

84/6/2

MS 7323

WEARDALE PROJECT: II

TRENCHING

Submitted to : ACMIN Exploration Ltd
6-10 O'Connell Street,
Sydney,
N.S.W. 2000,
Australia

by : Mackay & Schnellmann Ltd
Lincoln House,
296-302, High Holborn,
London WC1V 7JJ.

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WEARDALE PROJECT:

TRENCHING

1.1 During the period from August 4th to August 9th inclusive, a number of trenches were dug at essentially four locations perpendicular to the projected surface strike extension of the Boltsburn Vein, in an attempt to trace its eastward surface extension and locate any intersection with the White Vein.

2. RESULTS

2.1 The trenches have been numbered according to their distances east of the point surveyed as being vertically above the end of the old workings (fig.1). The projection of the line joining the old shaft and the location of the fault in a previous trench (I358E) were taken as a convenient baseline

2.2 Obstructions such as tracks and local ground surface conditions, necessitated the continuation of trenches at a short distance to one side of the main line in some cases.

2.3 Trench depths varied from 6 to 11 feet, and trench lengths varied as follows:

<u>Trench</u>	<u>Co-ordinates</u>	<u>Length in feet</u>
1558E	85S to 60S	25
	30S to 30N	60
	45N to 70N	25
1534E	30N to 45N	15
1858E	0 to 40N	40
	50N to 100N	50
	130N to 145N	15
2858E	25S to 90N	115
2908E	90N to 145N	55
3208E	0 to 80N	80
		<u>480</u>

2.4: Sandstones overlay mudstones and siltstones in all of the trenches with the exception of 1858E, in which only sandstones were encountered (Figs. 2-9).

2.5 The narrow coal seam in the vicinity of the fault zone in 1358E was located in 1558E. (Fig.2). The discontinuity in this seam was due to facies change, no tectonic rupture was evident. No such coal seam was located in the other trenches.

2.6 Two other discontinuities were apparent:

- a) the thickening and downswelling of the carbonaceous mudstones between 20N and 30N in 1558E. (Fig.2).
- b) the steep contacts between the sandstones and the shales and clays between 0 and 30N in 2858E. (Fig.7).

In neither case was there any evidence of tectonic rupture or lateral irregularity.

2.6 Attempts to trench in the vicinity of the projected fault intersection were thwarted by the adverse fell slope and particularly boggy ground surface to the west of Eudonburn Head. It was not possible with the available equipment to trench beyond 3208E, approximately 1000 feet short of the target area.

3. SAMPLING

3.1 A total of 83 samples were collected at ten-foot intervals along each trench. These samples are representative of weathered bedrock. Where the sub-soil appeared to have been derived from a rock type different from bedrock, the sub-soil also was sampled.

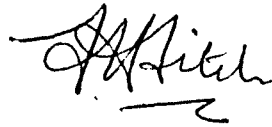
3.2 In accordance with the instructions of Mr. R.H. Jack these samples have not been sent for analysis, but are retained in our London office for any future analyses that may be required.

4. CONCLUSIONS

4.1 Efforts to locate strike extensions of the Boltsburn Vein and any intersection with the White Vein by trenching have so far failed. Possible reasons include:

- a) inconsistent attitude of the fault ,
- b) absence of a suitable marker horizon, such as a coal seam, rendering the fault undetectable,
- c) topographic changes causing fault outcrop trend variations, or,
- d) a weakness or absence of the structure at surface.

4.2 No recommendations for further work at Dead Friars are made in this report, as the whole exploration policy with regard to the Weardale area is understood to be under review.

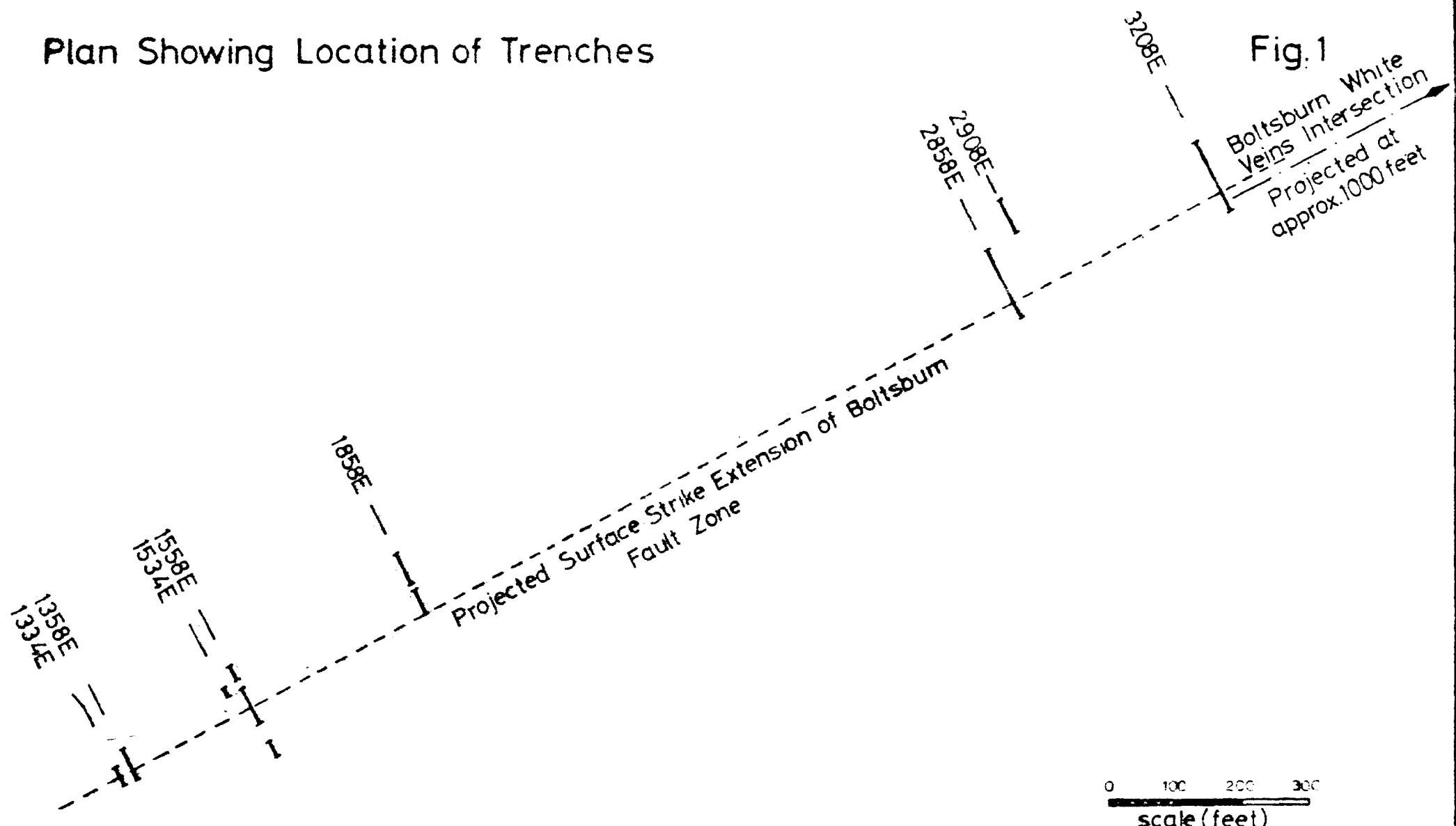
A handwritten signature in cursive script, appearing to read 'F.H. Fitch', with a horizontal line underneath.

F.H. Fitch
Mackay & Schnellmann Limited

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September 1973

Plan Showing Location of Trenches

Fig. 1



● Boreholes
3 & 4

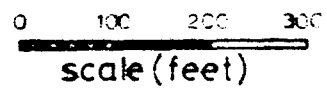
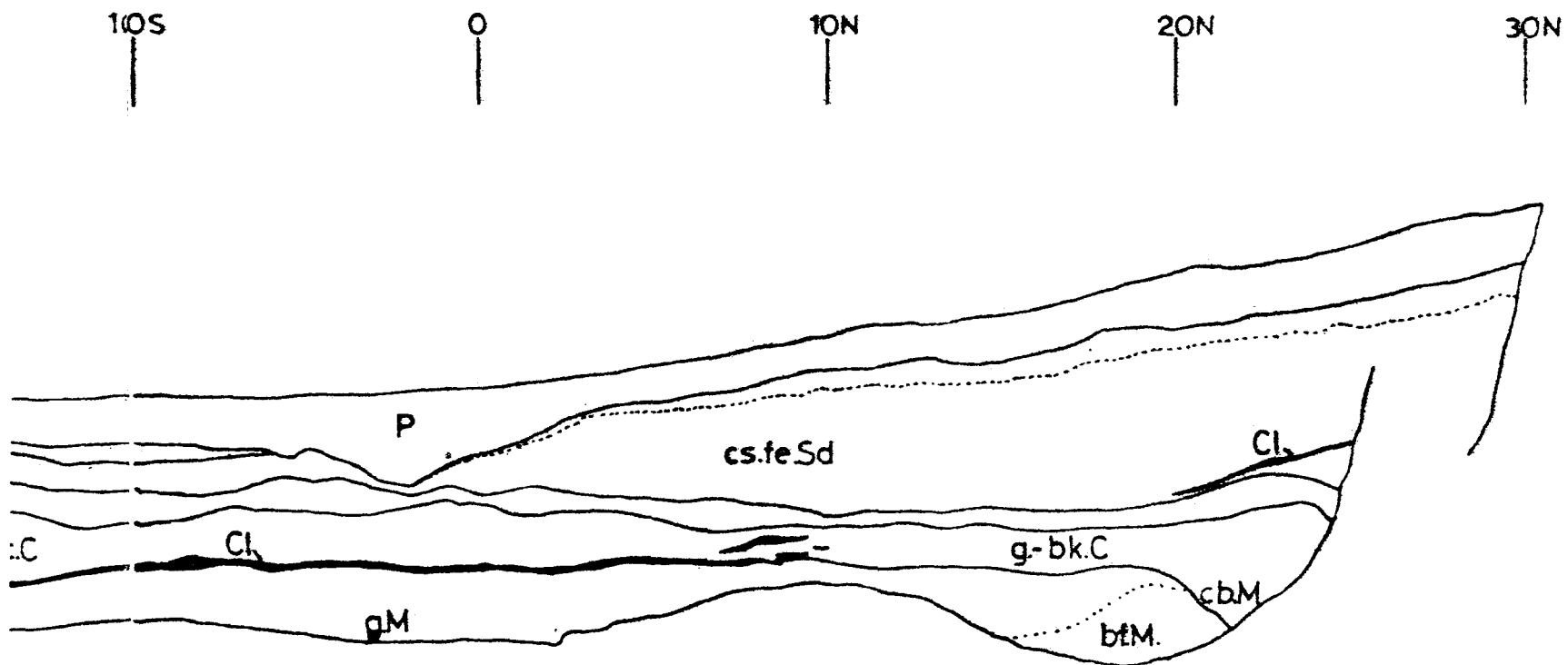


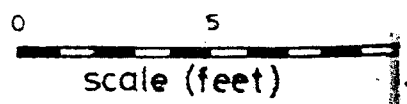
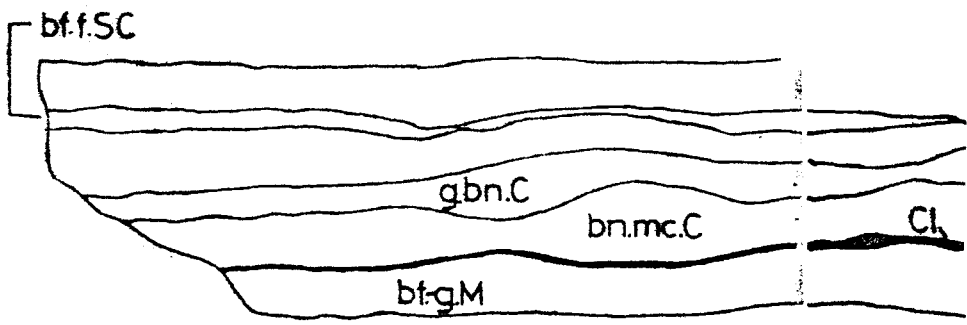
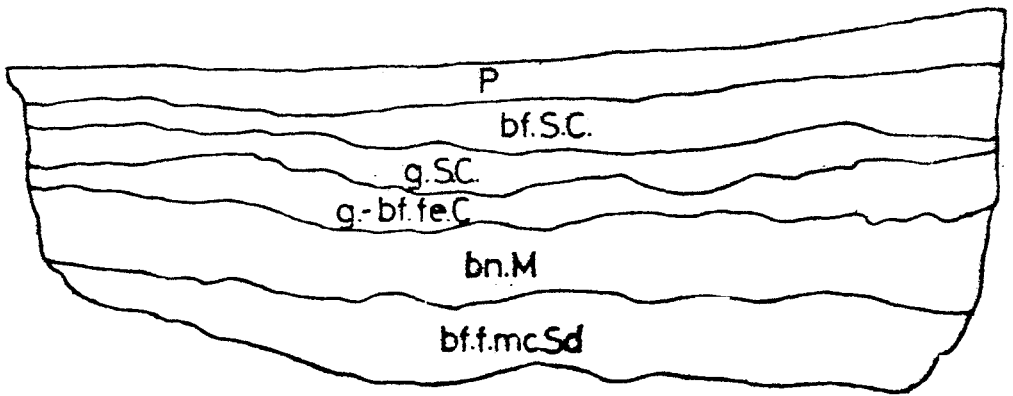
Fig. 2



Trench Profile

Line 1558E

85S 80S 70S 60S 30S 20S 10S

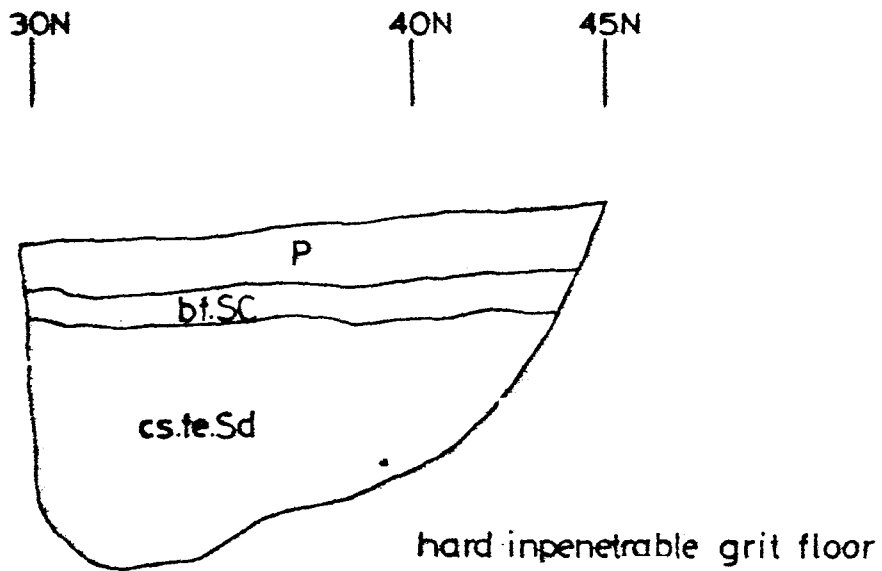


Trench Profiles

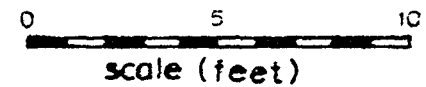
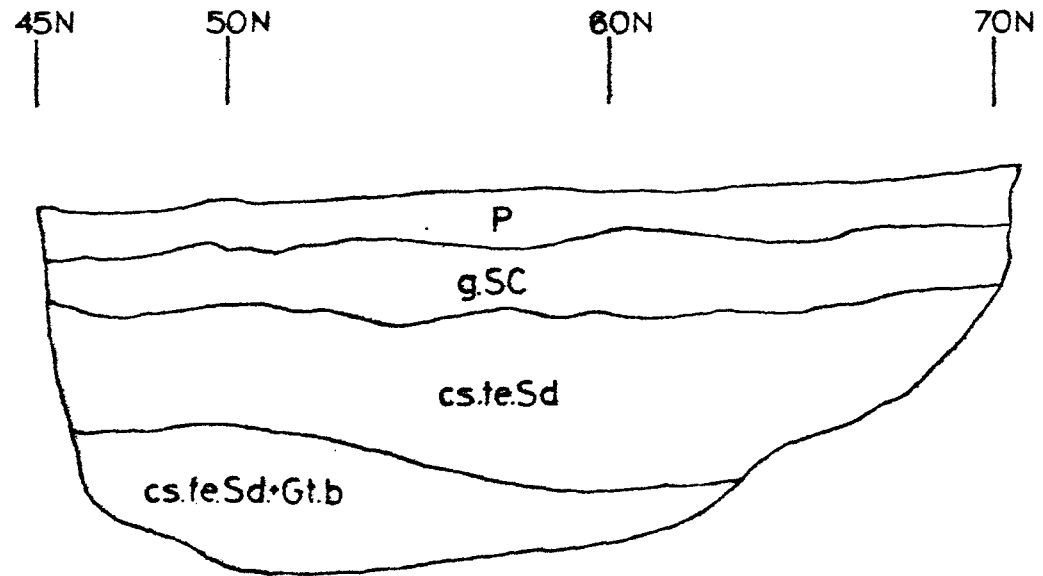
Lines 1534E & 1558E

Fig. 3

Line 1534E



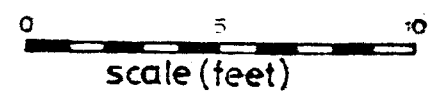
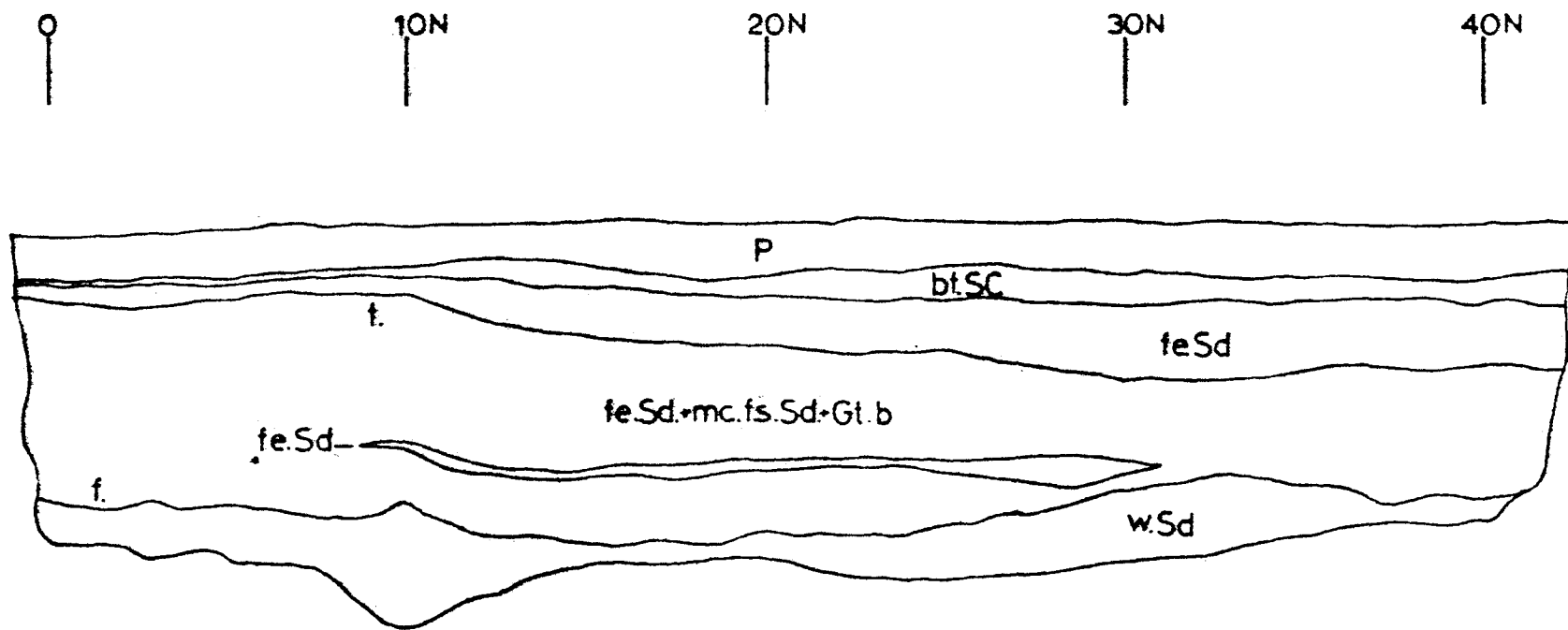
Line 1558E



Trench Profile

Line 1858E

Fig. 4

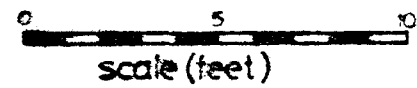
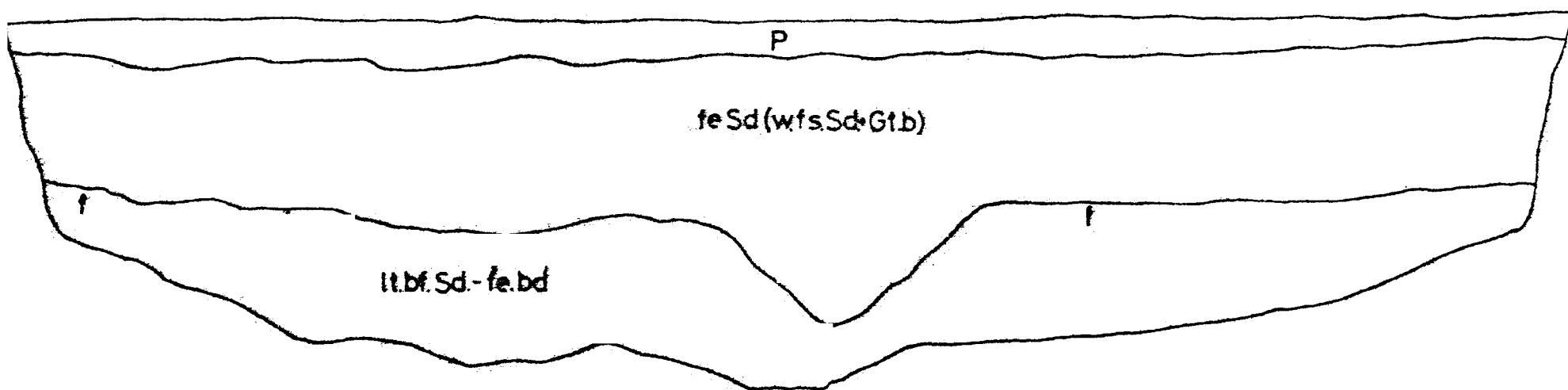


Trench Profile

Line 1858E

Fig. 5

50N 60N 70N 80N 90N 100N



Trench Profile

Line 1858E

Fig. 6

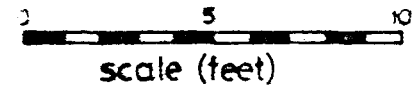
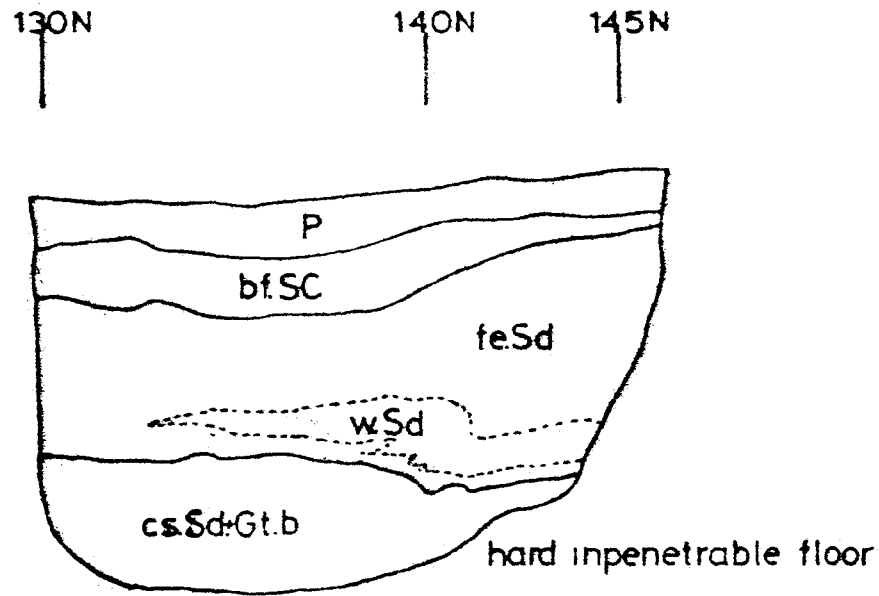
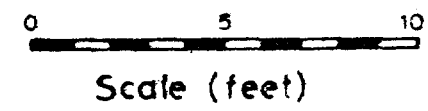
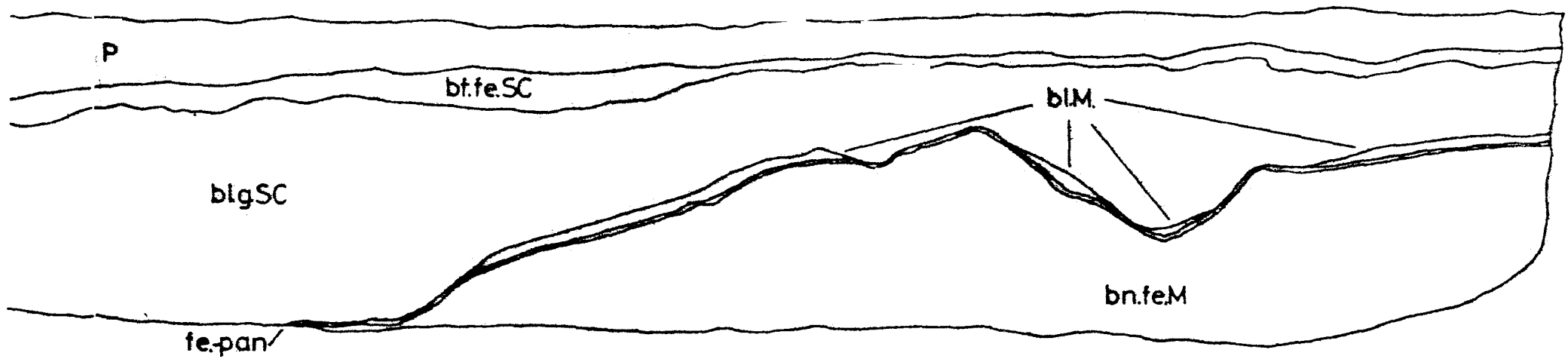


Fig. 7

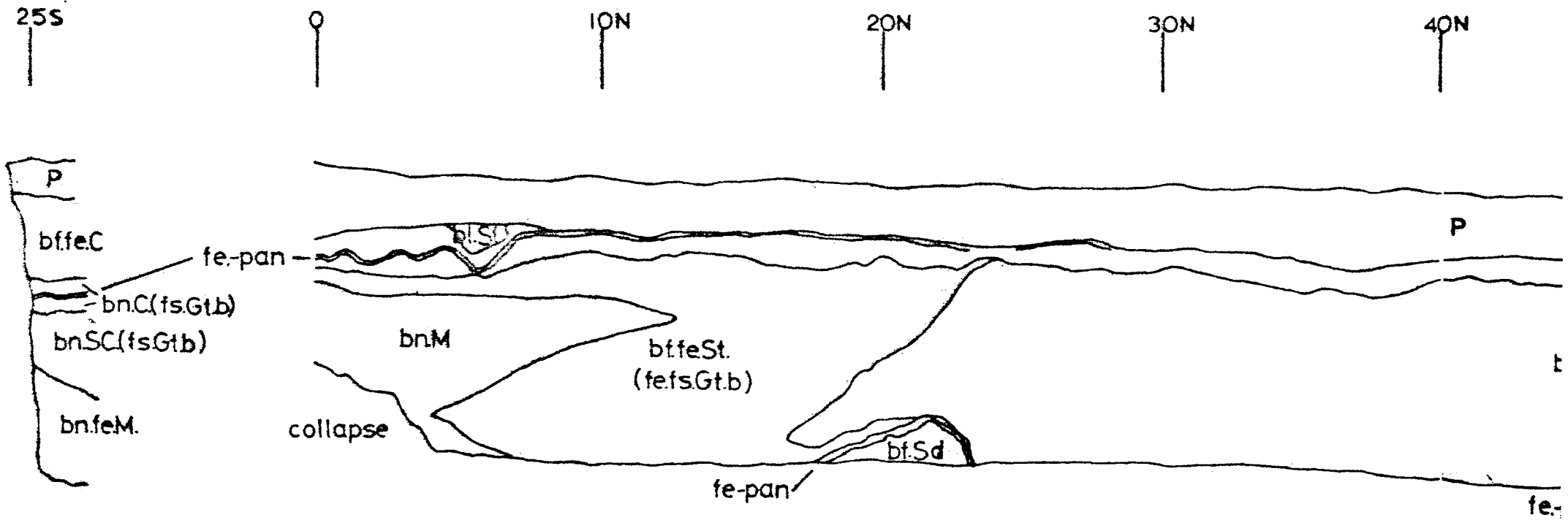
40N 50N 60N 70N 80N 90N



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Trench Profile

Line 2858E



Trench Profile

Line 2908E

Fig. 8

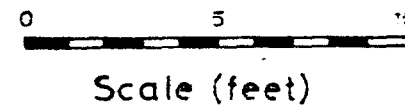
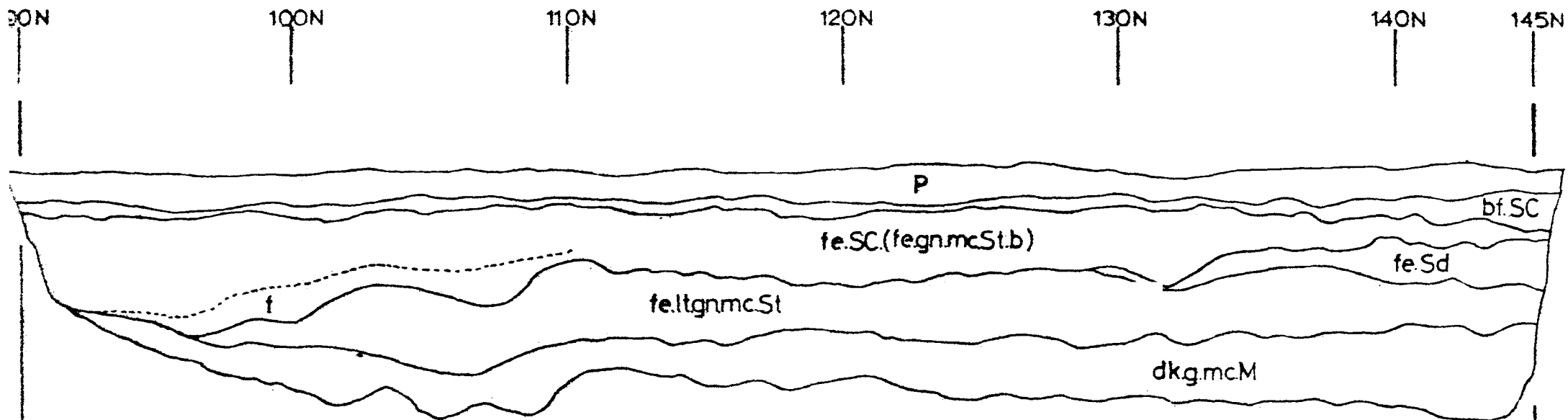


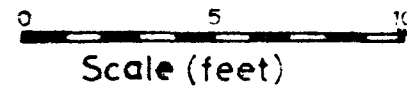
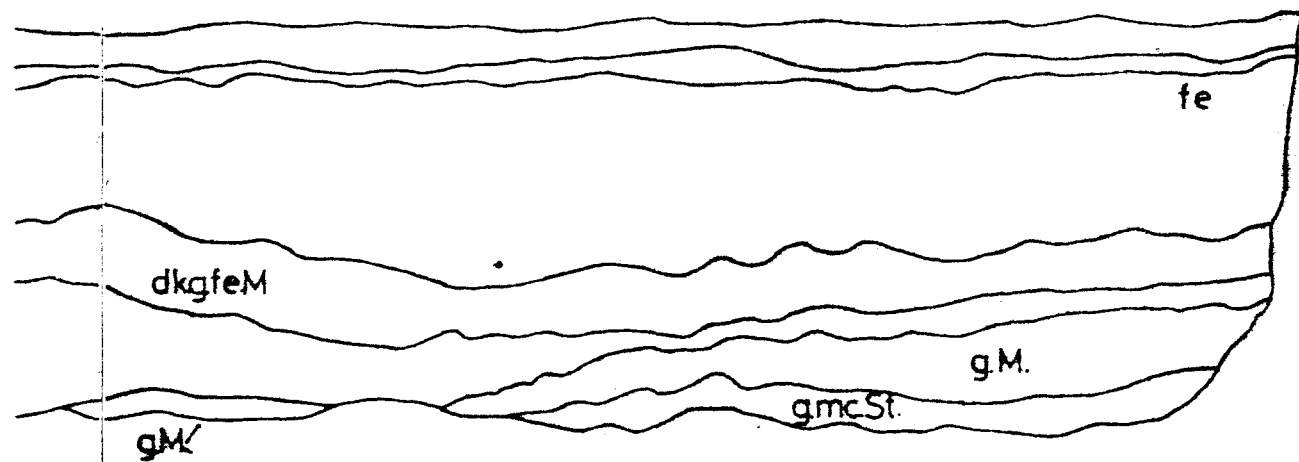
Fig.9

50N

60N

70N

80N



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Trench Profile

Line 3208E

