

APPENDIX C

Previous Investigation

Pen-y-cae Site 'C'. Report on Boreholes drilled in July
and August 1973. With plan and sections.

1. A previous report, dated 2nd. June 1973, stated that several boreholes would be necessary on this site to prove if any very shallow workings existed.

Eight holes have been drilled, in the positions shown on the accompanying plan, numbered 1257, and sections of the holes are shown on plans numbered 1268, 1269 and 1270. Holes numbered 2, 3, 5, and 7 started in normal soil, while those numbered 1, 4, 6 and 8 started in made ground. No. 1 was in ashes to a depth of 2 feet six inches, probably part of the old railway embankments; No. 4 was in shale fill to depth of five feet six inches and No. 6 was in shale and coal fill to a depth of eight feet. No. 8 consisted of shale and brick fill to a depth of five feet, probably waste from the adjoining Pant Brickworks.

Brown Sandy Clay was then proved in all holes, with a thickness varying from four feet to seven feet six inches, followed by sand and gravel in the holes numbered 1, 2, 3 and 6, with a thickness of from nine feet to thirty six feet. Holes 4, 7 and 8 had clay and gravel instead, with a thickness of nineteen feet to thirty two feet six inches while hole No. 6 had thirty seven feet of Boulder Clay and gravel and No. 5 had sixty seven feet of Boulder Clay.

Boulder Clay appeared in all the holes except Nos. 7 and 8, which had Clay and Gravel, followed by Sand and Gravel.

A rather plastic clay was proved in Nos. 3, 4 and 6, its thickness being eleven feet to twelve feet.

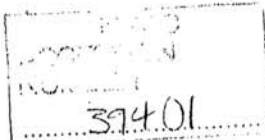
Finally, all holes passed into shale which persisted to their full depths, as follows -

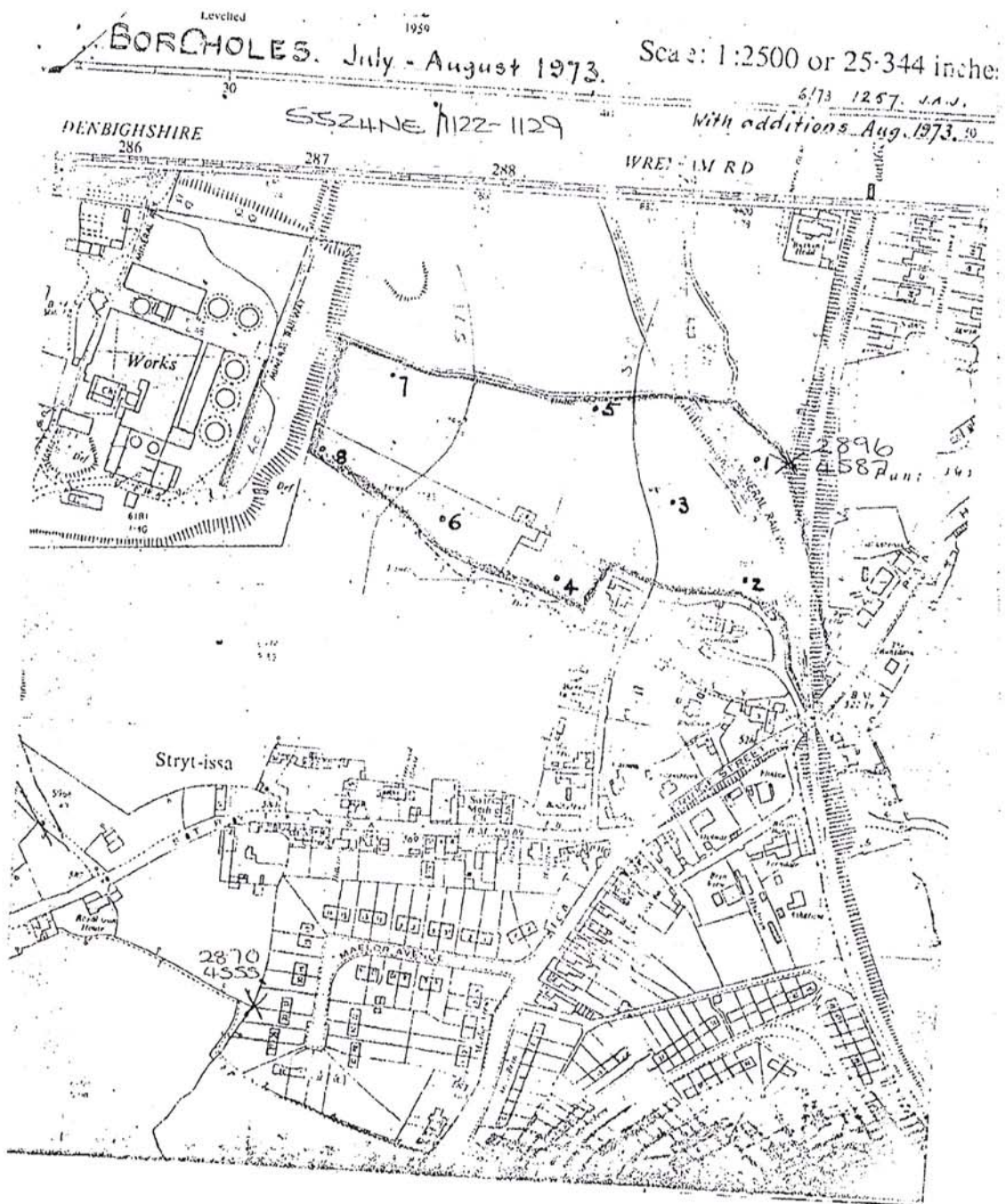
No. 1	from 65' 0"	to 100' 0"	=	35' 0"
2	76' 0"	120' 0"	=	44' 0"
3	70' 0"	100' 0"	=	30' 0"
4	81' 0"	120' 0"	=	39' 0"
5	74' 0"	120' 0"	=	46' 0"
6	64' 5"	110' 0"	=	45' 7"
7	50' 0"	100' 0"	=	50' 0"
8	40' 0"	100' 0"	=	60' 0"

2. No old workings were proved in any of the holes and only one trace of coal (2") in No. 6 Borehole. It is possible that the shale proved in all the holes is that which overlies the Nant Seam and the trace of coal in No. 6 borehole could be a trace of the Firedamp Seam.
3. In my report dated 2nd June 1973, I stated that ten seams could be present under the site but the boreholes suggest that only four actually exist under the site, namely, Nant, Lower Yard, Wall and Bench and Llwynenion Half Yard, all of which have been worked prior to 1860. Some idea of the depths of these seams may be obtained when the five shafts, present on the site, are drilled in preparation for grouting.

18th. September 1973.

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