

A12 Chelmsford to A120 widening scheme

TR010060

6.3 ENVIRONMENTAL STATEMENT APPENDIX 7.5 GEOPHYSICAL SURVEY PHASE 1 REPORT – PART 2

APFP Regulation 5(2)(a)

Planning Act 2008

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

Volume 6

August 2022

Infrastructure Planning

Planning Act 2008

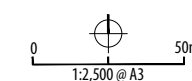
A12 Chelmsford to A120 widening scheme

Development Consent Order 202[]

ENVIRONMENTAL STATEMENT APPENDIX 7.5 GEOPHYSICAL SURVEY PHASE 1 REPORT – PART 2

Regulation Reference	Regulation 5(2)(a)
Planning Inspectorate Scheme Reference	TR010060
Application Document Reference	TR010060/APP/6.3
Author	A12 Project Team & National Highways

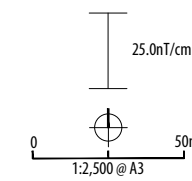
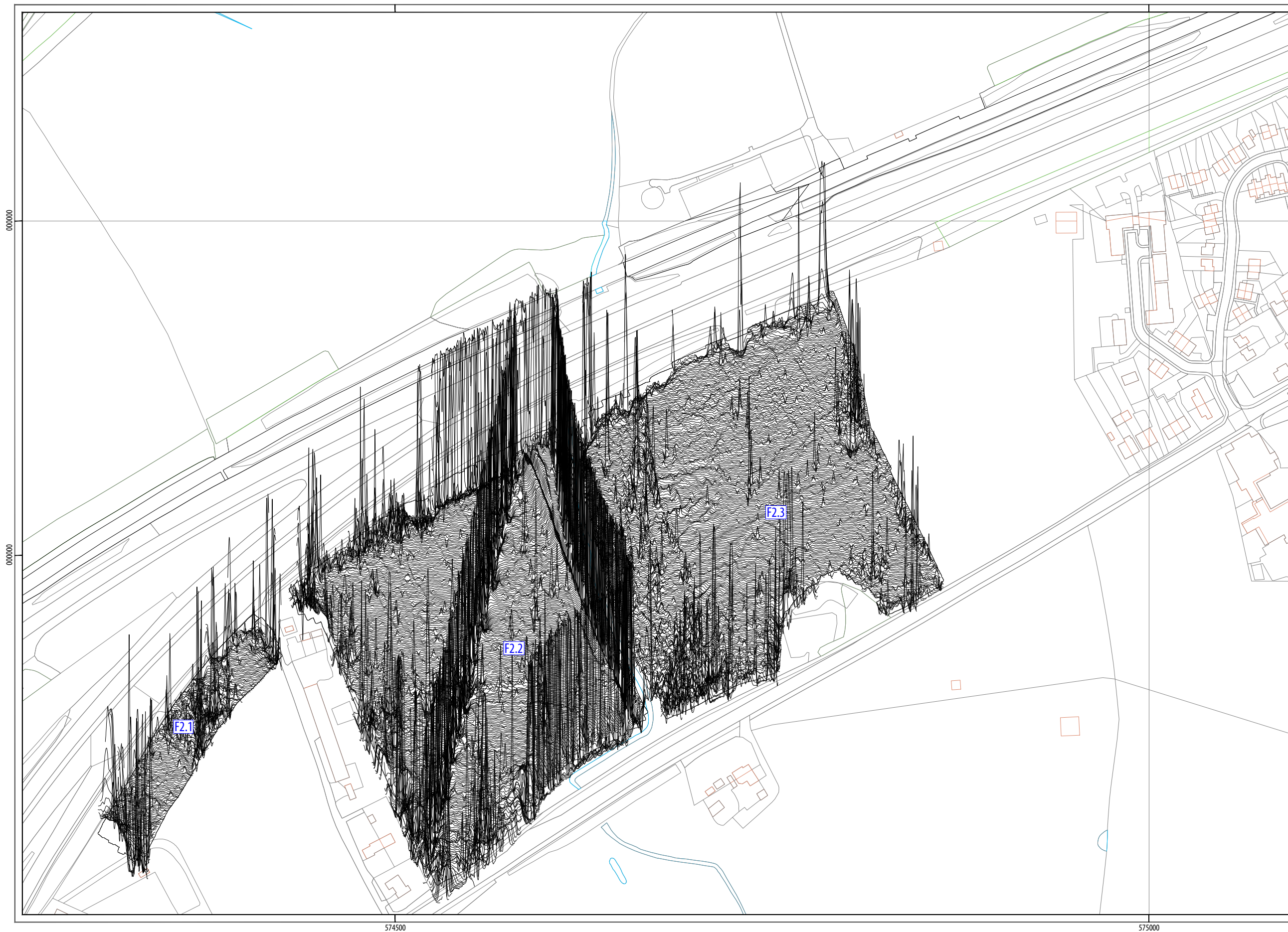
Version	Date	Status of Version
Rev 1	August 2022	DCO Application



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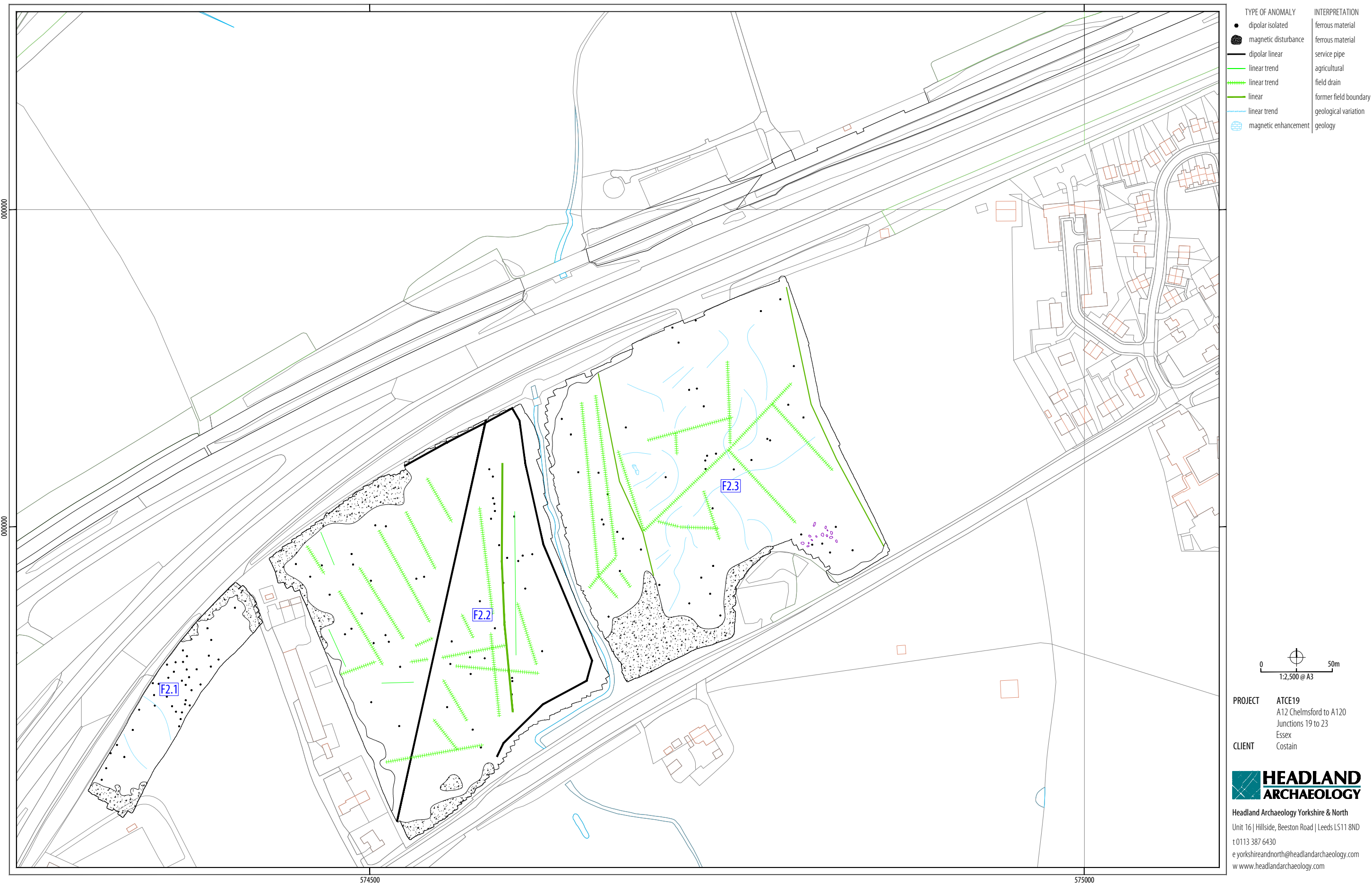
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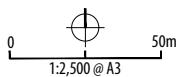
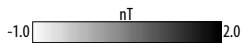
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574500

575000

ILLUS 17 XY trace plot of minimally processed magnetometer data; Sector 3

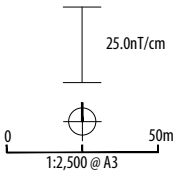
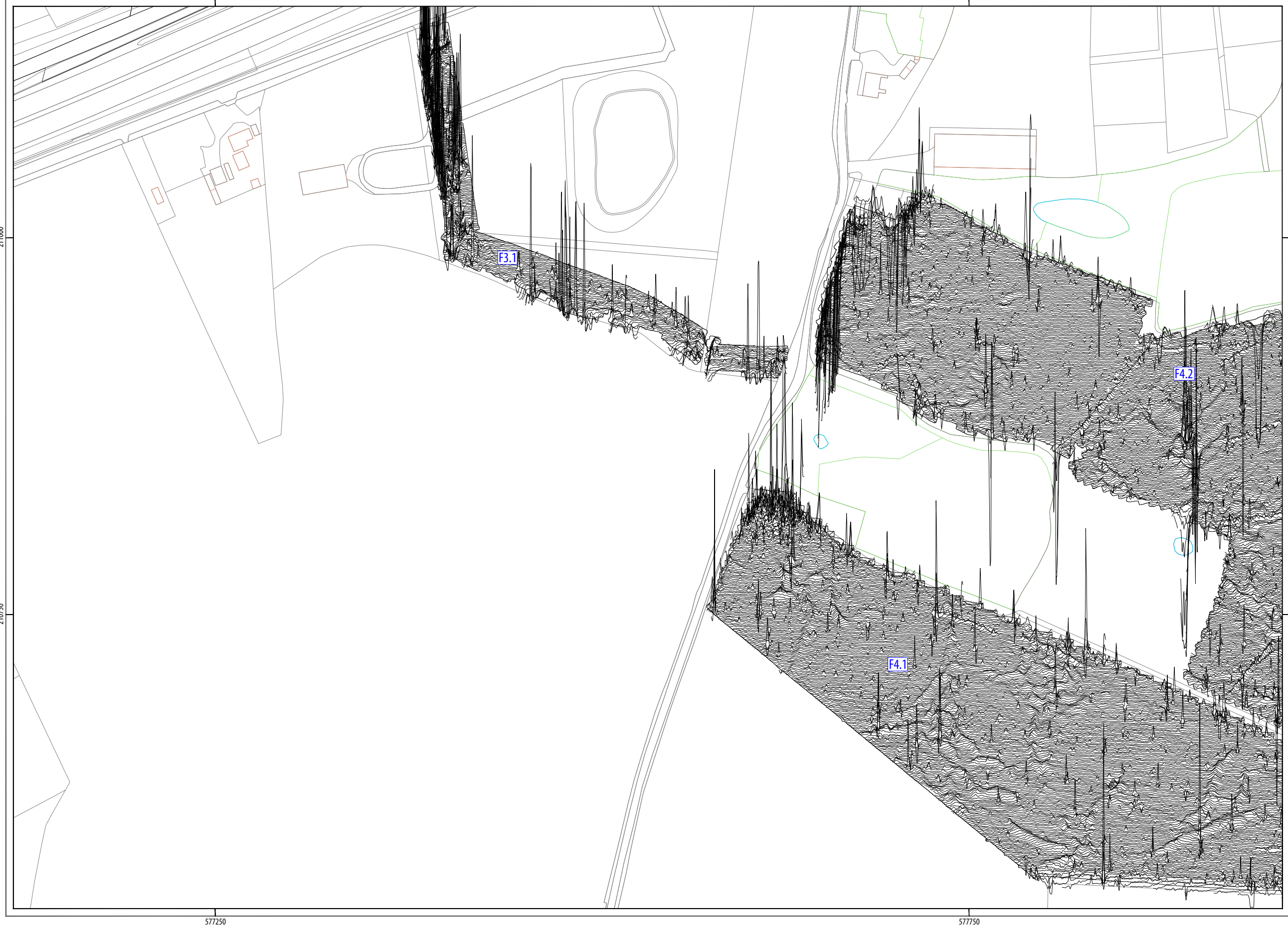




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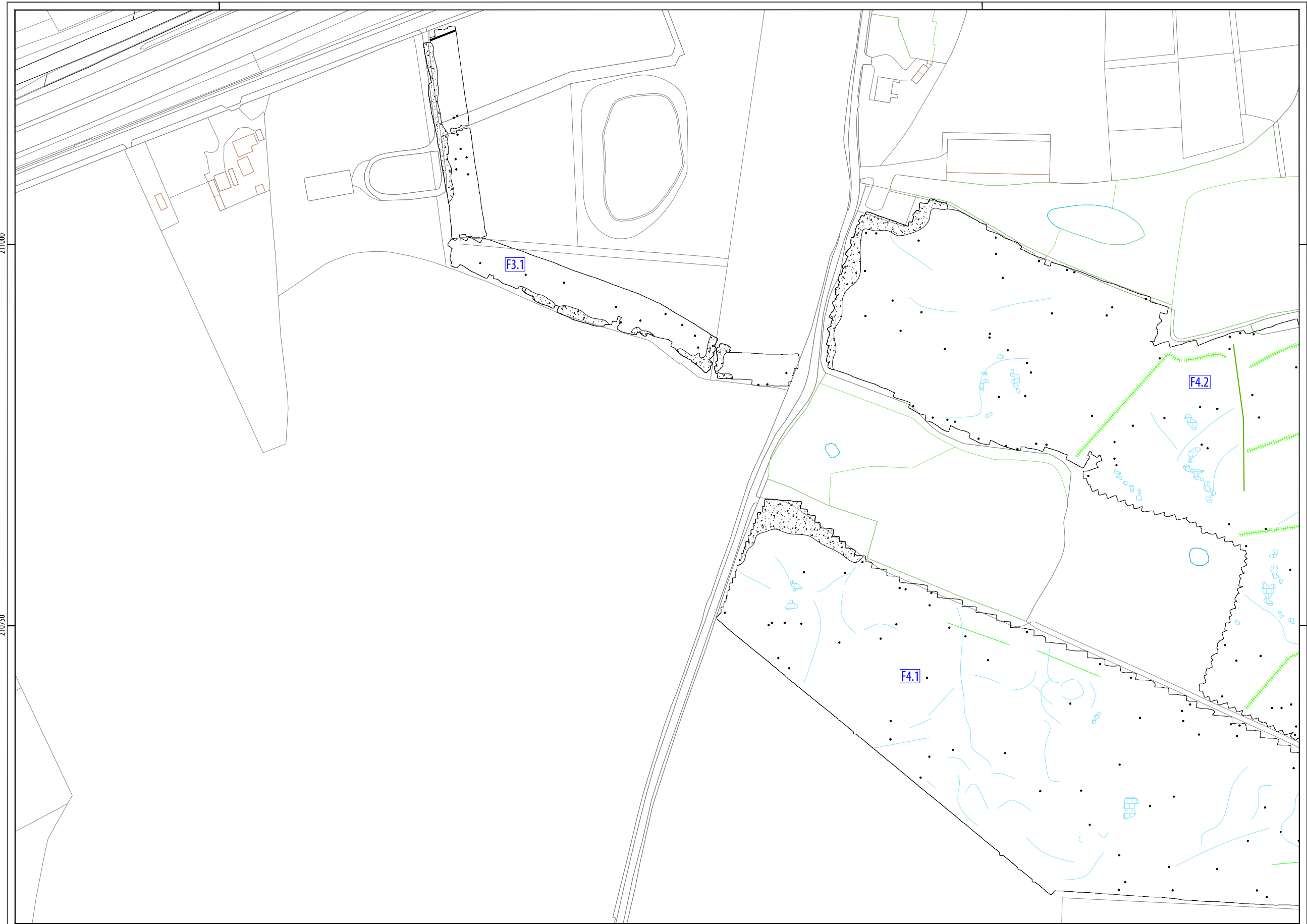


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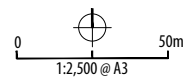


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ILLUS 20 XY trace plot of minimally processed magnetometer data; Sector 4



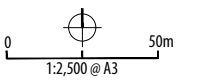
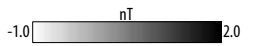
TYPE OF ANOMALY		INTERPRETATION
●	dipolar isolated	ferrous material
●●	magnetic disturbance	ferrous material
—	linear trend	agricultural
—	linear trend	field drain
—	linear	former field boundary
—	linear trend	geological variation
●	magnetic enhancement	geology



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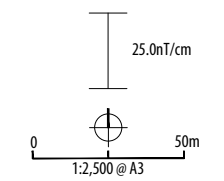
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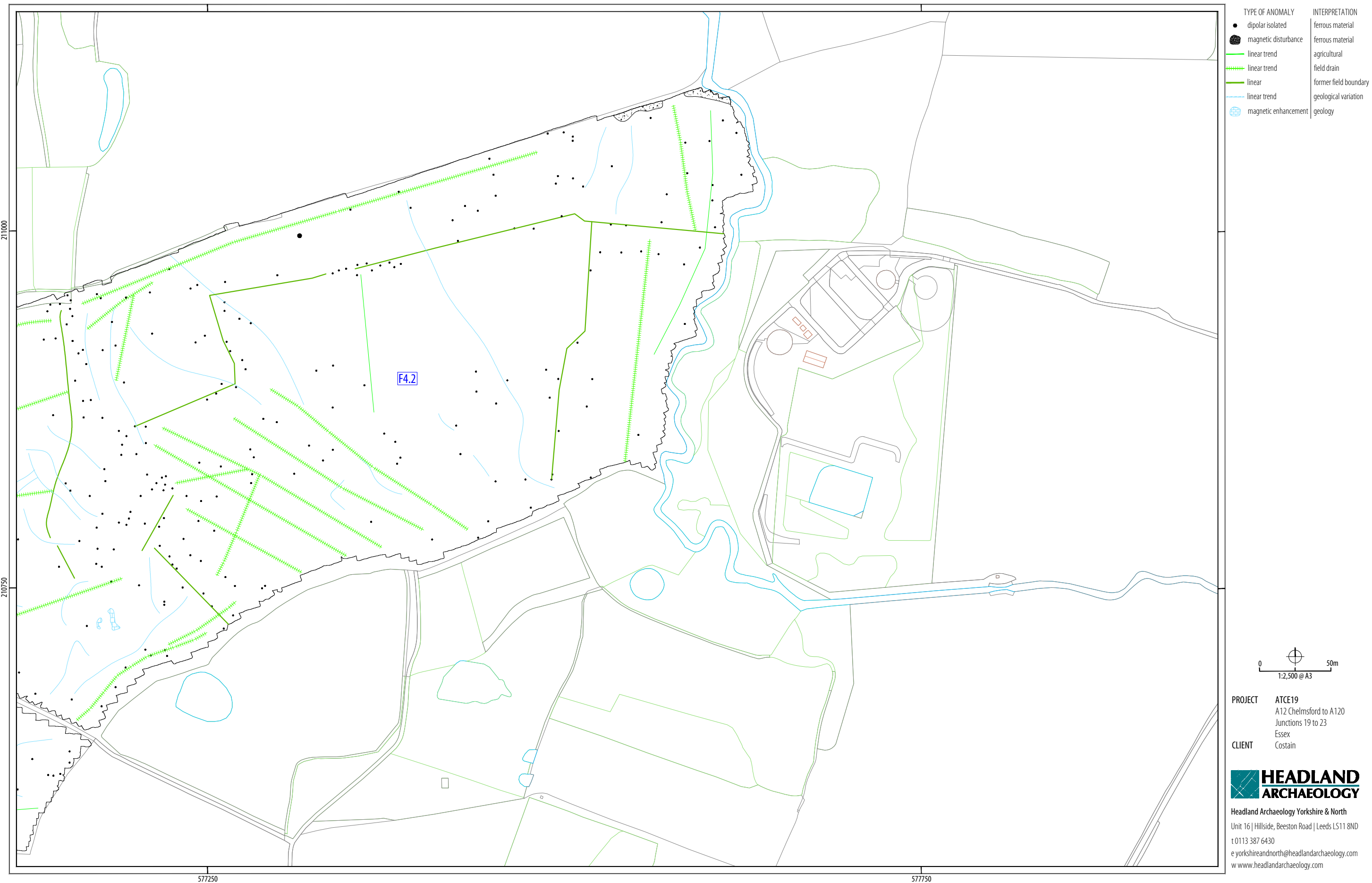


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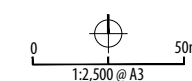
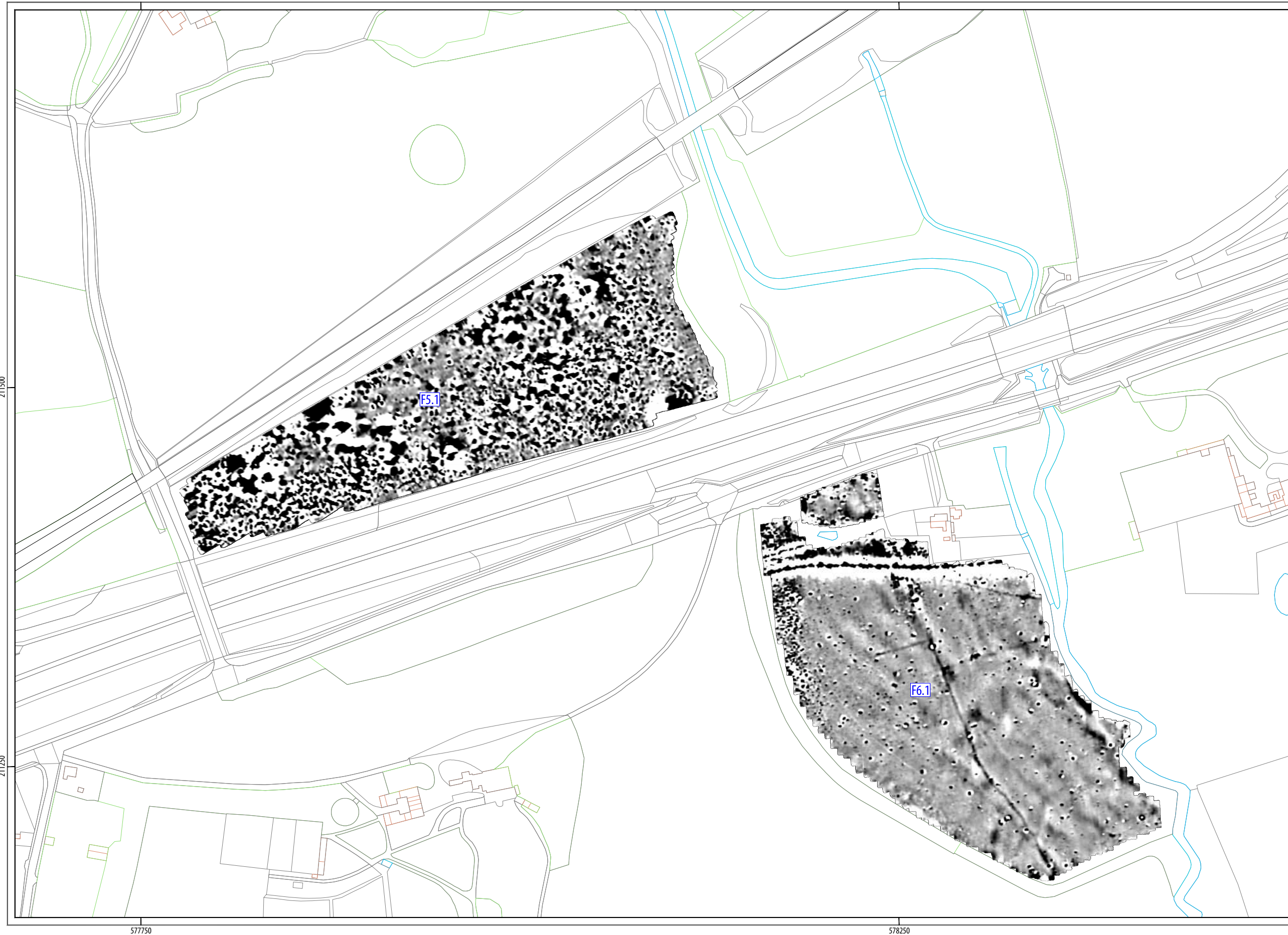


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ILLUS 23 XY trace plot of minimally processed magnetometer data; Sector 5



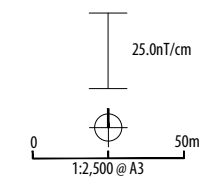
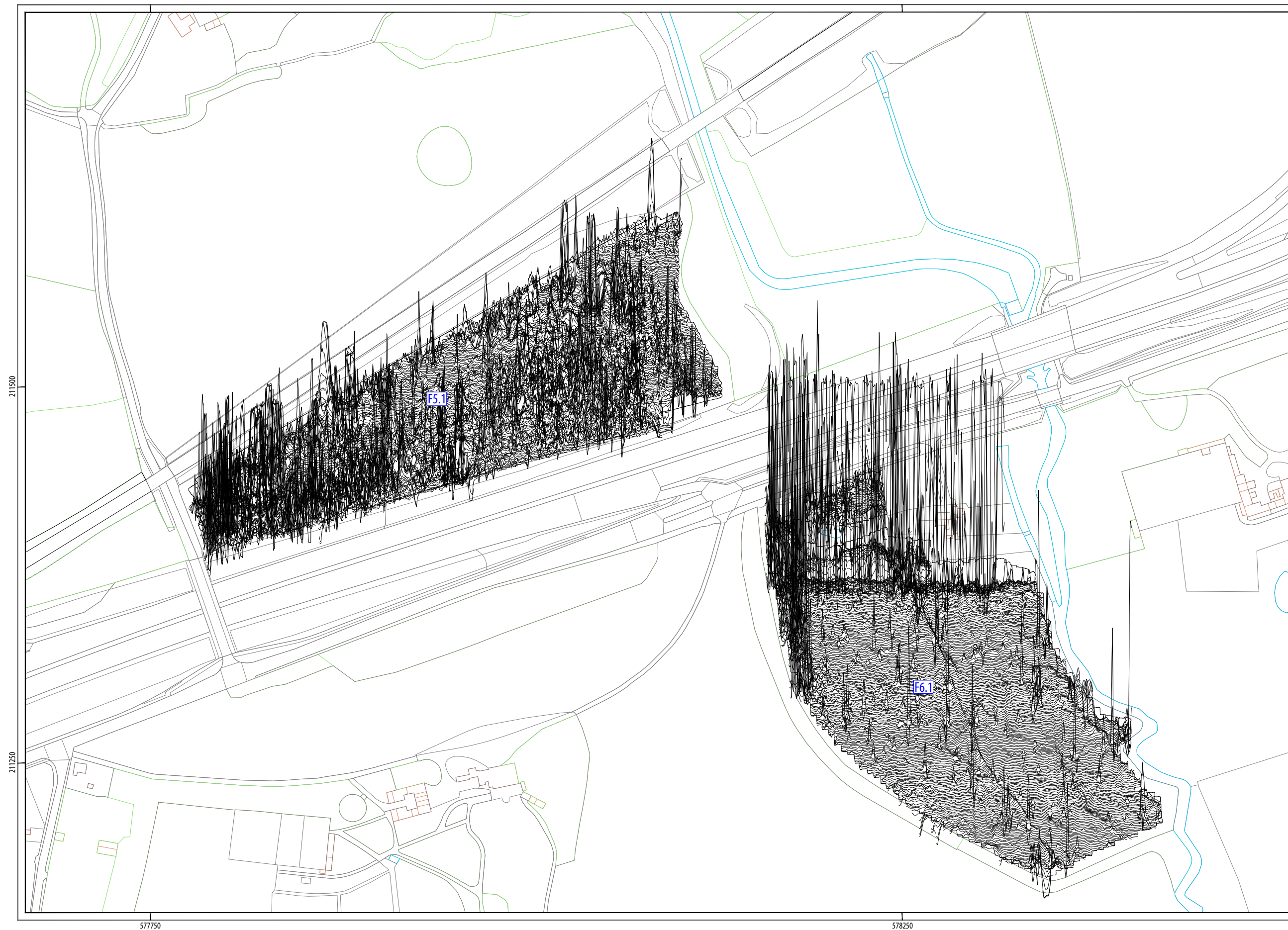
ILLUS 24 Interpretation of magnetometer data; Sector 5



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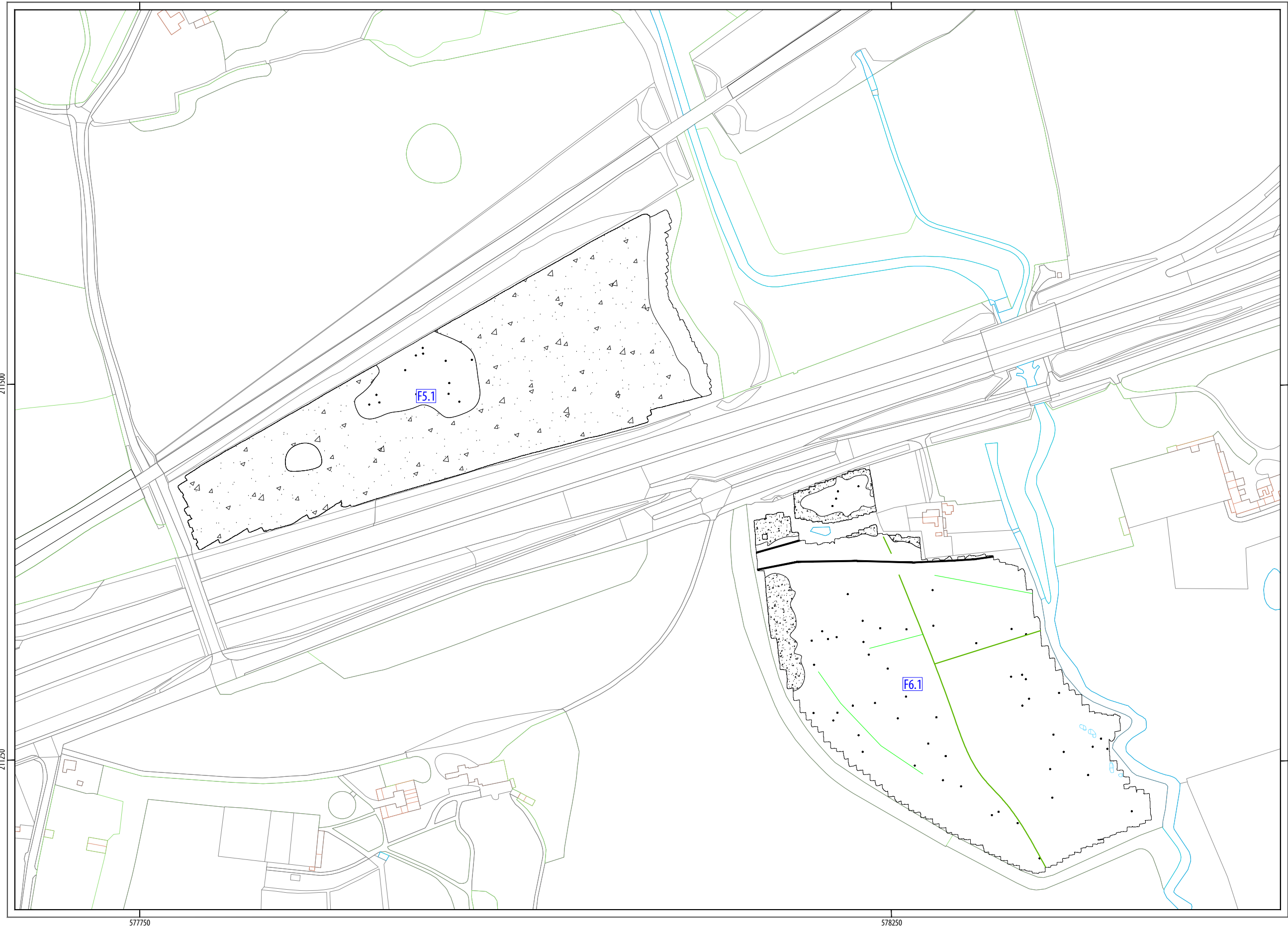


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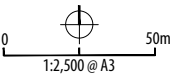


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ILLUS 26 XY trace plot of minimally processed magnetometer data; Sector 6



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

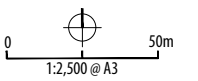
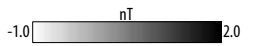
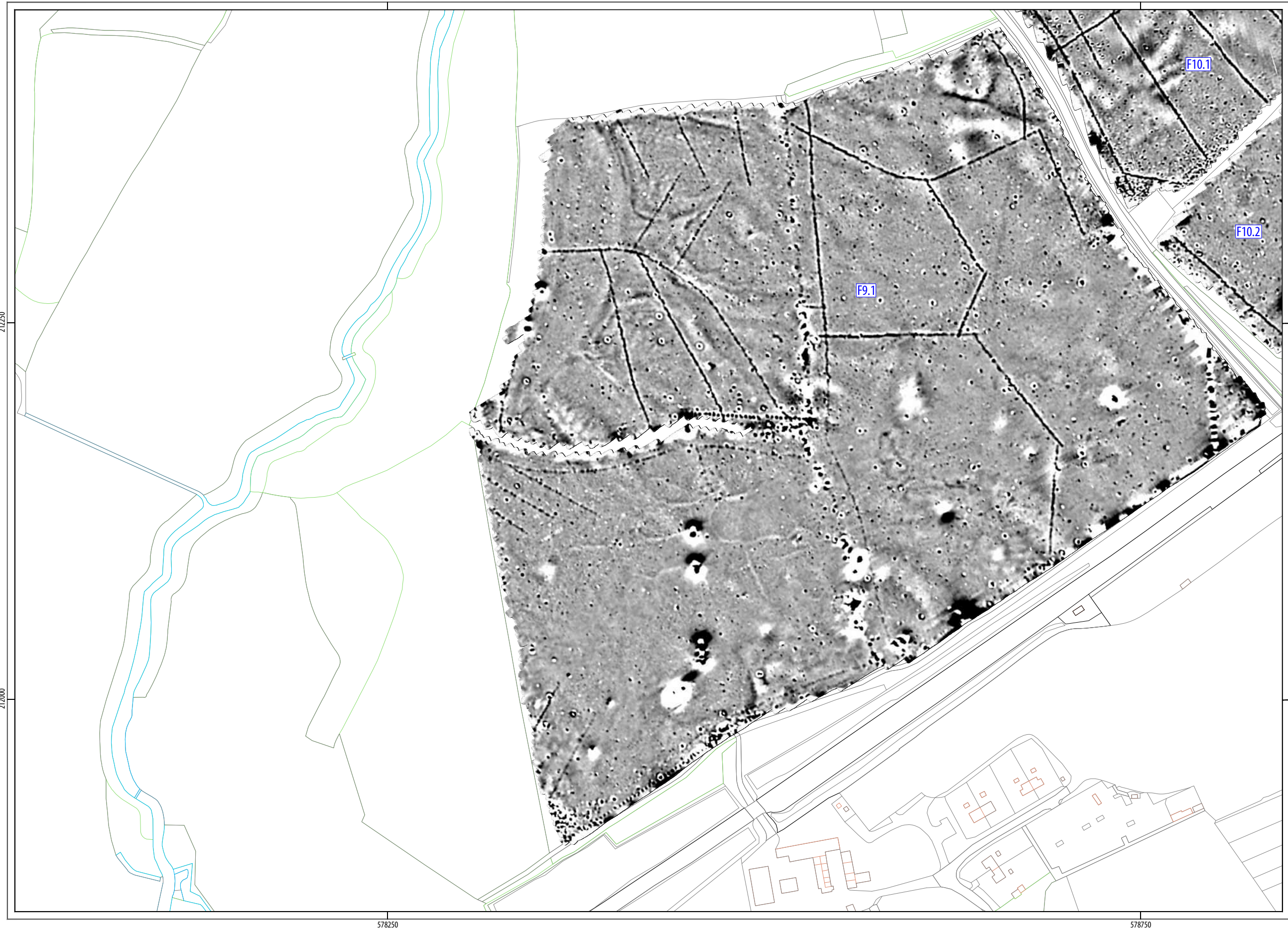


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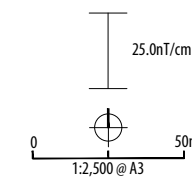
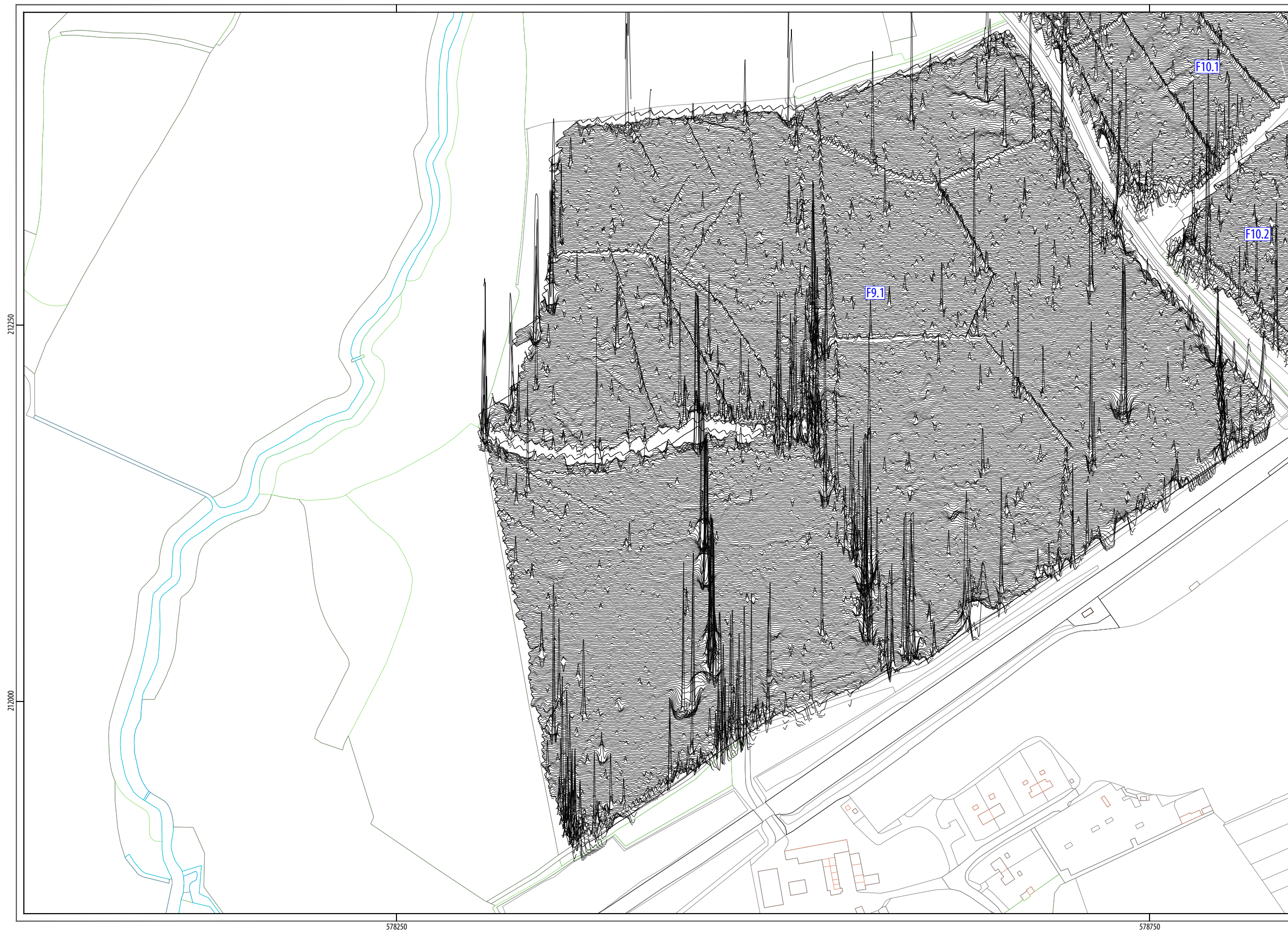
ILLUS 27 Interpretation of magnetometer data; Sector 6



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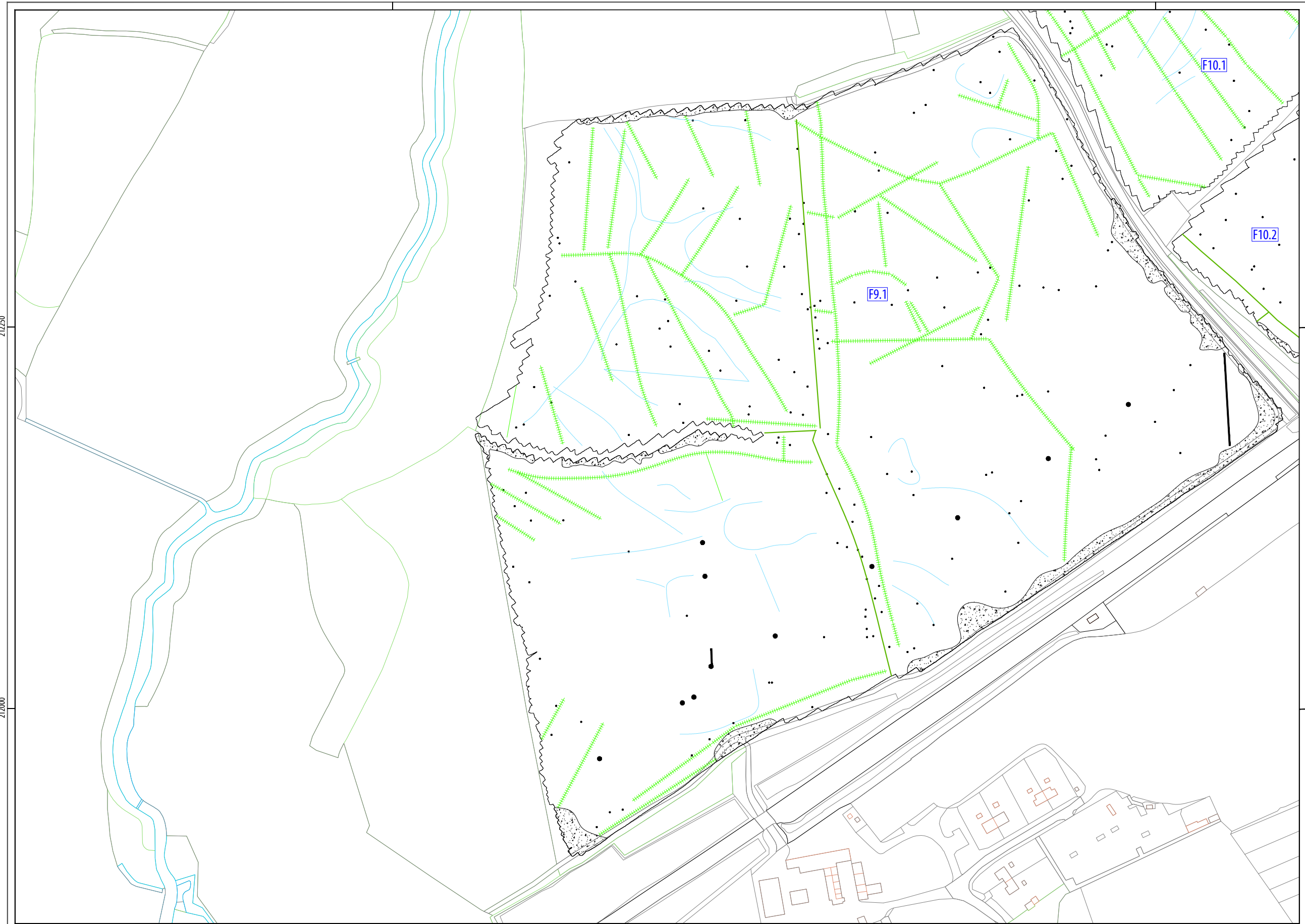


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ILLUS 29 XY trace plot of minimally processed magnetometer data; Sector 7



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

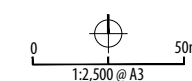


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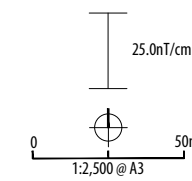


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ILLUS 31 Processed greyscale magnetometer data; Sector 8

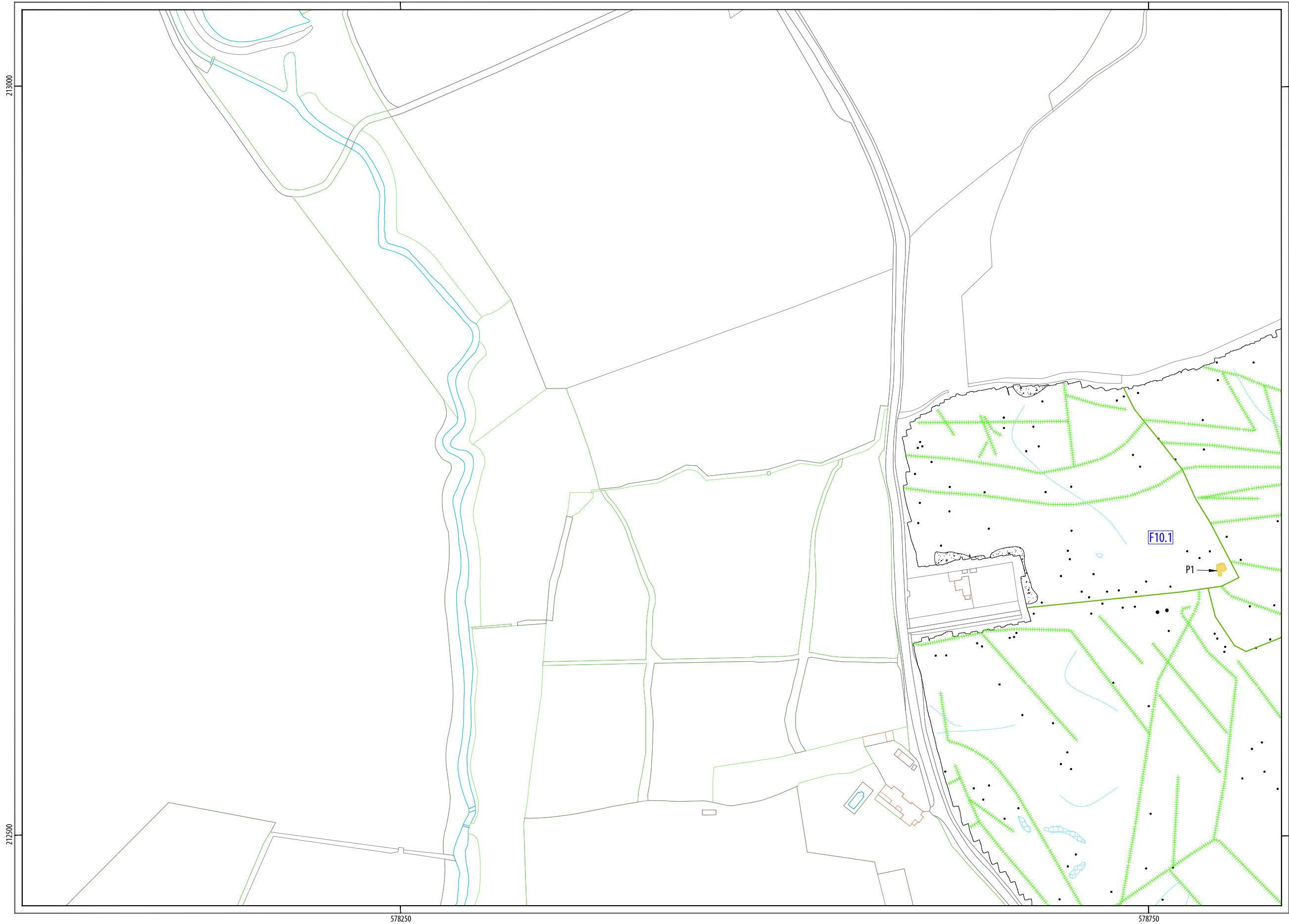


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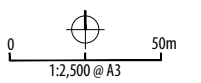
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ILLUS 32 XY trace plot of minimally processed magnetometer data; Sector 8



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

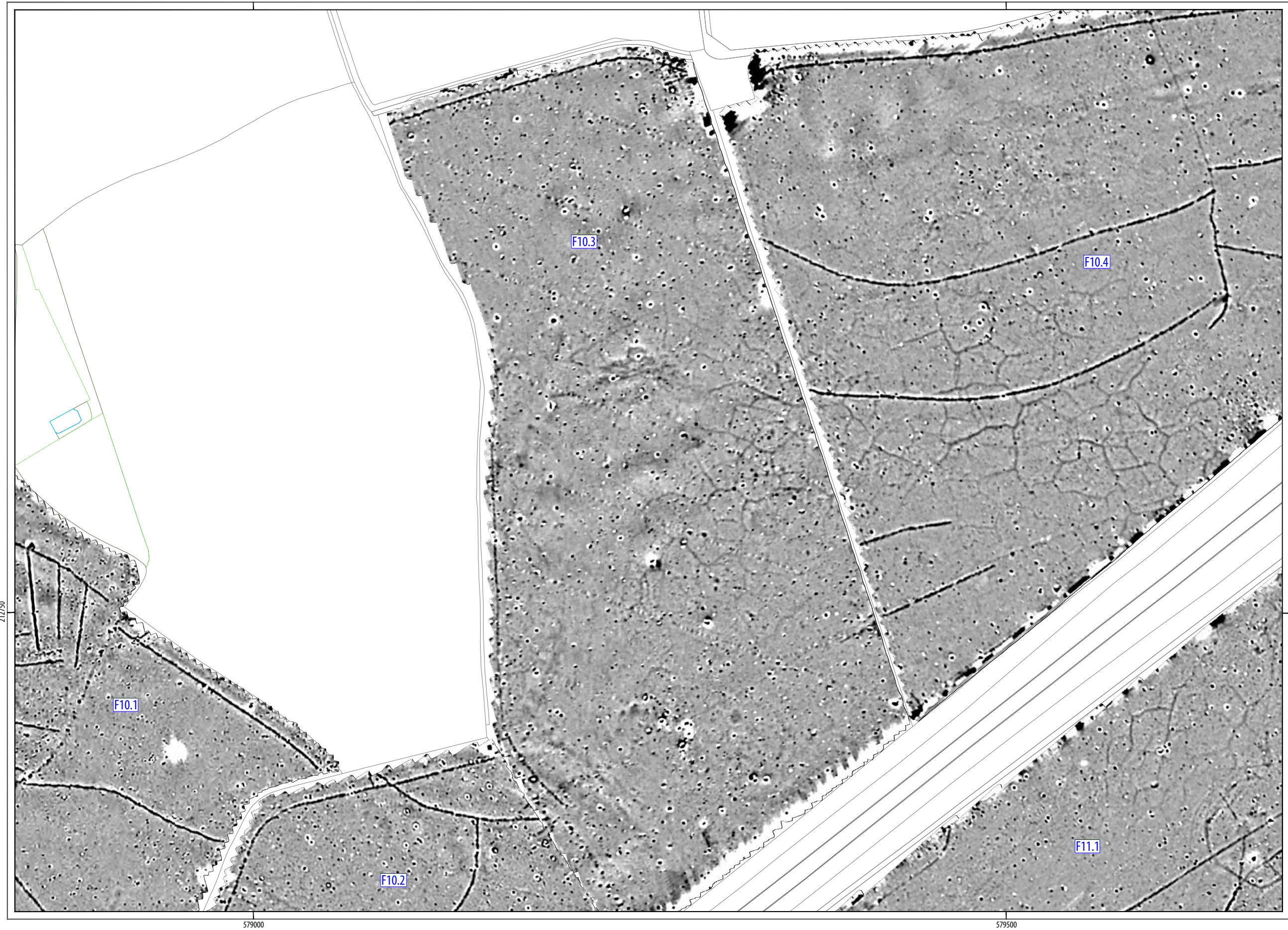
ABBREVIATIONS	
P	pit



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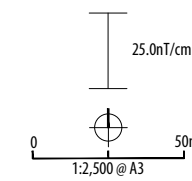
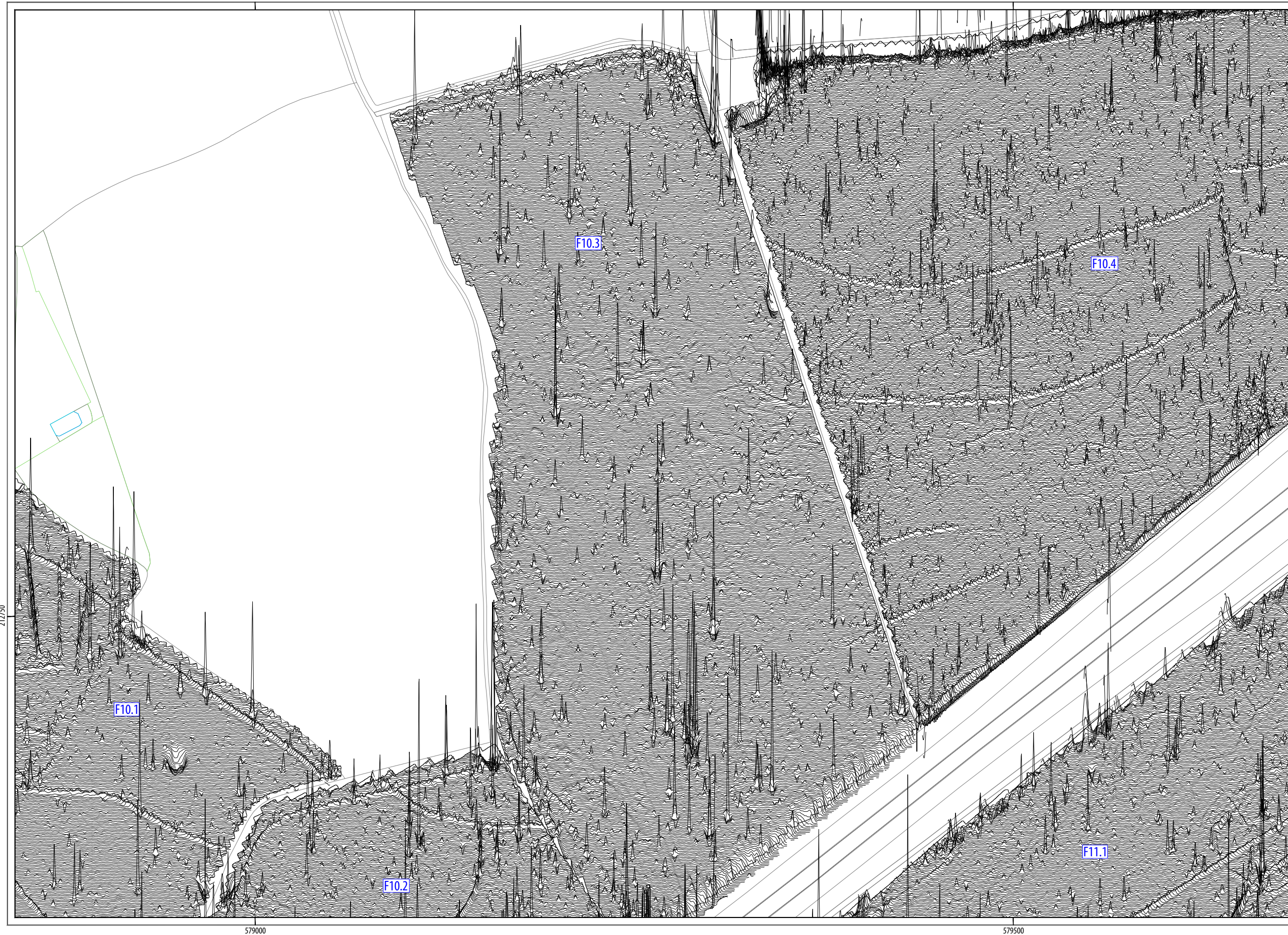
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ILLUS 34 Processed greyscale magnetometer data; Sector 9

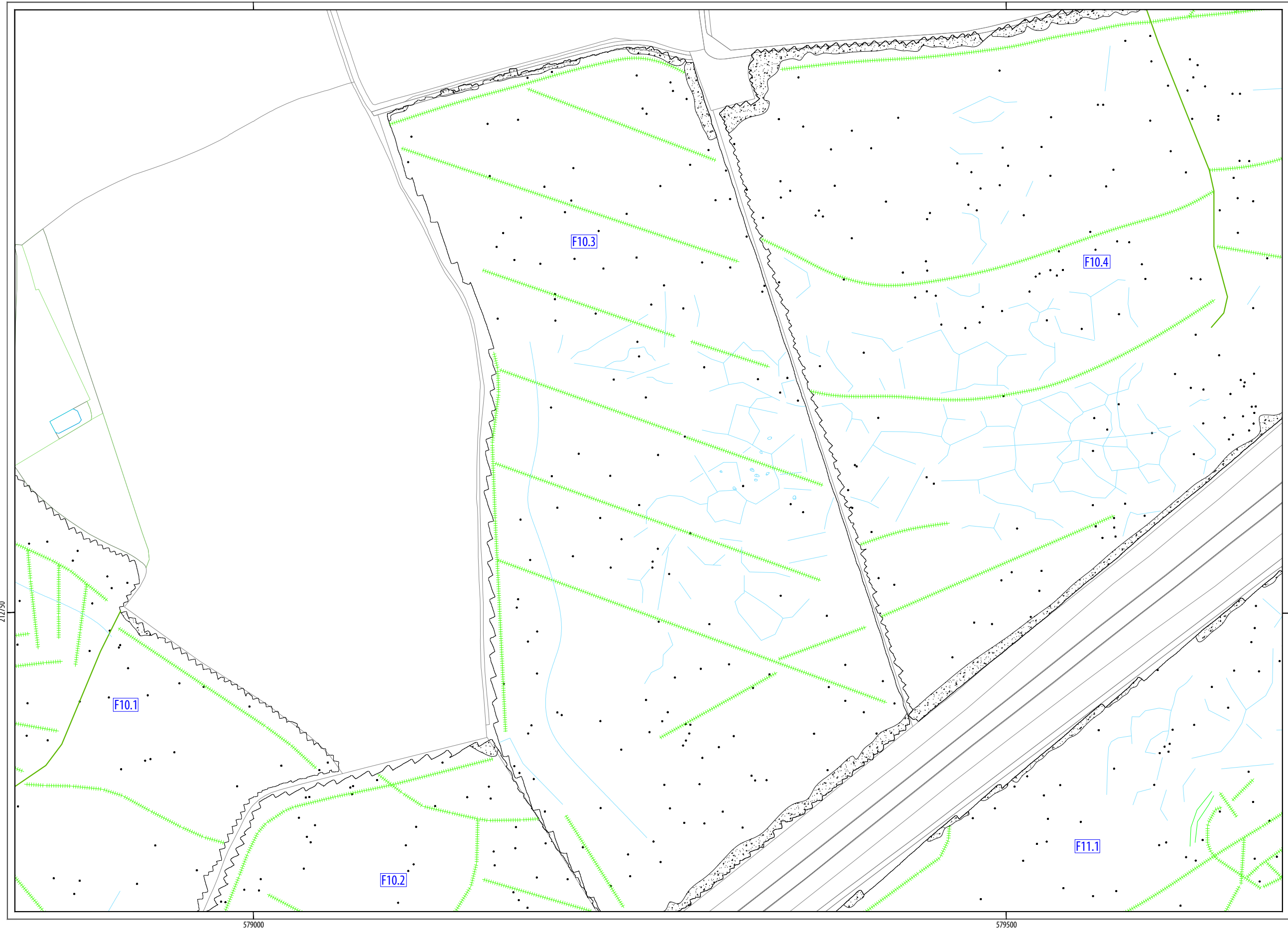


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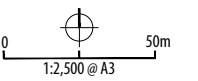


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ILLUS 35 XY trace plot of minimally processed magnetometer data; Sector 9



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

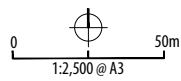
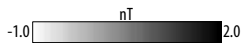


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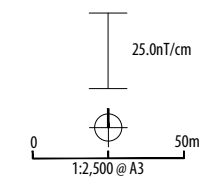
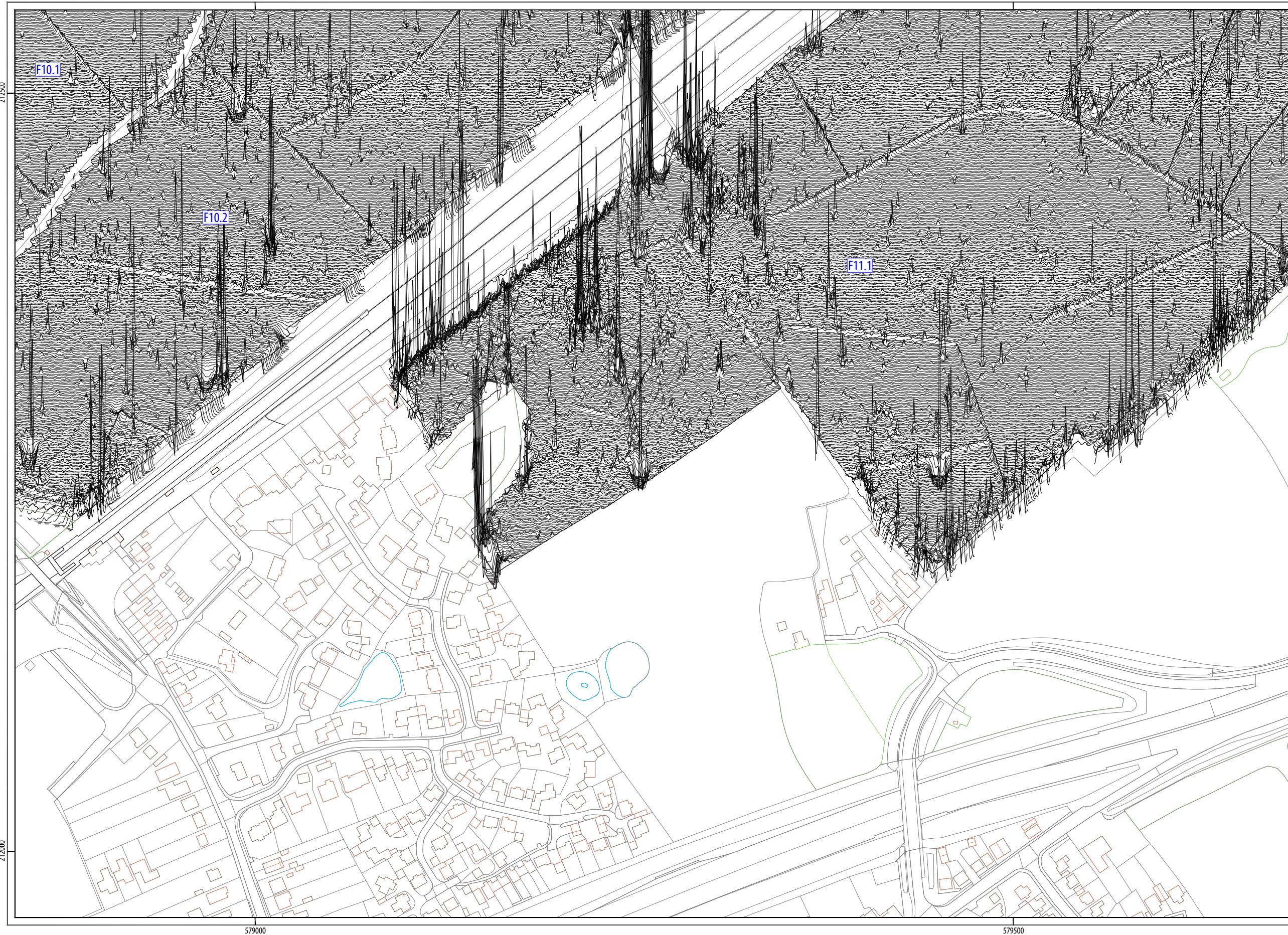


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ILLUS 37 Processed greyscale magnetometer data; Sector 10

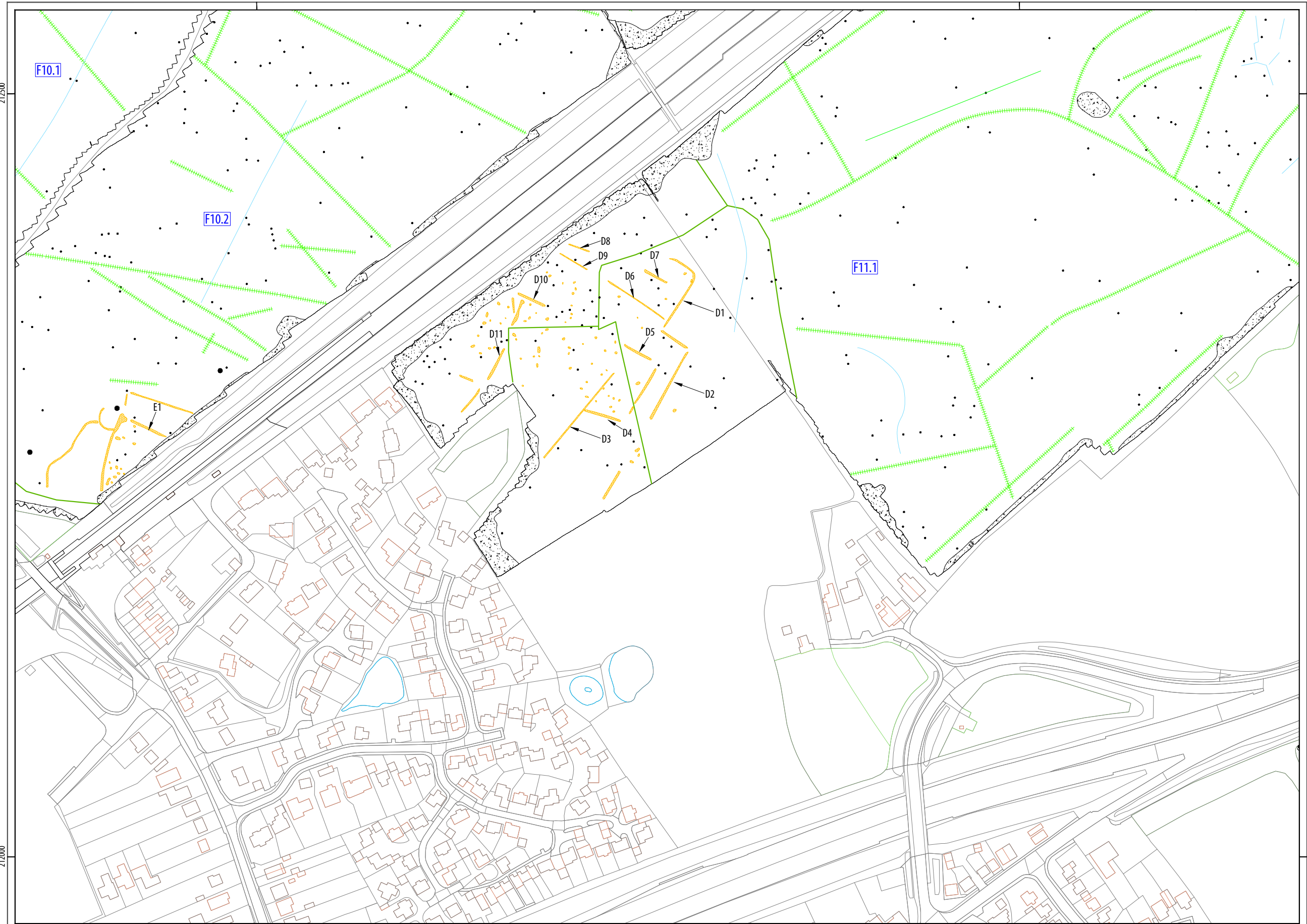


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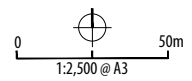
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ILLUS 38 XY trace plot of minimally processed magnetometer data; Sector 10



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	archaeology?	

ABBREVIATIONS	
D	ditch
E	enclosure



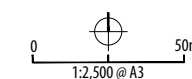
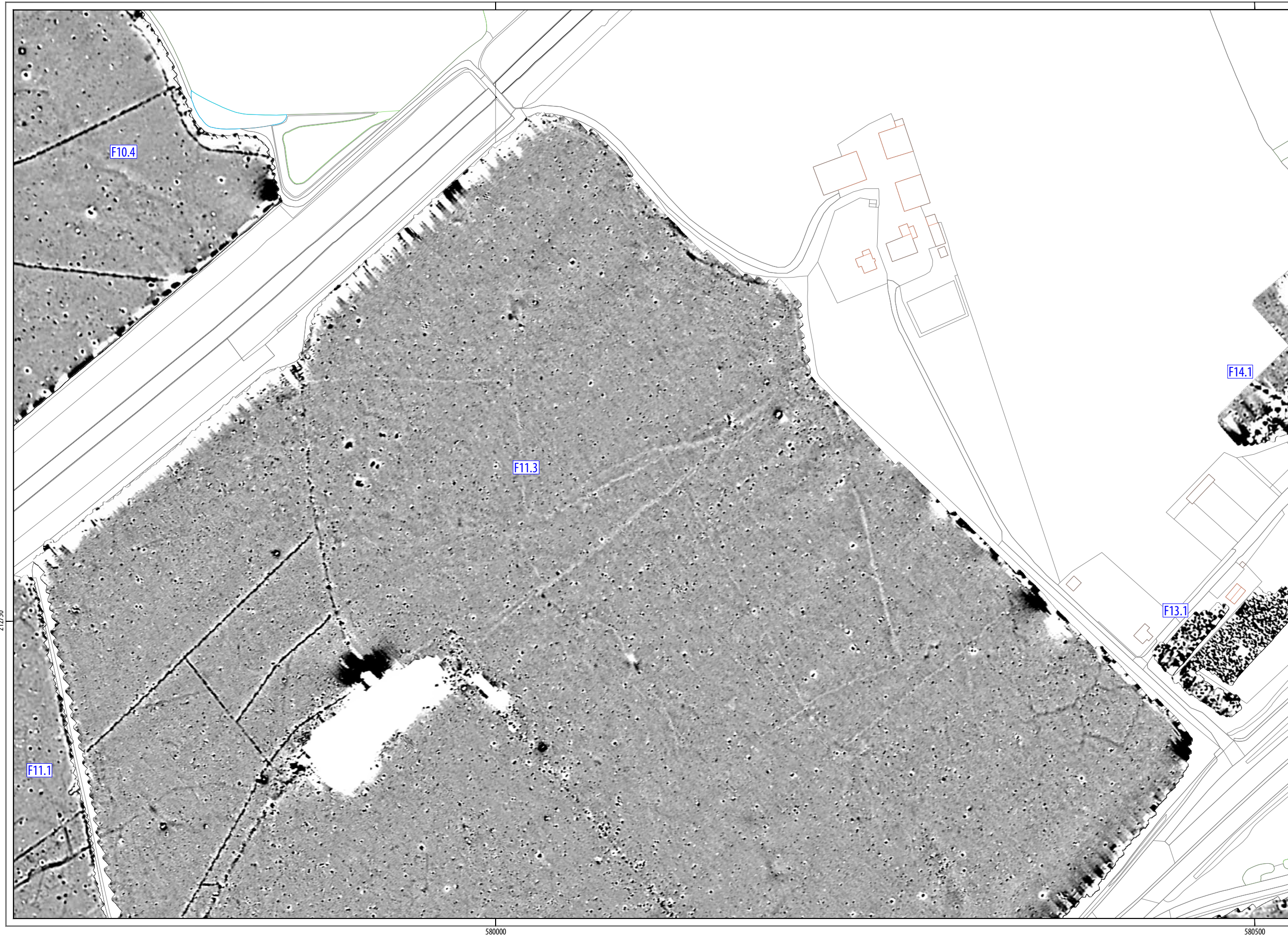
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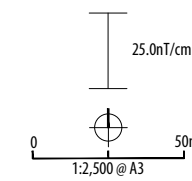
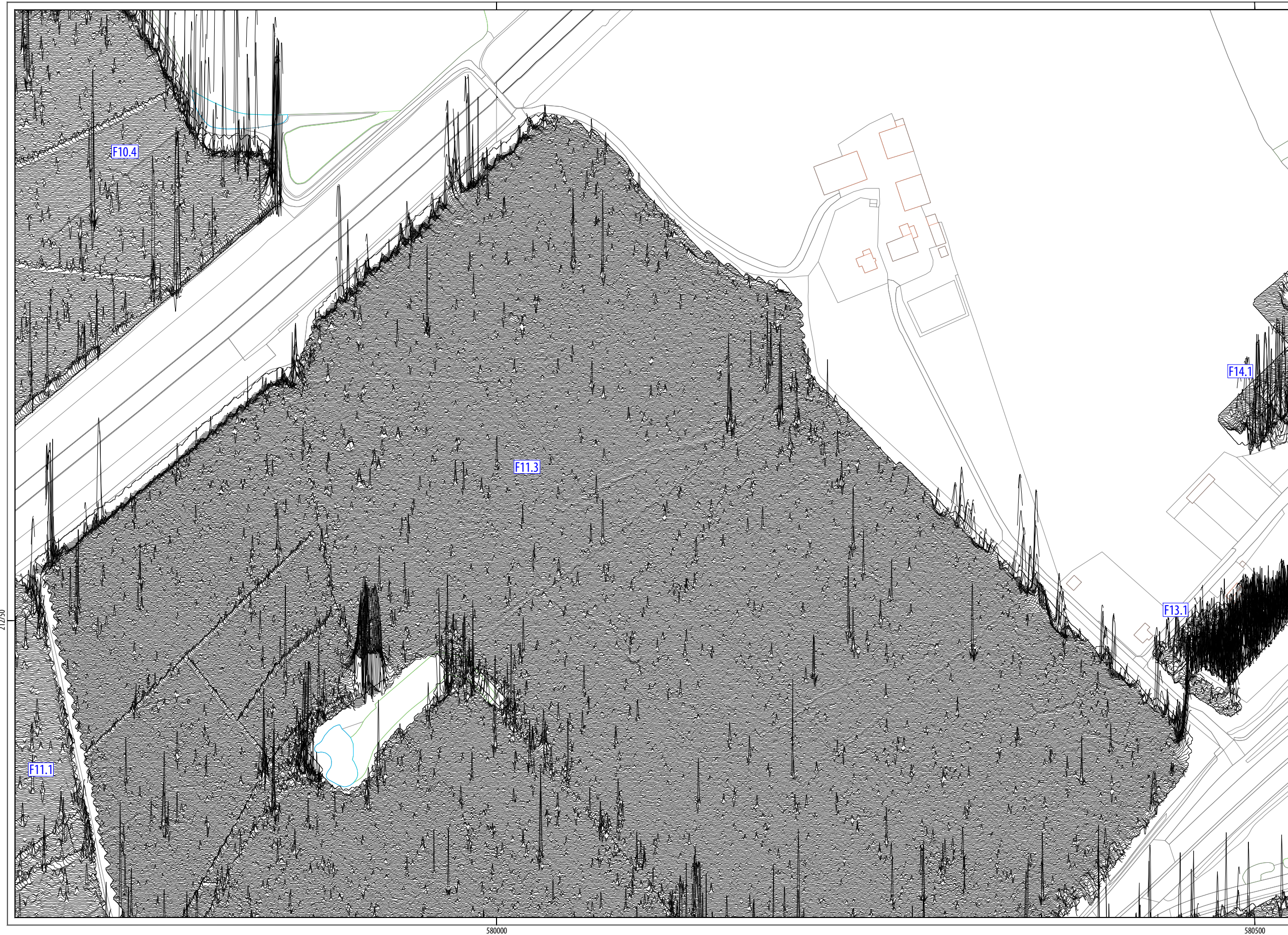
ILLUS 39 Interpretation of magnetometer data; Sector 10



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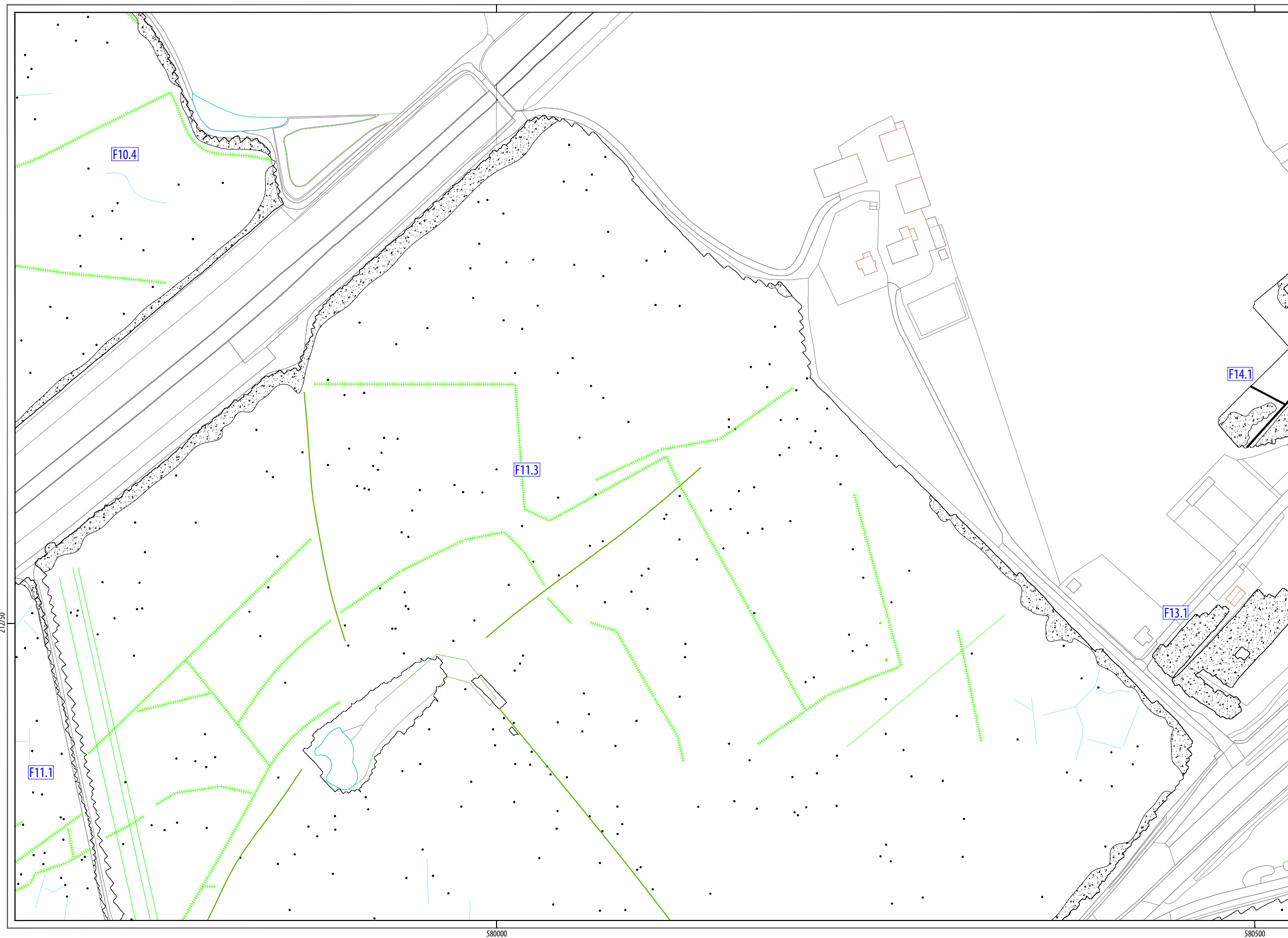


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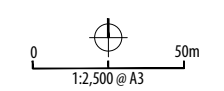
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ILLUS 41 XY trace plot of minimally processed magnetometer data; Sector 11



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 trend	geological variation



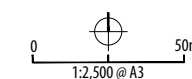
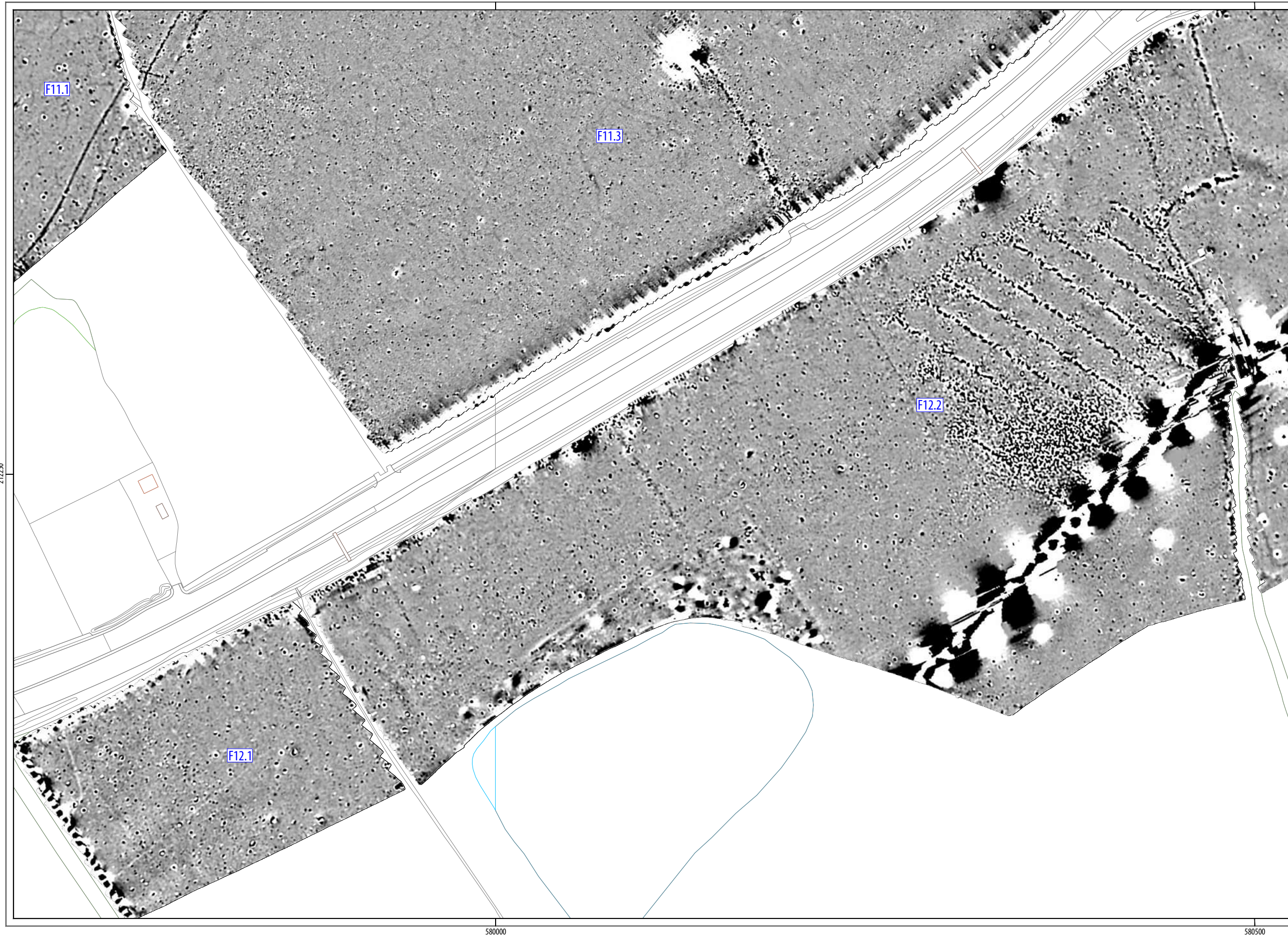
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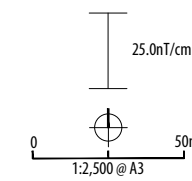
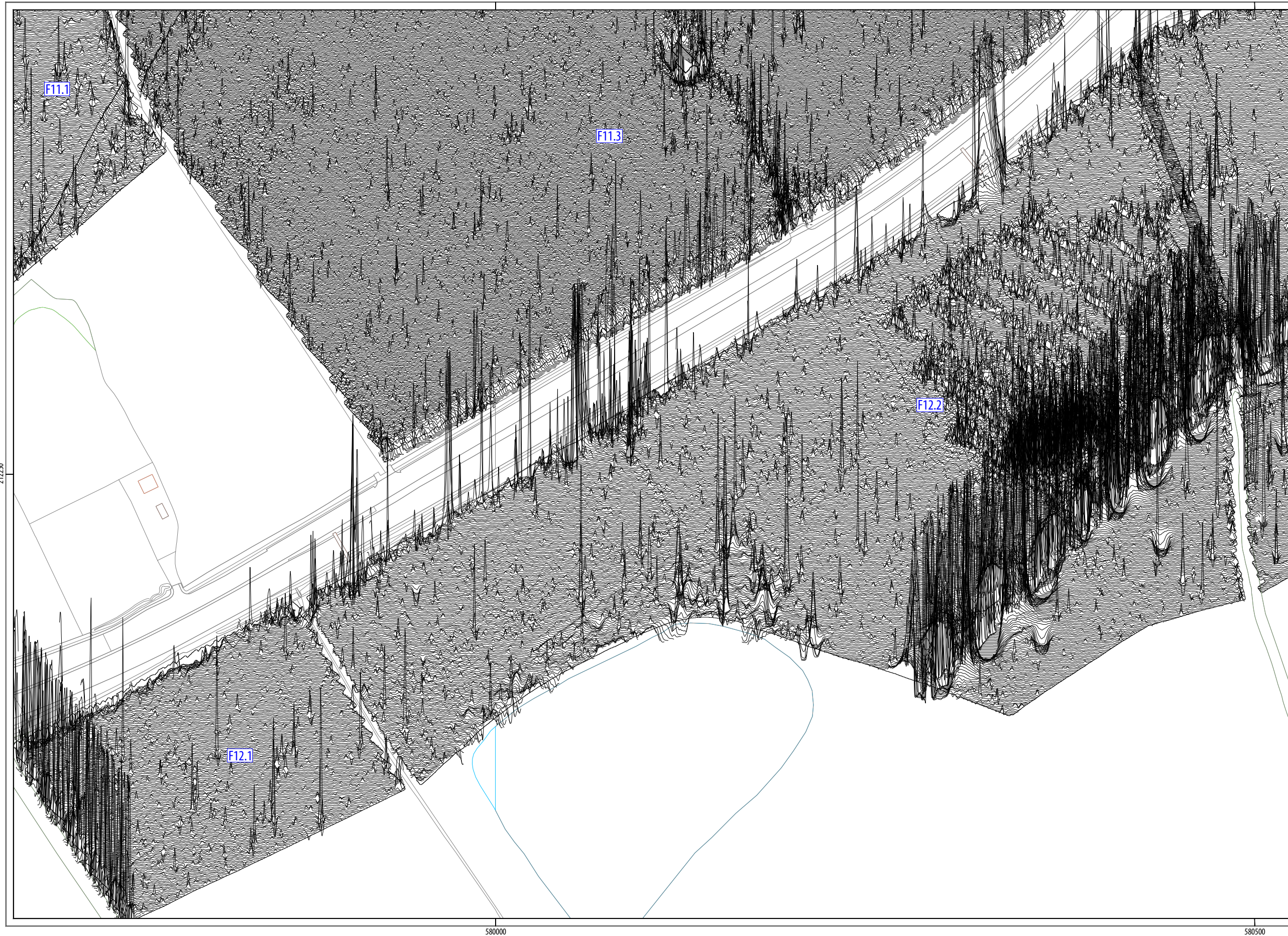
ILLUS 42 Interpretation of magnetometer data; Sector 11



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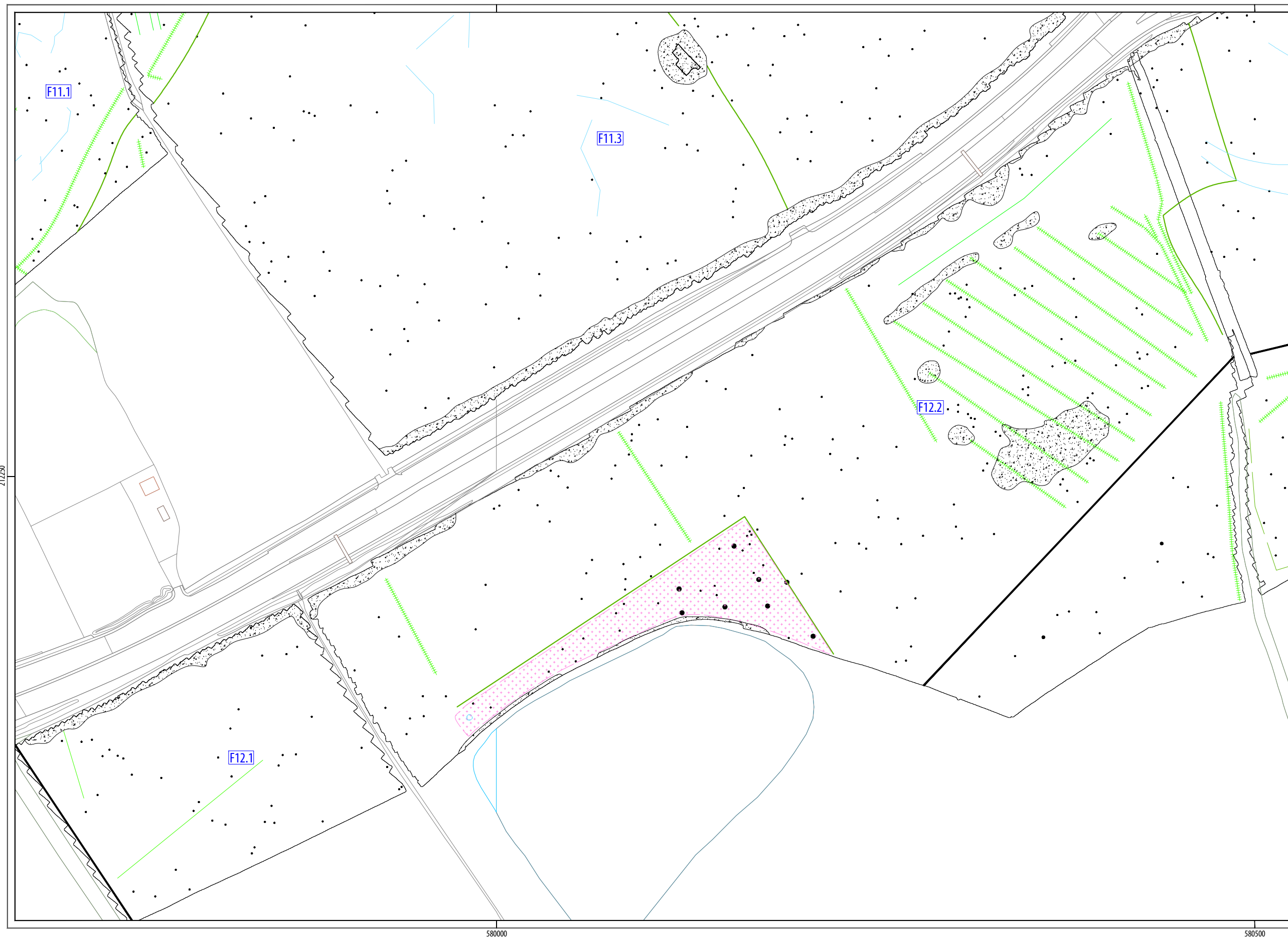


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ILLUS 44 XY trace plot of minimally processed magnetometer data; Sector 12



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

0 50m
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ILLUS 45 Interpretation of magnetometer data; Sector 12



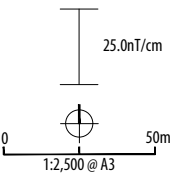
-1.0 nT 2.0

0 50m
1:2,500 @ A3

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Junctions 19 to 23
Essex
CLIENT Costain

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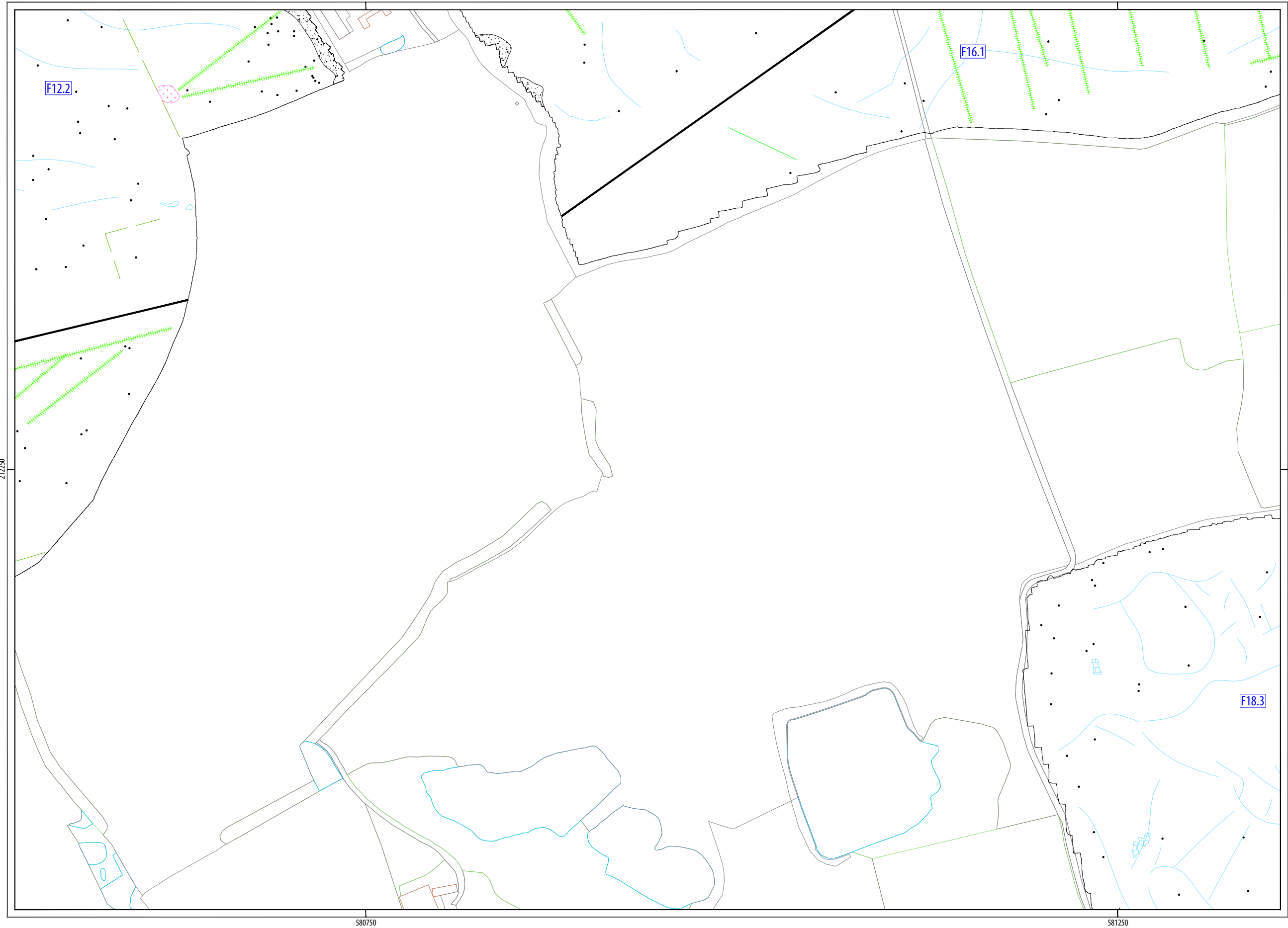


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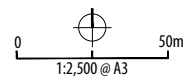
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ILLUS 47 XY trace plot of minimally processed magnetometer data; Sector 13



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

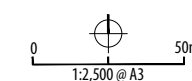
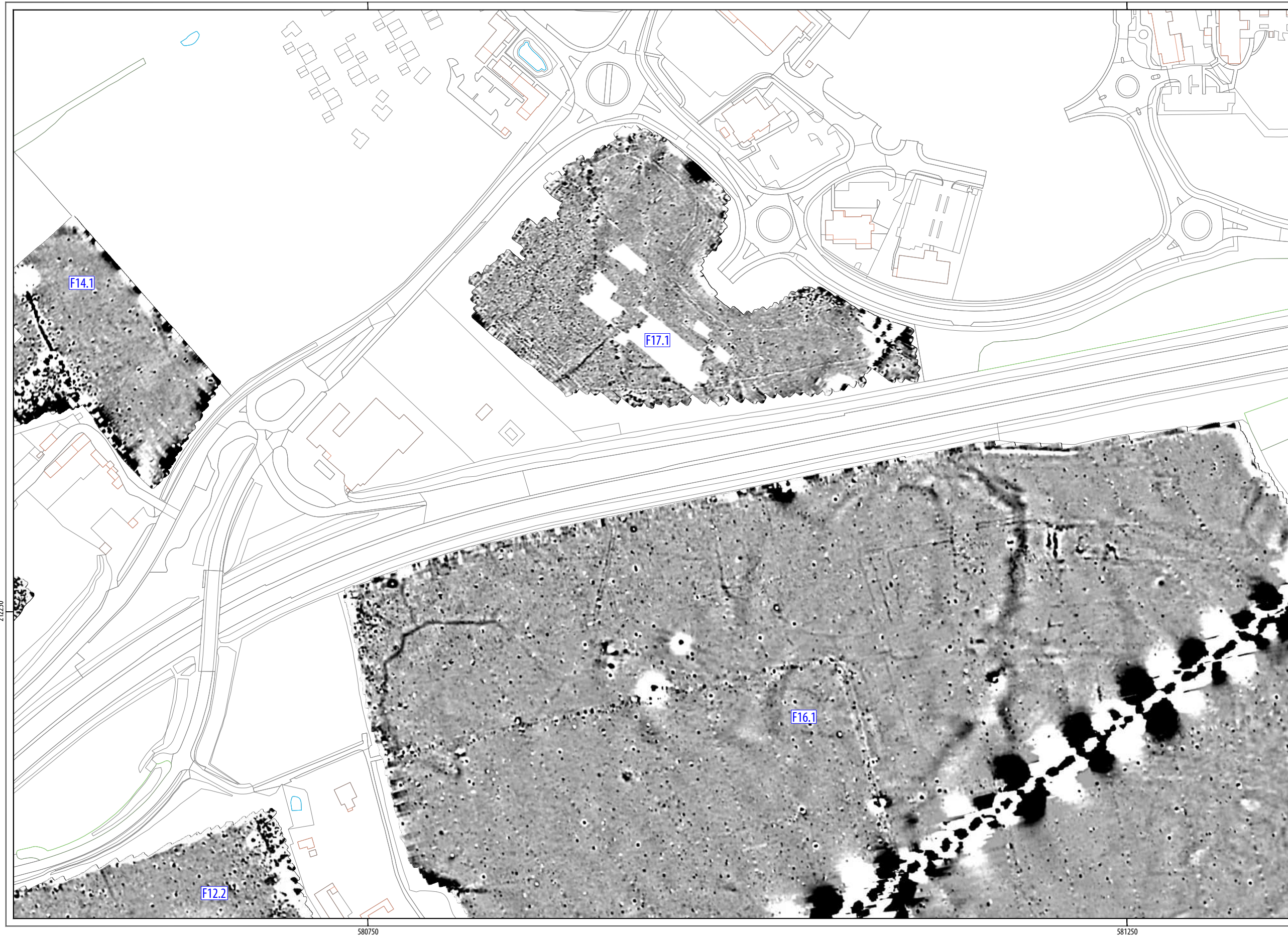


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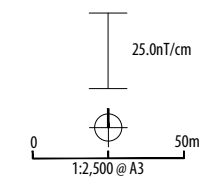
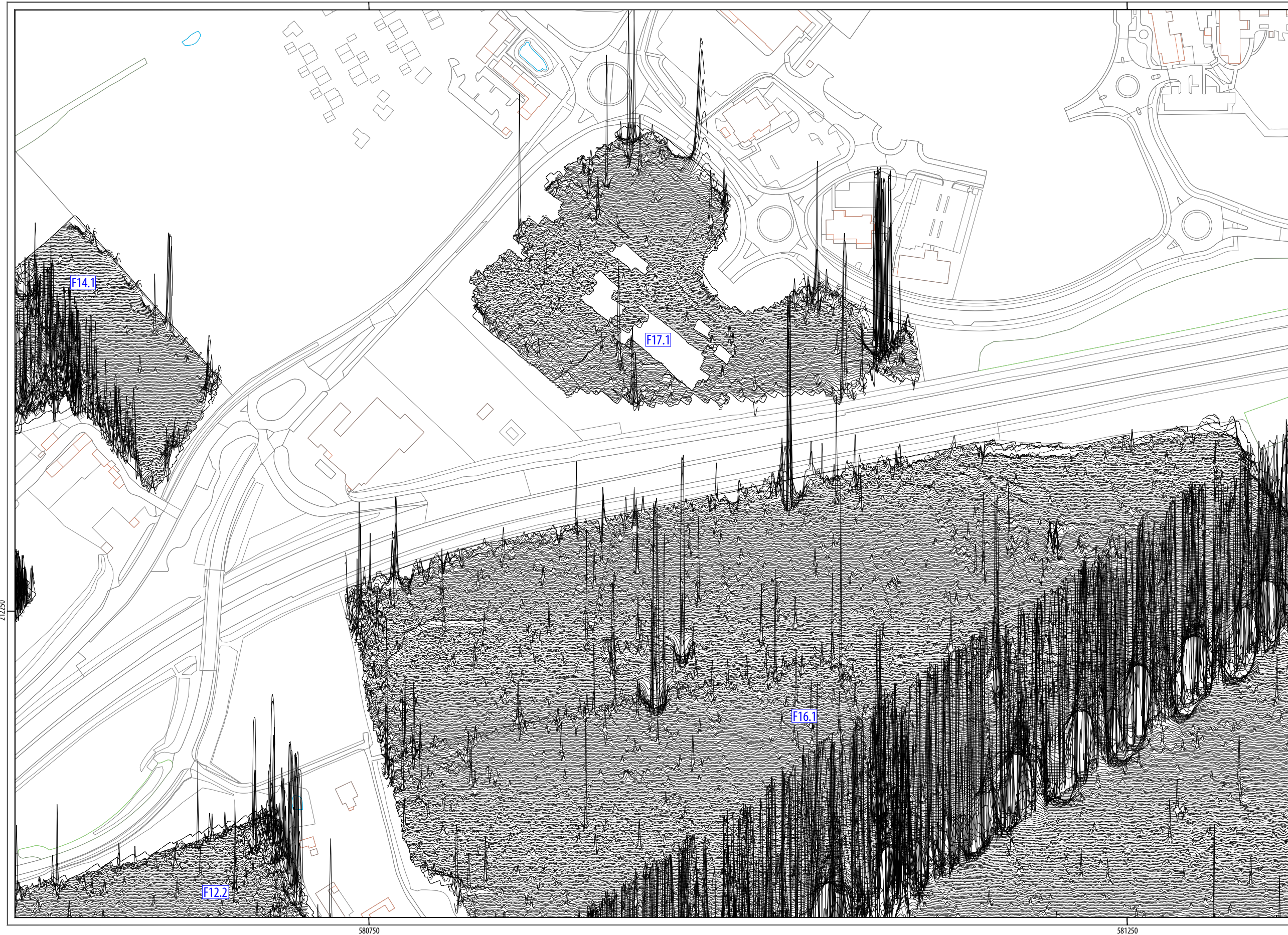
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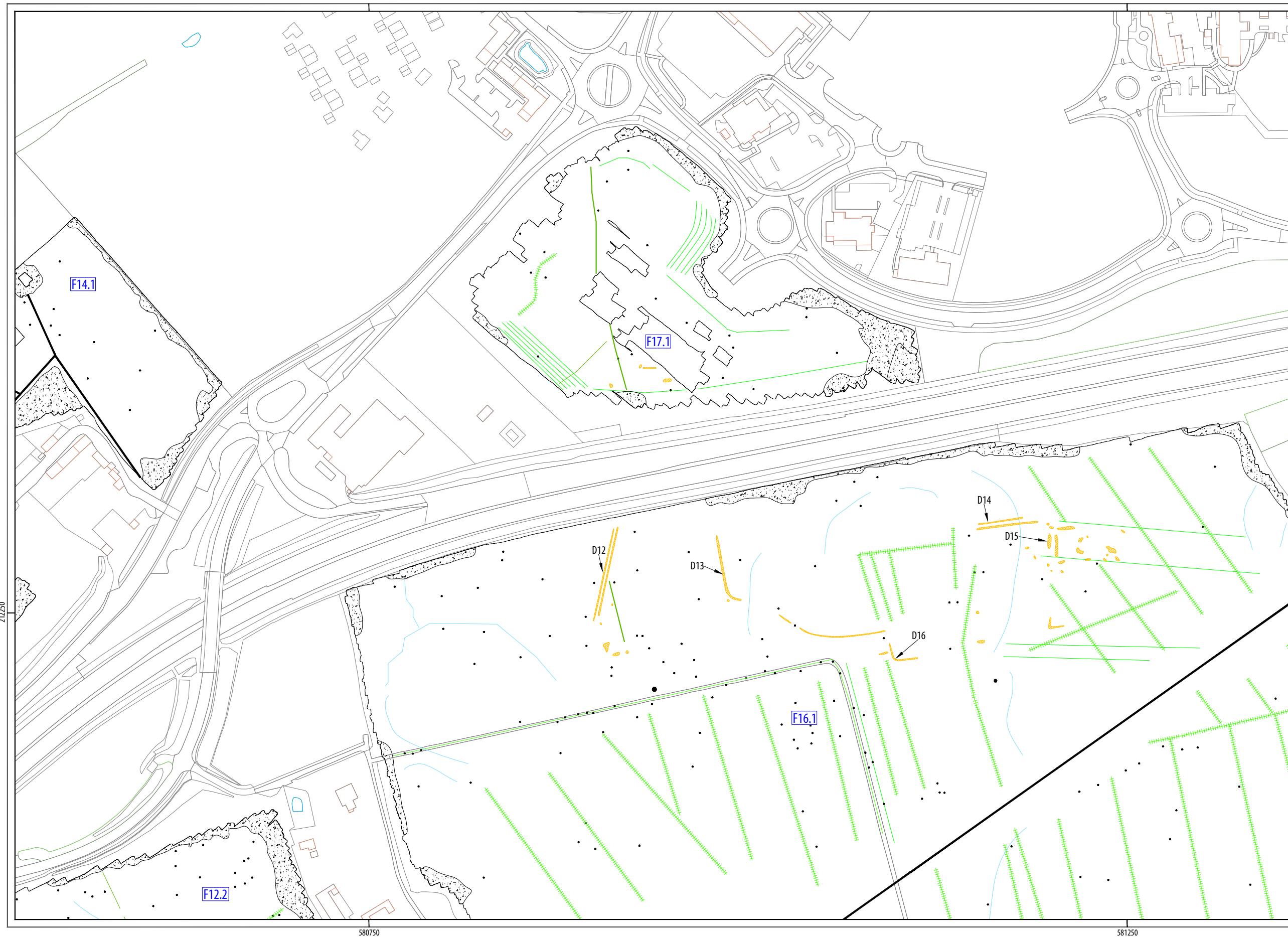


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ILLUS 50 XY trace plot of minimally processed magnetometer data; Sector 14



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 trend	geological variation
⊗	magnetic enhancement	archaeology?

ABBREVIATIONS	
D	ditch

0 50m
1:2,500 @ A3

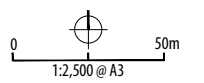
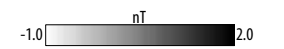
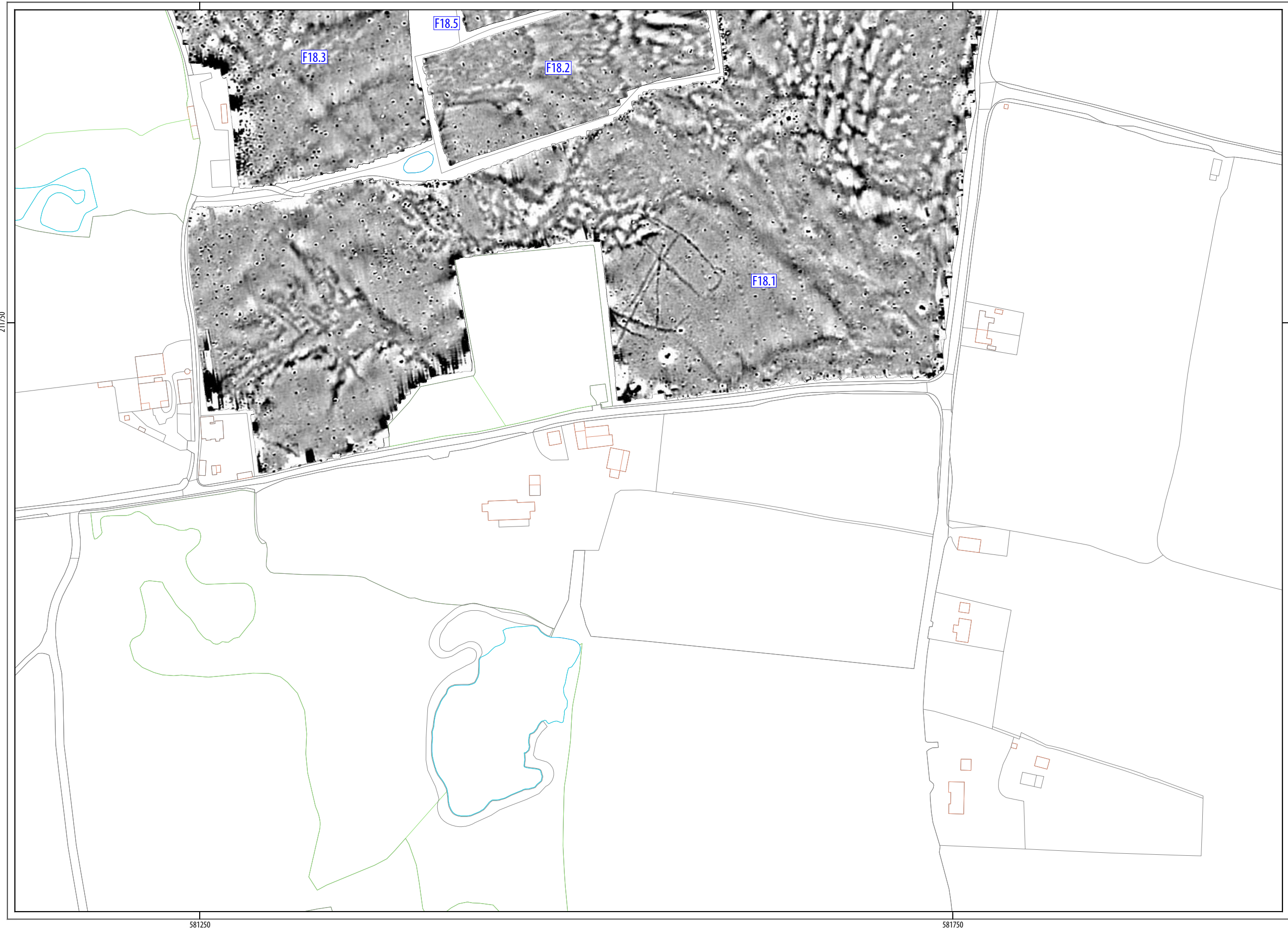
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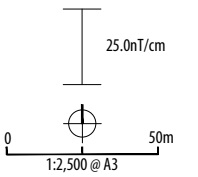
ILLUS 51 Interpretation of magnetometer data; Sector 14



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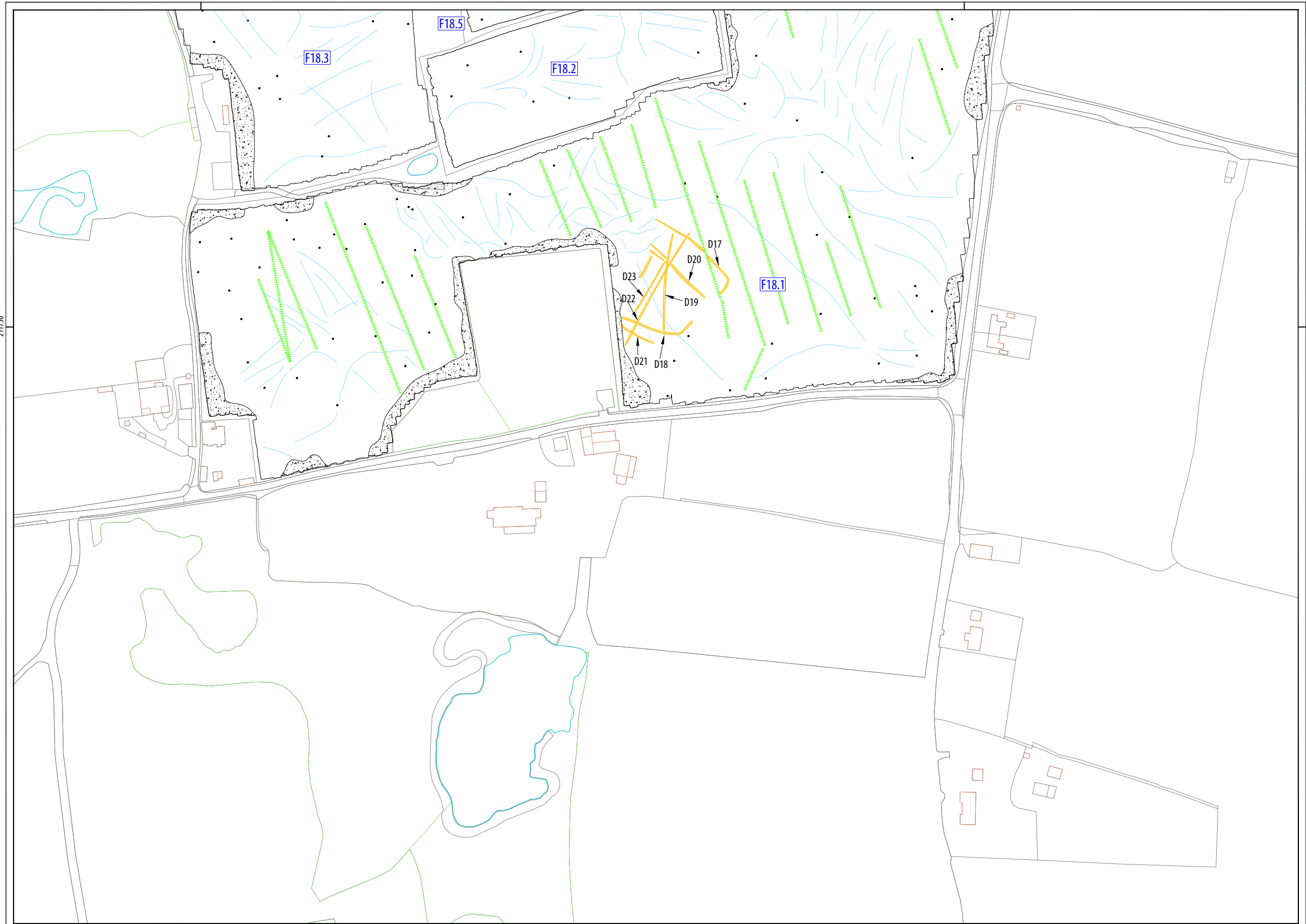


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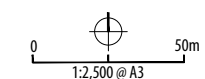
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ILLUS 53 XY trace plot of minimally processed magnetometer data; Sector 15



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

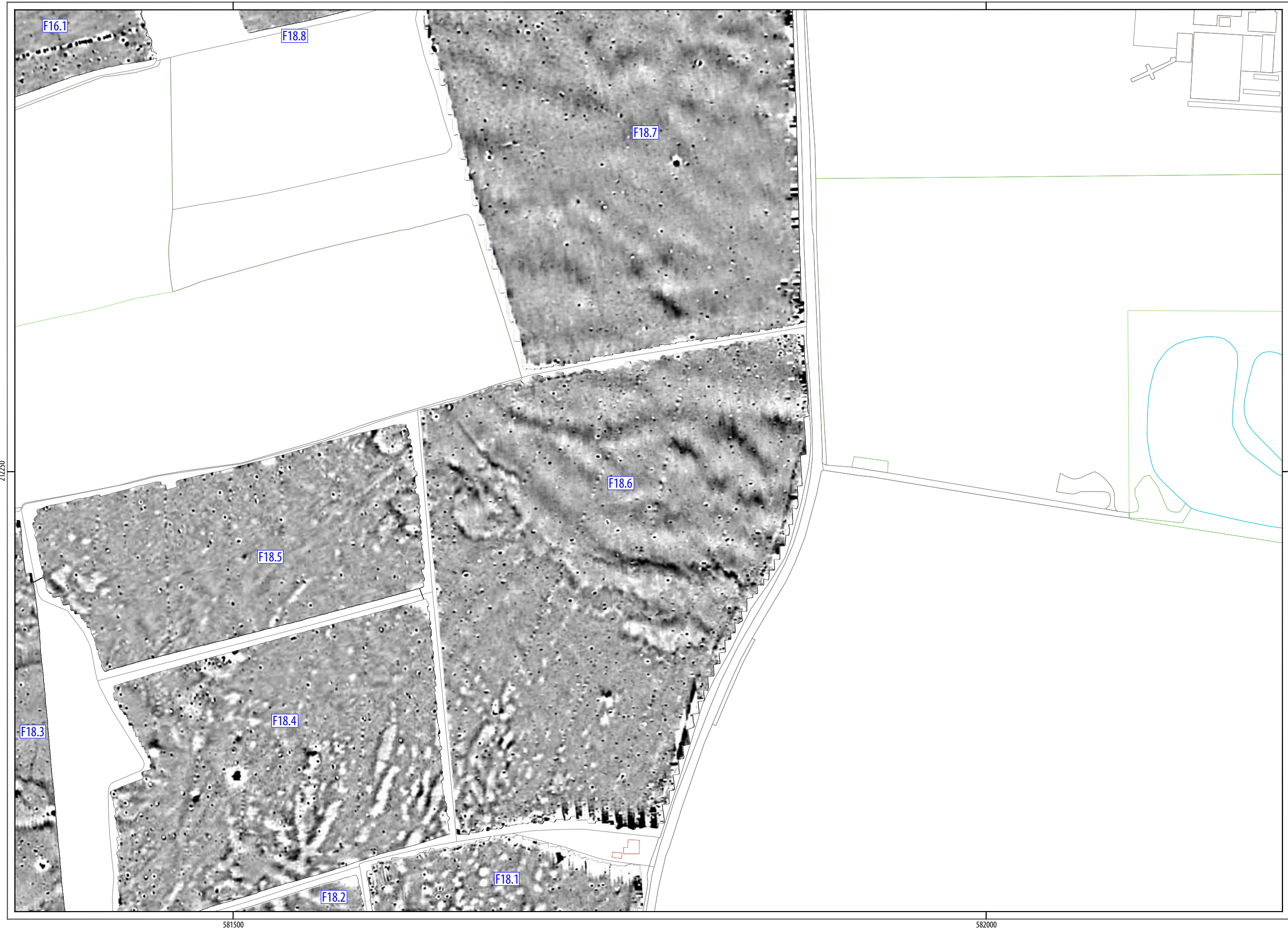
ABBREVIATIONS	
D	ditch



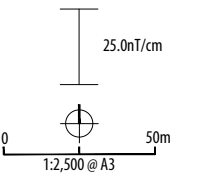
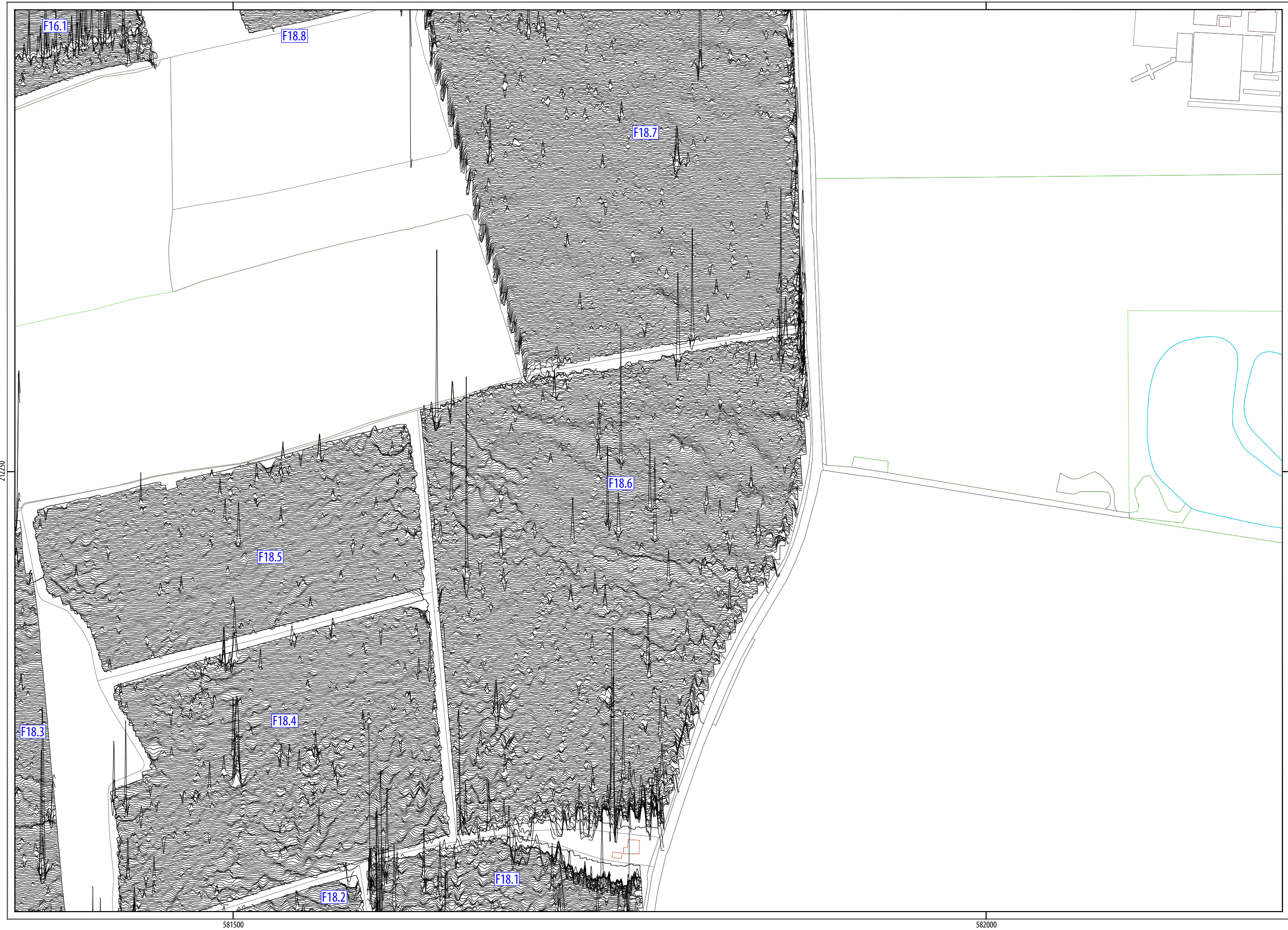
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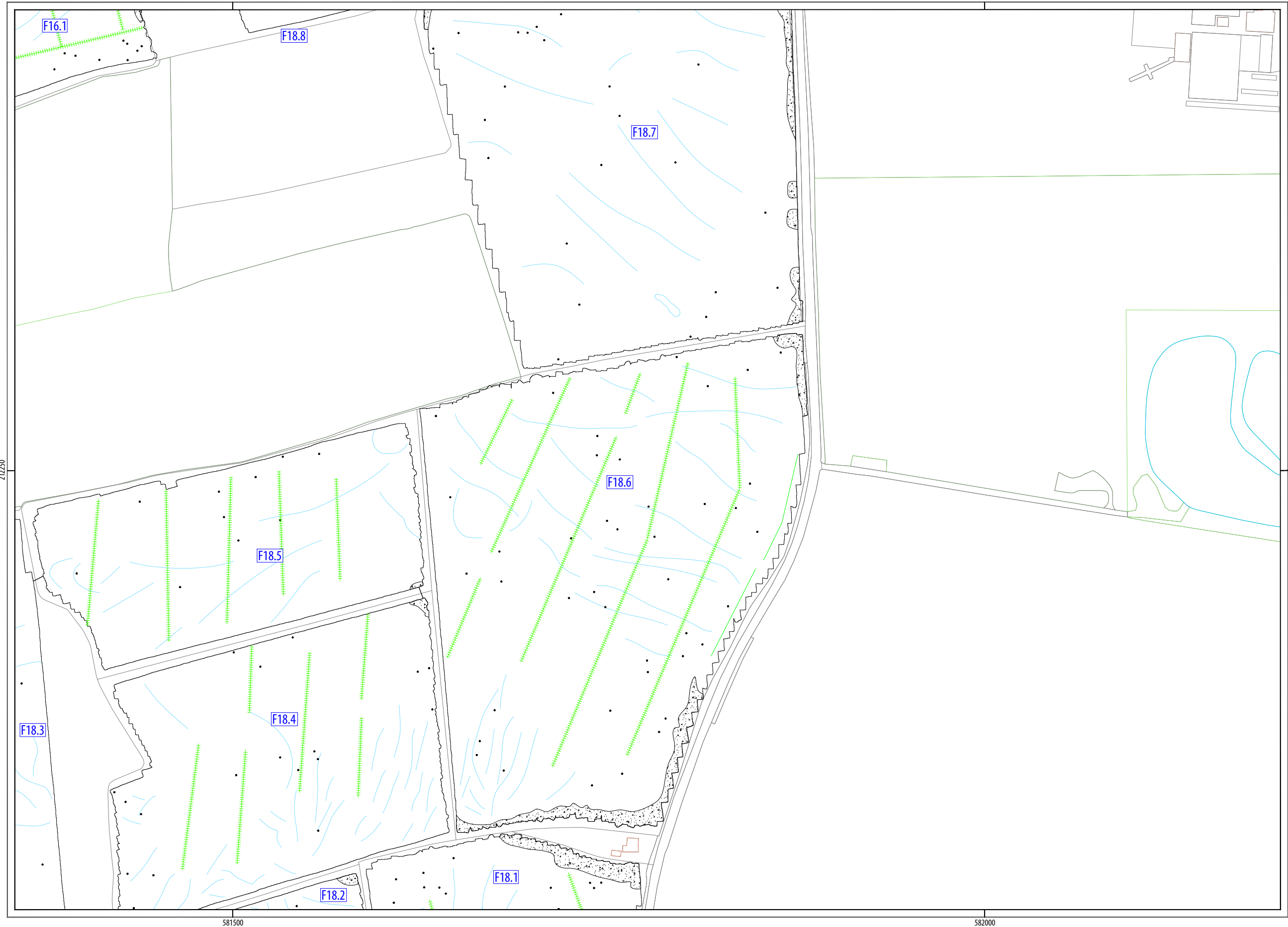
ILLUS 55 Processed greyscale magnetometer data; Sector 16



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TYPE OF ANOMALY

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

INTERPRETATION

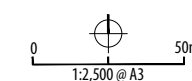
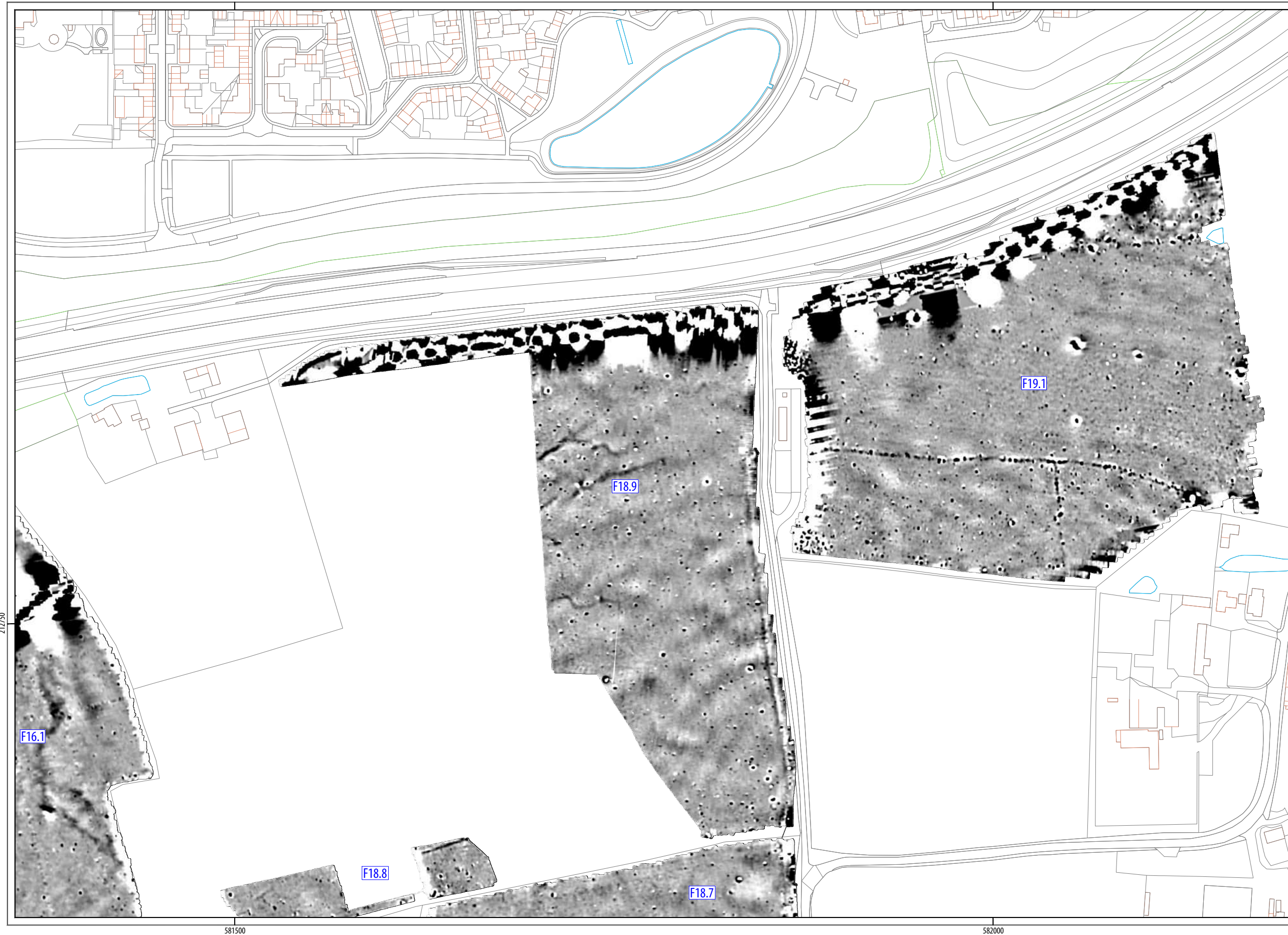
- ferrous material
- ferrous material
- field drain
- geological variation

0 50m
1:2,500 @ A3

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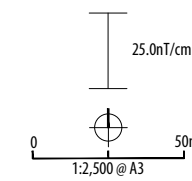
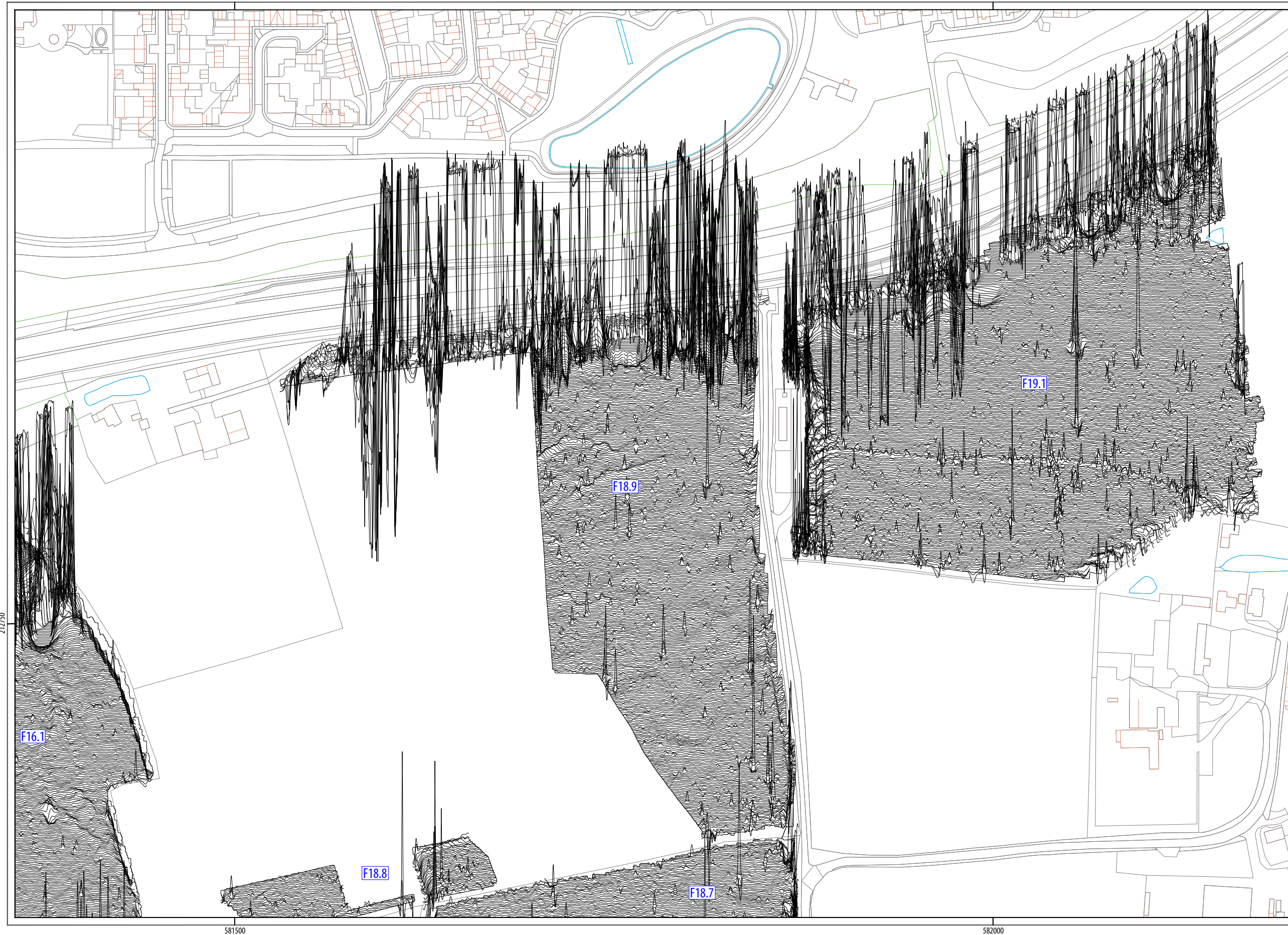
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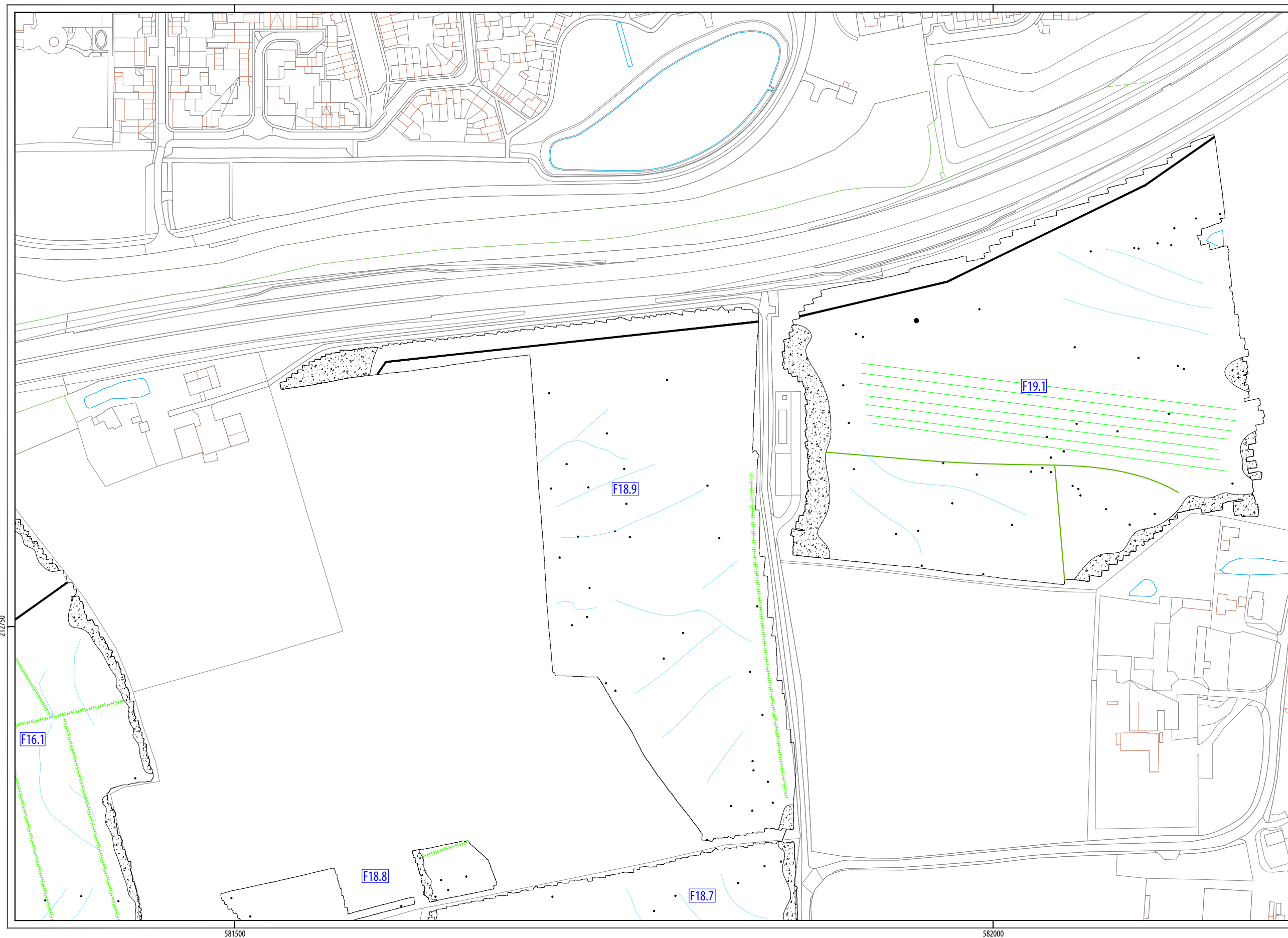
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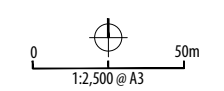
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ILLUS 59 XY trace plot of minimally processed magnetometer data; Sector 17



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 trend	geological variation	



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