

ANCIENT MONUMENTS LABORATORY

MAGNETOMETER SURVEY AT CRAMBECK, N. YORKS

Survey no. G 17/81

Dates of fieldwork: 9-11 Sept 1981

NG SE 734671

Plans enclosed:

1. Location of survey grid, 1:2500
2. Magnetometer chart with interpretation, 1:500
3. Survey interpretation with RB pottery distribution (based on plan of CEU fieldwalking data), 1:500

This survey covered an area expected to contain kilns of the late Roman Crambeck pottery industry, and was carried out in conjunction with fieldwalking by CEU.

Traverses were surveyed at 1m intervals on a 30m grid using a fluxgate magnetometer, and plotted directly on a chart recorder. A reduced copy of the chart with significant features outlined is shown in plan 2. The topsoil of the site is strongly magnetic (susceptibility meter reading  $88 \times 10^{-8}$  SI units/kg), and the conditions are generally but not uniformly favourable for magnetic detection. Near kilns there is usually some local increase in magnetic activity where burnt material is dispersed in the soil, but on this site the observed response was found to vary to an unusual extent according to the distance from the kilns.

Results

The three most substantial anomalies likely to represent kilns occur in square 10. The strongest of them might indicate a structure some 4m across, and there is another smaller one immediately to the right. A third similar anomaly lies 20m to the S. Three additional anomalies which are likely to indicate smaller or less complete kilns are visible further to the E in squares 12 and 13. The anomaly from what might be a length of curved ditch in square 19 is also strong enough to suggest a partly burnt fill.

In addition to the kilns a number of ditches were detected with sufficient completeness to define a system of enclosures. An earthwork within the wood at the E end of the field is shown on some plans as turning to follow the N edge of the wood, and if so it could align with the large E-W ditch visible between squares 10 and 7, although its continuation through squares 8 and 9 is uncertain. Other ditches to the S of this line and to the E of the kilns in square 10 are strongly defined, but the effect falls off as noted away from the kilns to the N and E. Some weak outlying features are visible but their interpretation is rather doubtful. The broad weak anomaly at the W of the field in squares 4 and 16 follows the field boundary and may be a consequence of ploughing.

Buildings are rarely detectable directly in a magnetic survey and must usually be inferred from a local concentration of activity or increased noise level. Here the general level of soil noise is high which makes interpretation of minor features difficult. There are some small anomalies but no clear evidence that any are structural. Occupation material is reported to have been excavated nearby, but the survey provides no clear evidence of whether this site was occupied. The features in square 21 offer perhaps the best possibility. Graves if present are very unlikely to be detectable.

Comparison with fieldwork

Plan 3 shows the survey interpretation traced on to a distribution plot of the surface pottery finds. The results clearly correlate: almost all the 5m squares yielding more than 50gm of pottery lie within the area bounded by

the large E-W ditch and the N-S ditch through squares 8, 14 and 21, and both the pottery concentration and the magnetic response fall off rapidly outside this enclosure. Near the kilns there are local concentrations of surface pottery around those in squares 12 and 13, but only at some distance to the S of the larger kilns in square 10.

Surveyed by: A. Bartlett, J. Gater

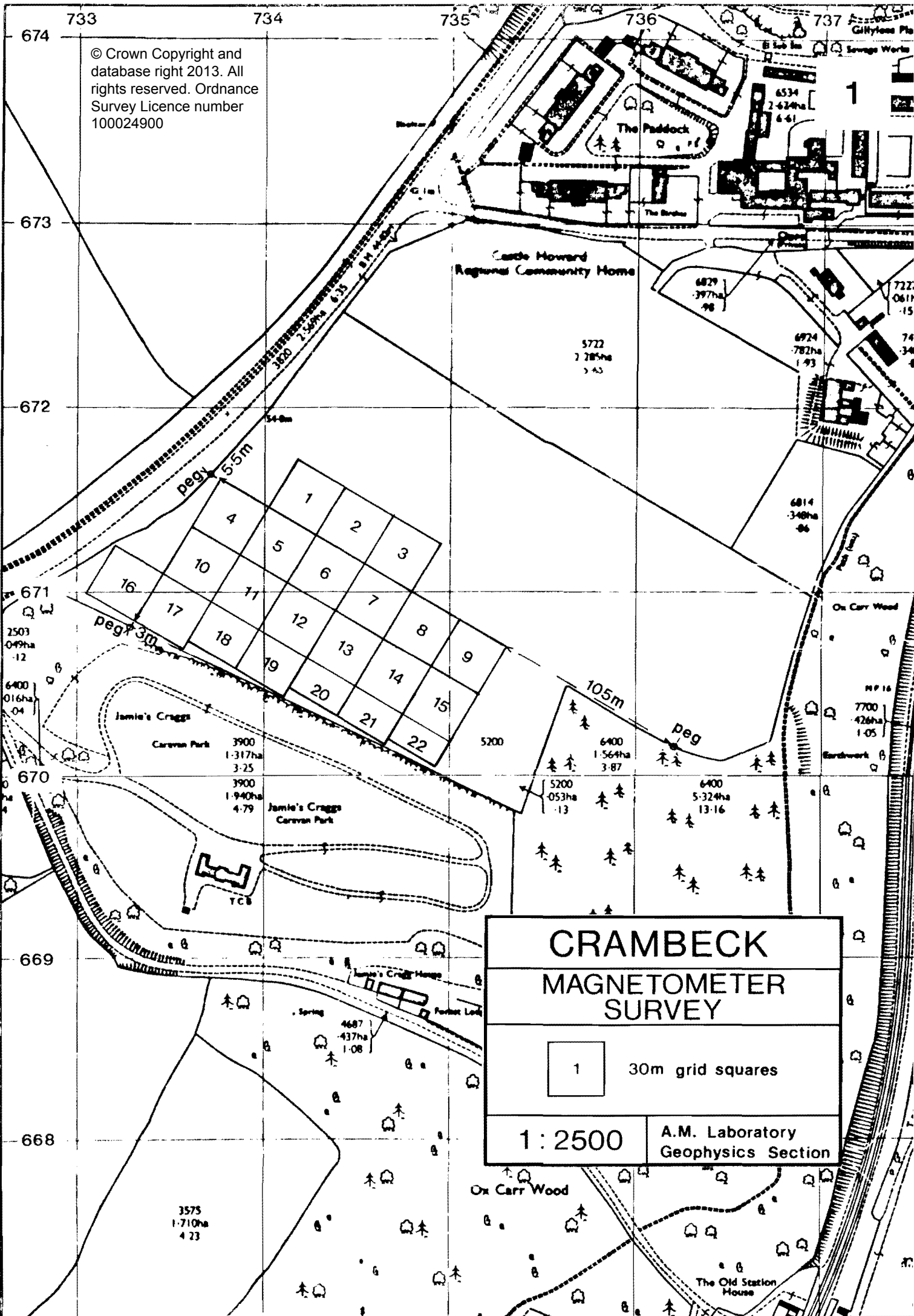
Report: A. Bartlett


Date of report: 10 February 1982

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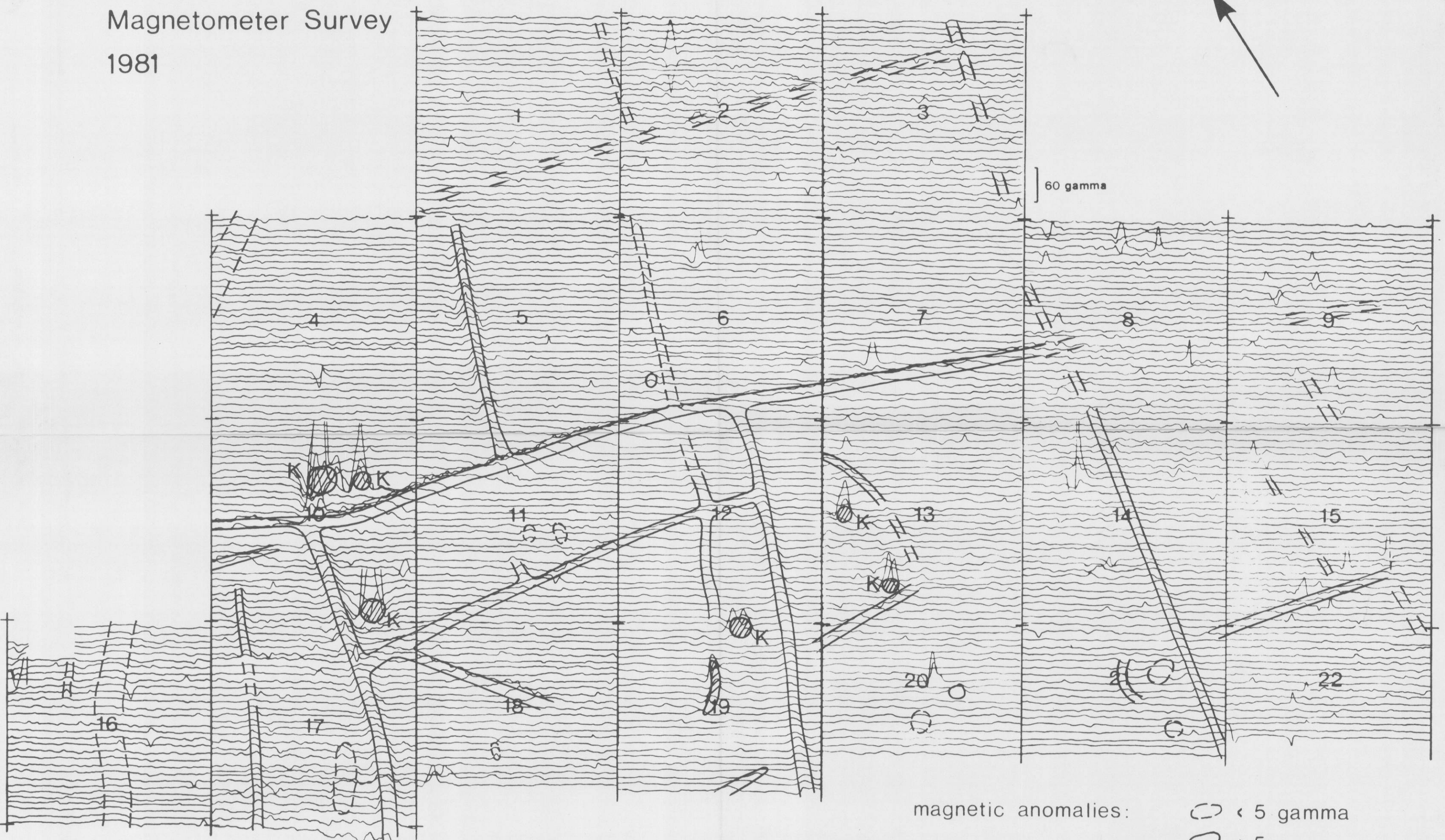
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<b>CRAMBECK MAGNETOMETER SURVEY</b>	
	30m grid squares
<b>1 : 2500</b>	<b>A.M. Laboratory Geophysics Section</b>

CRAMBECK  
Magnetometer Survey  
1981



60 gamma

1:500  
0 30m

magnetic anomalies:  
○ < 5 gamma  
○ > 5    "  
● > 30   "  
K - kiln ?