

54D

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MARKHAM COLLIERY

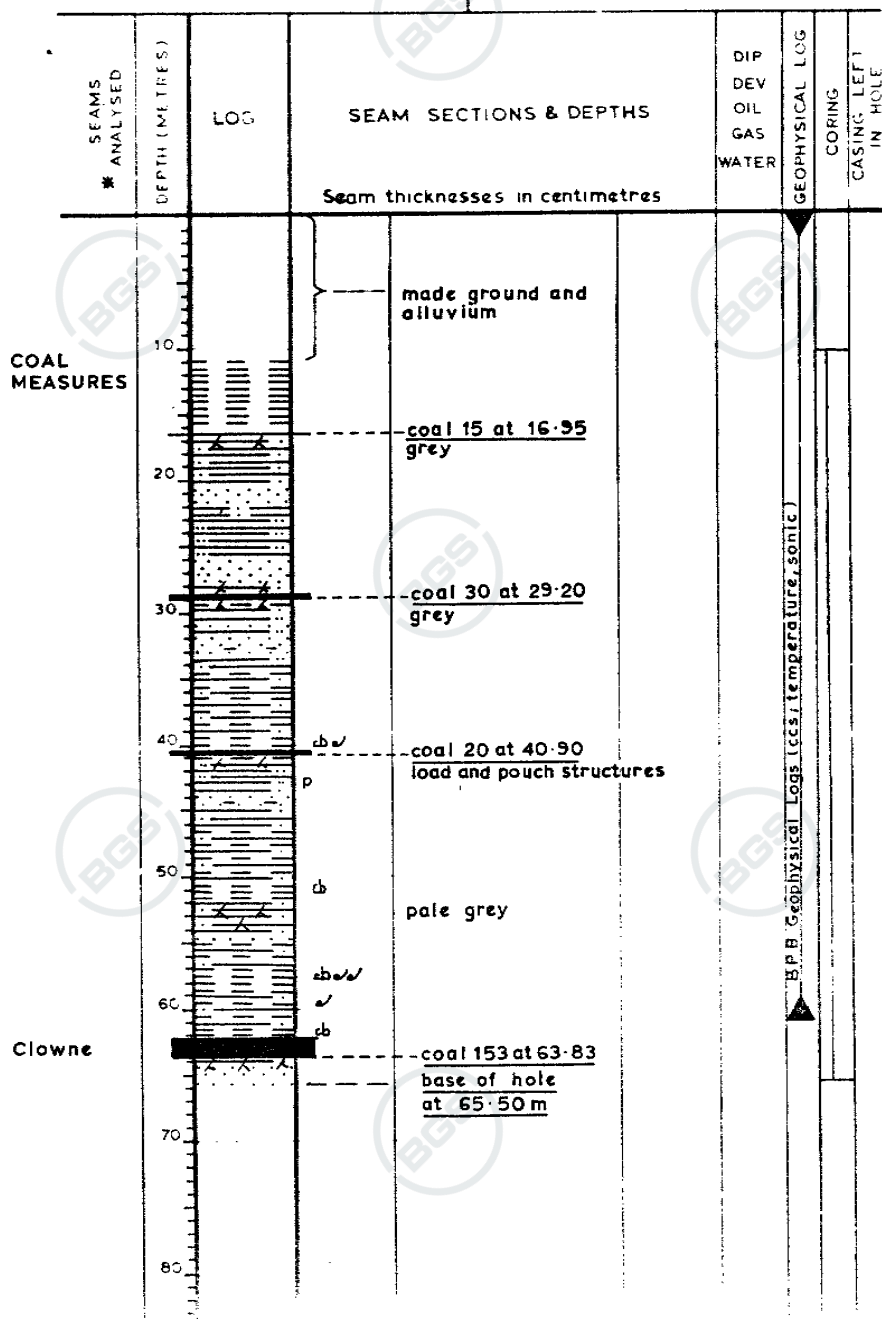
Borehole 4 for proposed
surface drift (1985)

E 445211.9 m

DATE 1985

N 372146.5 m

STARTING LEVEL • 67.17 m O.D.





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Section of: MARKHAM COLLIERY No. 4 Borehole
for proposed surface drift

Purpose: Site investigation

(Nat. Grid, Sheet & Qtr.) B/H REG. NO.

Exact Site: E.445211.9
N.372146.5

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Level at which bore commenced relative to
O.D. +67.17m.

Date of drilling: 14.3.85 to 21.3.85

Driller: Soil Mechanics Ltd.

Cores examined by D.J. Green, N.C.B. Geologist

GEOLOGICAL CLASSIFICATION	NATURE OF STRATA	THICKNESS m cm	DEPTH m cm
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See also geotechnical log by
Soil Mechanics Ltd.

This hole was logged geophysically
by B.P.B. Instruments Ltd.

Open hole to 6.00 m.

<u>MADE GROUND</u>	Colliery fill	6	00		
	<u>Cores from 6.00 m:-</u>				
	Colliery fill (cores lost)	4	00	10	00
(approx. boundary)					
<u>ALLUVIUM</u>	clay, stiff, laminated, greenish-grey	0	45	10	45
	clay, stiff, mottled yellow-brown, sub-rounded inclusions of siltstone and sandstone	0	60	11	05
(approx. boundary)					



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COAL MEASURES

Clay,	black, laminated, stiff	0	45	11	50
Mudstone	locally silty; dark; locally slightly carbonaceous; laminated; weathered (1.40 recovered)	2	30	13	80
Mudstone	laminated; soft, affected by water in top 0.25 (0.67 recovered)	1	60	15	40
Mudstone	laminated; core fragmented and affected by water (0.48 recovered)	1	40	16	80
	detached				
<u>COAL</u>	fragments	(approx.)	0	15	
	detached			16	95

Seatearth:

Siltstone	fine; pale grey; core dry and powdery (0.53 recovered)	0	55	17	50
Siltstone	fine to medium; occasional zones of shattered core up to 0.50 thick (2.15 recovered)	2	55	20	05
Siltstone	fine to medium, laminated (0.28 recovered)		3.00		
Sandstone	fine (0.90 recovered)				
Sandstone	medium, massive (0.32 recovered)				
Siltstone	fine, locally muddy; laminated (0.64 recovered)			23	05
Siltstone	fine with occasional sandstone fine laminae and thin layers (80:20); common disconnected sandstone fine micro-lenses in basal 0.20	0	65	23	70
Core lost		0	34	24	04

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Siltstone	fine with occasional sandstone fine laminae and thin layers (80:20)	1	64	25	68
Sandstone	fine to medium; common micaceous carbonaceous planes; core fragmented towards base	1	82	27	50
Core lost		0	58		
<u>Seatearth:</u>					
Siltstone	fine, muddy; grey, unlaminated; common roots	0	25	28	08
Mudstone	laminated	0	57	28	33
	attached			28	90
<u>COAL</u>					
	Coal bright 0.16 (cylinders)				
	Coal bright 0.14 (fragments)				
	(Geophysical depth, 29.20 m.)				
	detached	0	30	29	20
<u>Seatearth:</u>					
Mudstone	dark; core fragmented (0.14 recovered)	0	14	29	34
Mudstone	locally silty; grey	0	64	29	98
Core lost		0	18	30	16
Siltstone	fine with common irregular sandstone fine laminae (80:20); occasional ironstone nodules; occasional minor load-and-pouch structures;	0	39	30	55
Sandstone	fine with common siltstone fine laminae (80:20); common micaceous carbonaceous planes, common large load-and-pouch structures; occasional ripples towards the base	0	92	31	47

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Siltstone	fine to medium with occasional sandstone fine laminae and thin layers (80:20); locally vaguely ripple bedded	0	46	31	93
Sandstone	fine with common siltstone fine laminae (80:20); common micaceous carbonaceous planes; locally ripple bedded	1	42	33	35
Siltstone	fine to medium with occasional sandstone fine laminae (80:20)	0	30	33	65
Siltstone	fine, laminated	0	68	34	33
Mudstone	silty, laminated	0	40	34	73
Siltstone	fine with occasional thin ironstone bands	0	32	35	05
Mudstone	silty, laminated	0	16	35	21
Siltstone	fine, occasionally muddy; laminated; occasional thin ironstone bands passage	2	20	37	41
Mudstone	silty, laminated; occasional thin ironstone bands	2	29	39	70
Mudstone	carbonaceous; shaly; occasional non-marine lamellibranchs in the basal 0.25 detached	1	00	40	70
<u>COAL</u>	bright; 0.08 fragments recovered; geophysical logs suggest dirty coal approx. 0.20 detached	0	20	40	90
Seatearth:					
Mudstone	dark grey, core completely fragmented	0	18	41	08

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Core lost		0	16	41	24
Siltstone	fine to medium, with occasional irregular sandstone fine laminae (80:20)	0	39	41	63
Sandstone	fine	0	27	41	90
Siltstone	fine with occasional sandstone fine laminae (80:20)	0	40	42	30
Siltstone	fine to medium with occasional sandstone fine laminae; occasional small load-and-pouch structures; common comminuted plant debris	1	03	43	33
Siltstone	fine to medium; laminated; occasional plant debris	0	57	43	90
Sandstone	fine with common siltstone fine laminae (80:20); common micaceous carbonaceous planes, ripple bedded throughout	0	70	44	60
Siltstone	fine with rare wispy sandstone fine laminae passage	0	60	45	20
Siltstone	fine, laminated	0	90	46	10
Mudstone	silty, laminated; occasional thin ironstone bands	4	45	50	55
Mudstone	carbonaceous; shaly	0	73	51	28
Mudstone	laminated	0	18	51	46
Mudstone	silty, laminated	0	04	51	50

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Mudstone	silty, poorly laminated	0	95	<u>52</u>	<u>45</u>
Seatearth:					
Siltstone	fine to medium; pale grey; unlaminated, common roots	1	55	54	00
Sandstone	fine with common micaceous carbonaceous planes	0	60	54	60
Mudstone	silty; laminated; common thin ironstone bands	2	40	57	00
Mudstone	highly carbonaceous; shaly; common non-marine lamellibranchs	1	93	58	93
Mudstone	silty; occasional irregular ironstone bands near the top; becoming dark towards the base; occasional non-marine lamellibranchs	1	12	60	05
Mudstone	silty, dark; laminated; becoming slightly carbonaceous towards the base	1	80	61	85
Mudstone	carbonaceous detached, fitting	0	45	62	30
<u>CLOWNE SEAM</u>	Coal, mainly bright; occasional pyrite lenses near the top 75 (cylinders) Coal, mainly bright 78 (cylinders) <u>153</u> (pull-out at 63.05 m.) attached	<u>1</u>	<u>53</u>	<u>63</u>	<u>83</u>
Seatearth:					
Mudstone	pale grey	0	08	63	91
Siltstone	fine; pale grey	0	29	64	20

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Siltstone	medium; pale grey	0	13	64	33
Sandstone	fine with occasional siltstone fine laminae (90:10) common micaceous carbonaceous planes; occasional small ironstone lenses	1	17	65	50

Base of the hole at 65.50 m

Photographs of the cores are available
in the report by Soil Mechanics Ltd.
on the proposed Markham Colliery
surface drift (1985).

JR/0114r/PH