

ANCIENT MONUMENTS LABORATORY GEOPHYSICS SECTION

REPORT ON MAGNETOMETER SURVEY

**SURVEY:** LAKE FARM (3)

**DATE:** 2-5/8/82

**Report no.** 18/82

**1. SITE**

**OS grid reference:** SZ 001 992

**Field no.** 0026, 7924

**Location:** in the valley of the river Stour, one mile Sw of Wiltorne

**Geology:** alluvium

**Archaeological evidence:** excavated features suggesting the presence of a large Roman fort. Magnetic anomalies from surveys in 1976 and 1980.

**2. SURVEY**

**Object:** to further define the nature of the fort, especially the NE corner

**(a) Magnetic survey**

Type of survey : fluxgate magnetometer with field plotter

Chart recorder setting : 15 gammas/cm. Range : 1 - 100 gammas

Distance (X) scale : 1 : 200

**(b) Other tests**

**(i) Magnetic susceptibility:**

topsoil:

subsoil:

fill:

19.9 SI Units/Kg. (f. 7924)

**(ii)**

**Survey grid measured to:** field boundaries

**Plans/charts enclosed:**

1 - location plan, 1:2500

2 - magnetometer traces with interpretation, sqs. 61 - 92, 1

3 - magnetometer traces with interpretation, sqs. 57 - 60, 1

4 - location plan with main anomalies, 1 : 2500

3.

Following magnetometer surveys in 1976 and 1980, further survey work was undertaken this year in order to try to confirm and extend the apparent pattern of the Roman fort northwards, especially by defining its NE corner, thought to exist in open and unobstructed ground to the N of the new by-pass. A grid of 30 m. squares was layed out here (see plan 1) and surveyed with fluxgate gradiometer and field plotting system in the same manner as the earlier surveys (A. M. Laboratory Reports G 76/11 and G 21/80). An area to the N of the A 31 was also tested with four 30 m. sqs. (nos. 57 - 60). The traces from both areas are shown on plans 2 and 3, respectively, with significant anomalies outlined in red.

## RESULTS

### Squares 61 - 92:

As anticipated from the results of the earlier work to the S of the by-pass, the magnetic response from archaeological features was considerable and widespread. The course of the fort defences around their NE corner was weakly but clearly detected, and stronger more confused anomalies were located abundantly both inside and outside the fort.

The corner and alignment of the fort defences are detectable with greater clarity here than along other parts of its perimeter. Their position is emphasized by the presence of clusters of anomalies apparently along the inner edge of the rampart; these could represent remains of rubbish pits, ovens, kilns, furnaces etc., concentrated along the back of the defences. By contrast, the remainder of the interior of the fort is only moderately disturbed, except in sq. 89 where magnetic activity again intensifies. Ditch alignments rectilinear with the fort are present, and throughout there is the suggestion that very weakly magnetic features are present but not properly discernible. The presence of timber buildings and masonry would not be expected to leave substantial anomalies.

The defences themselves are weakly defined, but more clearly than to the S of the by-pass, and are interpreted rather tentatively as being composed of an inner rampart with two outer ditches themselves divided either by a berm or a second, outer, rampart. Such a double arrangement cannot be made out elsewhere on the defences, but this may be due to the extreme magnetic weakness of the ditch fills. Here, however, alluviation may also have preserved these structures more favourably: the traces are unusual in that, between the weak positive anomalies representing the ditches there is an unusually clear negative anomaly which could be due to a surviving bank containing non-magnetic material preserved beneath a fairly deep overlying deposit of relatively magnetic silt; this extra depth could also explain the weak positive anomalies that seem to represent the ditches. Test excavation across the defences here would provide valuable information about the defences as well as a test of this interpretative hypothesis.

'Extra-mural' activity is intensive and widespread especially in sqs. 66, 72, 79, 86, 72, 79 and 86, and with smaller clusters of activity in sqs. 63, 64 and 62. Scattered anomalies are visible elsewhere. The anomalies within the main clusters are on the whole coalescing and amorphous, and consequently individual patterns and features cannot be satisfactorily resolved from the confusion. The interpretation outlined on the plan is therefore far from exhaustive and is undoubtedly a much simplified expression of a most complex site. The same limitations apply in varying degrees to much of the interpretation of the earlier survey coverage.

cont/

Squares 57 - 60:

These squares were surveyed in the hope of detecting further alignments of the fort defences, but these were not found as they must lie further still to the W. However, as can be seen on plan 3, features are clearly detectable and alignments consistent with the fort's internal orientation are present.

CONCLUSIONS

The recent survey work has outlined the most definitive part of the Roman defence system yet located on the site, and has further extended the evidence for internal and external structural and occupation features. Future survey work, complemented perhaps by test excavation across the defences, could very usefully be dedicated to locating the NW corner of the fort, finally revealing its full setting and extent.

Surveyed and reported by A. David, Dr. A. J. Clark.  
with D. Bolton

22 Dec. 1982

for I. Horsey  
D. Evans.  
S. Dunmore.

Ancient Monuments Laboratory Geophysics Section  
Room 536 Fortress House  
23 Savile Row,  
London W 1

01 734 6010 x. 591

# LAKE FARM

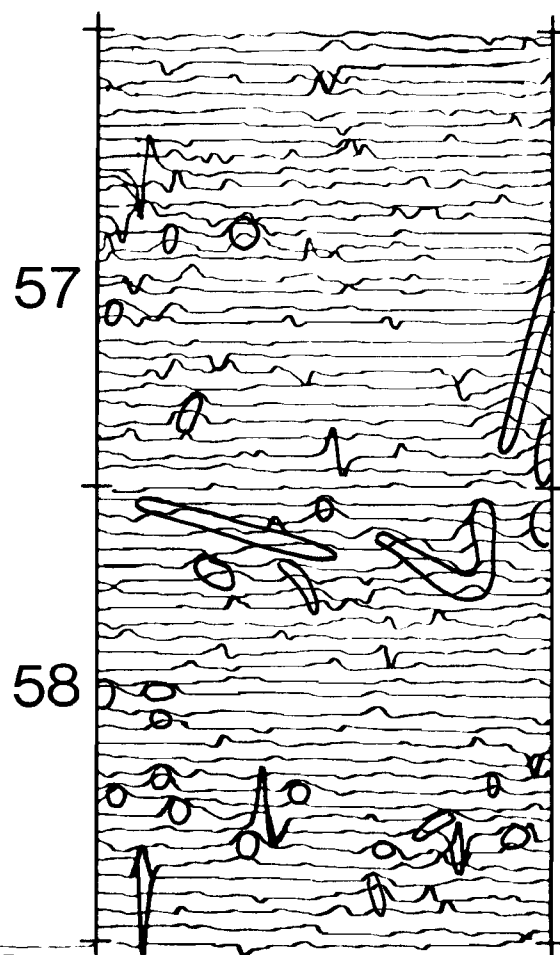
## MAGNETOMETER SURVEY 1982

+ NG ref. SY 997 992  
grid pegs

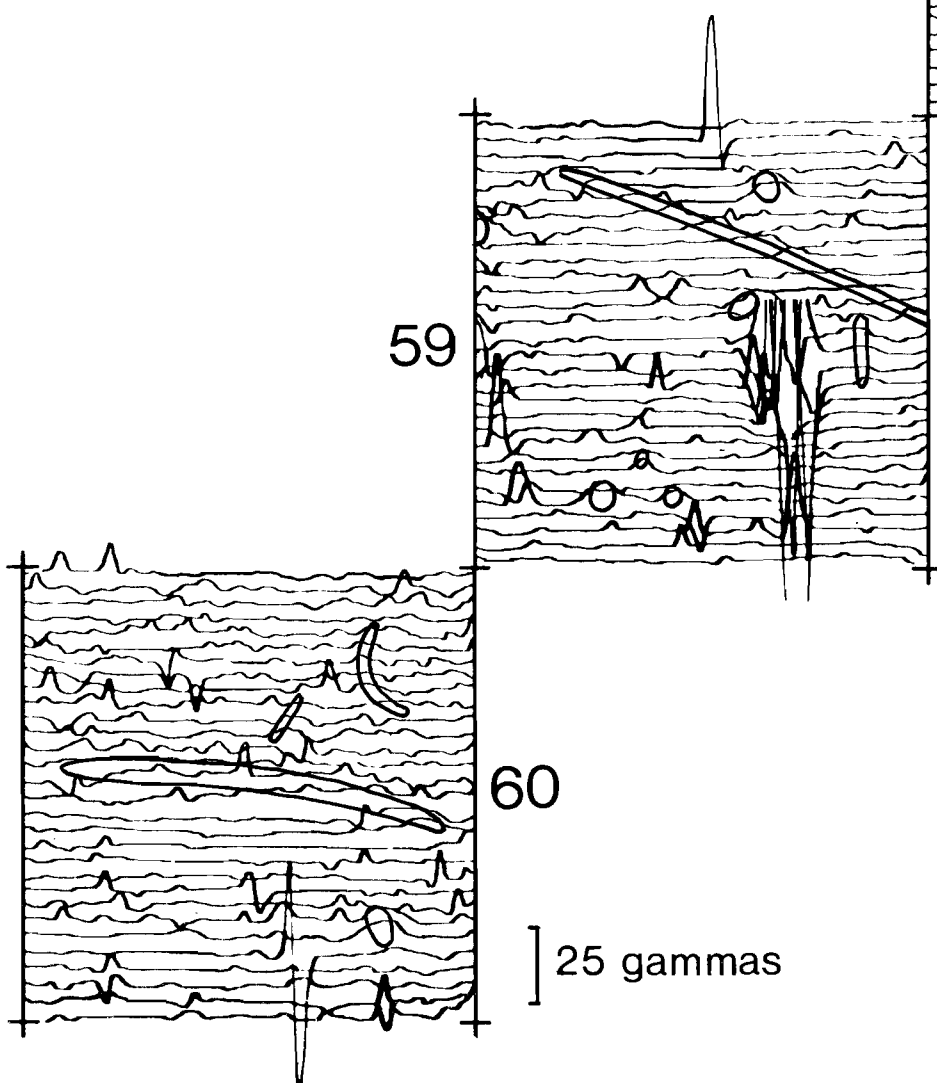
0 1:500 30m

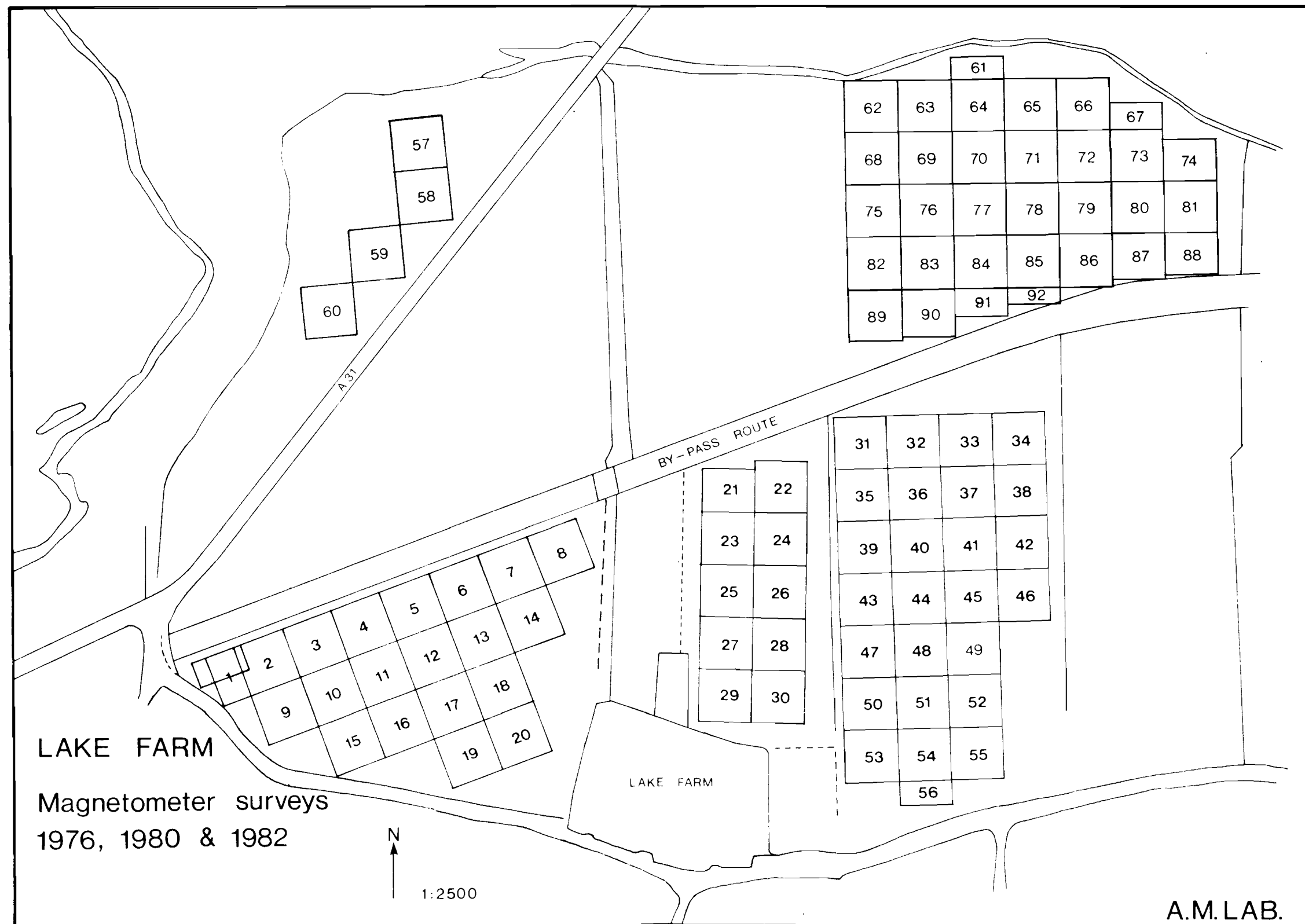
Survey no. 18/82  
Plan no. 3 of 4

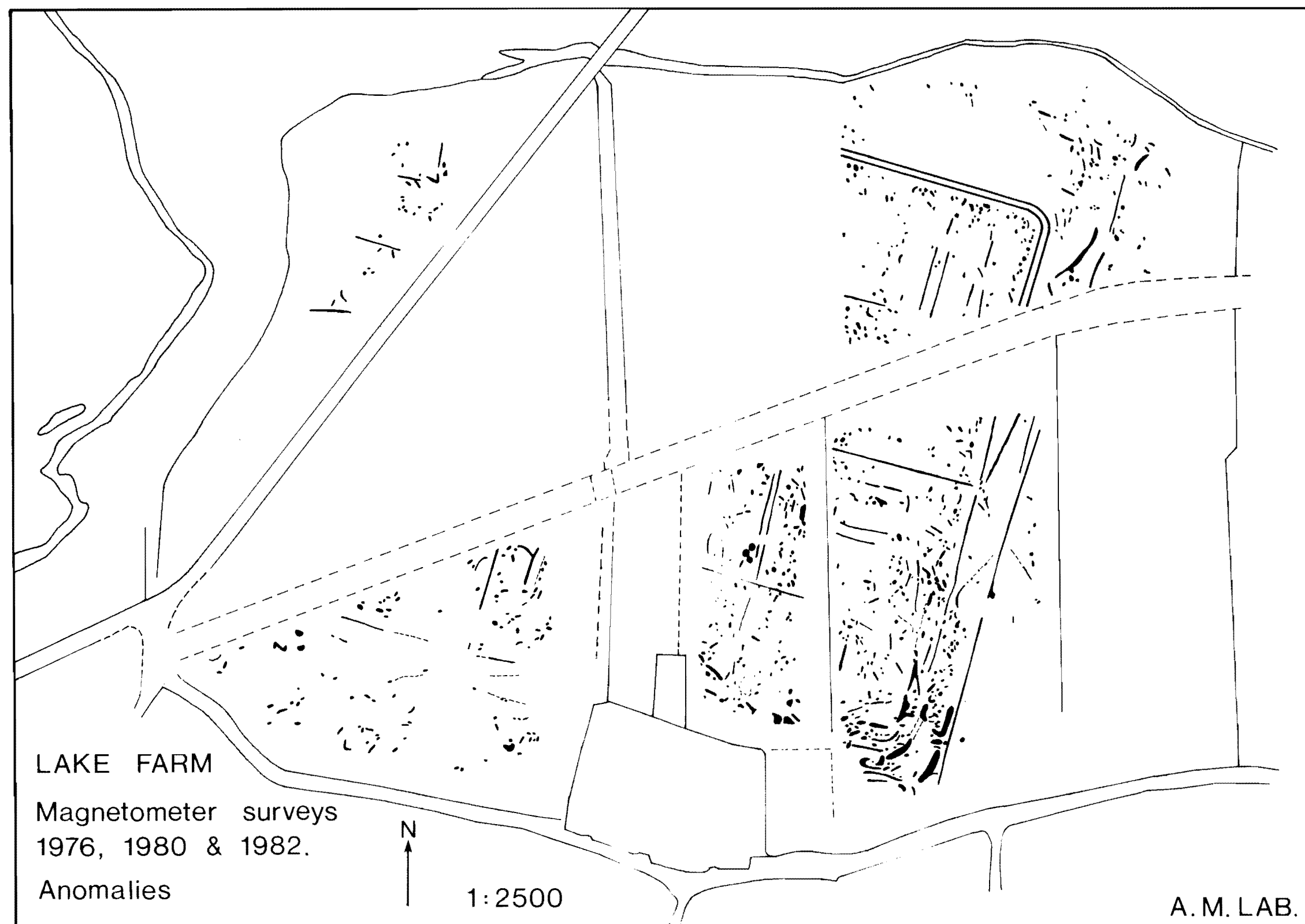
DoE A.M. Laboratory  
Geophysics Section

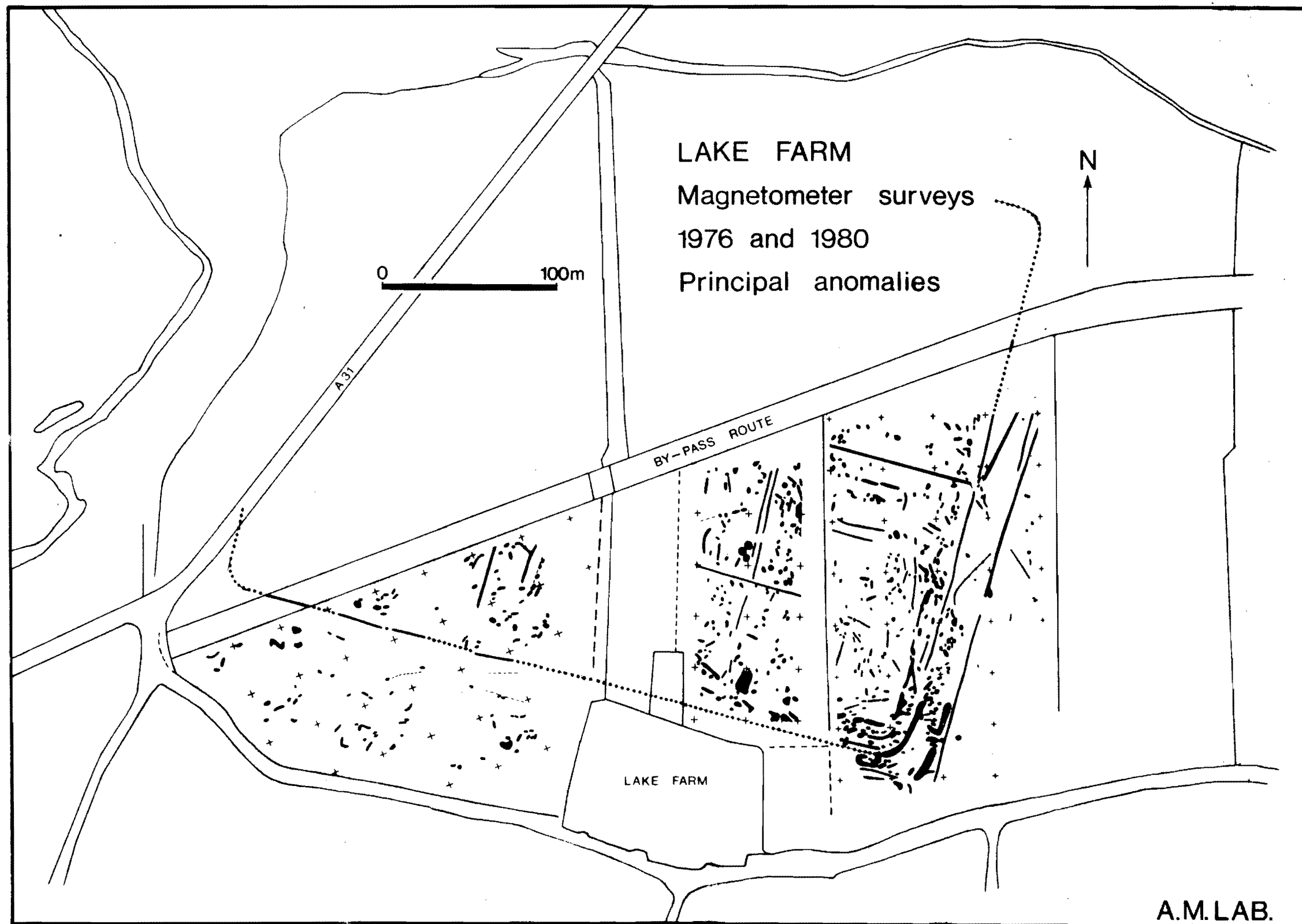


Anomalies outlined in red

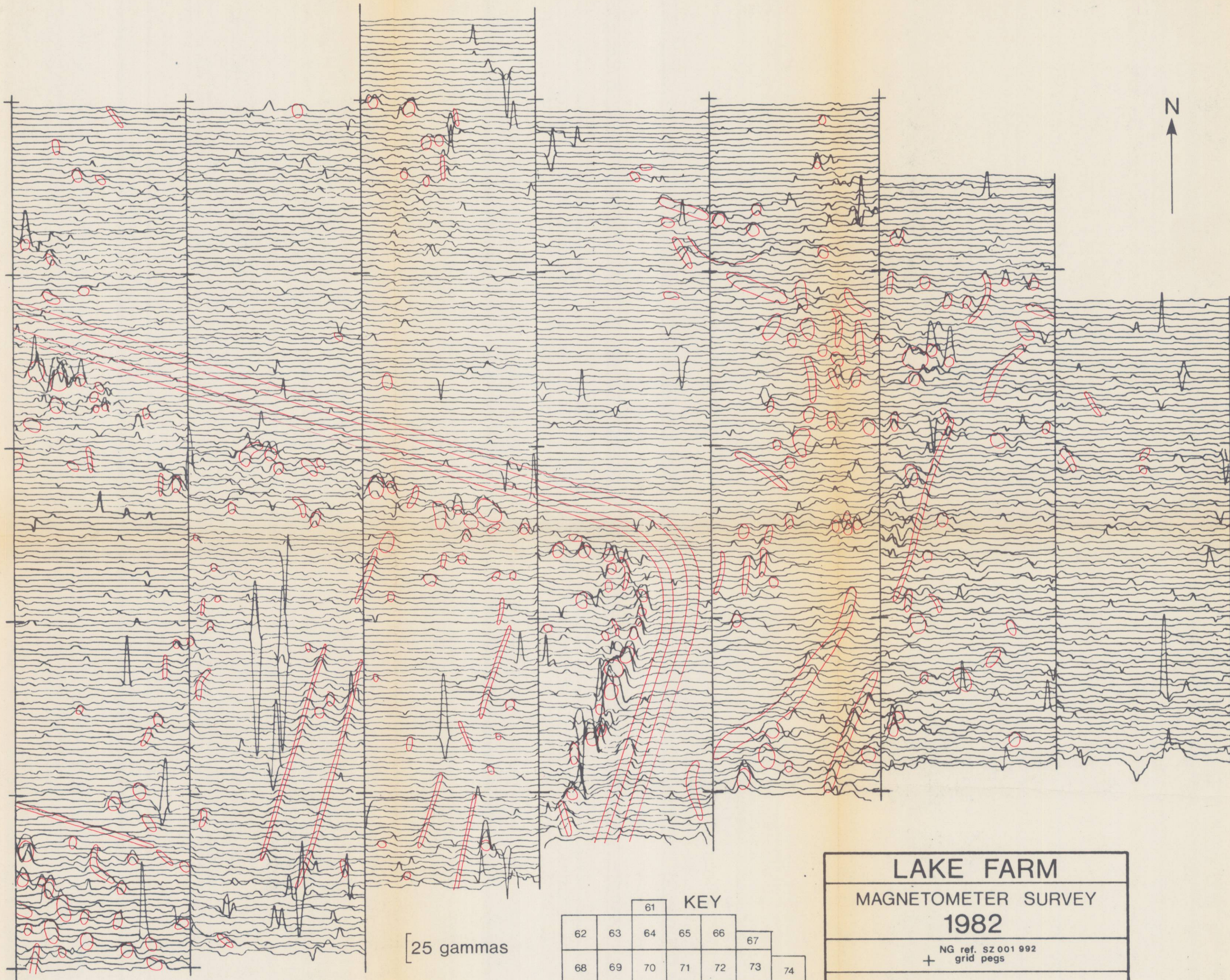












KEY						
		61				
62	63	64	65	66	67	
68	69	70	71	72	73	74
75	76	77	78	79	80	81
82	83	84	85	86	87	88
89	90	91	92			

<b>LAKE FARM</b>		
<b>MAGNETOMETER SURVEY</b>		
<b>1982</b>		
NG ref. SZ 001 992 + grid pegs		
anomalies outlined in red		
0 1:500 30m		
Survey no. 18/82 Plan no. 2 of 4	DoE A.M. Laboratory Geophysics Section	