RESISTIVITY SURVEY AT ROLLESTON HOUSE, DORCHESTER

NOTES ON COMPUTER PLOTS

Report no. G 4/81

This resistivity survey was carried out by the Central Excavation Unit in September 1978, and the readings sent to the AM Laboratory for computer processing. Twin electrode probe configuration was used with a probe spacing and reading interval of 1.5 metres. The resolution of the survey at this spacing will be rather coarse for planning details of building foundations, but it should respond to earthworks and any extended disturbances.
A plan showing four alternative computer plots is enclosed, together with a reduced scale copy of the initial hand-drawn plot supplied by CEU.

1. Plot of initial data (all plots at 1:500 scale)

   Readings W of grid line 60E were displaced ½m N in relation to the rest of the survey. Plot 1 shows the data untreated except for interpolation to uniform grid lines throughout the survey, and equalization between values at the edges of the displaced sections (additive matching).

2. Filtered plot; filter radius 2

   The mean value of readings falling at radii of 2 and 3 intervals from each reading is subtracted from the reading. This emphasises features narrower than the filter and suppresses background changes which are unlikely to be archaeologically significant. The vertical scale of the plots is arbitrary, but here it has been expanded in comparison with plot 1.

3. Dot density plot; filter radius 5; range mean + ½ to mean + 2 standard deviations.

   Anomalies are clearly present in plots 1 and 2, but their plan is more easily seen in a dot-density plot. A wider filter has been used than in plot 2 to try and improve the continuity of linear features. A rectangular outline some 28m x 40 or 45m is visible in the centre of the survey. It could perhaps be a ditched enclosure. If any substantial building foundations are present they might lie in the disturbed area at the N of this enclosure, although they cannot be excluded elsewhere. Strong diagonal features, probably trackways or ditches, are visible across the NW and SE corners of the survey.

4. Dot density; treatment as for plot 3; negative plot

   Only the linear feature across the NW corner is clearly defined, together with a shorter anomaly which joins it at right angles. These might be large ditches which have retained their moisture until late summer, when smaller ones elsewhere in the survey have dried out to give positive anomalies.

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A. Bartlett

Ancient Monuments Laboratory Geophysics Section
Department of the Environment
Fortress House
23 Savile Row
London W1X 2HE 01-734 6010 ext 551

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CENTRAL EXCAVATION UNIT

WOLLASTON HOUSE DORCHESTER

RESISTIVITY SURVEY

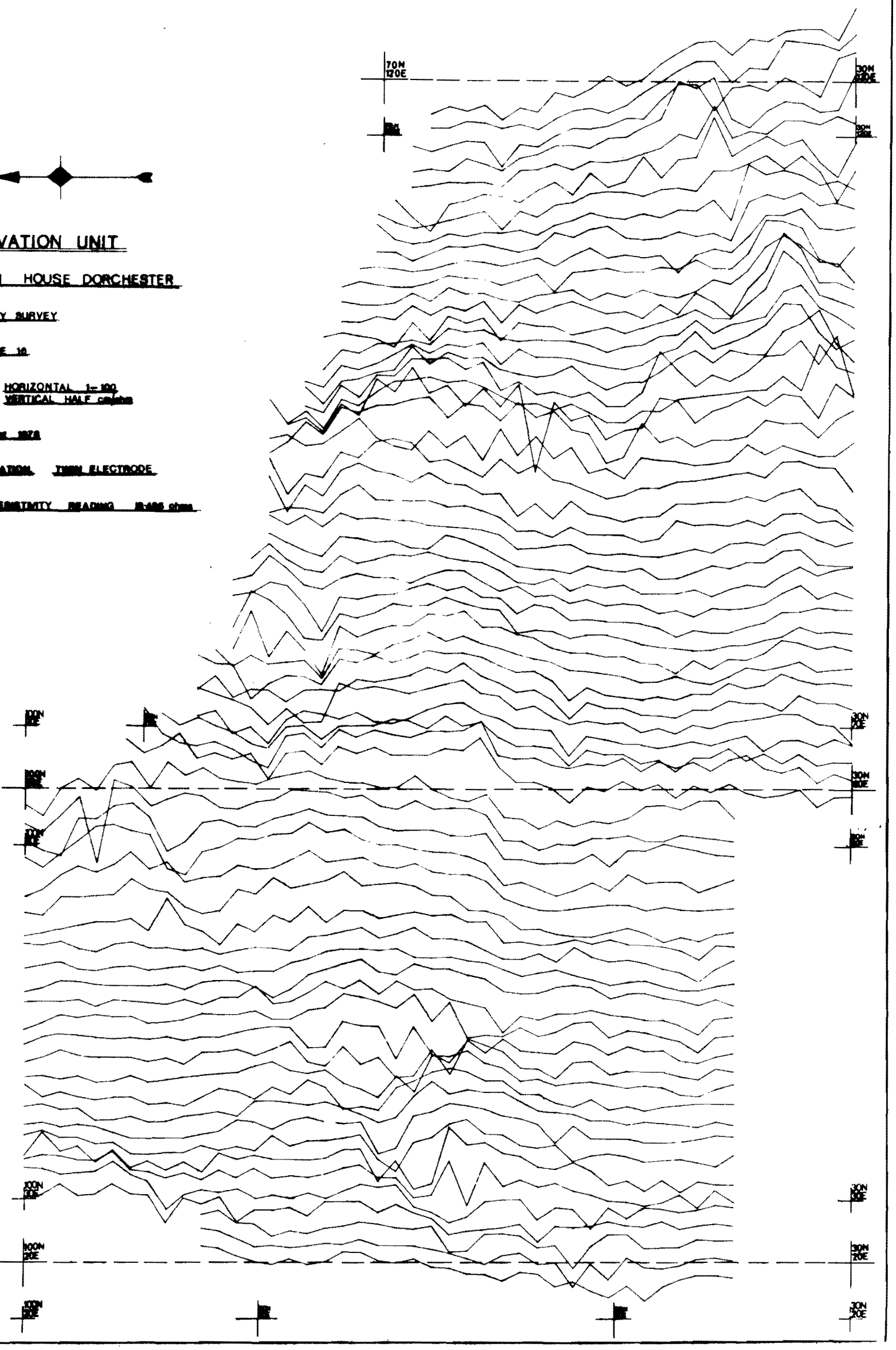
SITE CODE 16

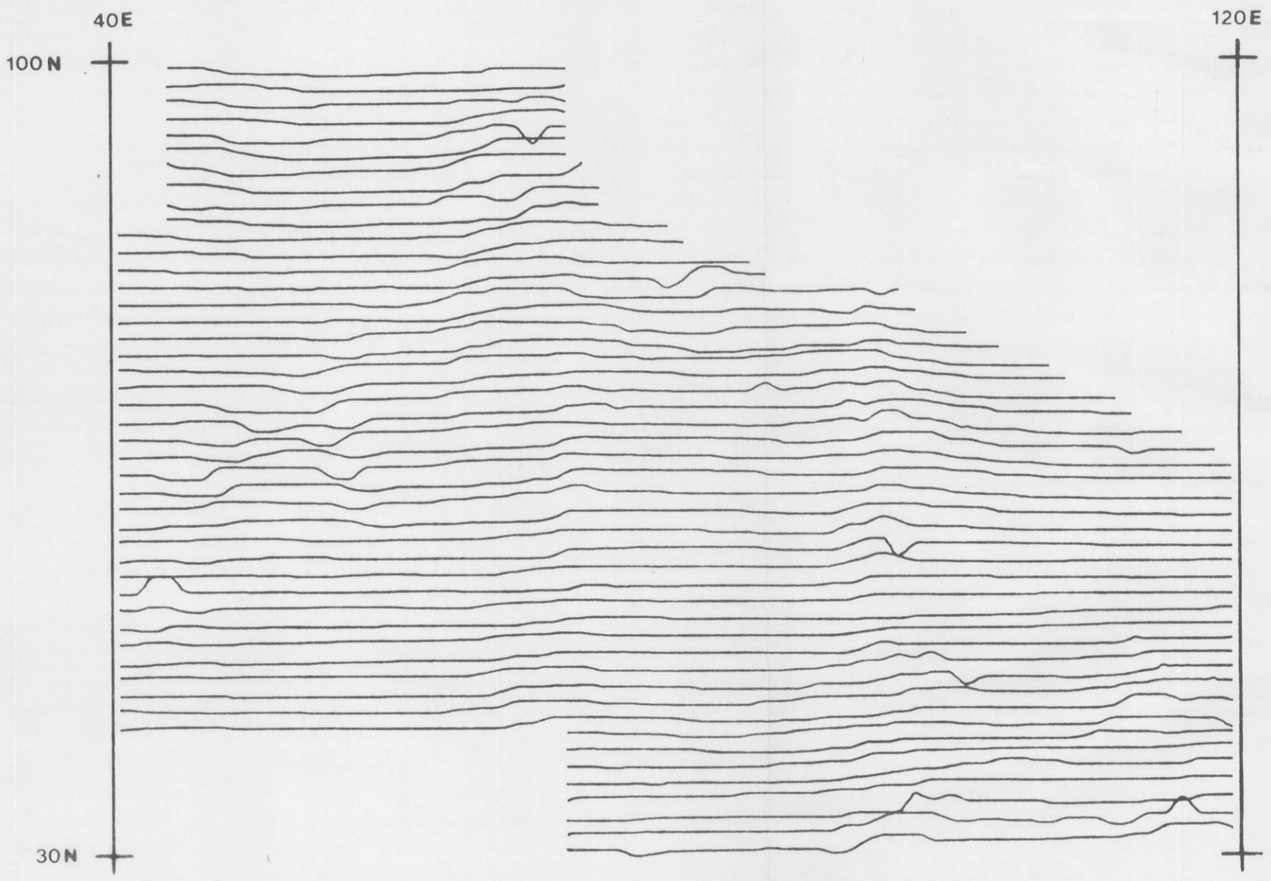
SCALE HORIZONTAL 1=100
VERTICAL HALF cm/ohm

DATE [illegible] 1978

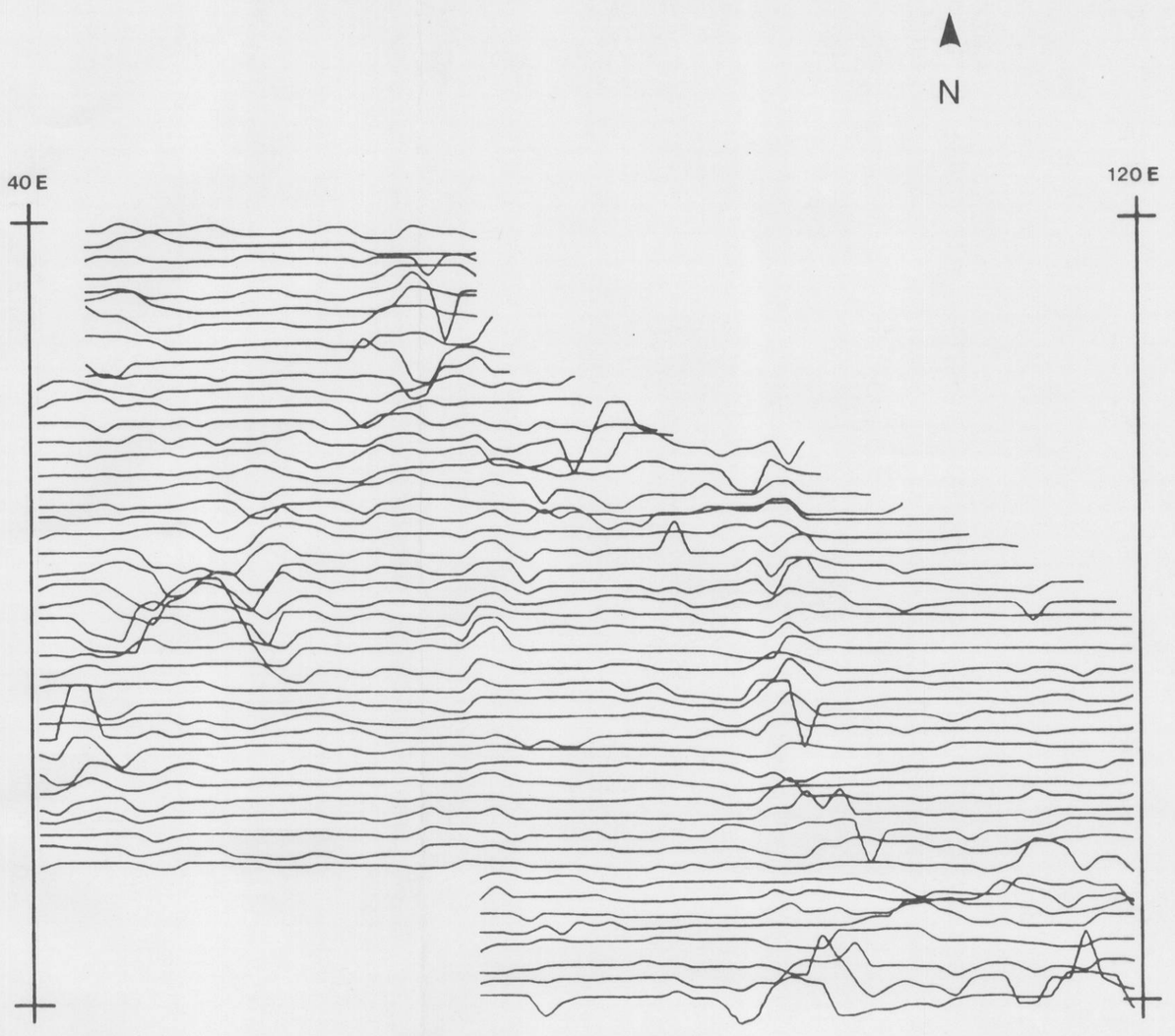
CONFIGURATION TWIN ELECTRODE

MEAN RESISTIVITY READING [illegible] ohms



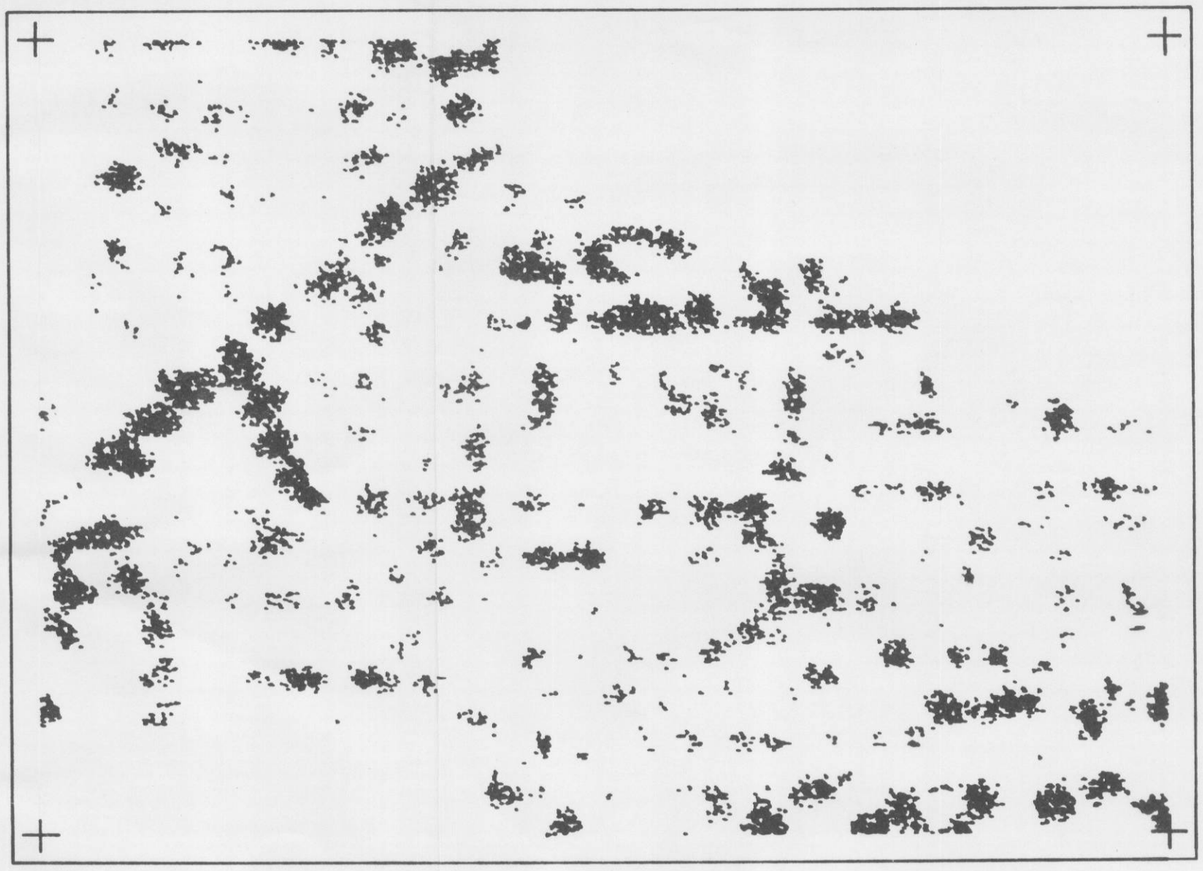


1. INITIAL DATA



2. FILTER RADIUS 2

3. DOT DENSITY: POSITIVE PLOT



4. DOT DENSITY: NEGATIVE PLOT

WOLLASTON HOUSE, DORCHESTER: RESISTIVITY SURVEY (CEU)

1:500

AM LABORATORY 1981