ANCIENT MONUMENTS LABORATORY GEOPHYSICS SECTION

REPORT ON MAGNETOMETER SURVEY

SURVEY: BURDEROP DOWN **DATE:** 13-14/6/79

Report no. 10/70

1. SITE

OS grid reference: SU 168 764 **Field no.** 6446

Location: gently sloping ground on a spur ridge on the northern edge of the Marlborough Downs.

Geology: Chalk

Archaeological evidence: excavation of prehistoric features including a sarsen 'floor'; and the location of small finds suggestive of local bronze working.

2. SURVEY

Object: to examine the area adjacent to the excavation for traces of prehistoric occupation and/or metal-working.

(a) Magnetic survey

Type of survey: automatic

Magnetometer: fluxgate **Range:** 100 γ

Initial chart recorder settings — Y: 15 γ/cm
X: 1:200 **scale**

Logged for computing: ~~yes~~/no

(b) Other tests

(i) Magnetic susceptibility:
topsoil: 48.8 **subsoil:** **fill:** **x10^{-6} emu/gm (ac bridge readings)**

(ii)

Survey grid measured to: excavator's grid.

Plans/charts enclosed: 1 – location plan 1 : 2500
2 – magnetometer traces 1 : 500

cont/

3. RESULTS

The survey was restricted to the area between the excavations (1979) and the round barrow some hundred metres or so to the west. The ground was covered on a 30 m. grid (see plan 1) with fluxgate gradiometer and automatic plotting system. Successive 30 m. traverses at 1 m. intervals were plotted as graphical traces and the resultant chart is shown on plan 2.

The immediate impression from the magnetometer traces is that there are no normally detectable archaeological features present. The two anomalies over the grid points at the NW and NE corners of square 5 are the reactions to the steel tips of ranging rods, and the distortions of the traces along the S edge of sq. 7 result from iron debris in a filled-in excavation trench. Apart from these exaggerated responses to iron, the traces are only disturbed by a large number of minor but sharp peaks which show a marked concentration on the S side of the dashed line on plan 2. In some areas of drift geology such peaks would be attributed to igneus pebble erratics, but here a possible explanation is that they are caused by the presence of fragments of burnt sarsen,a material which was also found in quantity during the excavation. Within the area defined by the occurrence of these anomalies there appear to be subsidiary concentrations, for instance around the NE corner of sq. 7, and within sq. 6.

4. CONCLUSIONS

Although no pits, ditches, hearths or furnaces that might have been associated with the suspected bronze-working on the site could be detected, what is interpreted as a distinct and well-defined scatter of burnt sarsen has been located. Soil susceptibility here is high for a Chalk site - 49 X 10^{-6} emu/gm., further indicating the strong possibility of industrial and/or occupation activity on the site. Such a high value also suggests that had other features such as pits or ditches existed in areas 1 - 9, they would have been detected. The strong possibility is that such features have been ploughed and eroded away, leaving only a well-delimited spread of burnt sarsen and possibly other burnt material, derived originally from hut or working floors.

The only features found with the magnetometer, whilst scanning to the E of sq. 6 in the corner of the field, were later identified by excavation as a small pit and two post-holes. the latter containing burnt sarsen. The pit was the only one to be found.

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Date: 23rd. Feb. 1981.

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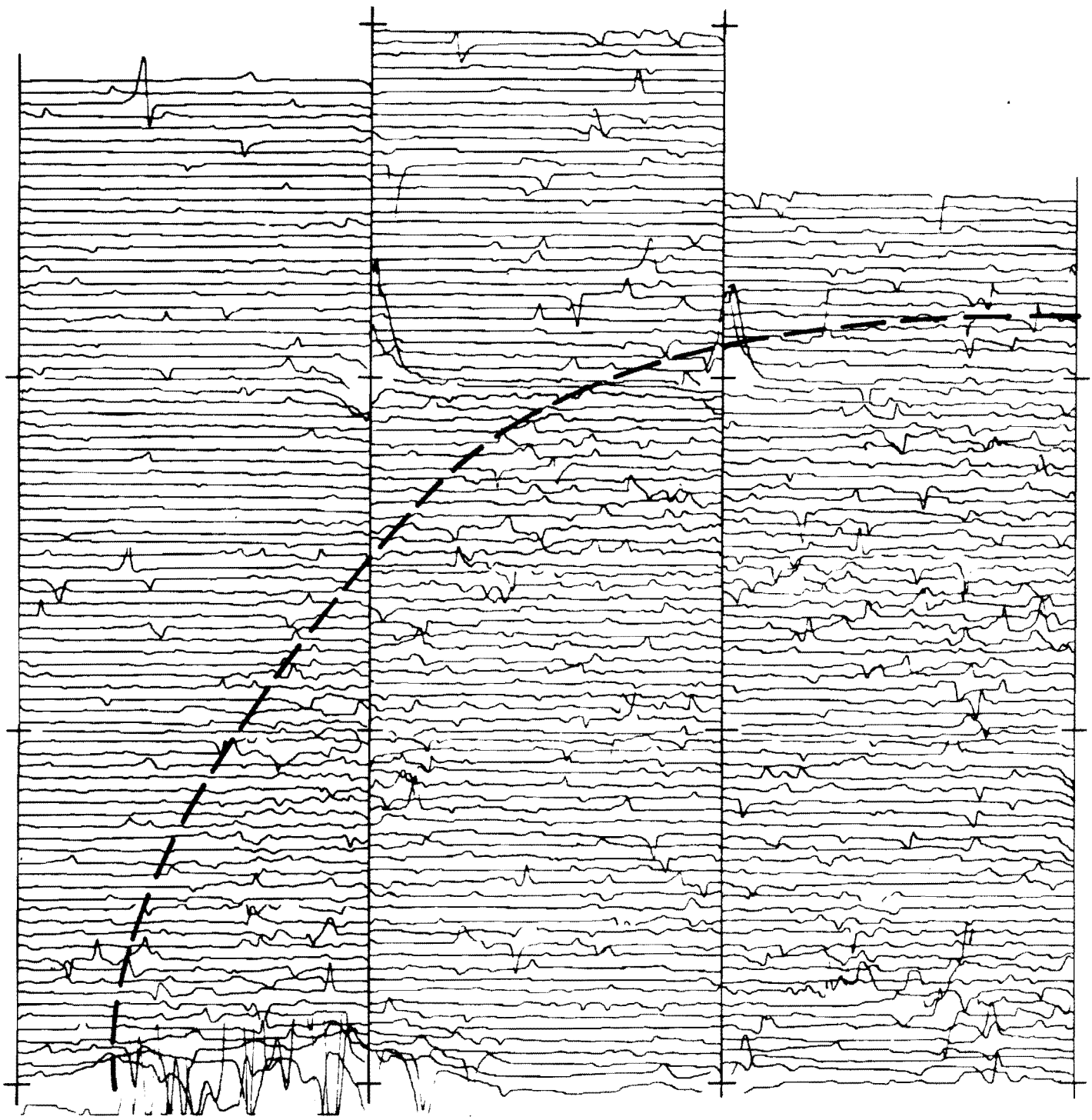
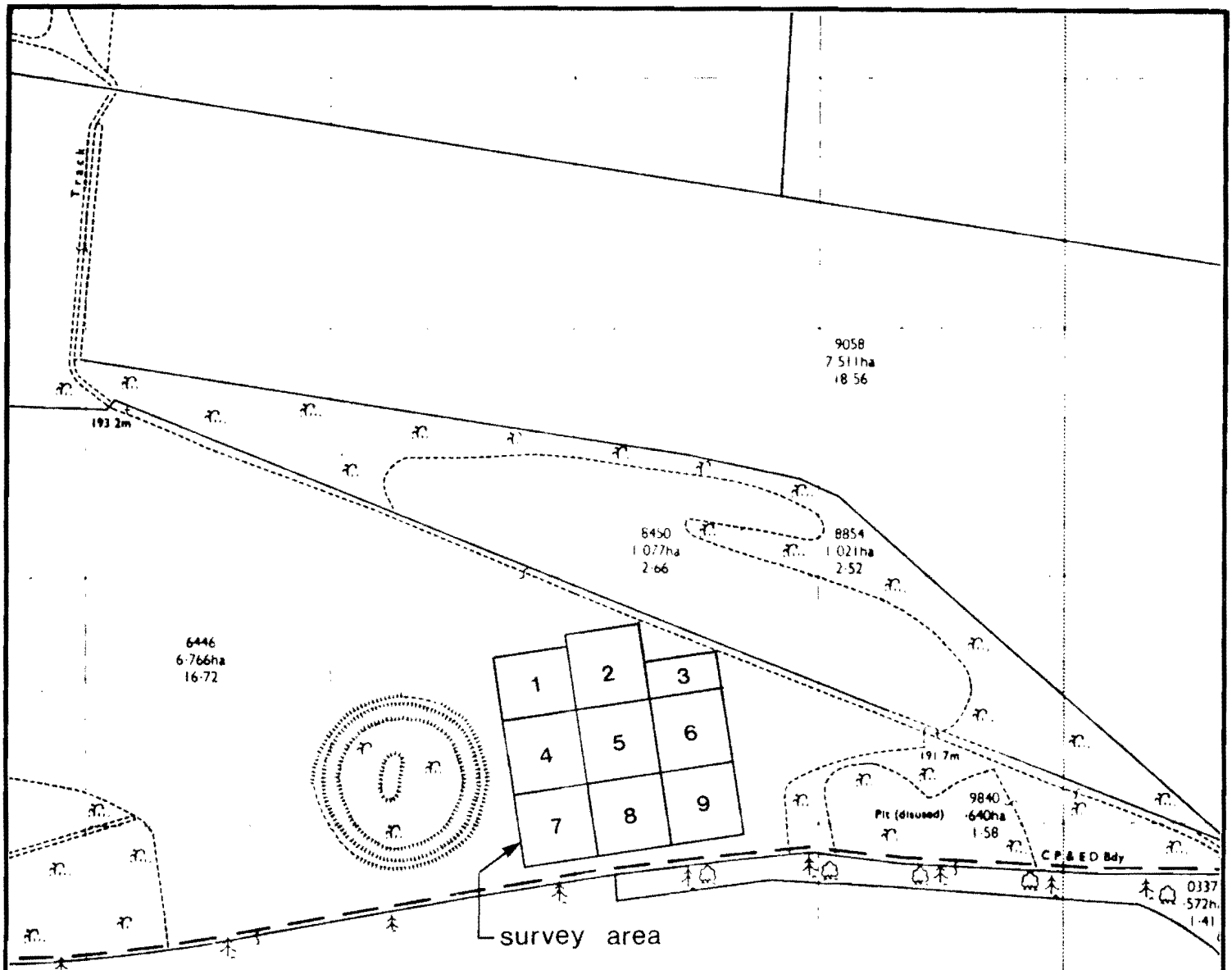


BURDEROP DOWN

MAGNETOMETER SURVEY

Survey no. 10/79 Plan no. 2 of 2	vertical scale 37·5 gamma / cm	NG ref. SU 168 764 OS sheets SU 1676
1:500		DoE A.M. Laboratory



BURDEROP DOWN

MAGNETOMETER SURVEY

Location

Survey no. 10/79 Plan no. 1 of 2		NG ref. SU 168 764 OS sheets SU 1676
0 1:2500 200m		DoE A.M. Laboratory