East Meon, Hampshire.

Geophysical Survey

19th - 20th September 2014

Preliminary results report.

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Introduction:

The survey took place over the Friday and Saturday of September 19th and 20th

The weather was fair with intermittent sunny intervals.

Both Resistance and Magnetometry methods were employed for this survey to increase the potential of detecting any sub surface features and anomalies.

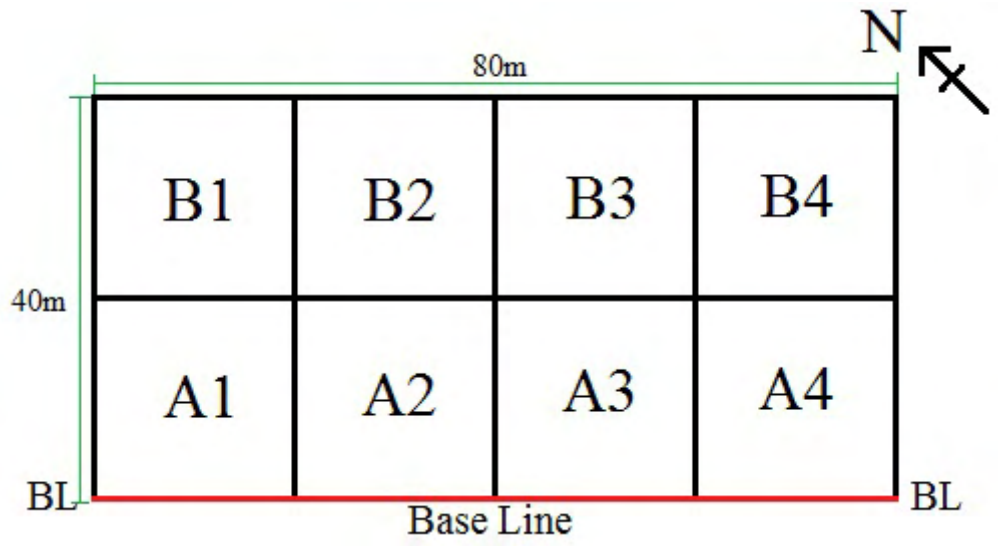
The instruments used were a Geoscan Research FM36 magnetometer,
as well as a Geoscan Research RM85 resistance meter.

A total of 8 twenty by twenty metre grid squares were laid out covering an area of 3200 m²

There were 5 grid squares surveyed using the Magnetometer equating to 8000 separate readings as well as 4 grid squares surveyed using the Resistance meter totalling 6400 readings.

Grid square A4 was surveyed using both resistance and Magnetometry (fig-1)

The Grid:



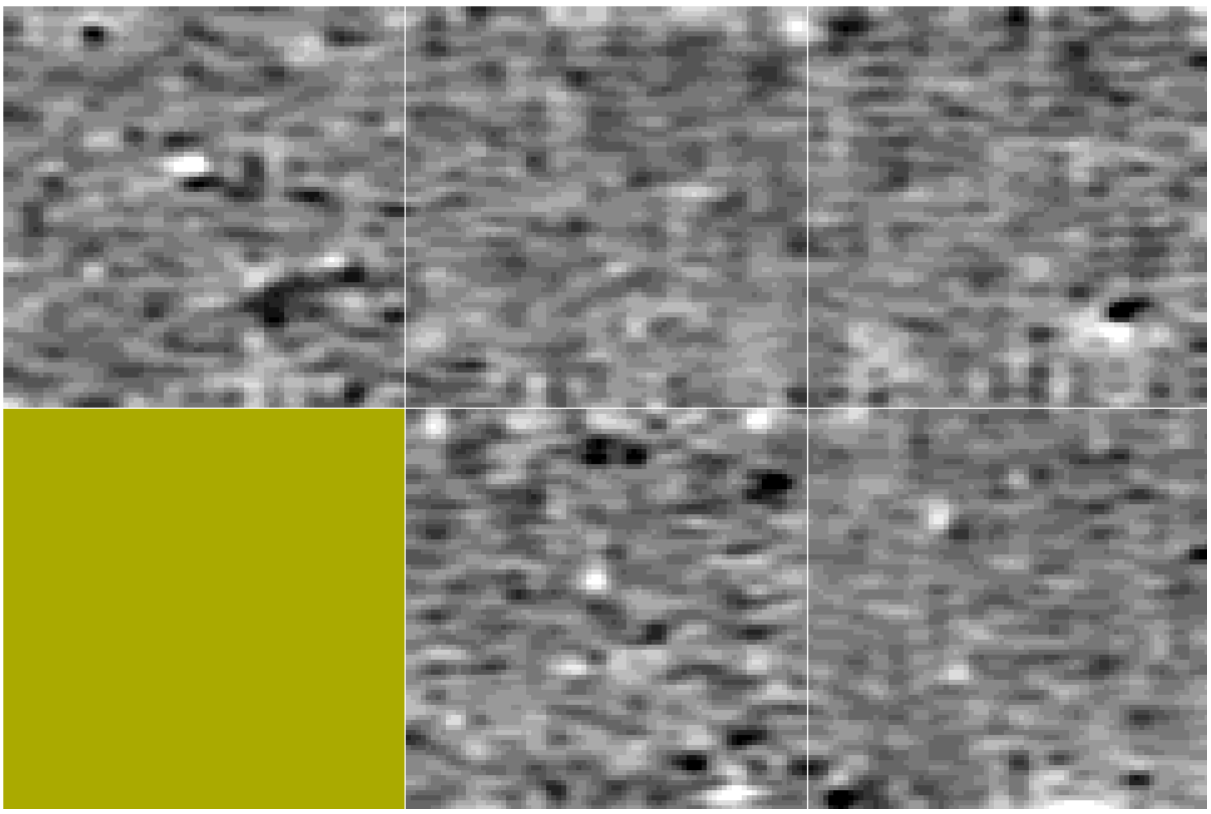
(Fig-1)

Grid squares A4 - B4 - B3 - A3 - B2 were surveyed with Magnetometry.

Grid squares A1 - B1 - A2 - A4 were surveyed with Resistance.

Results:

Magnetometry

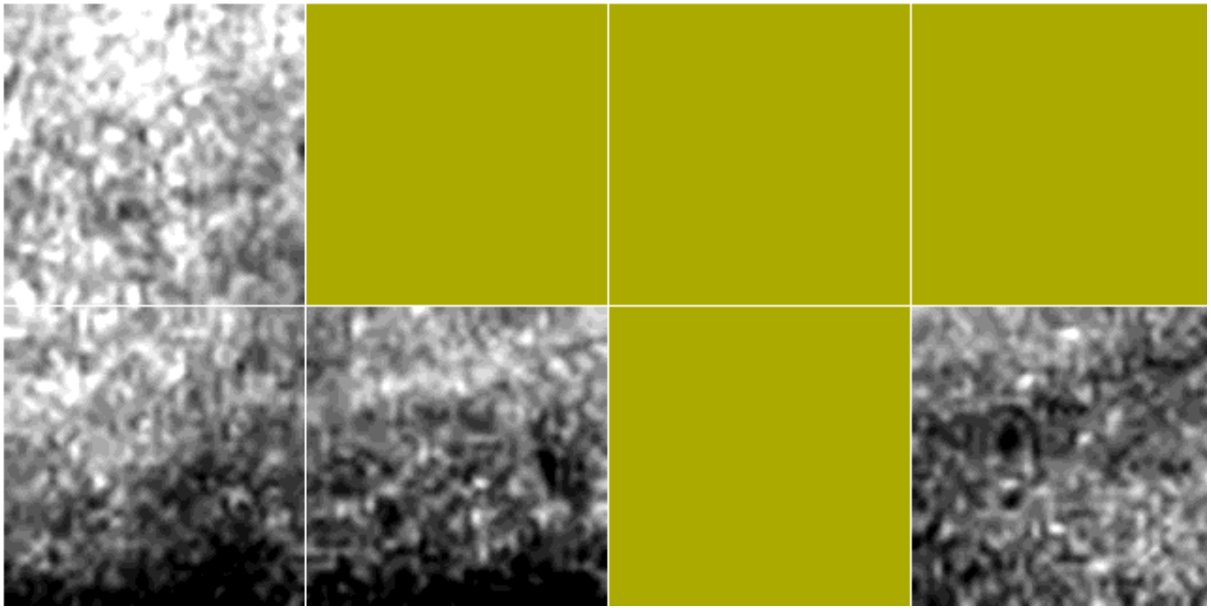


(Fig2)

The processed and filtered Magnetometry results shown in (fig2) are displayed in 'Linear Plot' format and appear to show some 'disturbance' especially within grid squares B2 and A3.

The faint white lines represent the outer limits of each 20m x 20m grid square whilst the green square represents grid square A2 which was not surveyed with Magnetometry.

Resistivity



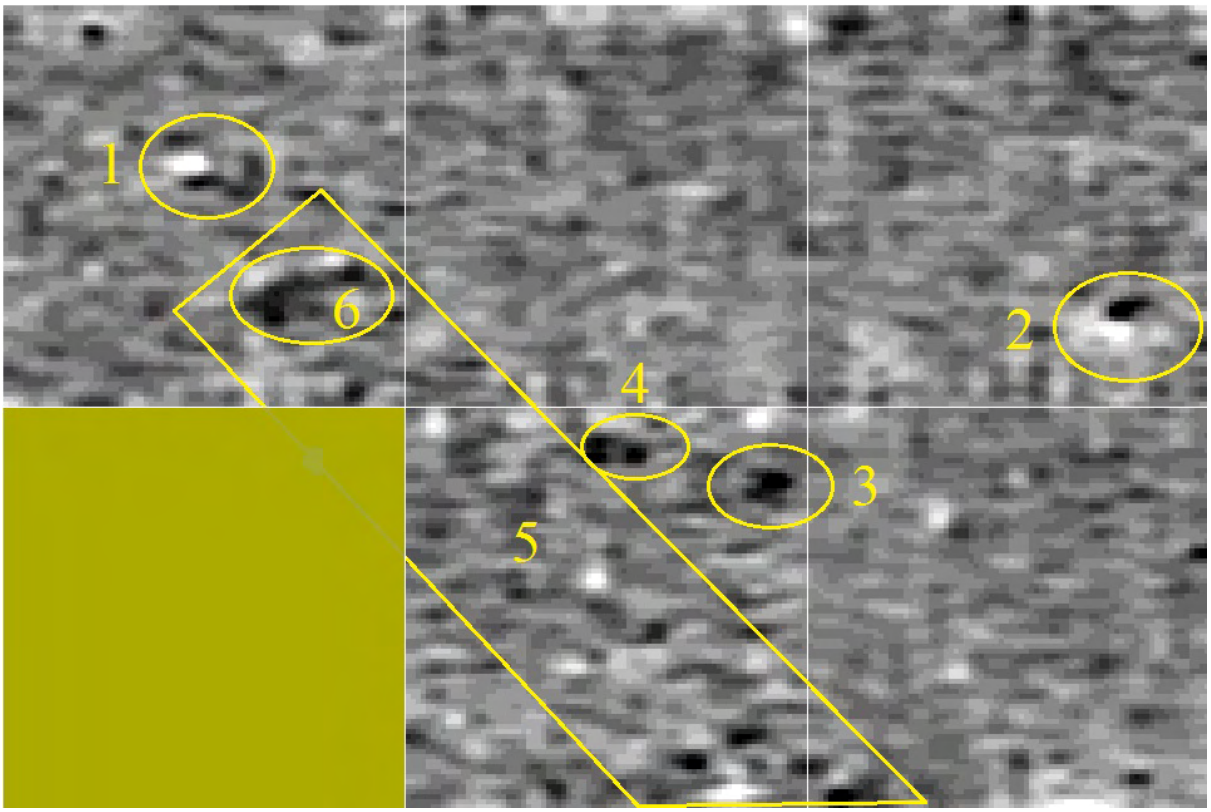
(Fig3)

The processed and filtered Resistance results shown in (fig3) are displayed in 'Linear Plot' format and appear to show some disturbance and anomalies especially within grid square A4.

The faint white lines represent the outer limits of each individual 20m x 20m grid square while the green squares represent the grid squares B2 - B3 - B4 - A3 which were not surveyed with Resistivity.

Interpretation:

Magnetometry



(Fig4)

The Magnetometry results show a number of anomalies marked and numbered in yellow (fig4) the darker regions are showing a higher magnetic response for instance the presence of ferrous metals or material with slight magnetic properties, the white regions are showing negative magnetic responses.

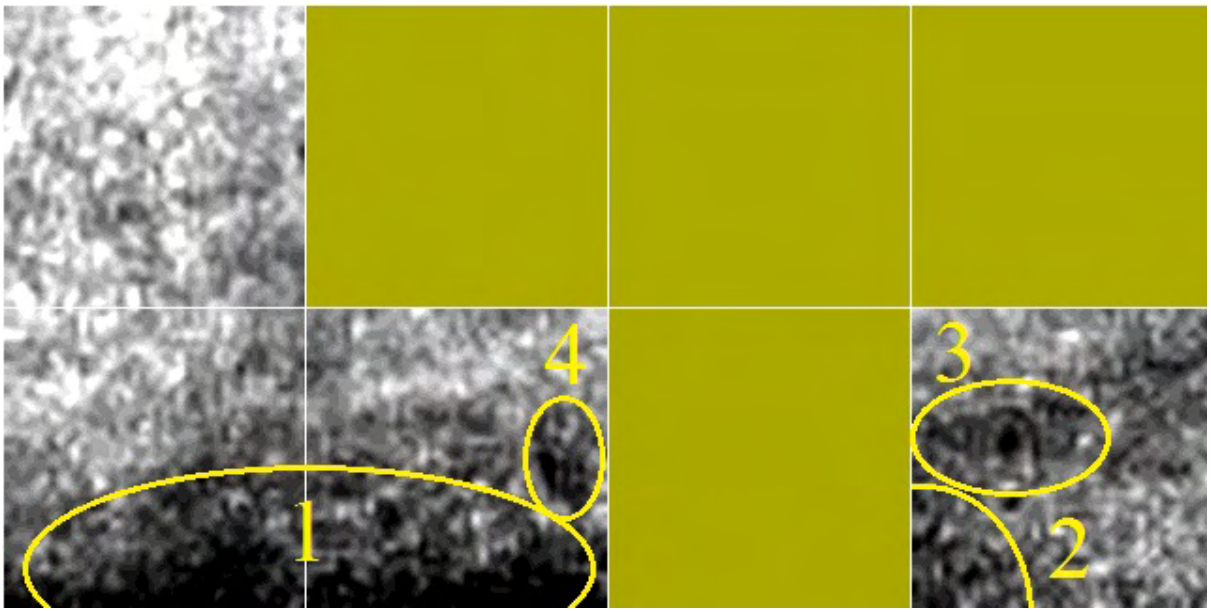
Although difficult to say exactly what they represent we can say that anomalies 1 and 2 are in all probability sizable pieces of ferrous metal possibly horse shoes or similar sized objects close to the surface giving off a strong magnetic response,
this can be seen by the polarisation effect of both black and white blobs overlaying one another.

Anomalies 3 and 4 are showing concentrations of material either on or below the surface which is giving off a positive magnetic response, it is difficult to say what has caused these however they are consistent with pits filled with low level magnetic debris for example burnt or fired clay.

The faint anomaly highlighted within the rectangle 5 appears to be a linear feature roughly on a North/ South bearing, it is possible that it represents an ancient track way or field boundary or even a land drain.

Anomaly 6 appears to be a large spread of material six to seven metres in length similar to anomalies 3 and 4 however it also has a polarised white halo similar to anomalies 1 and 2 so it probably also contains some ferrous material within it.

Resistivity



(Fig5)

The Resistance results shown in (fig5) show a few anomalies which are highlighted and numbered in yellow.

The darker regions are showing less electrical resistance therefore damper,
and the whiter regions are showing greater electrical resistance therefore drier.

The dark areas of anomalies 1 and 2 lie along the grid base line closest to the field boundary and the adjacent road.

These areas are showing up as darker due to higher levels of moisture within the soil giving a low resistance response,
this is probably due to rain water flowing down the slope and collecting within the lower ground at the base of the slope.

Anomaly 3 appears to be a curvilinear feature roughly four metres across surrounding a circular pit roughly two metres in diameter, again giving a low resistance response where the soil within it is holding more moisture than the surrounding earth.

Anomaly 4 is another area of lower resistance however it is difficult to say whether it is related to anomaly 1 or not as it does appear to be slightly isolated from it.

Conclusion:

Although only slight evidence of sub surface features are visible within these survey results there is enough to suggest that when backed up with the metal detecting finds there was possibly some activity on or close by to the area surveyed.

It may be that if we had time and could have completed surveying the whole area with both Magnetometry as well as resistivity then we would have a better idea and been more conclusive with that answer.

Aerial Photo Overlays:

(Fig6)

The Magnetometry results overlaid onto an aerial view of the survey area (fig6)

(Fig7)

The Resistivity results overlaid onto an aerial view of the survey area (fig7)