



**Archaeological geophysical survey of the
Northcombe to Prewley Moor pipeline route
Devon
July - September 2022**

Report No: 22/087

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Illustrators: John Walford
Chris Manktelow



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OASIS REPORT FORM

Northcombe to Prewley Moor		OASIS No: molanort1-508066	
ACTIVITY TYPE			
Project/Activity type	Geophysical survey		
Reason for investigation	Planning: Infrastructure		
PROJECT LOCATION			
National grid ref	251360 093770		
Site name	Northcombe to Prewley Moor pipeline		
REVIEWERS/ ADMIN			
HER for project	Devon		
National organisation	Historic England		
WORK UNDERTAKEN			
Methodological summary	Magnetometer survey with a cart-mounted array of Bartington Grad601 fluxgate gradiometers.		
Previous work?	No	Future works?	Yes
Dates - Start date:	22nd July 2022	End date:	15th September 2022
GEOPHYSICS			
Geology	Crackington Formation Teign Chert Formation		
Land use	Pasture		
Survey type	Magnetometer survey		
Size of survey area	65ha		
Instrumentation	Bartington Grad-01-1000L		
Configuration	Multiple		
Spatial resolution	Traverse spacing	0.8m	Sample interval
Resolution (data values)	0.1nT		
BIBLIOGRAPHY			
Title	Archaeological geophysical survey of the Northcombe to Prewley Moor pipeline route, Devon, July-September 2022		
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PEOPLE			
Organisation	MOLA Northampton		
Project manager	John Walford		
Project supervisors	Graham Arkley, Adam Meadows, Chris Manktelow and John Walford		
Funding body	South West Water		
KEYWORDS			
Monuments found/ date	Enclosure – Late prehistoric or Roman House platform - Late prehistoric or Roman Field boundary – post-medieval		
RESULTS			
Description of outcomes	The survey identified one substantial archaeological site, comprising a square enclosure with a large annex and some possible house platforms, perhaps dating from the late prehistoric or Roman period. This lay towards the centre of the pipeline route, close to East Luddon. Elsewhere there were various doubtful or minor remains, mostly comprising ditches of indeterminate date. Other recorded features included historic field boundaries and a pair of 19th-century quarry pits.		
ARCHIVES			
Accession ID	None		
Paper Archive repository	None		
Digital Archive repository	Archaeology Data Service		
<i>No finds made during survey - no finds archive to be deposited</i>			

Contents

1	INTRODUCTION	1
2	BACKGROUND	1
	2.1 Location and land use.....	1
	2.2 Topography and geology.....	2
	2.3 Historical and archaeological background	2
3	METHODOLOGY	4
	3.1 Fieldwork.....	4
	3.2 Data processing and presentation.....	4
4	SURVEY RESULTS	5
	4.1 Archaeological and historic features	5
	4.2 Ploughing.....	6
	4.3 Pipes, cables and drains.....	6
	4.4 Uncertain features	7
	4.5 Ferrous objects.....	7
	4.6 Geology	8
5	CONCLUSION.....	8
6	BIBLIOGRAPHY	9

Figures

Front cover: Extract from survey data, showing archaeology near East Luddon

Fig 1: Site location	1:25,000
Fig 2: Survey overview (north-west)	1:12,500
Fig 3: Survey overview (south-east)	1:12,500
Figs 4a & 4b: Magnetometer survey results	1:2500
Figs 5a & 5b: Magnetometer survey results	1:2500
Fig 6: Magnetometer survey results	1:2500
Fig 7: Magnetometer survey results	1:2500
Fig 8: Magnetometer survey results	1:2500
Fig 9: Magnetometer survey results	1:2500
Fig 10: Magnetometer survey results	1:2500
Fig 11: Magnetometer survey results	1:2500
Fig 12: Magnetometer survey results	1:2500
Fig 13: Magnetometer survey results	1:2500
Fig 14: Magnetometer survey results	1:2500
Figs 15a & 15b: Magnetometer survey interpretation	1:2500
Figs 16a & 16b: Magnetometer survey interpretation	1:2500
Fig 17: Magnetometer survey interpretation	1:2500
Fig 18: Magnetometer survey interpretation	1:2500
Fig 19: Magnetometer survey interpretation	1:2500
Fig 20: Magnetometer survey interpretation	1:2500
Fig 21: Magnetometer survey interpretation	1:2500
Fig 22: Magnetometer survey interpretation	1:2500
Fig 23: Magnetometer survey interpretation	1:2500
Fig 24: Magnetometer survey interpretation	1:2500
Fig 25: Magnetometer survey interpretation	1:2500
Figs 26a & 26b: Unprocessed magnetometer data	1:2500
Figs 27a & 27b: Unprocessed magnetometer data	1:2500
Fig 28: Unprocessed magnetometer data	1:2500
Fig 29: Unprocessed magnetometer data	1:2500
Fig 30: Unprocessed magnetometer data	1:2500
Fig 31: Unprocessed magnetometer data	1:2500
Fig 32: Unprocessed magnetometer data	1:2500
Fig 33: Unprocessed magnetometer data	1:2500
Fig 34: Unprocessed magnetometer data	1:2500

Archaeological geophysical survey of the Northcombe to Prewley Moor pipeline route Devon July-September 2022

ABSTRACT

MOLA (Museum of London Archaeology) was commissioned to conduct a geophysical survey on the route of a proposed water pipeline between Northcombe and Prewley Moor, in Devon. This work identified one substantial archaeological site, comprising a square enclosure with a large annex and some possible house platforms, perhaps dating from the late prehistoric or Roman period. This lay towards the centre of the pipeline route, close to East Luddon. Elsewhere there were various doubtful or minor remains, mostly comprising ditches of indeterminate date. Other recorded features included historic field boundaries and a pair of 19th-century quarry pits.

1 INTRODUCTION

MOLA (Museum of London Archaeology) was commissioned by South West Water to conduct a magnetometer survey on the route of a proposed water pipeline between Prewley Moor and Northcombe in Devon (Fig 1). The route runs between National Grid co-ordinates 247700 096500 and 254800 090900, with an approximate central co-ordinate of 251360 093770. The aim of the survey was to identify any archaeological remains that might be disturbed by the laying of the pipe, so that appropriate mitigation strategies could be developed as the design of the route was finalised.

The survey was conducted intermittently between 22nd July and 15th September 2022. It followed the methodology set out in the Written Scheme of Investigation for the project (Manktelow 2022), the details of which were informed by the Chartered Institute for Archaeologists and European Archaeological Council guidelines (CIfA 2020 and Schmidt *et al* 2015) and by the Devon County Council Historic Environment Team's generic requirements for geophysical survey (DCC 2022).

The southernmost part of the pipeline route, to the south of the A30, fell within Dartmoor National Park, and thus within the oversight of the Dartmoor National Park Historic Environment Team. However, no survey work was conducted in this area, due to unsuitable ground conditions and vegetation.

2 BACKGROUND

2.1 Location and land use

The survey area extends over a 10km linear route and covers c81ha, of which c65ha was actually surveyed. It heads in a south-easterly direction from the Northcombe Water Treatment Works (WTW), broadly following the A3079 to Boasley Cross, then crossing pasture land between Hewton, Thorndon Cross and Sourton Down before terminating on Prewley Moor (Fig 1).

The width of the survey area was typically around 50m except in the vicinity of East Luddon where, following the discovery of archaeology, an area of up to 300m across was surveyed in order to investigate options for routing the pipeline around the most important remains.

The fields within the survey area were allocated reference numbers from N01 in the north-west to N70 in the south-east (Figs 2-3) and will be referred to by those throughout this report. The majority were pasture and hay meadows, and most proved suitable for survey with the exception of those tabulated below.

Table 1: Areas excluded from survey

Fields	Comments
N18	Not surveyed – small area with no access permission
N19	Not surveyed – under tree cover
N20 & N21	Not surveyed – horses could not be removed
N47	Not surveyed – planted with saplings
N56	Not surveyed – access refused
N58	Not surveyed – small corner of land, pigs could not be removed
N59 to N61	Not surveyed – access refused
N62 to N63	Not surveyed – difficulties with access and livestock
N64 to N70	Not surveyed – variously overgrown and obstructed

2.2 Topography and geology

The highest point of the survey area lies at the southern end of the pipeline route, at c336m above Ordnance Datum (aOD). From here the route heads in a north-westerly direction, crossing sharply undulating ground that is dissected by the valleys of the River Thrushel and its tributaries and descends to a minimum elevation of c186m aOD c1km south-west of Thorndon Cross. Leaving this area, the route ascends onto a ridge top near Boasley Cross and follows this, at an elevation of c250m to 280m aOD, until terminating at Northcombe WTW.

The geology of the survey area comprises a swathe of fine-grained sedimentary deposits originating within a marine environment, primarily dating from the Carboniferous period. Interbedded mudstone and sandstone of the Crackington Formation underlies much of the route except for a small section to the south of the A30 where small belts of the Teign Chert Formation are present. Superficial deposits of alluvium and river terrace sands and gravels occur around the streams which cross the survey area, but no other drift geology is recorded (BGS 2022).

2.3 Historical and archaeological background

Stantec has provided MOLA with data from searches of both the Devon Historic Environment Record (HER) and the Dartmoor HER. Key aspects of this data are briefly summarised below, and a more comprehensive account can be found in the historic environment desk-based assessment for the scheme (Bray 2022).

Designated monuments

Although no designated heritage assets lie within the survey area, four scheduled monuments lie within 500m of it:

- The Sourton Down Cross (NHLE: 1020270) is also Grade II listed (NHLE: 1106263) and lies approximately 150m outside of the south-east of the survey area. This cross is a rare example of an early Christian inscribed stone
- Broadbury Castle Roman Camp (NHLE: 1017969) is located c80m north-east of the survey area on the top of a ridge that its name derives from. A rectangular enclosure with ramparts and ditches is still extant at the site.

- Broadbury is also the location of two bowl barrows (NHLE:1017970). They survive as earthworks and are located c60m south-west of the survey area.
- A double ditched square enclosure, located north of the Sourton Down A30 junction and slightly east of the survey area is thought, based on its plan-form, to be a Civil War redoubt. However, an earlier date is also possible (NHLE:1020269).

Non-designated monuments

There is abundant evidence of occupation from the Bronze Age onwards in the vicinity of the survey area. Along with the two scheduled barrows on Broadbury, there is a group of four Bronze Age barrows to the north of survey area (MDV1699, MDV1709, MDV1710, MDV12645) and four others in the vicinity (MDV120437, MDV120446, MDV24975, MDV27374). Of these, MDV120437 lies particularly close to the route, being located in the unsurveyed part of Field N08. There may be one further barrow at the south of the route, in Field N61, though the identification of this feature is uncertain and the HER refers to it merely as a 'mound' (MDV24978).

Other Bronze Age features to the south of the survey area, on the higher ground of Dartmoor, include hut circles (MDV28279, MDV28280), cairns (MDV12883, MDV12885, MDV12887, MDV50577, MDV4628) and reave systems (MDV52746, MDV52747).

The Iron Age is also well represented in the vicinity of the survey area, with a number of earthworks and cropmarks signifying enclosures and ditches (MDV120431, MDV120441, MDV120444, MDV120428, MDV120449, MDV52017). Some of these features are believed to have remained in use during the Roman period.

A putative Roman road runs on the line of the A3079 alongside the north-western portion of the area (MDV44601, MDV56199, MDV56202), and another Roman road crosses the southern part of the area on a north-east to south-west orientation through Fields N60 and N61 (MDV20441, MDV62958, MDV18485, MDV62958). The latter survives as an earthwork in places and has been confirmed by excavation.

The deserted early medieval settlement of Sourton Down (MDV4740) lies just to the west of the survey area, in Field N61. There are also several examples of medieval field systems around the survey area; these comprise ridge and furrow (MDV52017, MDV63833, MDV28095) and strip fields (MDV24981). There is also the site of a historic farmstead, Lower Wordon (MDV4770), just to the west of the survey area, in the vicinity of Fields N62 and N63.

A Civil War skirmish at 'Meldon Down', is thought to have occurred across a vaguely defined area encompassing the southern portion of the survey area (MDV20446) and the site of the scheduled redoubt (MDV4771) to the east.

An undated field system (MDV4772), an undated quarry pit (MDV63868) and an undated enclosure or hut platform (MDV63869) are recorded on Sourton Down, around Fields N60 and N61.

The readily available historic maps of the survey area, comprising the tithe maps of Beaworthy, Bratton Clovelly and Sourton, and the various publications of the Ordnance Survey, show it to have been agricultural land throughout the 19th and 20th centuries. Apart from old field boundaries, the main features of interest are some late 19th-century quarries (MDV37027) depicted (in Fields N07 and N09) on the 1880 and 1904 Ordnance Survey Maps and an earlier 19th-century gibbet, depicted on the Old Series Ordnance Survey map. The latter feature is only vaguely located on the map and not recorded on the HER, but the current farmer of the land has reported (in conversation with a MOLA supervisor) that it stood by the hedgeline at the southern end of Field N11 and that fragments of timber survived there within living memory.

3 METHODOLOGY

3.1 Fieldwork

The magnetometer survey was undertaken with a Bartington magnetometer cart. This is a two-wheeled, lightweight sensor platform operated by hand. The cart incorporates a bank of six vertically-mounted Bartington Grad-01-1000L magnetic sensor tubes, spaced at 0.8m intervals along a bar aligned crossways to the direction of travel. It also incorporates a Leica Geosystems Viva GNSS antenna, mounted on the central axis.

The magnetic sensors were calibrated ('zeroed') at the start of each day's work to minimise any heading errors or offsets between the zero points of each individual sensor.

The cart was propelled along straight and parallel traverses across the survey area, with data logging being manually toggled on and off at the start and end of each traverse to avoid the collection of spurious data whilst turning. Traverse ends were marked with ranging poles to aid even coverage, and the evenness of coverage was further checked by monitoring the positional trace plotted in real time by the MultiGrad601 logging software.

The magnetic sensors were set to output data at a rate of eight readings per second. The GNSS antenna was set to output NMEA format data (GGA messages) at a rate of one position per second. These data streams were compiled into a single raw data file by MultiGrad601 logging software.

The typical speed of coverage was c1.7m/s, with some variation according to the terrain and ground conditions. The combination of sensor spacing, survey speeds and data output rates ensured that the spatial resolution of all the data sets would be better than 0.25m x 0.80m.

3.2 Data processing and presentation

The raw survey data was initially processed with MLGrad601 software, which calculated a UTM co-ordinate for each data point by interpolating the GPS readings and applying offset corrections based on the array geometry and projected heading direction. This produced an output file in XYZ format which could be imported into TerraSurveyor software for data visualisation and further processing.

The raw XYZ data exhibited striping caused by slight mis-matches in the calibration of the individual magnetic sensors. This was removed in TerraSurveyor by applying the median de-stripe function to runs of data from each sensor.

The raw and processed survey data is presented in this report as greyscale raster images which have been rotated and scaled to fit against Ordnance Survey base-mapping. A greyscale range of $\pm 10\text{nT}$ has been chosen, due to the relatively strong magnetic responses that were encountered along the survey route.

The interpretation of the data has been undertaken in a qualitative manner, based on the recognition of distinctive anomaly types and patterns and on cross-referencing historic map evidence. All major anomalies are represented on the interpretation figures, but cultivation marks are represented schematically and some other trivial anomalies and magnetic halos have been omitted altogether to avoid an excessively cluttered appearance.

4 SURVEY RESULTS

4.1 Archaeological and historic features

The East Luddon site (Figs 8 and 19)

The survey has identified one definite, and previously unknown, archaeological site, centred in Field N30 to the south of East Luddon. This sits across the 250m contour, towards the top of a steep south-facing slope, and comprises a square enclosure with a larger, fan-shaped annex to the north and a probable scatter of roundhouses to its west, south and east. The square enclosure measures 45m across and is 0.2ha in extent, whilst the annex covers an area of roughly 0.8ha. The precise age of the site is unknown, but its appearance points towards a broadly late prehistoric or Roman date.

The identification of the roundhouses around the enclosure is slightly uncertain due to the unusual nature of the evidence. The survey data contains only one 'typical' roundhouse anomaly of penannular form, but there are eight or nine other anomalies which take the form of short arcs of magnetic enhancement positioned with their concave sides facing downslope. The most credible explanation for these, accounting for their size, shape and orientation, is that they represent the back edges of roundhouse platforms cut into the natural slope.

Two linear anomalies, perhaps representing boundary ditches, bracket the archaeology to the north and south. The northern of these intersects a corner of the annex ditch, which suggests that the two features are not contemporary; however it is not possible to determine their chronological sequence on geophysical evidence alone. Other possible ditches occur in the same general area, but are too fragmented and incoherent to interpret in detail.

In the north-eastern corner of Field N30 there are three closely spaced positive anomalies which may represent a group of pits or patches of burnt soil. They each have very variable magnetic intensities, with typical values of 40-70nT but some parts as low as 20nT and others over 100nT. It is unclear whether these are contemporary with the other archaeology in the field.

To the south and east of the square enclosure, principally within Field N31, there is a complex pattern of linear anomalies that probably indicate the ditches and banks of a field system. Some of these features loosely correspond with two boundaries depicted on the Sourton tithe map but, whereas historic field boundaries are usually represented by relatively simple and clear anomalies (see below), in this case there are broad swarms of semi-parallel anomalies on each line. This suggests that the boundaries were long-lived features that underwent several phases of maintenance and renewal, migrating a little in the process; if so then their appearance on a 19th-century map need not preclude them having much earlier origins.

Other possible archaeology

There is doubtful evidence for an archaeological site in the northern corner of Field N2, where the data contains a square arrangement of anomalies that surround an area c20m across (Figs 4a and 15a). This may represent a small and rather insubstantial enclosure. The data within that area is slightly noisier than in the immediate surroundings, and shows hints of rectilinear patterning which might indicate the presence of poorly-resolved internal features.

An ill-defined group of weak and fragmentary linear anomalies occur in field N16, including two which form a right-angled corner in the north-east of the field (Figs 6 and 17). It is possible that they represent a set of small ditches which, given their location close to a cottage and road frontage, might relate to garden or backyard activity.

Six much clearer linear anomalies occur in Field N22 (Figs 7 and 18). Five of these lie in two parallel sets, reminiscent of double-ditched field boundaries or the side-ditches of trackways, but they do not match with any features recorded on historic maps and do not align with the modern field boundaries. This suggests that they may be part of a pre-modern field system. The sixth anomaly shadows the northern edge of the field and so is more likely to be modern.

A small number of other anomalies suggestive of ditches occur as isolated features at various points along the route. Most are likely to be relatively minor boundary markers and drainage features

Nineteenth century quarry pits

Fields N07 and N09 (Figs 4b and 15b) contain areas of magnetic disturbance which correspond to some 19th-century quarries recorded on the Devon HER (MDV37027). Much of the magnetic response in this area is very intense, with broad negative halos, indicating the presence of a significant amount of scrap iron or steel within the quarry backfill.

Field boundaries

Various linear anomalies correspond to parts of historic field boundaries which are depicted on the Beaworthy, Bratton Clovelly and Sourton tithe maps and on subsequent Ordnance Survey maps. Some, such as that in Field N28 (Figs 7 and 18), have a 'double linear' form, which is commonly encountered in south-west England (Gaffney and Gater 2003, 123-125) and typically indicates the remains of an earthen bank flanked by ditches of clad with a relatively magnetic stone revetment. Others, such as those in N04 (Figs 4a and 15a), are represented by positive linear anomalies that probably arise from backfilled ditches.

One anomaly in the west of Field N53 (Figs 12 and 23) does not correspond with any mapped feature but has been interpreted as a field boundary nonetheless given its very clear double-linear form and its alignment parallel to known boundaries.

A vague and intermittent negative linear anomaly shadowing the southern edges of Fields N05 and N06 (Figs 4b and 15b) corresponds approximately with a field boundary on the Beaworthy tithe map. However, utility data provided to MOLA by Stantec shows that an electricity cable follows a very similar line, and there is consequently room for doubt about whether it is the boundary ditch or the cable trench that has been detected.

4.2 Ploughing

Much of the survey data contains sets of parallel linear anomalies caused by ploughing. It is probable that the closely spaced sets of weak anomalies relate to relatively modern ploughing, whereas some of the more broadly spaced anomalies may relate to the medieval or early post-medieval cultivation of strip fields. An attempt has been made to distinguish these two categories on the interpretation figures, though in many cases the evidence is ambiguous and the distinctions should be regarded as merely indicative.

4.3 Pipes, cables and drains¹

An intense, curving linear anomaly at the northern edge of Field N01 corresponds with a known pipe leading to the water treatment works (Figs 4a and 15a). A similarly

¹ The interpretations in this section take account of utility plans provided to MOLA by Stantec.

intense linear anomaly with variable magnetic polarity (*ie* alternative positive and negative sections) represents another pipeline running around the edge of Field N09 (Figs 4b and 15b).

Two much weaker linear anomalies of negative polarity may also relate to utilities, one cause of such anomalies being trenches containing non-magnetic (*eg* plastic, concrete or copper) pipes or cables. One of these crosses Field N29 (Figs 8 and 19) and lies parallel to (though offset from) the reported line of a water pipe. The other crosses Field N36 (Figs 9 and 20), and corresponds with a cropmark of a possible utility trench visible on Google Earth imagery dated 23/09/2017. There is some doubt about the interpretation of the latter, as a similar magnetic response and cropmark could also be produced by the remediation of a rutted trackway.

As noted above (Sect 4.1), there is some doubt about whether a weak anomaly in Fields N05 and N06 represents a field boundary (as interpreted) or a cable trench.

One set of negative linear anomalies in the south of Field N14 can be identified as drains based on their distinctive configuration, and a few very weak parallel linear anomalies in Field N05 may also be drains. No other examples can be confidently identified, although it is likely that many of the anomalies classed as 'uncertain' would also transpire to be drains if investigated further.

4.4 Uncertain features

The interpretative category 'uncertain' has been used for a large number of anomalies which cannot be confidently fitted into any particular one of the preceding categories. Most of these anomalies are positive and negative linears which could arise from a variety of ditches, drains, utility trenches, field boundaries, plough marks or other modern features but do not appear likely to be archaeological in origin.

A small anomaly at the southern end of Field 16 (Figs 6 and 17) has also been classified as uncertain. Too little of it has been detected to determine whether it is a geological feature, the edge of a small quarry pit, or some other piece of disturbed ground.

4.5 Ferrous objects

Small magnetic dipoles occur sporadically along the survey route. Such anomalies are very common on agricultural land and are generally caused by small pieces of iron and steel debris (*eg* horseshoes, plough fittings and similarly trivial scrap metal) buried in the topsoil. A pair of larger dipoles in Field N02 are due to metal fittings on a gate (*pers obs*) and, as noted above, there are some very large ferrous anomalies of irregular form arising from metal debris buried in the former quarry pits in Fields N07 and N09 (Figs 4b and 15b).

The rows of small, closely spaced negative halos crossing the area of archaeology in Fields N29 and N30 (Figs 8 and 19) were caused by the metal spikes on the bases of electric fence posts, as were similar responses in the north of Field 32. Other electric fences in Fields N07 (Figs 4b and 15b) and N37 (Figs 9 and 20) have also produced linear arrangements of halos.

A variety of positive and negative halos occur sporadically at the edges of the datasets, having been caused by adjacent metal objects including gates and water troughs. These halos are of minimal significance and not marked on the interpretation figures.

4.6 Geology

Much of the survey data exhibits a variable level of background noise or irregular patterning which cannot be resolved into definable 'anomalies'. This presumably relates to broad-scale changes in the soil type or underlying geology. In some places there are contrasting zone of magnetically quiet data which are not fully explicable but might in some cases indicate areas of leached sediment with a low iron content.

A variety of discrete geological anomalies also occur. Most are impossible to interpret in detail, though some which form distinct patterns of banding (eg those in Field 28, Figs 8 and 19) are likely to represent a sequence of outcropping strata with alternately greater and lesser magnetism.

5 CONCLUSION

The survey has discovered an archaeological site located on a moderately steep south-facing slope near East Luddon, towards the centre of the survey area. The identified remains comprise a square enclosure, c0.2ha in extent, which has a c0.8ha annex to its north and is associated with a scatter of probable roundhouse platforms. The site cannot be closely dated on the present evidence but seems most likely to be late prehistoric or Roman. To the south-east of these remains there is possible evidence for a field system of uncertain but apparently pre-modern date.

The survey has also identified three areas where there are less certain concentrations of archaeological remains. There is equivocal evidence for a small enclosure in Field N02, close to Northcombe WTW, and for a fragmentary group of ditches further south in Field N16a. A more definite set of ditches has been detected in Field N22, but too little of these can be seen to assess what their date, purpose and archaeological significance might be.

A number of historic features, known from 19th-century mapping, have been detected along the route. Most of these are former field boundaries, but there is also an area of quarrying at Broadbury in Fields N07 and N09 (*cf* Devon HER No. MDV37027). No evidence has been detected for the gallows which stood in or around Field N11, but this feature would be the remains of this feature would amount to little more than a posthole and would have presented a very difficult target for geophysical survey even if not concealed amongst a hedgeline.

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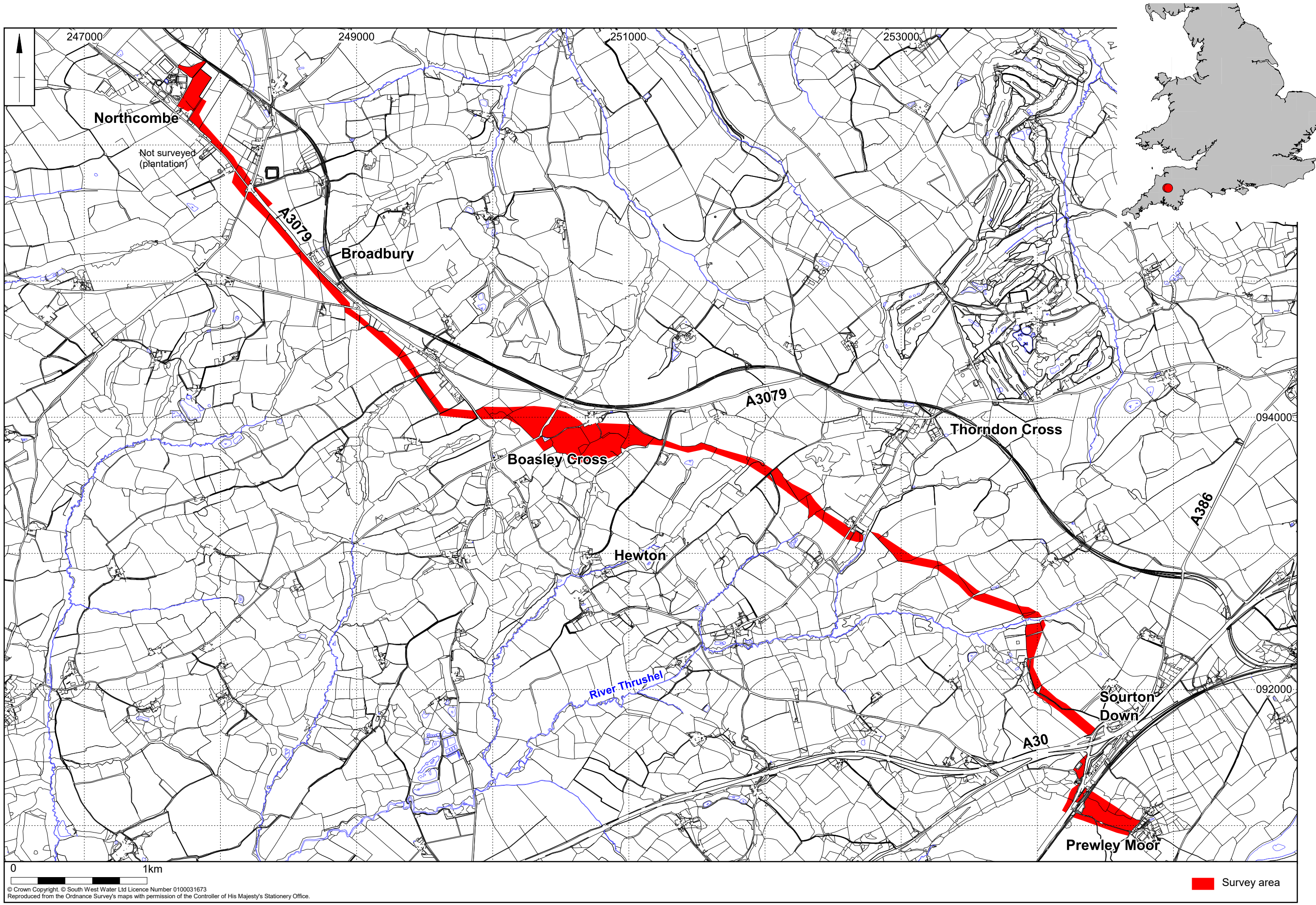
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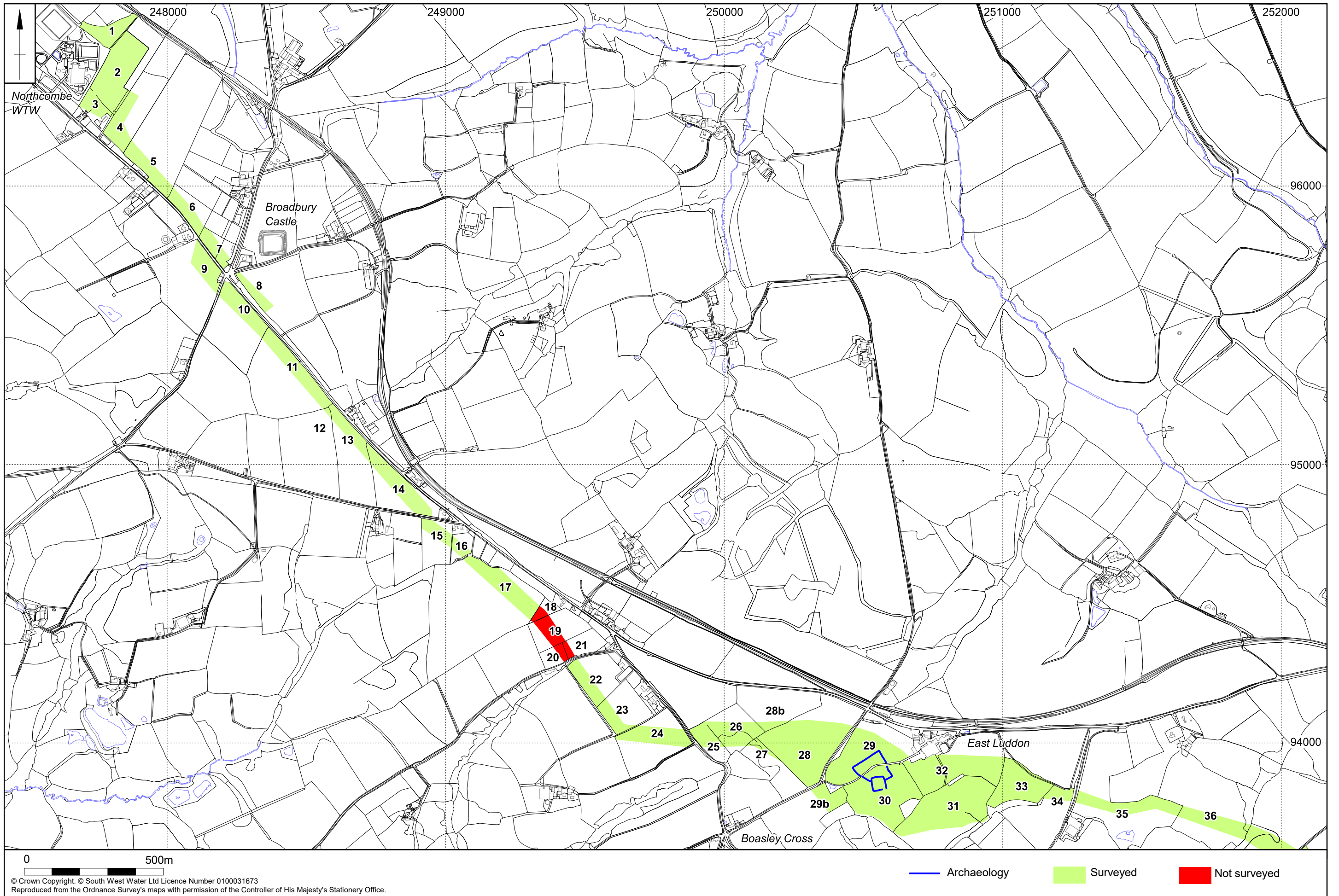
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Survey area

Scale 1:25,000 (A3)

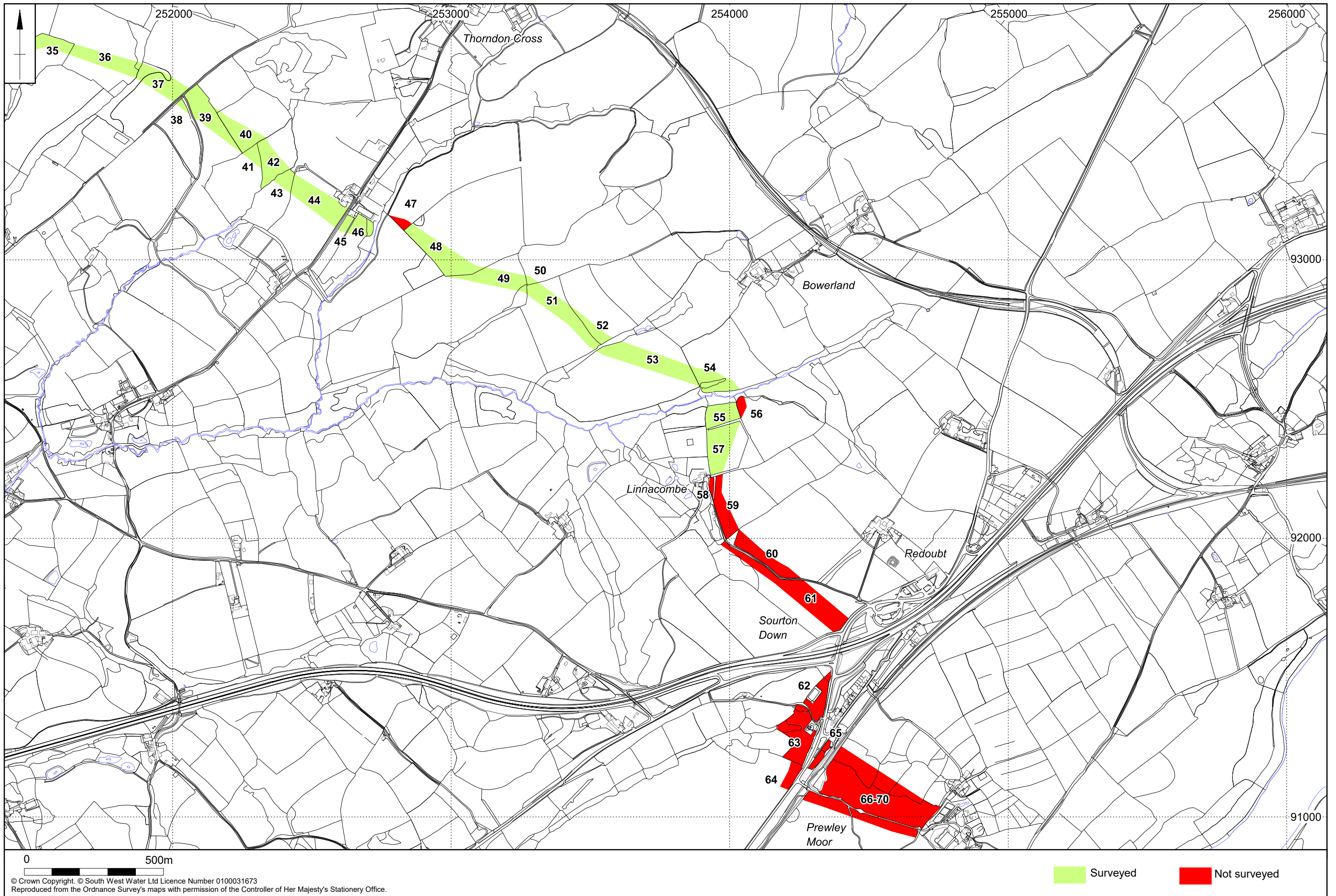
Site location Fig 1



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Scale 1:12,500

Survey overview (north-west) Fig 2



Scale 1:12,500

Survey overview (south-east) Fig 3



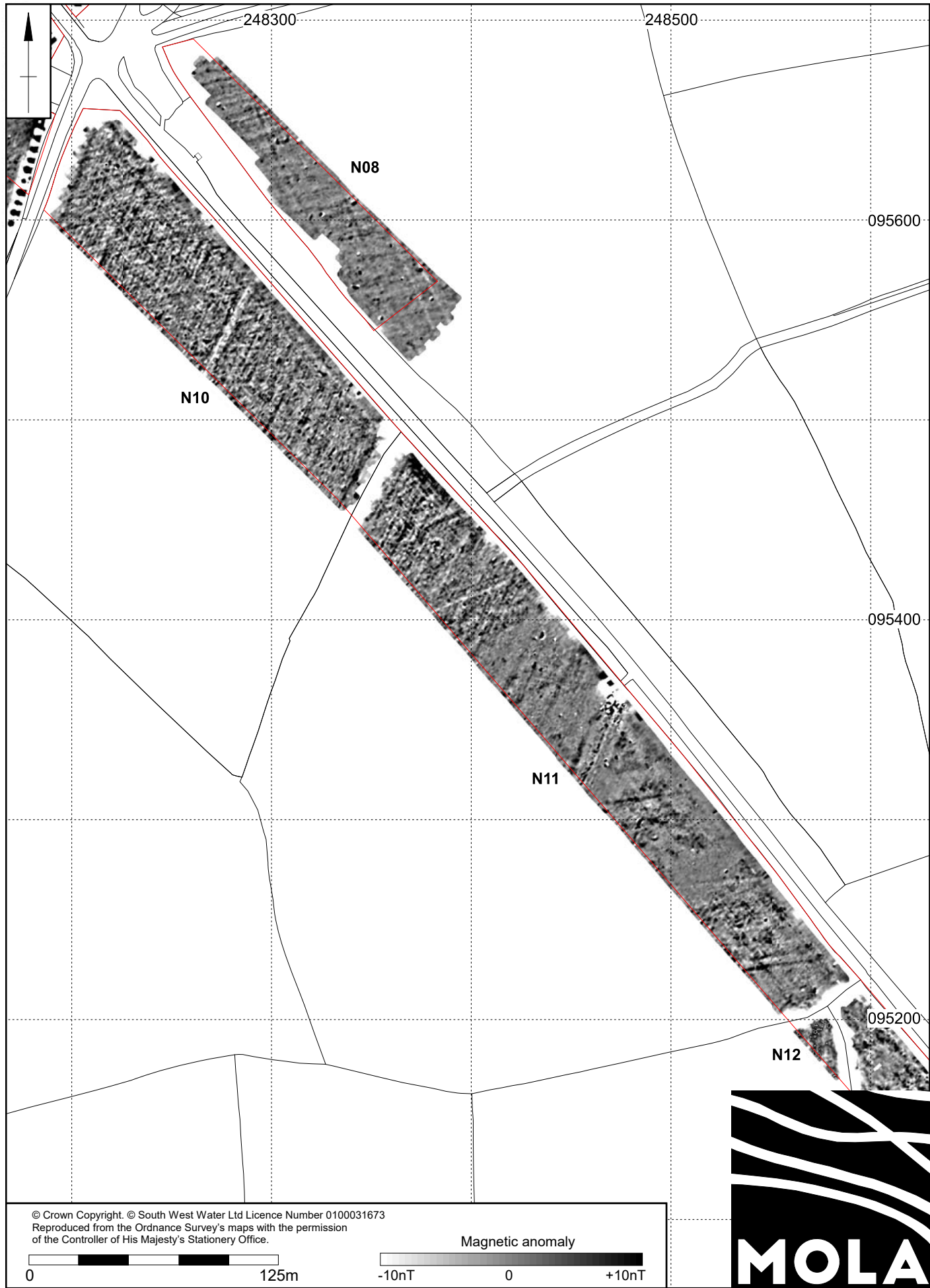
Scale 1:2500 (A3)

Magnetometer survey results Fig 4a



Scale 1:2500 (A3)

Magnetometer survey results Fig 4b



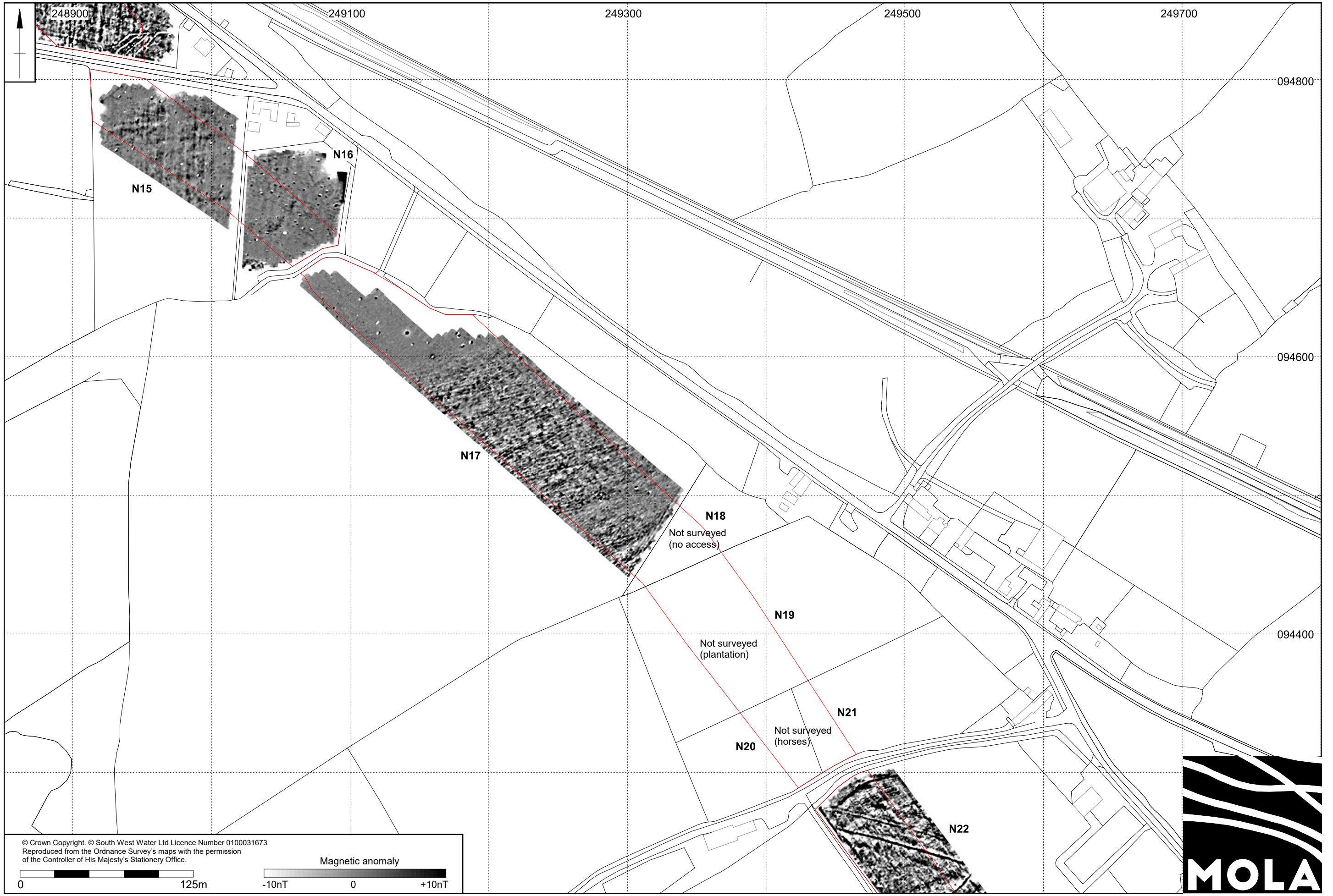
Scale 1:2500 (A3)

Magnetometer survey results Fig 5a



Scale 1:2500 (A3)

Magnetometer survey results Fig 5b



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0 125m

Magnetic anomaly
 -10nT 0 +10nT

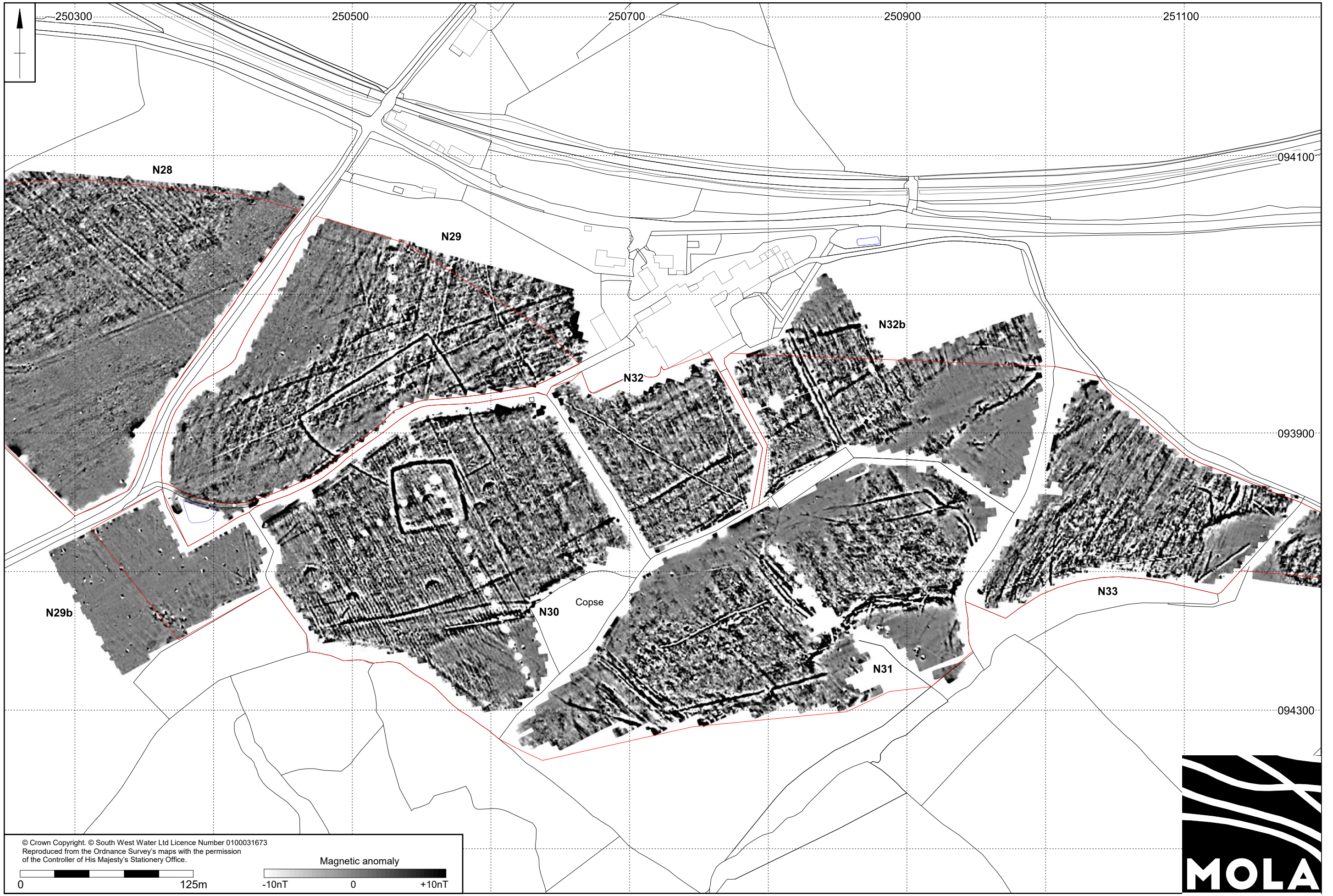
Scale 1:2500 (A3)

Magnetometer survey results Fig 6



Scale 1:2500 (A3)

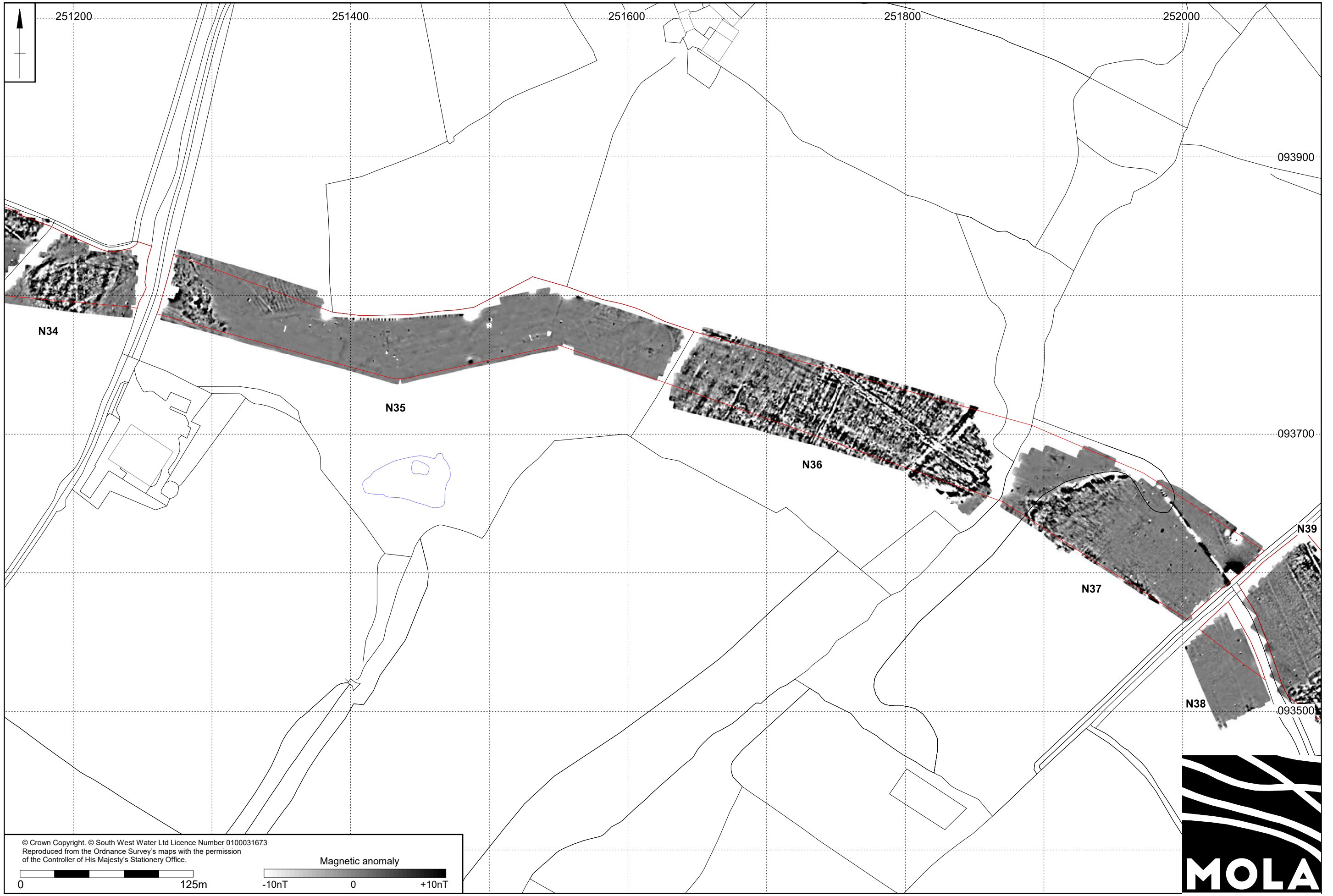
Magnetometer survey results Fig 7



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Scale 1:2500 (A3)

Magnetometer survey results Fig 8



Scale 1:2500 (A3)

Magnetometer survey results Fig 9

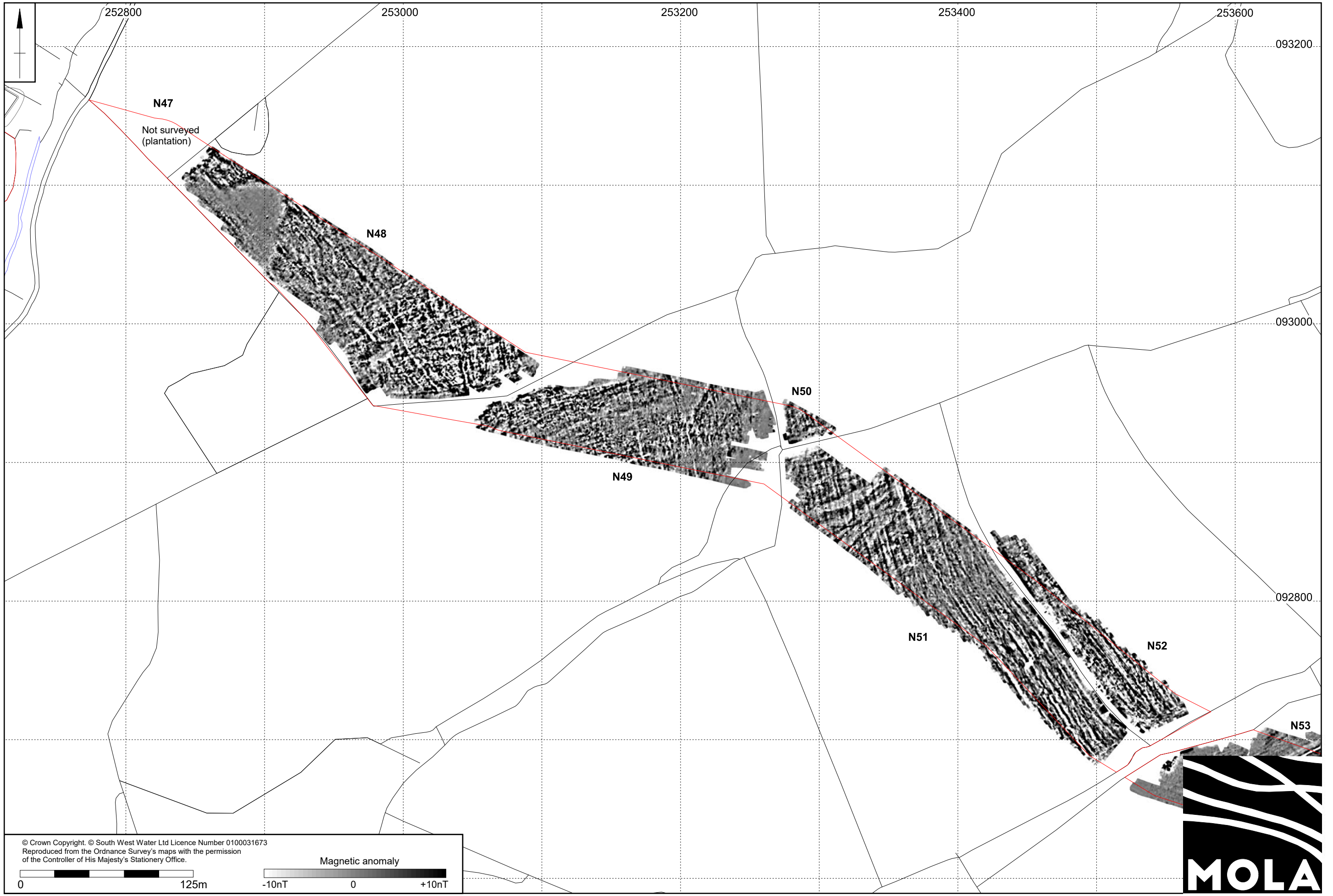


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Scale 1:2500 (A3)

Magnetometer survey results Fig 10



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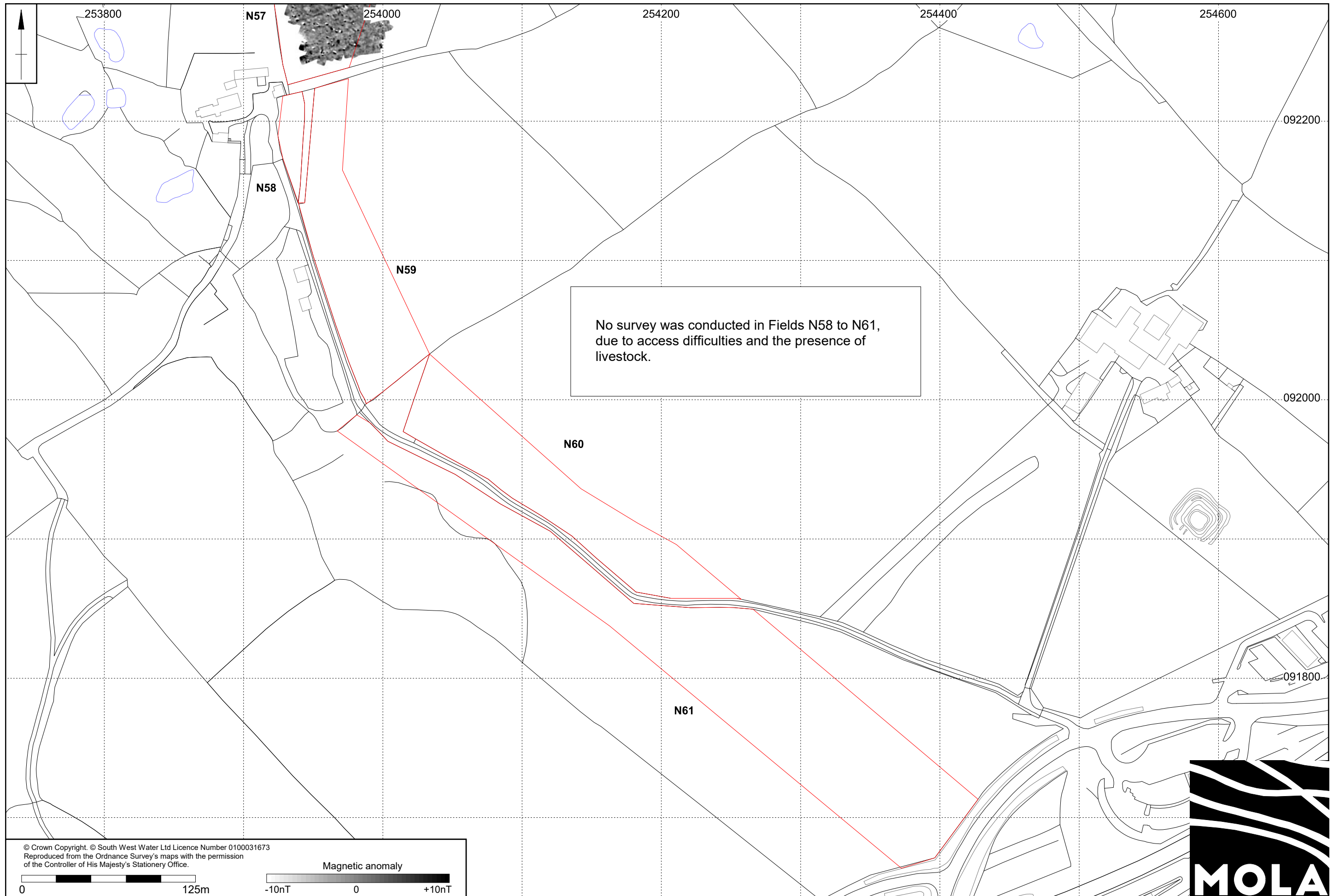
Scale 1:2500 (A3)

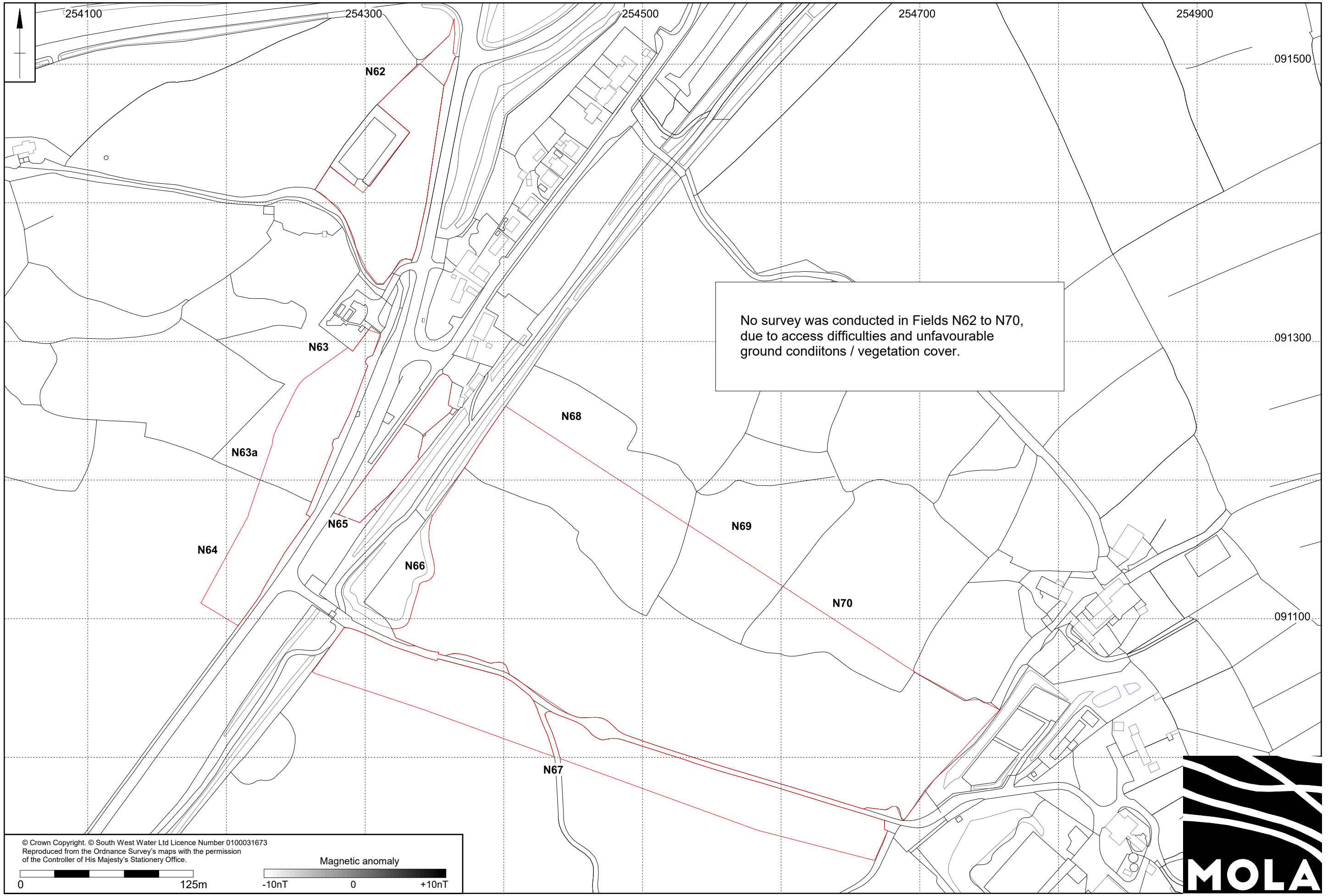
Magnetometer survey results Fig 11

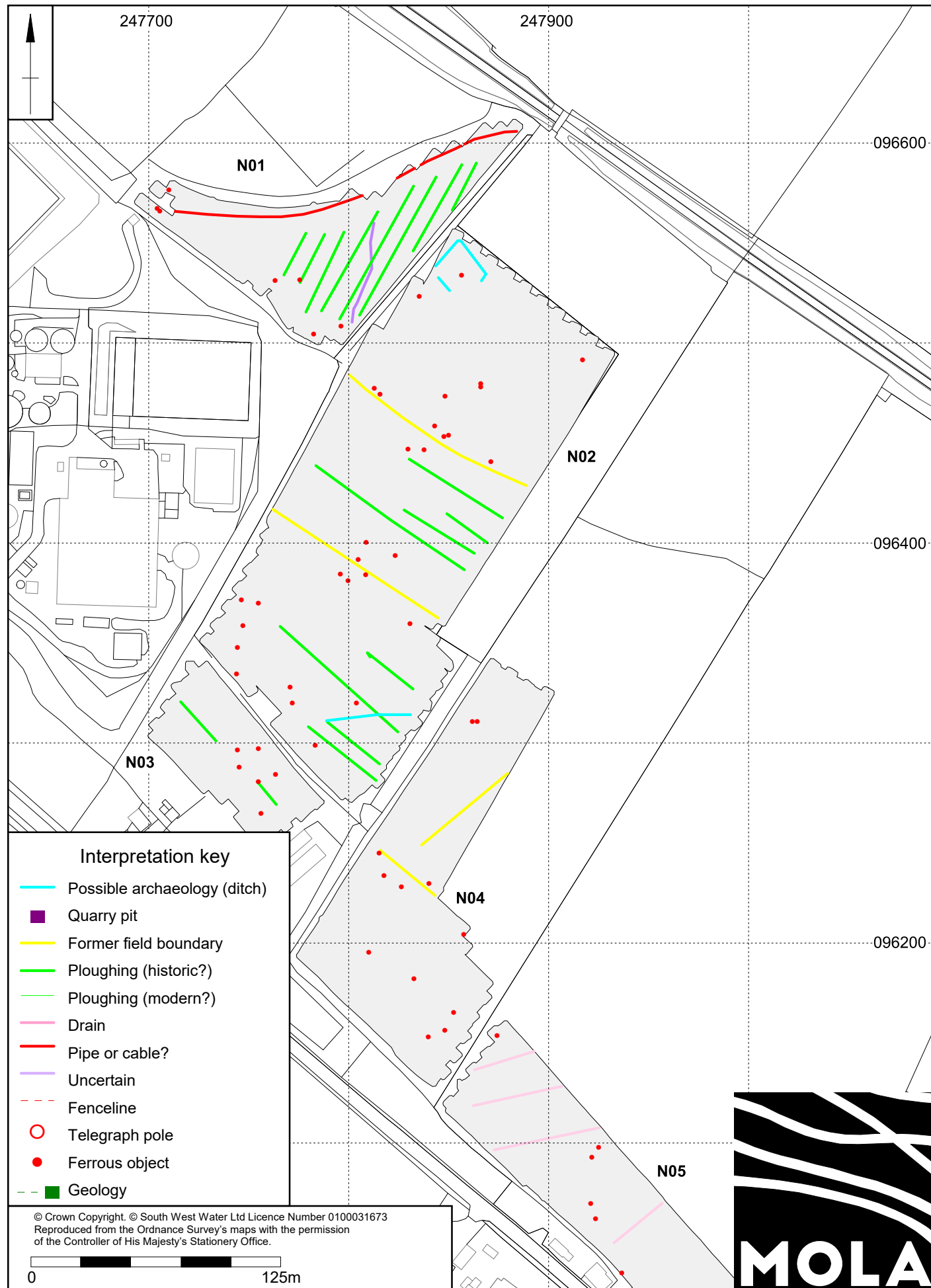


Scale 1:2500 (A3)

Magnetometer survey results Fig 12

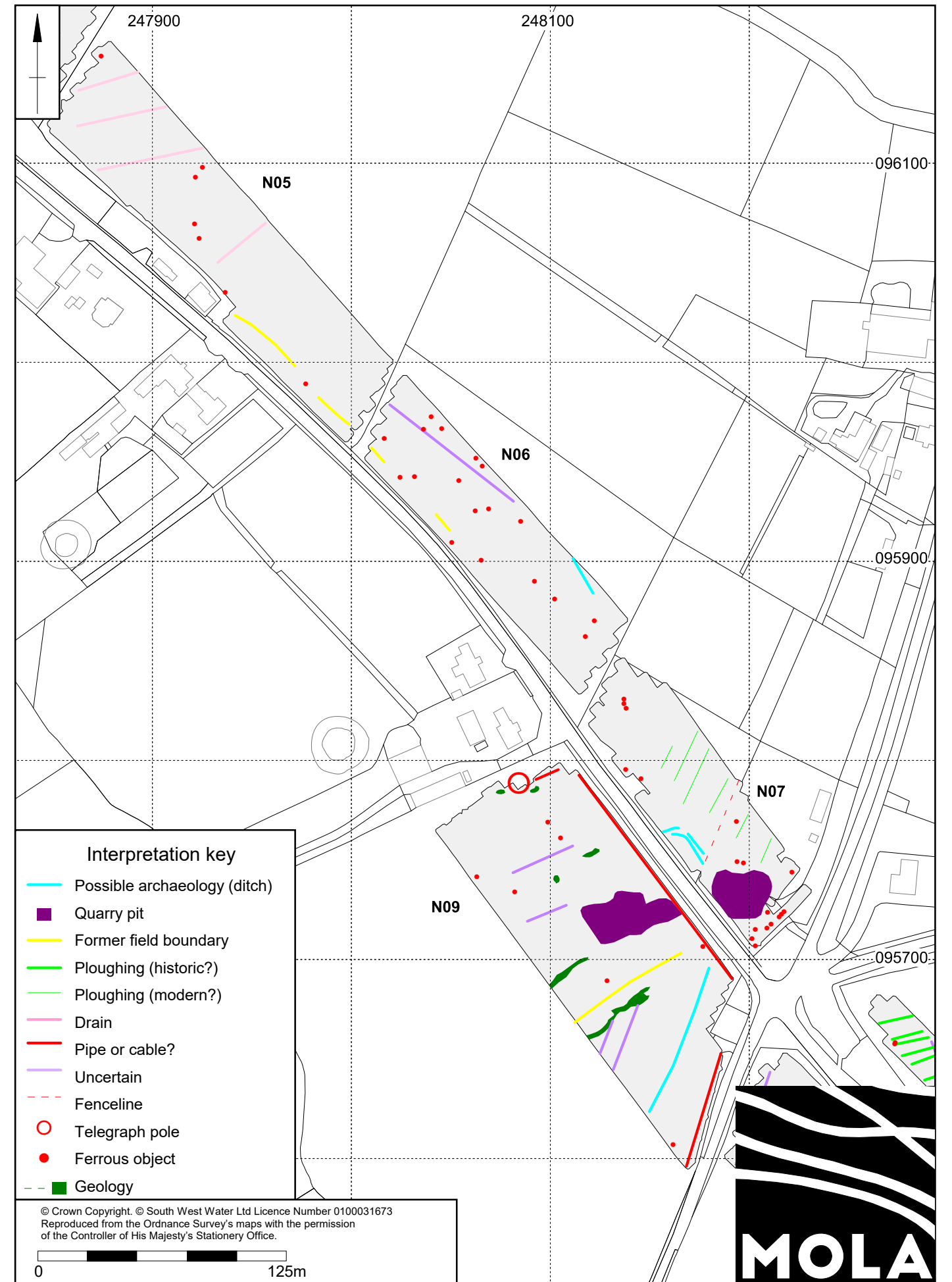






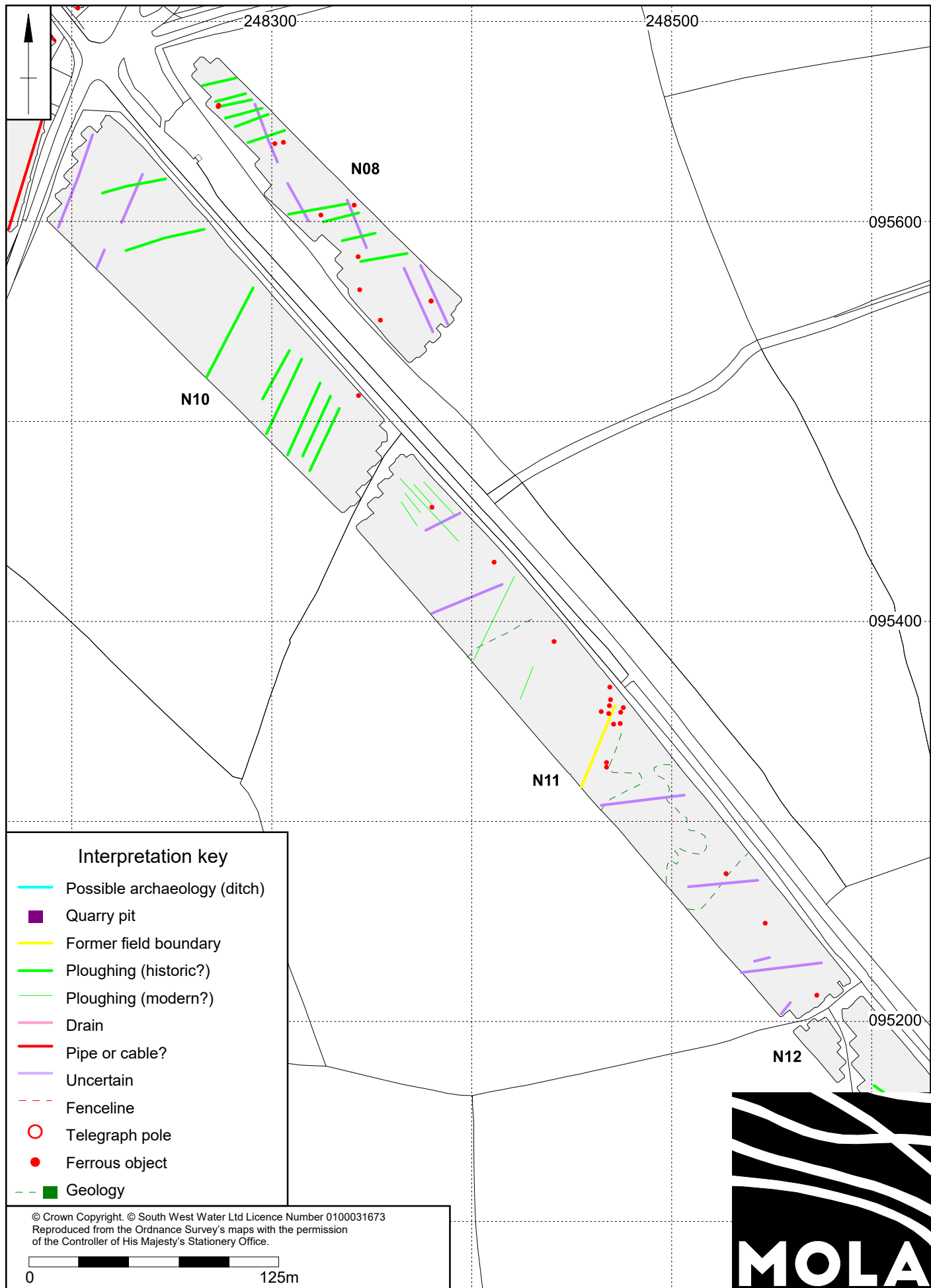
Scale 1:2500 (A3)

Magnetometer survey interpretation Fig 15a



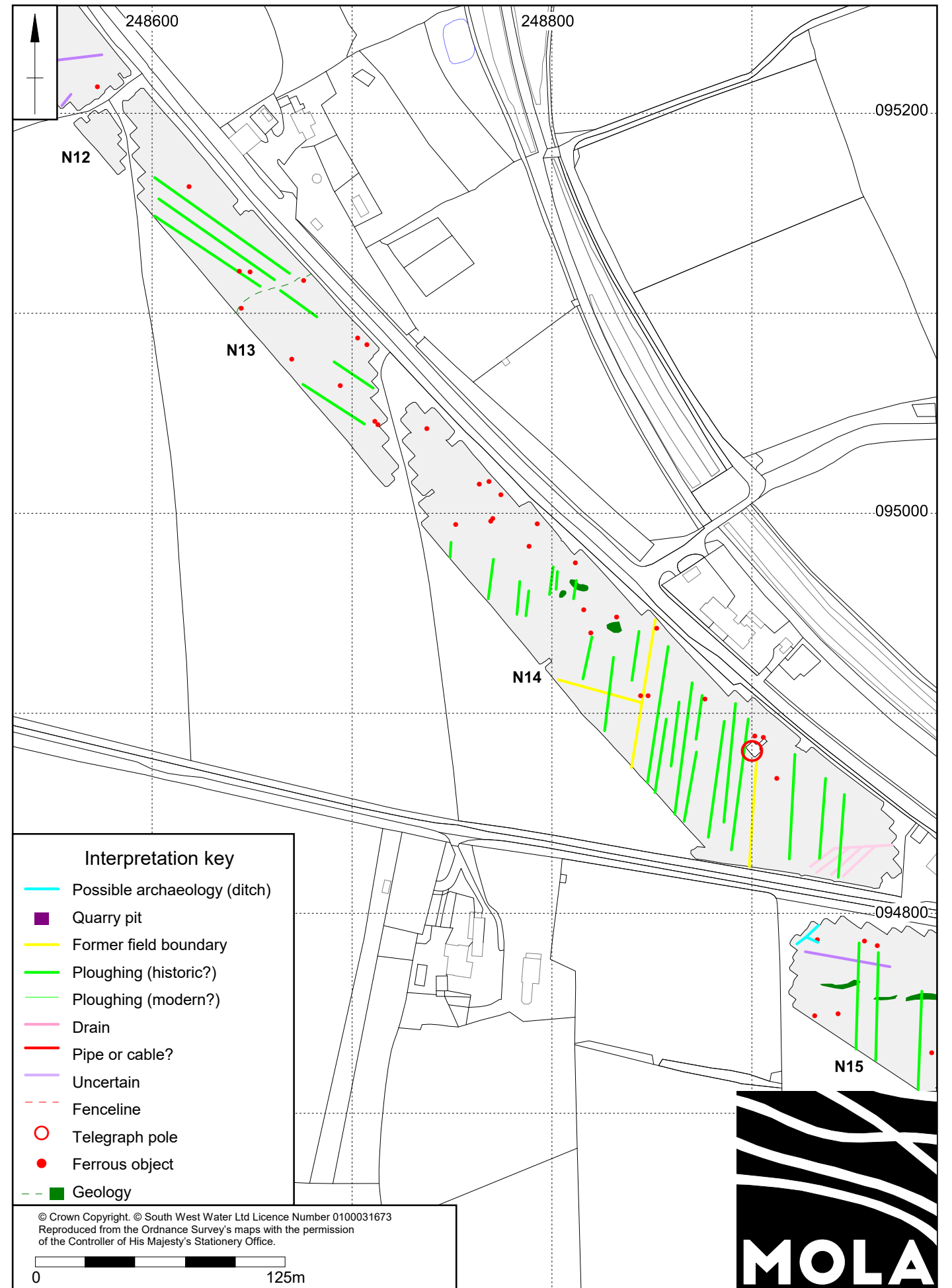
Scale 1:2500 (A3)

Magnetometer survey interpretation Fig 15b



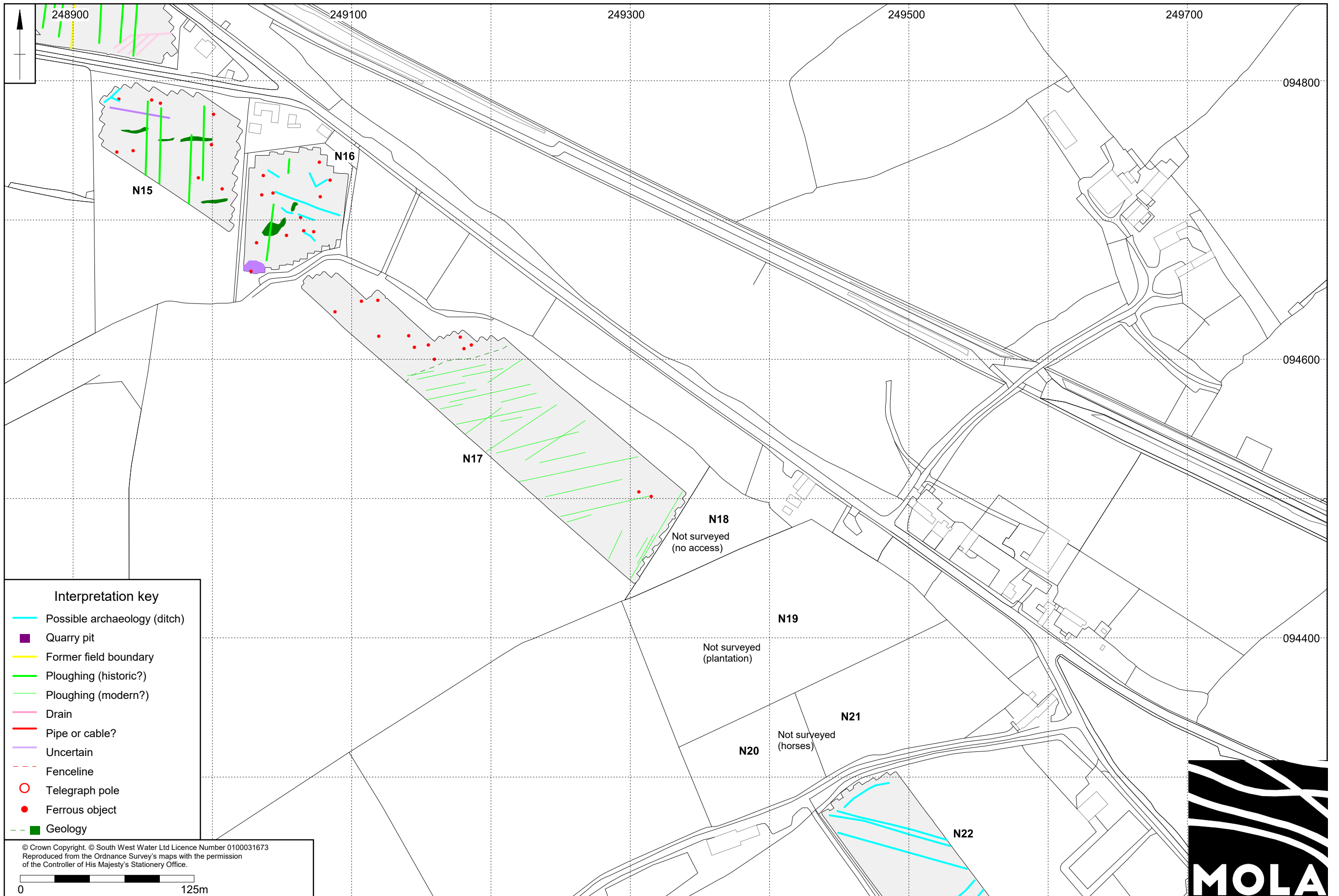
Scale 1:2500 (A3)

Magnetometer survey interpretation Fig 16a



Scale 1:2500 (A3)

Magnetometer survey interpretation Fig 16b



- Interpretation key**
- Possible archaeology (ditch)
 - Quarry pit
 - Former field boundary
 - Ploughing (historic?)
 - Ploughing (modern?)
 - Drain
 - Pipe or cable?
 - Uncertain
 - - - Fenceline
 - Telegraph pole
 - Ferrous object
 - Geology

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0 125m

Scale 1:2500 (A3)

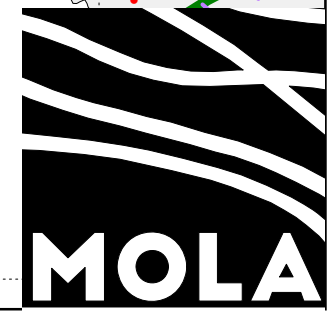
Magnetometer survey interpretation Fig 17

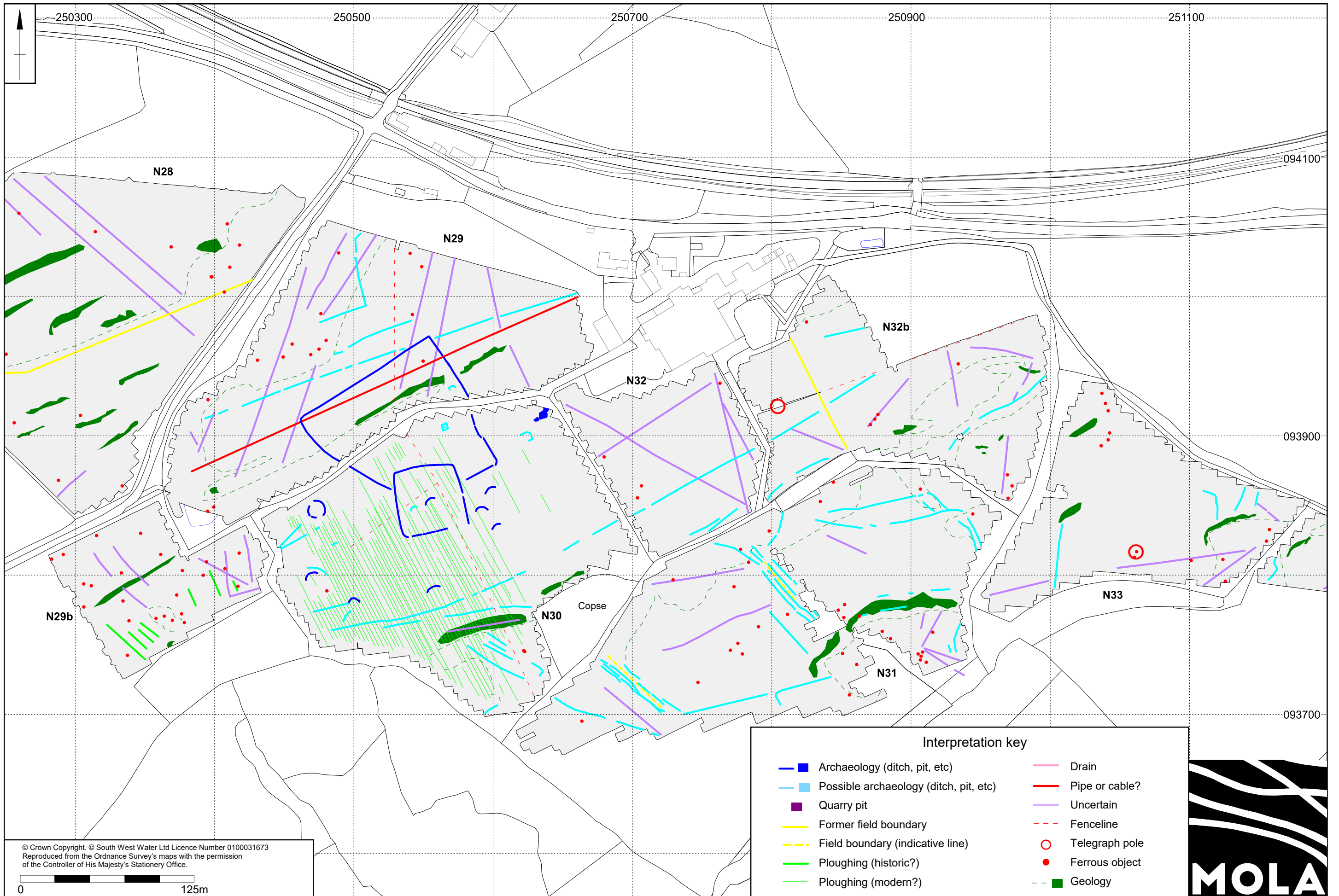


Scale 1:2500 (A3)

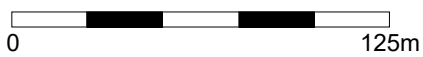
Magnetometer survey interpretation Fig 18

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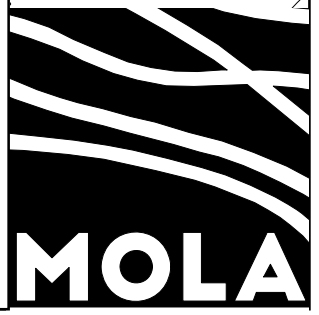




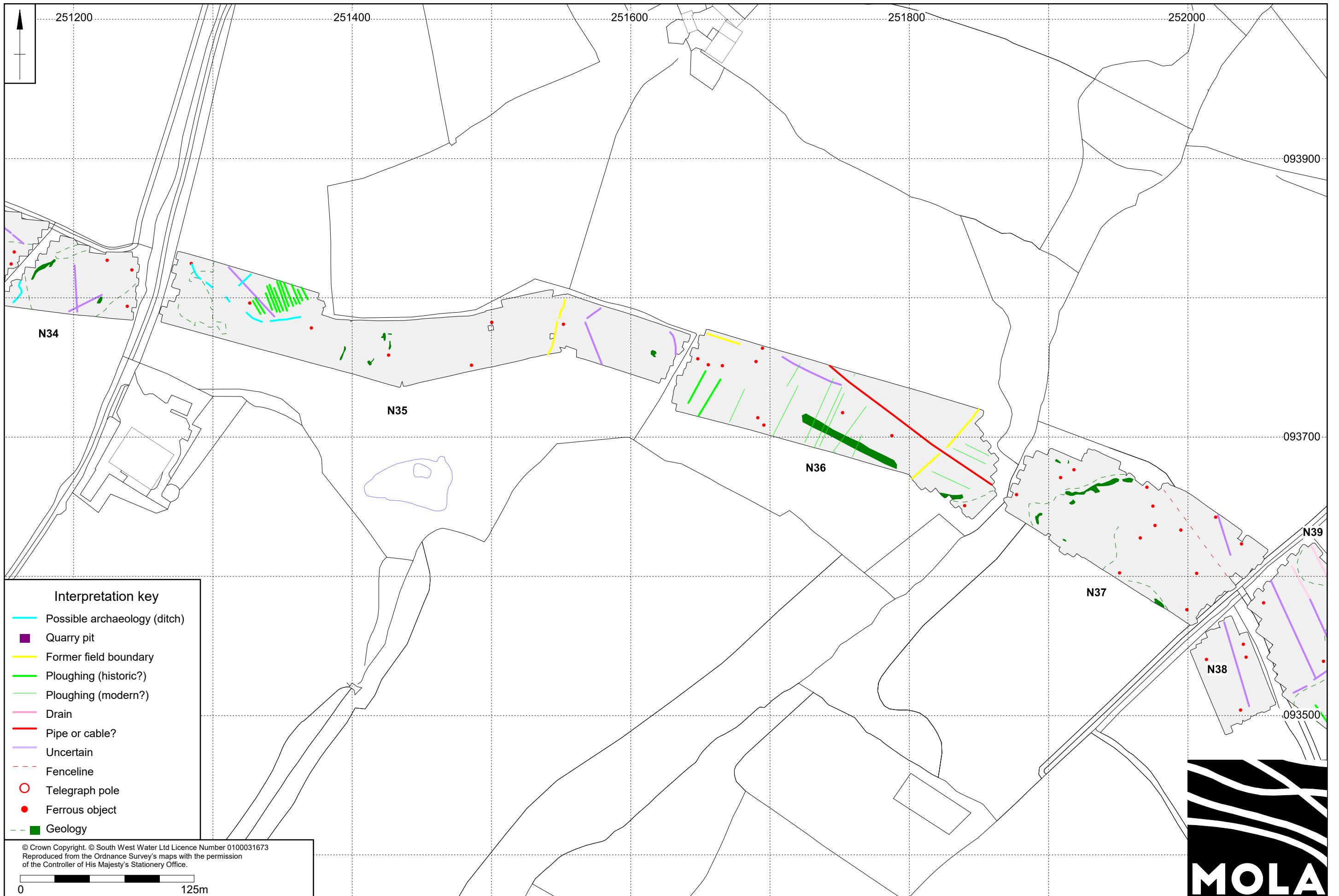
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Scale 1:2500 (A3)



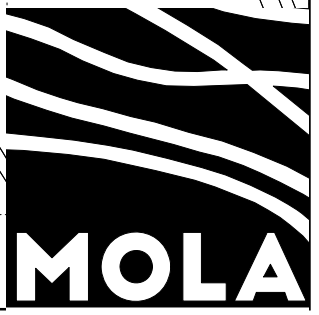
Magnetometer survey interpretation Fig 19



- Interpretation key**
- Possible archaeology (ditch)
 - Quarry pit
 - Former field boundary
 - Ploughing (historic?)
 - Ploughing (modern?)
 - Drain
 - Pipe or cable?
 - Uncertain
 - - - Fenceline
 - Telegraph pole
 - Ferrous object
 - Geology

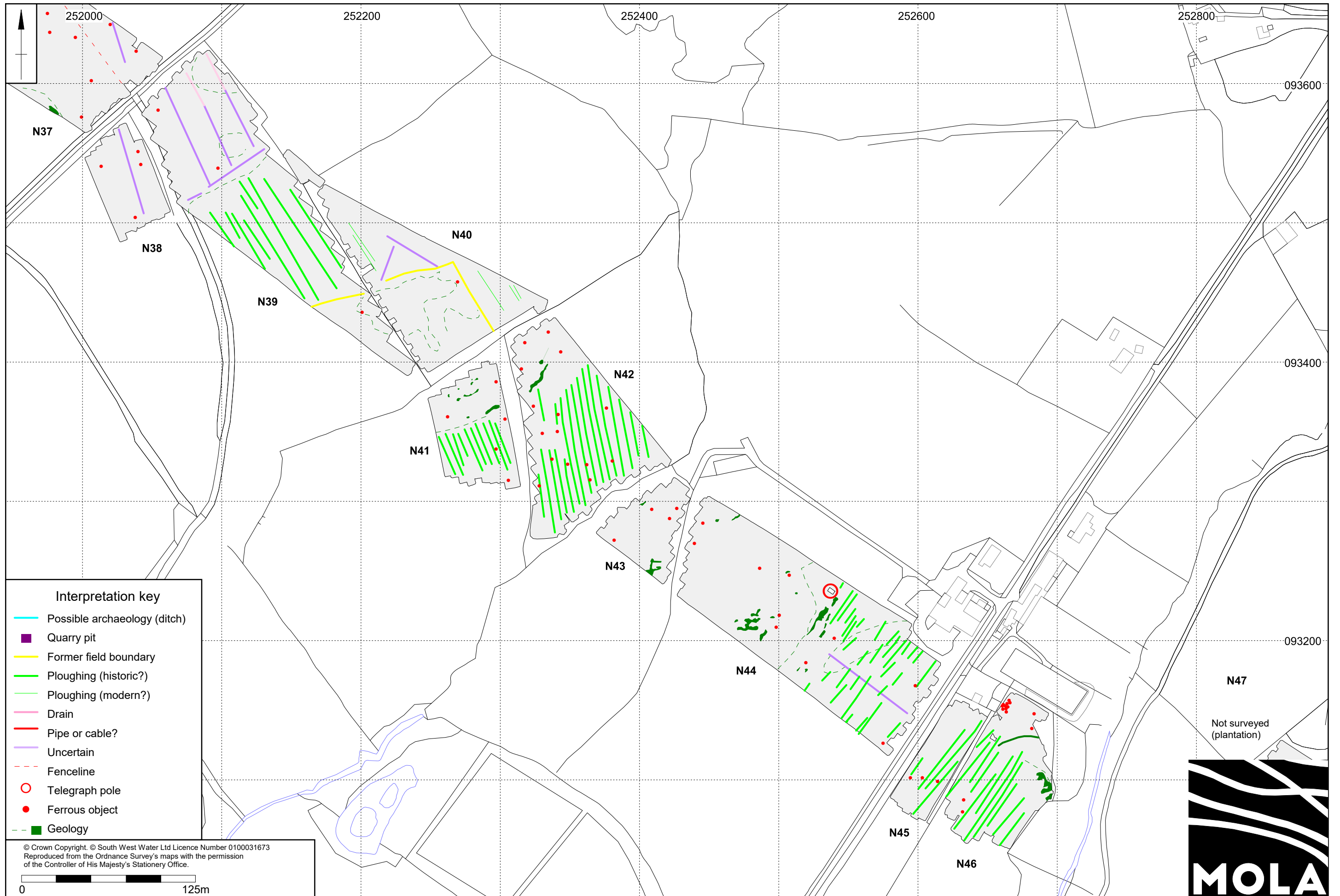
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0 125m



Scale 1:2500 (A3)

Magnetometer survey interpretation Fig 20



Scale 1:2500 (A3)

Magnetometer survey interpretation Fig 21



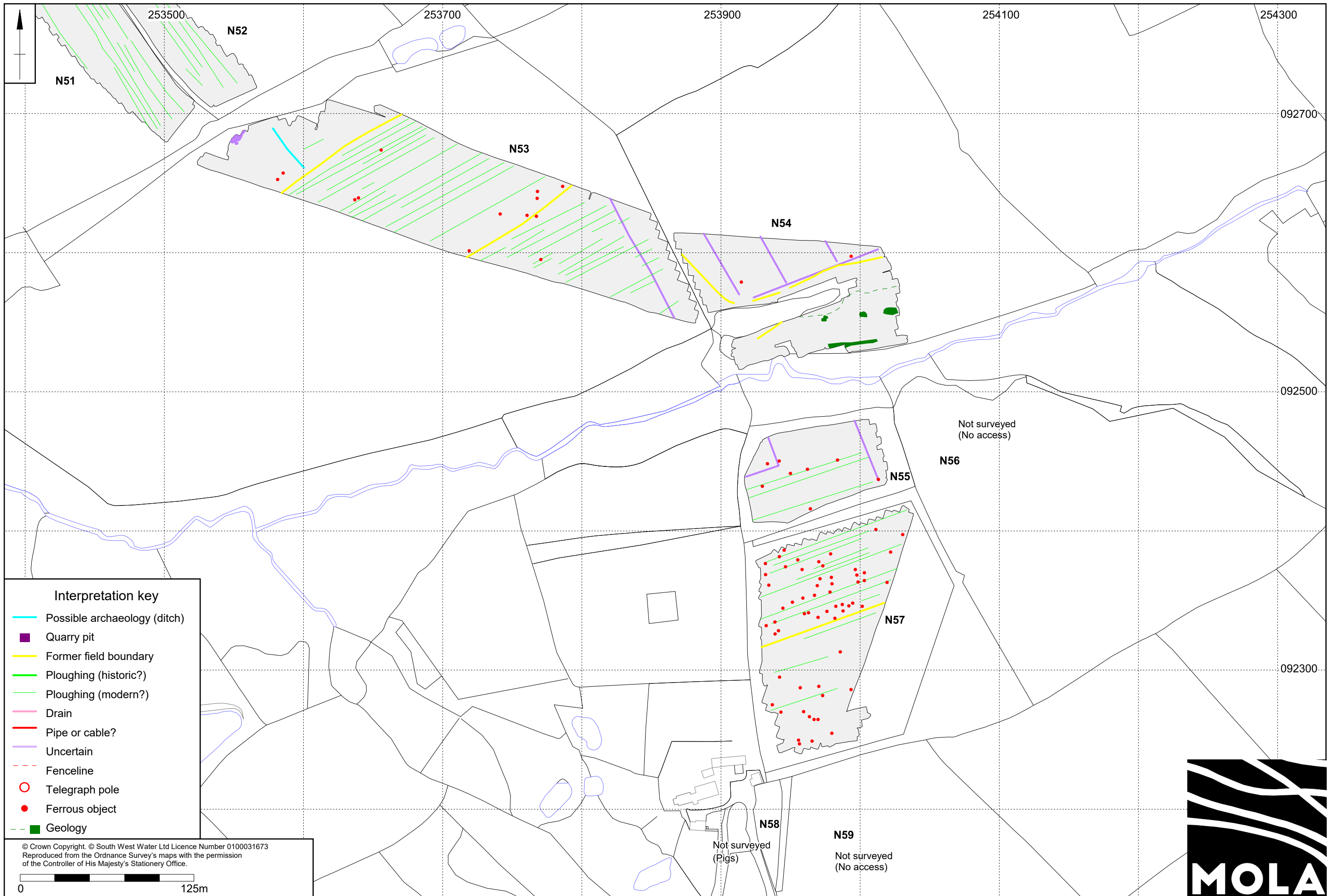
Interpretation key

- Possible archaeology (ditch)
- Quarry pit
- Former field boundary
- Ploughing (historic?)
- Ploughing (modern?)
- Drain
- Pipe or cable?
- Uncertain
- - - Fenceline
- Telegraph pole
- Ferrous object
- - - ■ Geology

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Scale 1:2500 (A3)

Magnetometer survey interpretation Fig 22



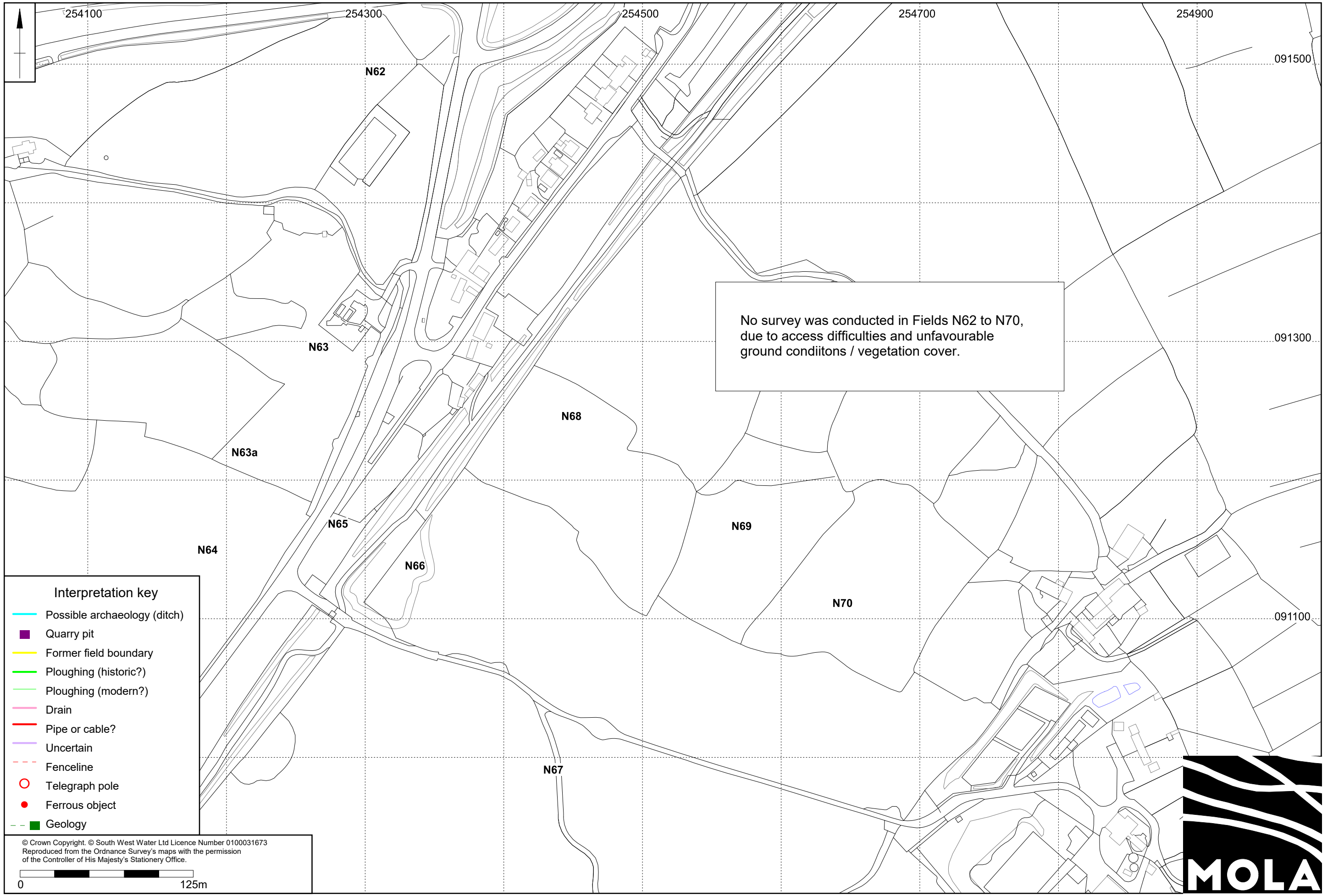
Scale 1:2500 (A3)

Magnetometer survey interpretation Fig 23



Scale 1:2500 (A3)

Magnetometer survey interpretation Fig 24



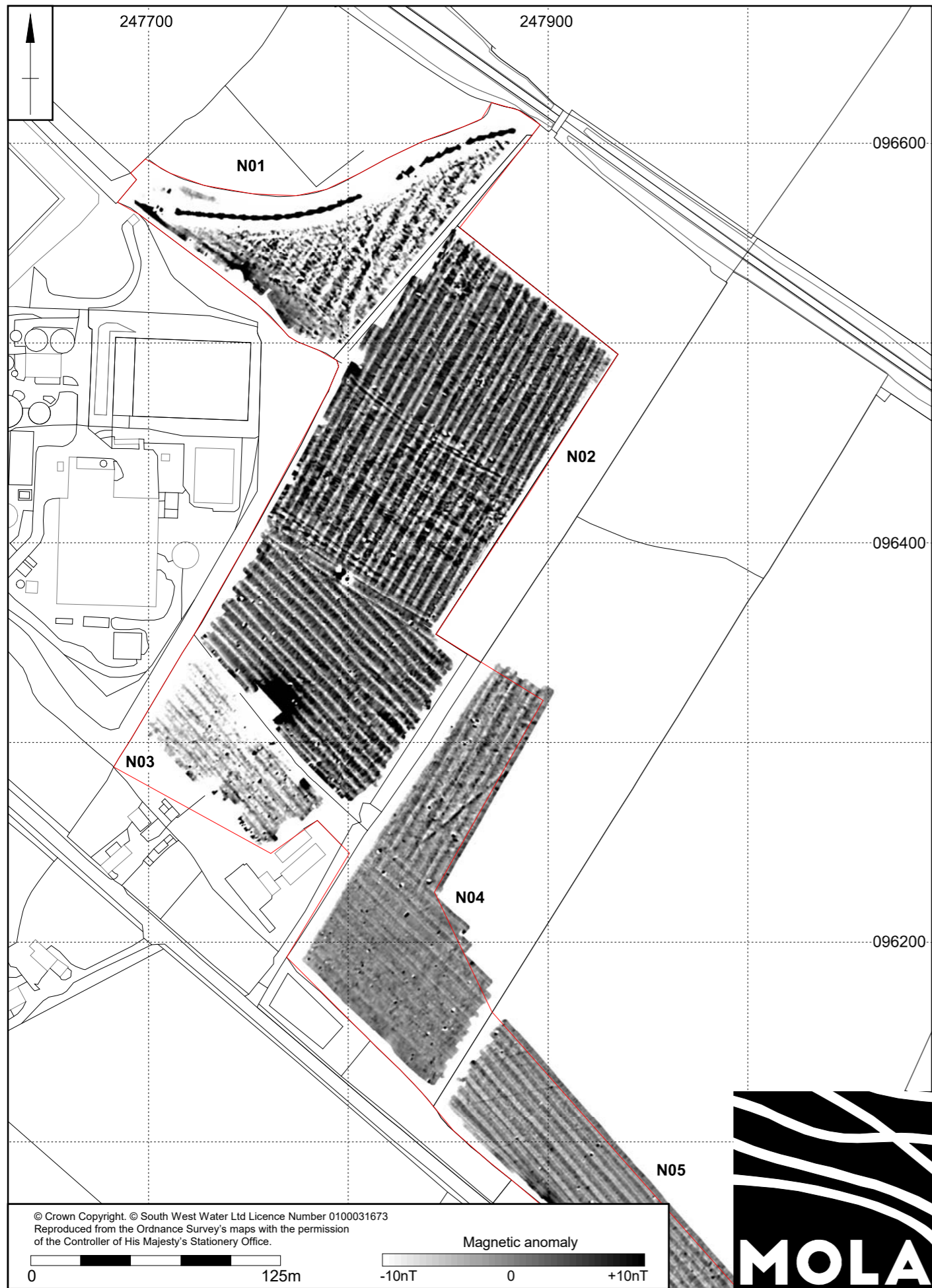
No survey was conducted in Fields N62 to N70,
 due to access difficulties and unfavourable
 ground conditions / vegetation cover.

- Interpretation key**
- Possible archaeology (ditch)
 - Quarry pit
 - Former field boundary
 - Ploughing (historic?)
 - Ploughing (modern?)
 - Drain
 - Pipe or cable?
 - Uncertain
 - - - Fenceline
 - Telegraph pole
 - Ferrous object
 - Geology

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0 125m





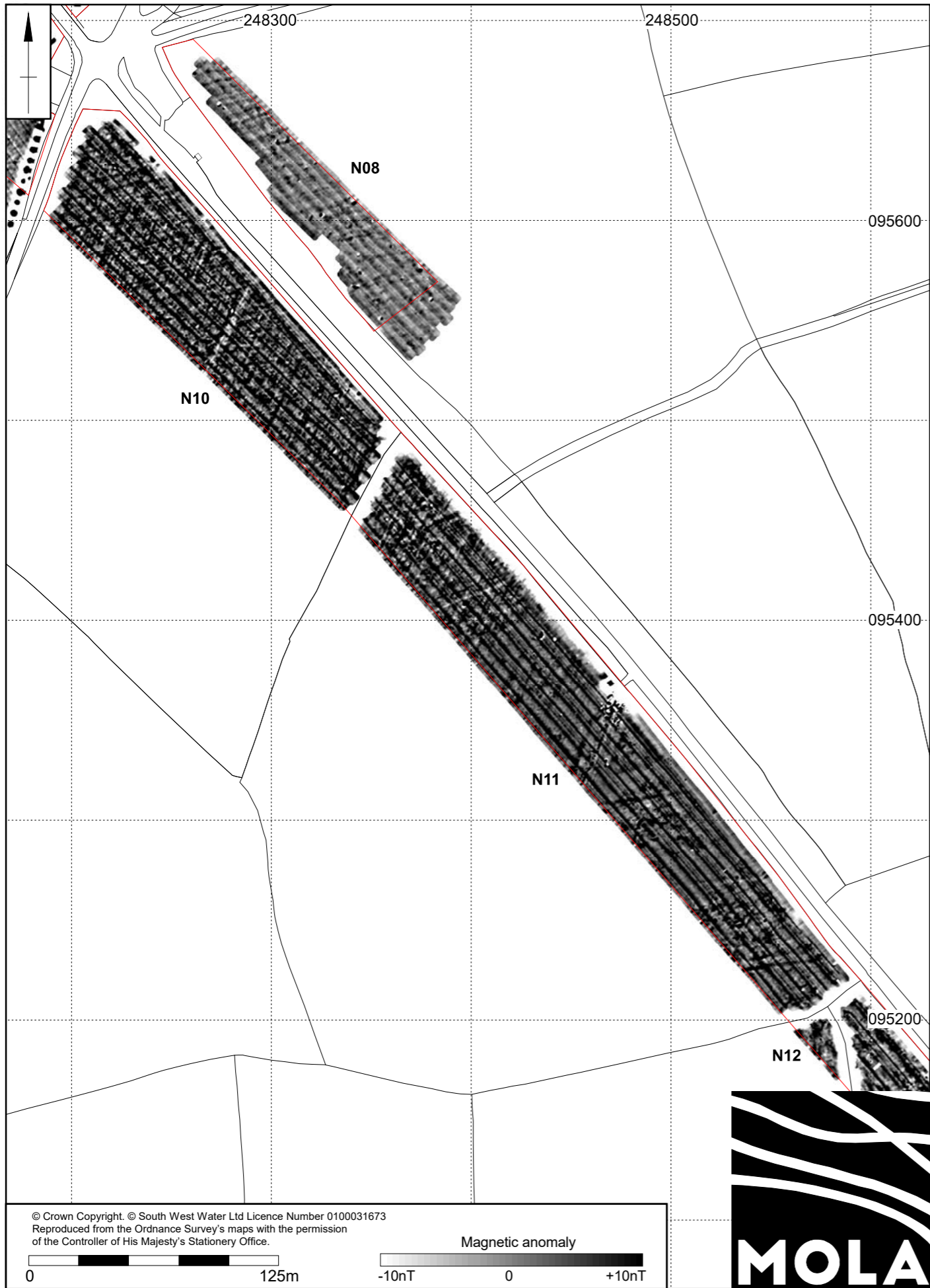
Scale 1:2500 (A3)

Unprocessed magnetometer data Fig 26a



Scale 1:2500 (A3)

Unprocessed magnetometer data Fig 26b



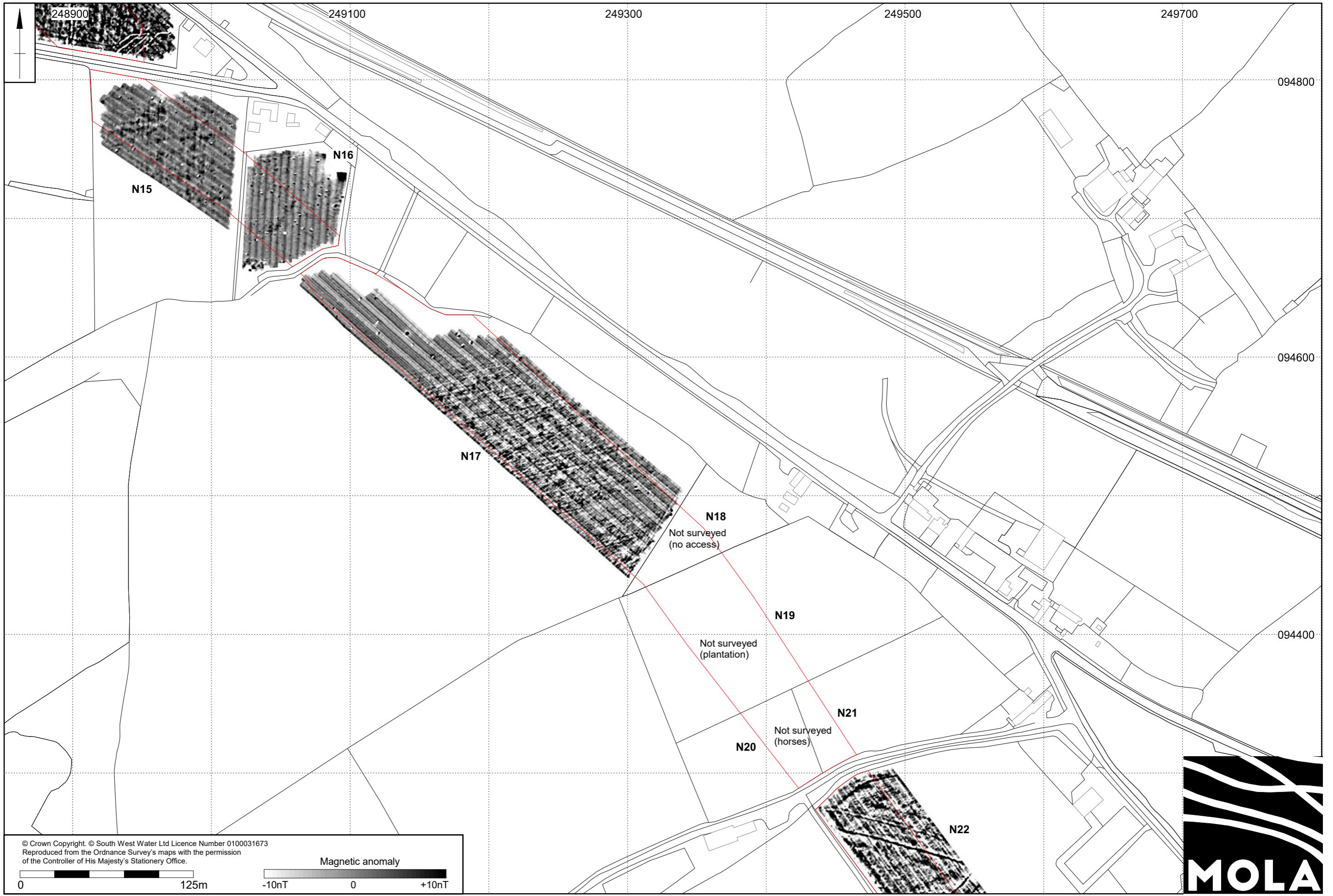
Scale 1:2500 (A3)

Unprocessed magnetometer data Fig 27a



Scale 1:2500 (A3)

Unprocessed magnetometer data Fig 27b

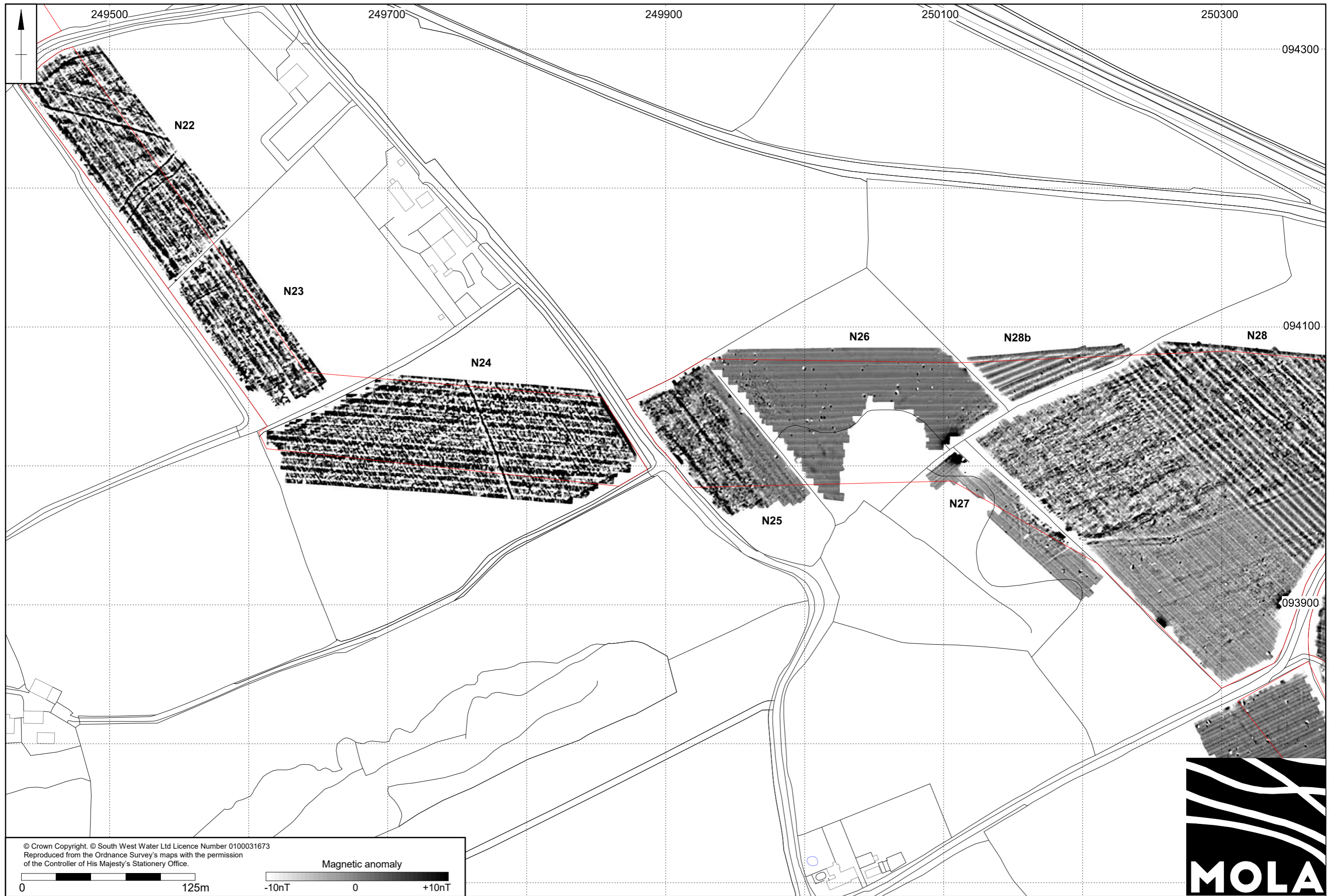


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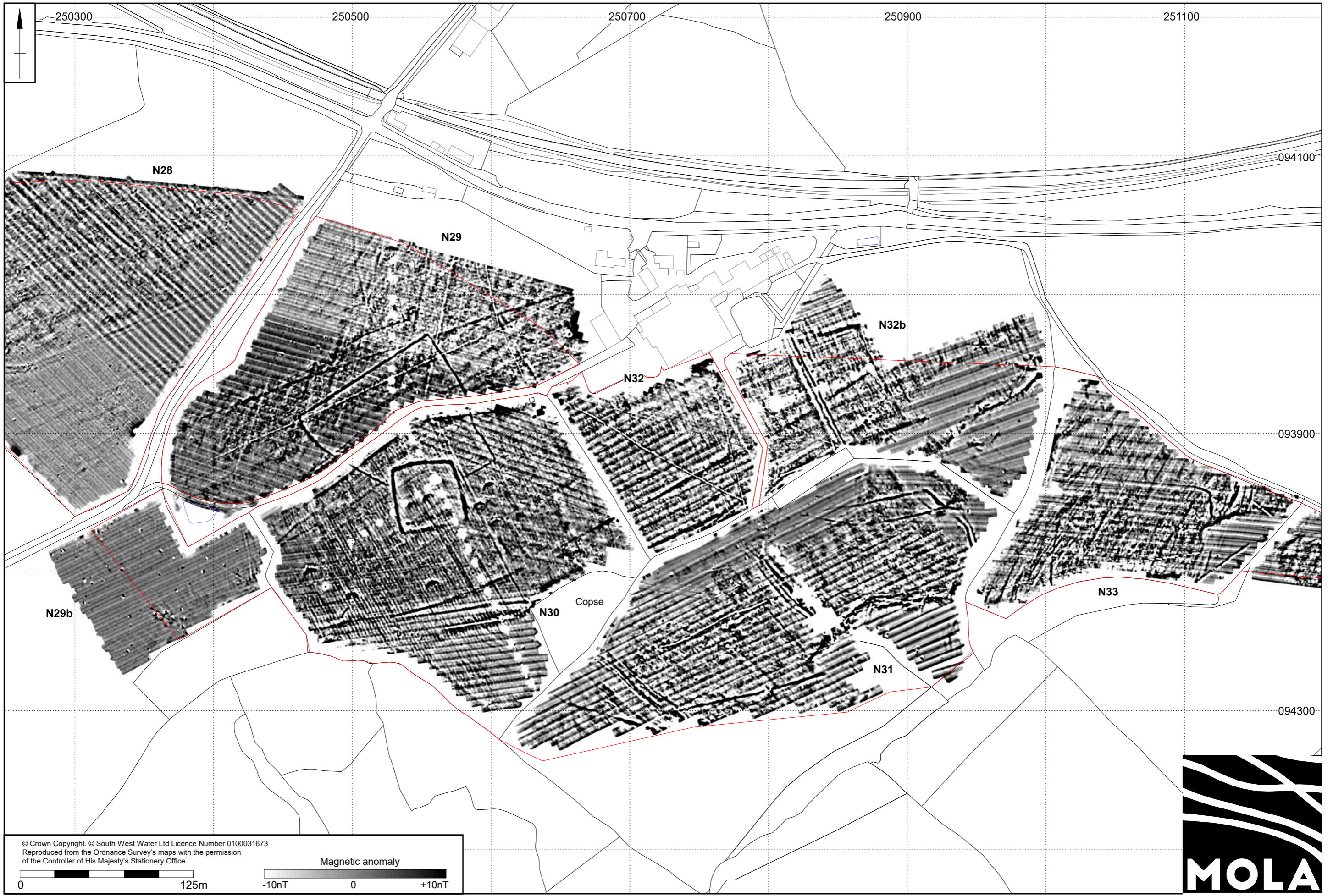
Scale 1:2500 (A3)

Unprocessed magnetometer data Fig 28

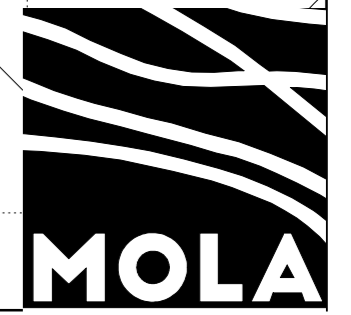


Scale 1:2500 (A3)

Unprocessed magnetometer data Fig 29

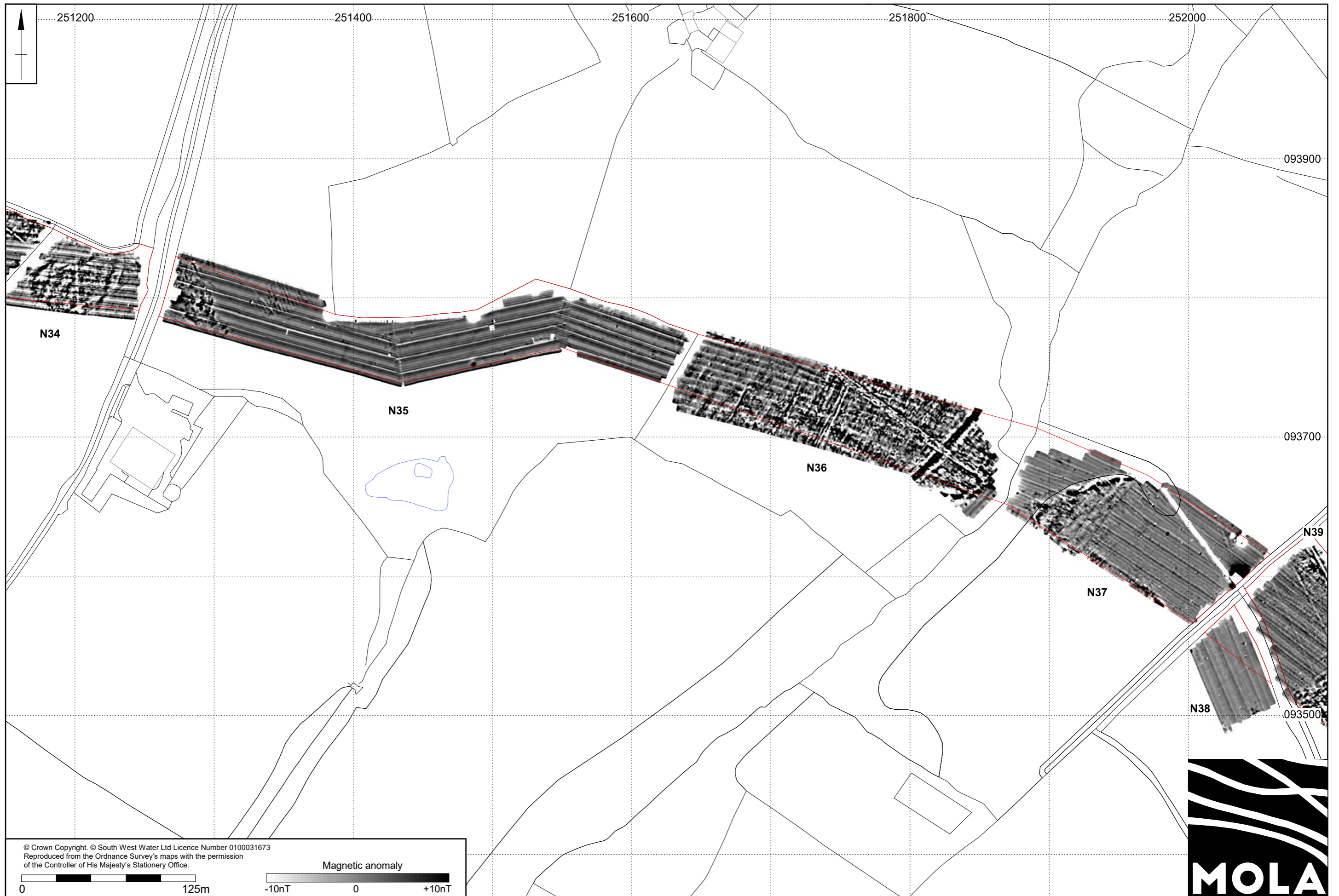


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Scale 1:2500 (A3)

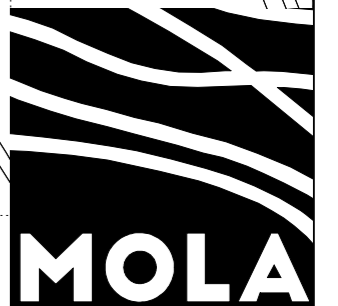
Unprocessed magnetometer data Fig 30



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0 125m

Magnetic anomaly
 -10nT 0 +10nT





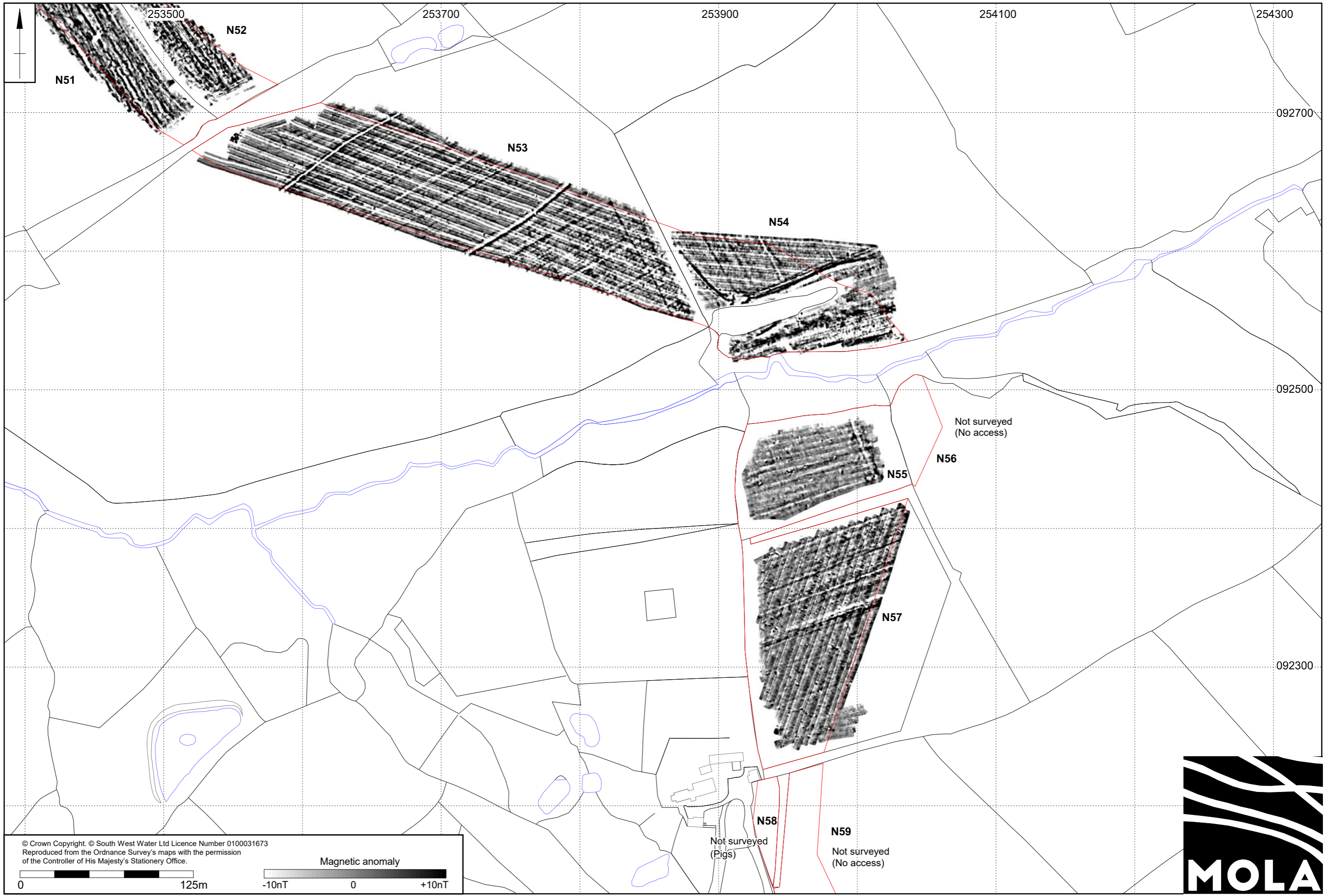
Scale 1:2500 (A3)

Unprocessed magnetometer data Fig 32



Scale 1:2500 (A3)

Unprocessed magnetometer data Fig 3H



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Scale 1:2500 (A3)

Unprocessed magnetometer data Fig 34



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