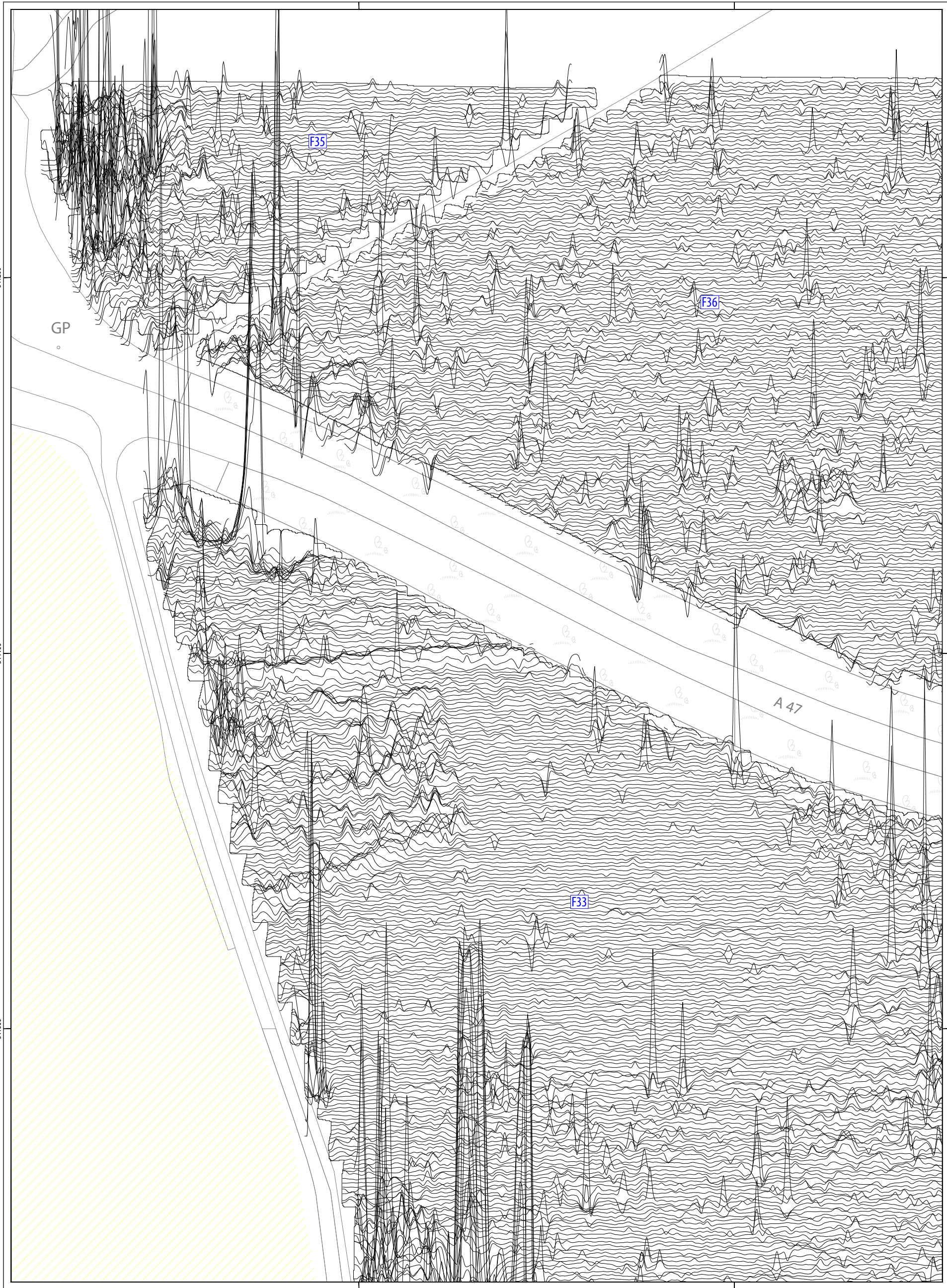


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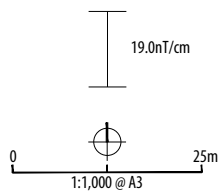
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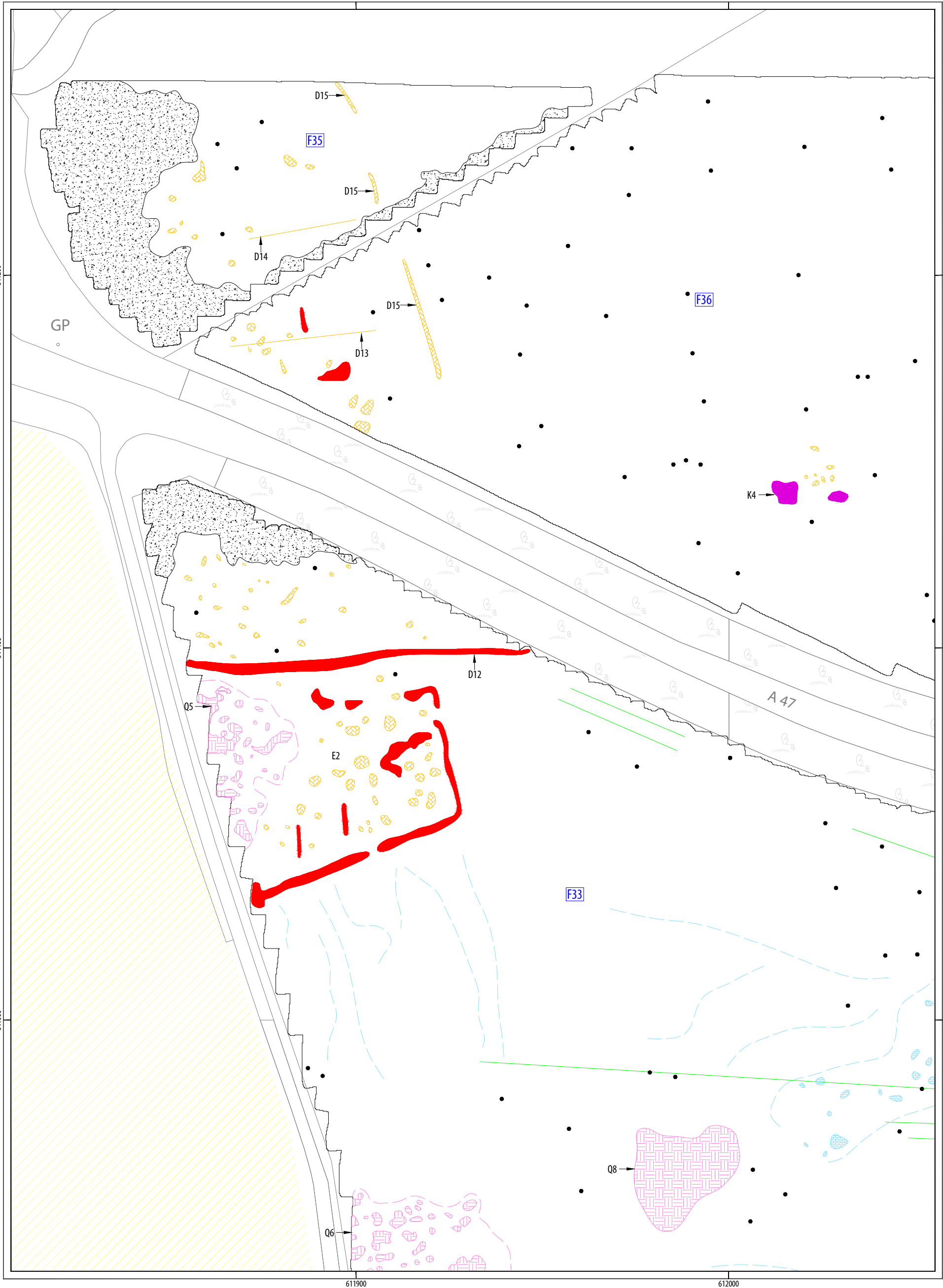
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ILLUS 57 XY trace plot of minimally processed magnetometer data, AAA 2



TYPE OF ANOMALY

- dipolar isolated
- magnetic disturbance
- magnetic disturbance
- linear trend
- linear trend
- magnetic enhancement

INTERPRETATION

- ferrous material
- ferrous material
- quarrying
- agricultural
- geological variation
- geology

TYPE OF ANOMALY

- magnetic enhancement
- linear trend
- magnetic enhancement
- magnetic enhancement

INTERPRETATION

- kiln/burning
- archaeology?
- archaeology?
- archaeology

ABBREVIATIONS

- D ditch
- E enclosure
- Q extraction
- K kiln
- area unsuitable for survey

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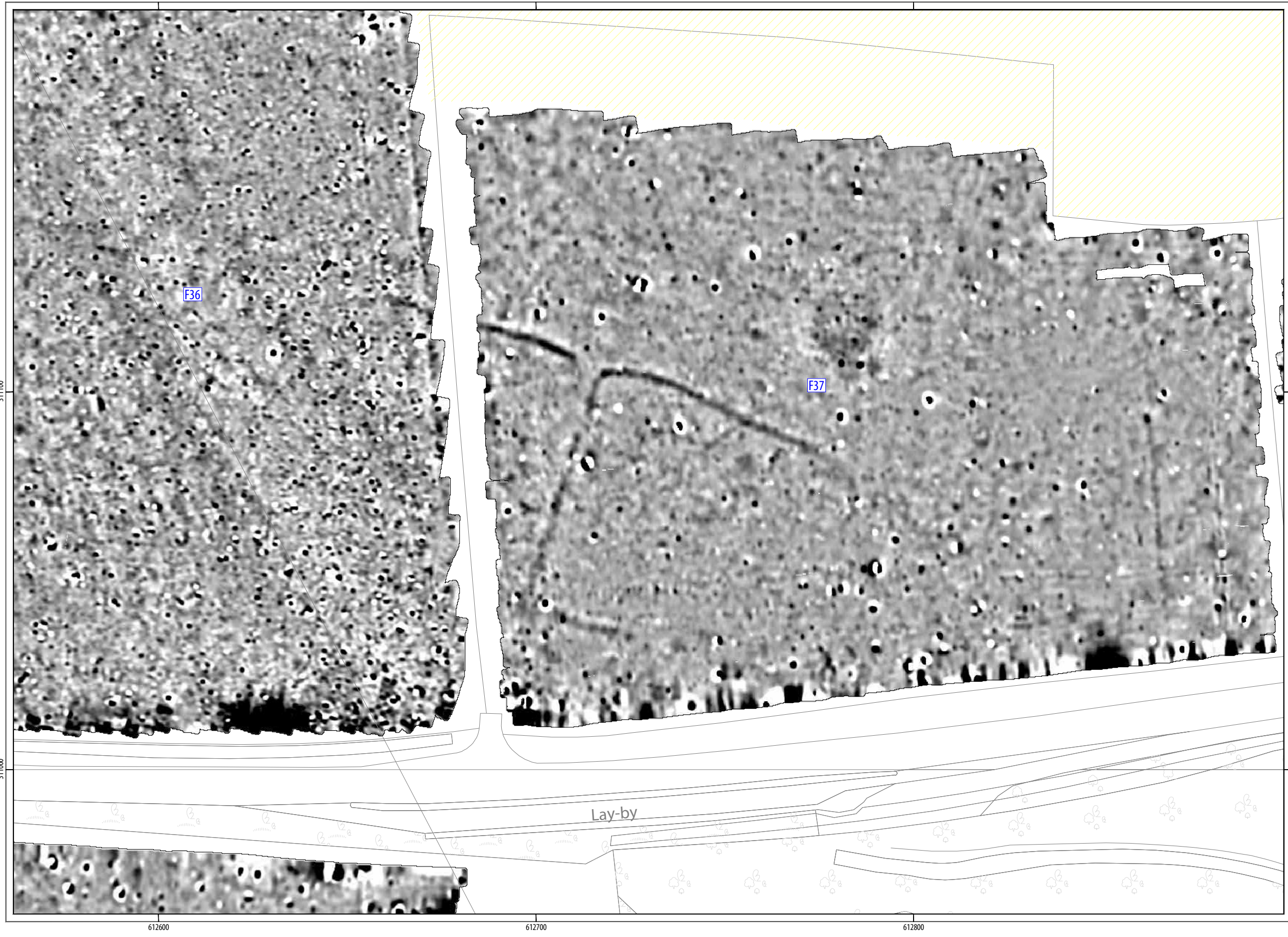
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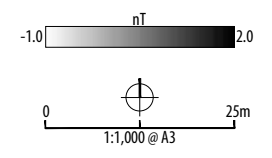


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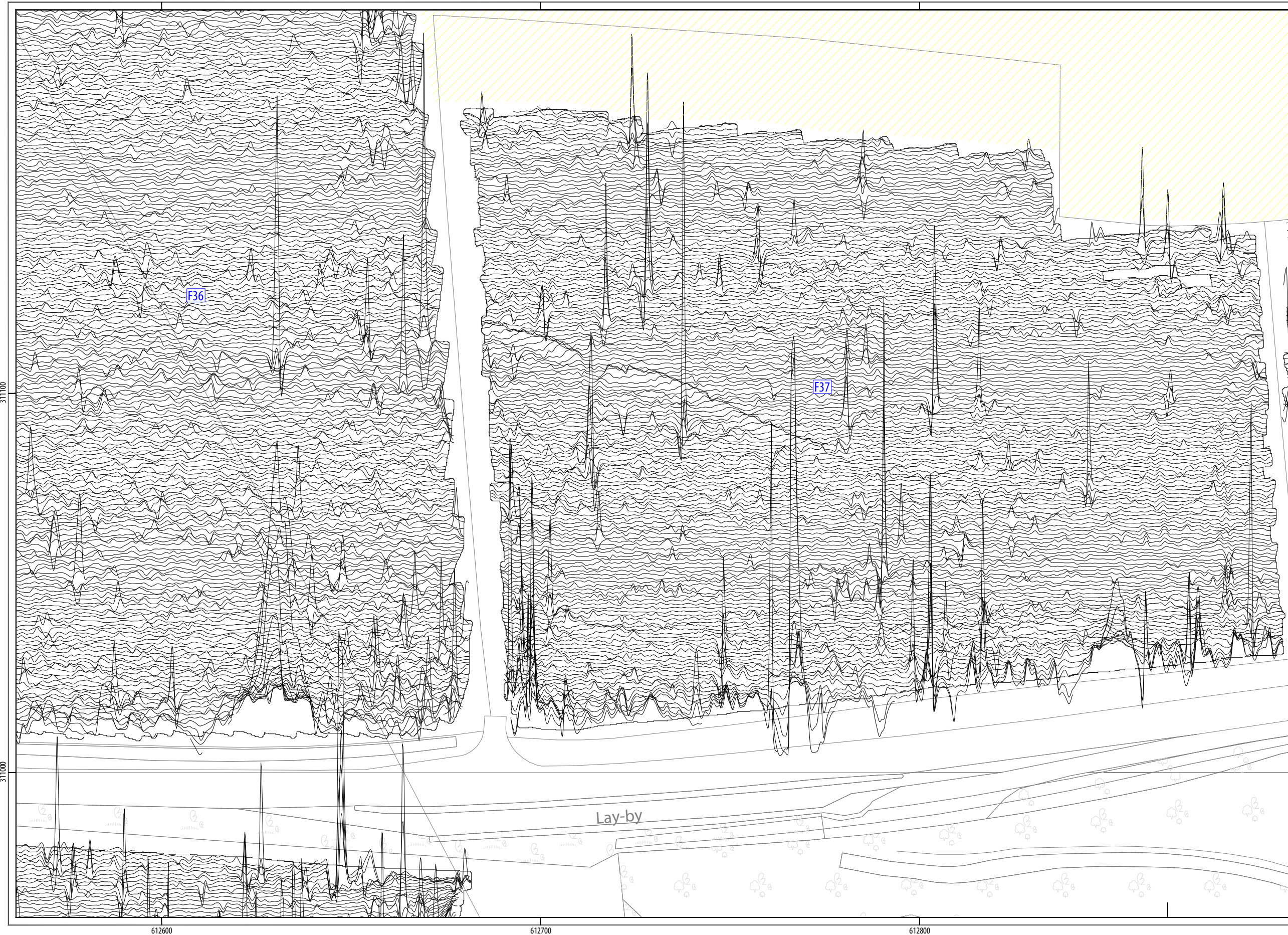
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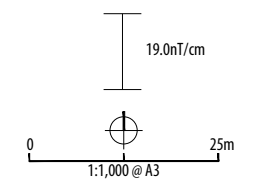
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ILLUS 59 Processed greyscale magnetometer data; AAA 3



area unsuitable for survey

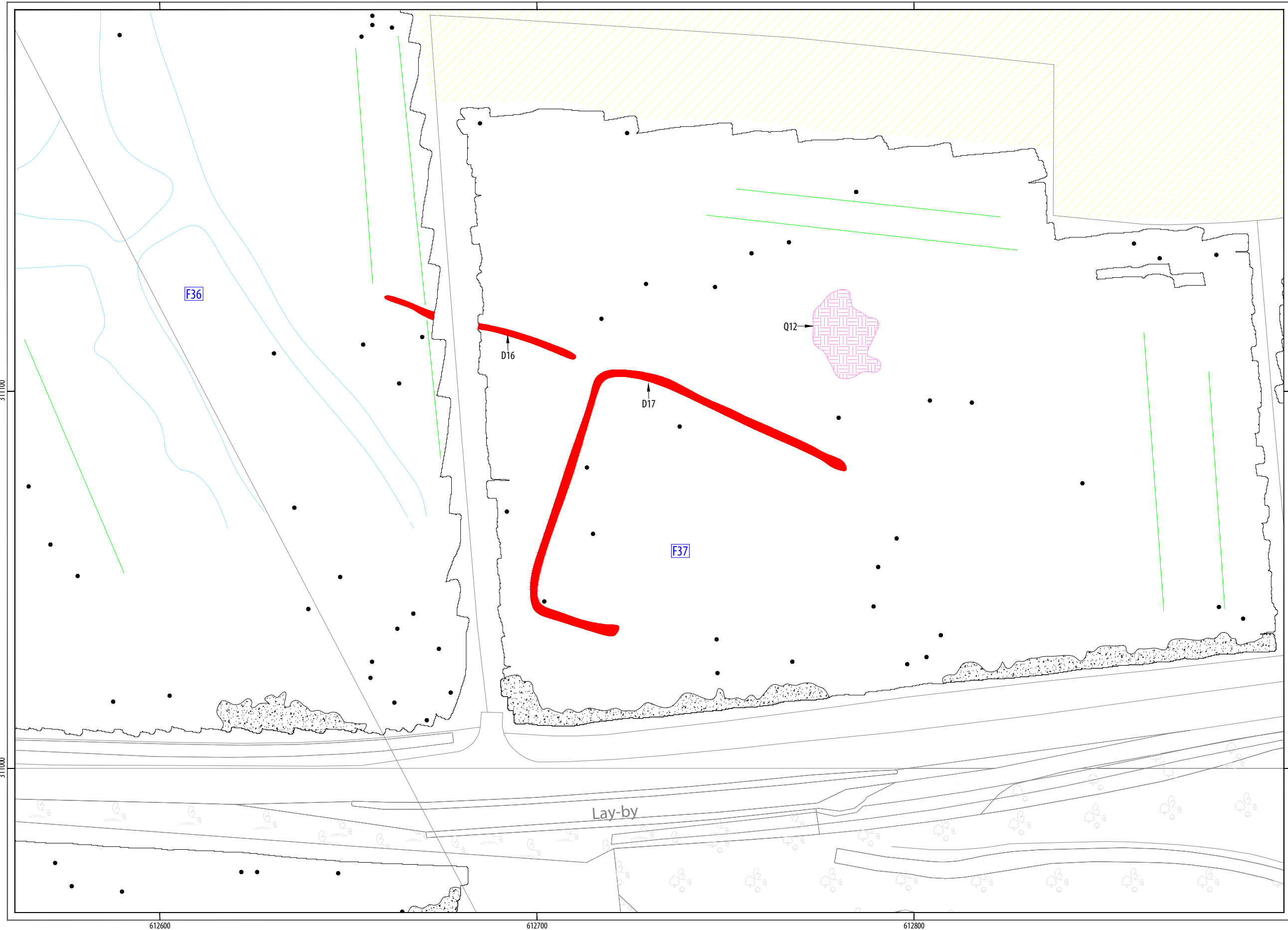


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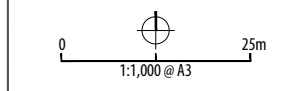
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ILLUS 60 XY trace plot of minimally processed magnetometer data; AAA 3



TYPE OF ANOMALY	INTERPRETATION
● dipolar isolated	ferrous material
● magnetic disturbance	ferrous material
● magnetic disturbance	quarrying
— linear trend	agricultural
— linear trend	geological variation
● magnetic enhancement	archaeology

ABBREVIATIONS
 D ditch
 Q extraction

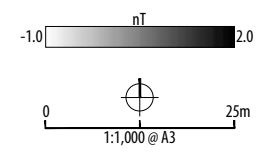
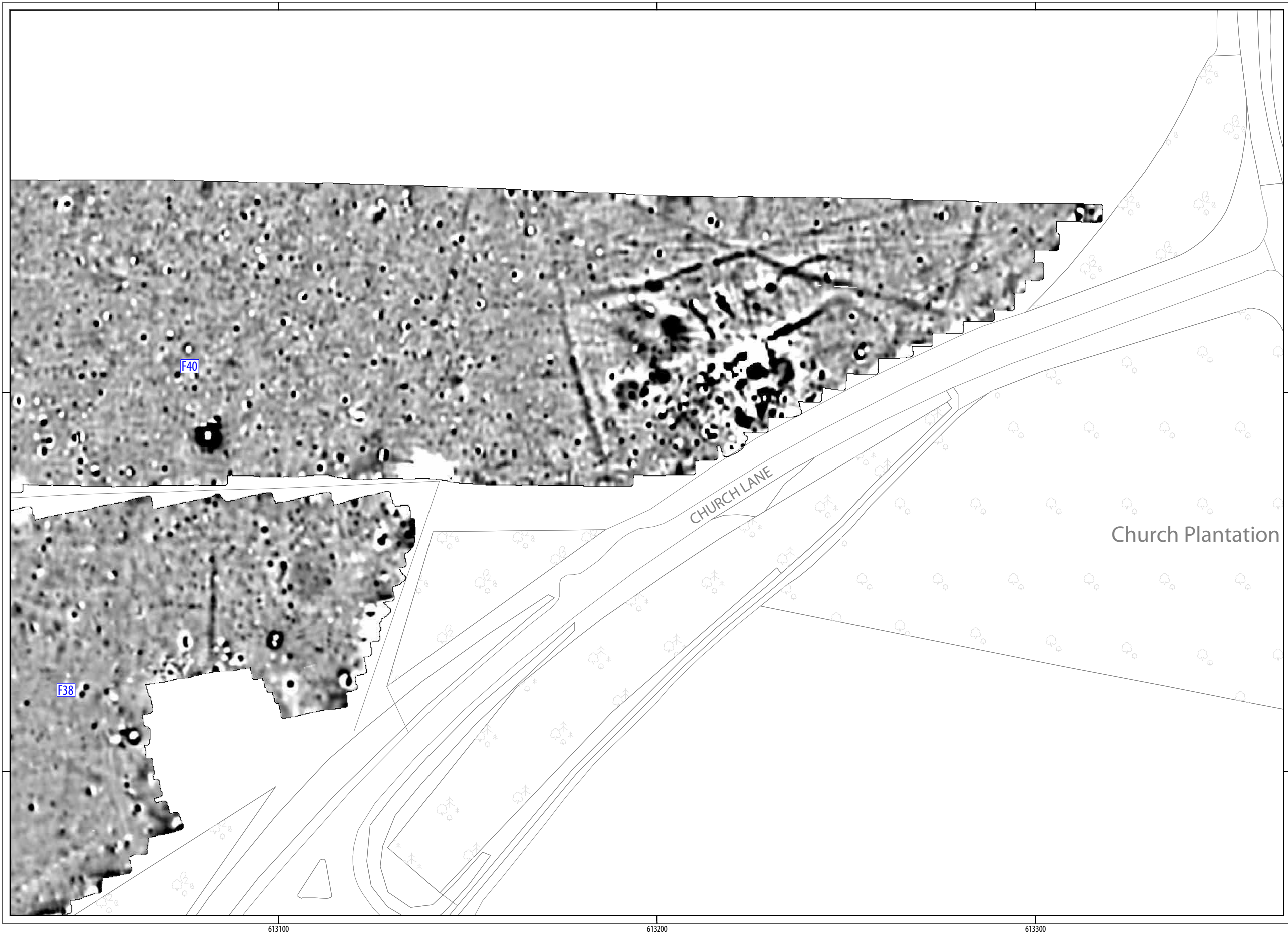


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ILLUS 61 Interpretation of magnetometer data; AAA 3



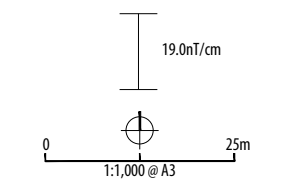
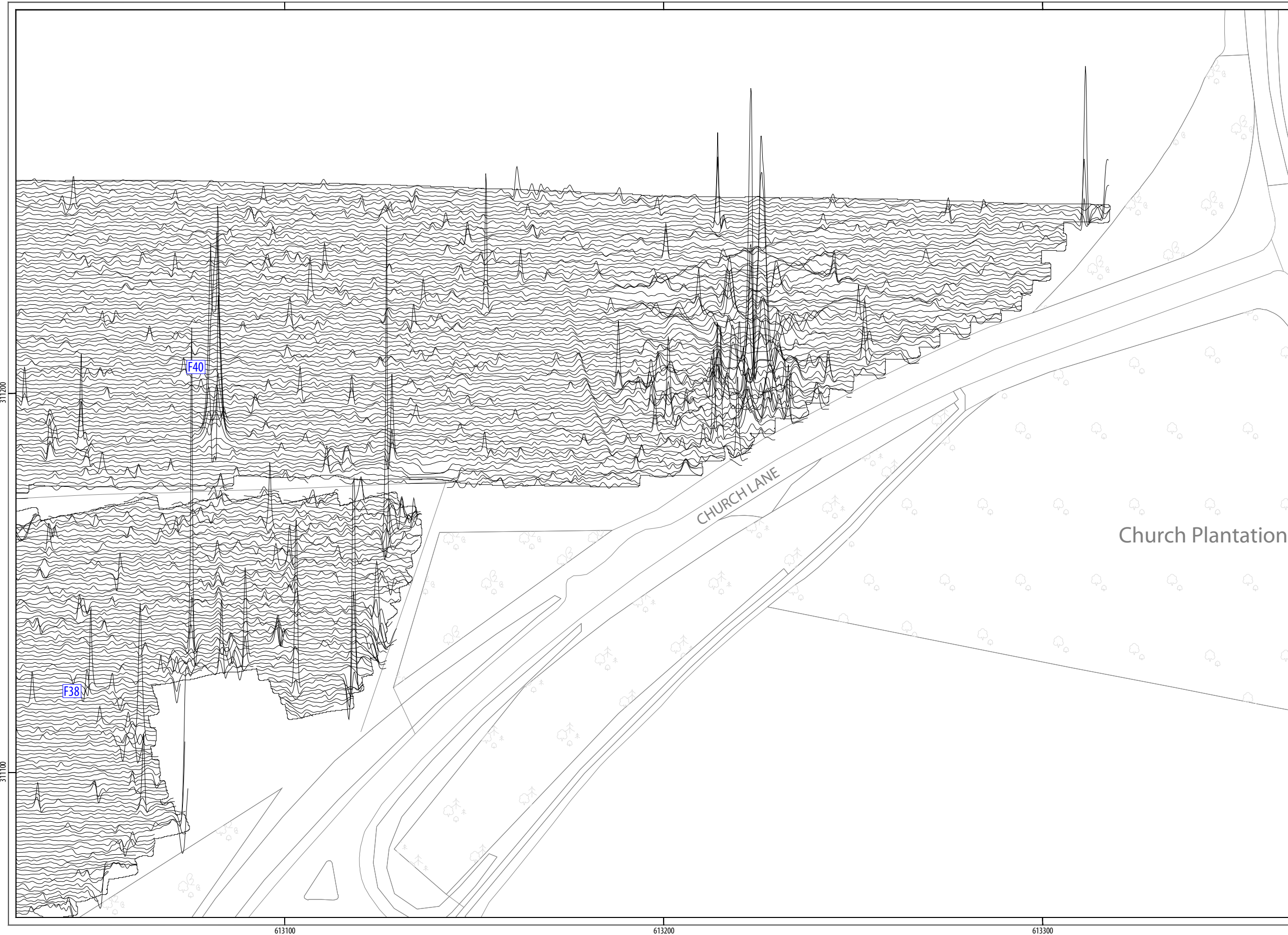
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ILLUS 62 Processed greyscale magnetometer data; AAA 4



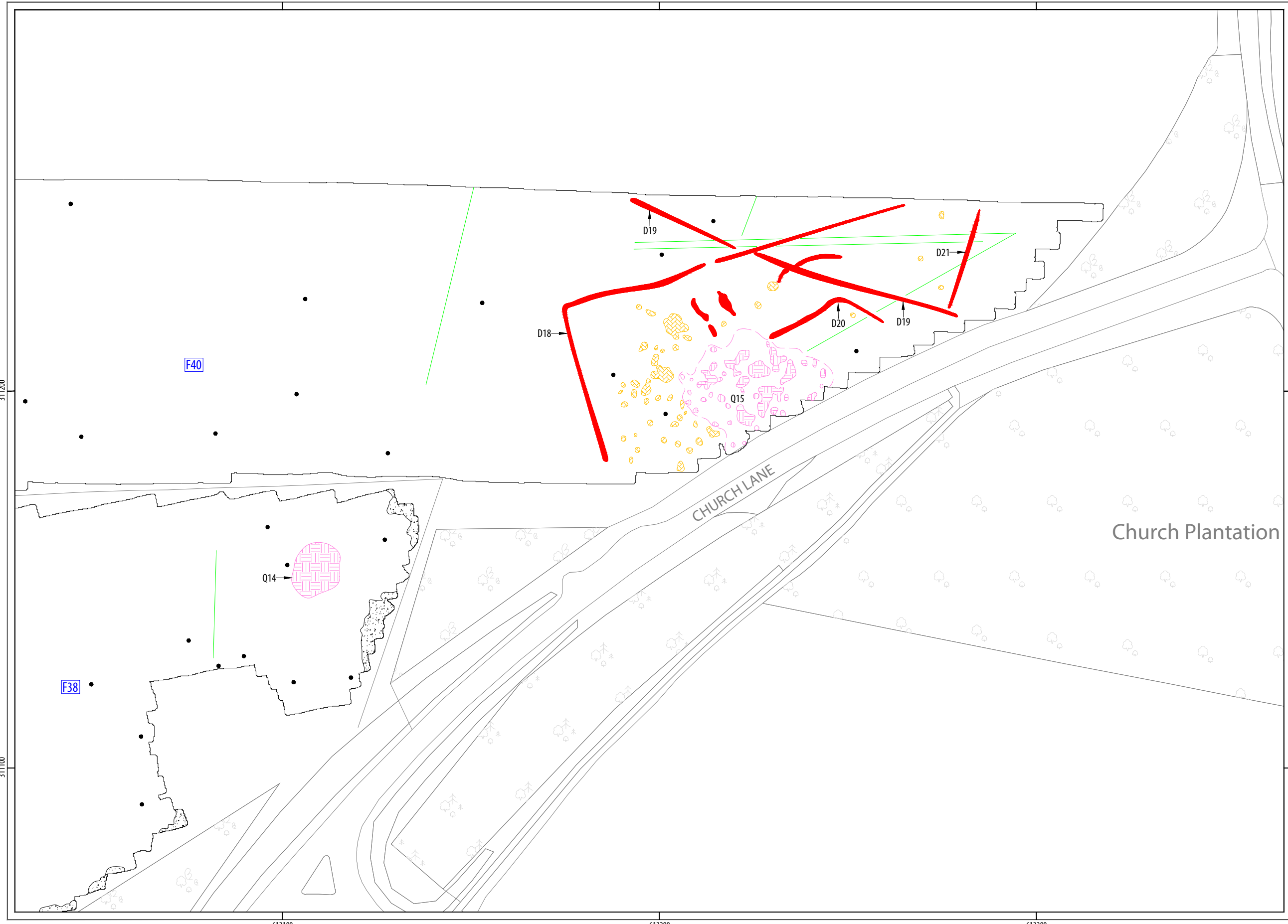
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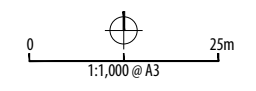
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ILLUS 63 XY trace plot of minimally processed magnetometer data; AAA 4



TYPE OF ANOMALY	INTERPRETATION
● dipolar isolated	ferrous material
● magnetic disturbance	ferrous material
● magnetic disturbance	quarrying
— linear trend	agricultural
— linear trend	geological variation
⊗ magnetic enhancement	archaeology?
● magnetic enhancement	archaeology

ABBREVIATIONS
 D ditch
 Q extraction



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