



GEOLOGICAL SURVEY OF GREAT BRITAIN
LONDON YORKSHIRE
RECORD OF SHAFT OR BORE FOR MINERALS

Name of Shaft or Bore given by Geological Survey:

London - Yorkshire Motorway Bl. No 601.

Name and Number given by owner:

For whom made

Town or Village County

Exact site

Attach a tracing from
a map, or a sketch-
map, if possible.

Purpose for which made

Ground Level at shaft
bore relative to O.D.

If not ground level give O.D. of beginning of shaft
bore

Made by

Date of sinking 1963

Information from Cores

Date received 1963

Examined by D.V. Frost

(For Survey use only)

6-inch Map Registered No.

SK46NE 80

Nat. Grid Reference

4534 6583

1" N.S. Map
No.

1" O.S. Map
No.

Confidential
or not

SPECIMEN NUMBERS AND ADDITIONAL NOTES

Due to my poor core recovery the thicknesses and depths are
very approximate.

(For Survey use only) GEOLOGICAL CLASSIFICATION	DESCRIPTION OF STRATA	THICKNESS		DEPTH	
		FT	IN.	FT	IN.
				4	0
	Clay, yellow and grey mottled, with coaly fragments and a transition to shale.	1	6	5	6
	Shale, grey mottled grey and brown near top, becoming grey to black, with sporadic transition nodules and plant fragments.	11	6	16	9
	Coal and dirt fragments	0	6	15	3
	Sandstone, grey, with nodules.	1	6	16	9
	Shale, grey, silty.	2	9	19	6
	Shale, carbonaceous, fragmentary, with coal fragments.	0	6	20	0
	Shale, grey.	8	8	28	8
	Shale, grey slightly silty at top becoming more silty to base.	8	10	37	6
	Sandstone, grey, fine grained, with siltstone and mudstone laminae, to top, and sporadic carbonaceous masses parting.	2	0	39	6
	Shale, grey, with iron staining along joints.	1	0	40	6
	Shale, grey, silty.	4	0	44	6
	Shale, grey.	2	6	46	57

10191X1
1/1585 4m 1/161X1



Name of Sheet or Work given to Geological Survey:

LONDON YORKSHIRE

601

6-inch Map
Registered
No.

SK46NE80

MOTORWAY

GEOLOGICAL CLASSIFICATION	DESCRIPTION OF STRATA	THICKNESS		DEPTH	
		FT	in.	FT	in.
	Brought to surface			57 1/2	0
	Hardstone, dark grey, carbonaceous.	1	0	58	0
	Coal, cannel coal, dirty.	1	0	59	0
	Sandstone, hardstone, grey, silty, with rocklets.	1	0	60	0
	Siltstone, grey, with plant remains.	5	0	65	0
	Hardstone, grey, silty, with sandy laminae.	9	6	74	6
	Hardstone, grey, with transition bands up to 2" thick, mottled at 77' and with speckles at 78'.	5	1	79	6
	Hardstone, dark grey, carbonaceous.	0	1	79	7
	Coal	0	1	79	8
	Sandstone, hardstone, grey, with rocklets.	1	0	80	8
	Hardstone, grey, silty, with plant fragments.	2	0	82	8
	Siltstone, pale grey-green.	0	4	83	0
	Sandstone, pale grey, fine grained with carbonaceous, micaceous partings.			88	8
	Siltstone, grey, with sandy laminae and plant fragments.	3	4	92	0
	Hardstone, grey, silty.	1	0	93	0
	Siltstone, grey, with sandy laminae.	2	0	95	0
	Sandstone, pale grey, fine grained with siltstone in silty nodules.				
	Siltstone, grey.	4	0	99	0
	Passing down to	4	0	103	0
	Hardstone, grey, silty, with 3" transition zone at 104' 6"	2	0	105	0
	Hardstone, grey, with silty partings and transition bands.				
	Becomes darker (brown) & blue.	10	0	115	0

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SK 46 NE (2)
RECORD OF BOREHOLE NO. 601A

Ground level: 358.3ft. above O.D. Newlyn (1,4,63.) Dia. of boring: 8in.

Type of boring: Shell and Auger Lining tubes: 8in. to 8ft. 3in.

Daily Progress	Core Recovery or Samples		Change of Strata			Description of Strata
	Depth	Percentage or type	Legend	Depth	O.D. Level	
	1'0"	D		1'0"	357.3	TOPSOIL
	2'6" - 4'0"	U(4)				Weathered and broken yellow-brown argillaceous fine SANDSTONE fragments in a matrix of silty fine SAND
	4'0"	D				
	2'0" - 6'0"	90				
	6'0"	D		6'0"	352.3	
	6'0" - 8'3"	80		8'3"	350.0	Mottled grey and brown shaly silty CLAY
19.3.63.						

Key to type of sample :

U (4) — 4 in. dia. undisturbed sample.
U (1½) — 1½ in. dia. " "
D — disturbed sample. "
SD — bulk disturbed sample.
W — water sample.
S () — standard penetration test.
C () — dynamic cone penetration test.

No. in brackets gives
No. of blows/12 in. penetration.

Remarks : (Observations on ground-water, etc.)

Slight seepage of ground-water encountered at 5ft. depth below ground level

MINISTRY OF TRANSPORT

LONDON-YORKSHIRE MOTORWAY

TROWELL TO BARLBOROUGH SECTION

Soils No :

5/3587

FIG. 24



SK46NE1
RECORD OF BOREHOLE NO. 601A/II

Ground level: 358.3ft. above O.D. Newlyn (1.4.63.)

Dia. of boring: NX (2 1/2 in. core)

Type of boring: Rotary Core Drilling

Lining tubes: NX (3 in.) to 55ft.

Daily Progress	Core Recovery or Samples		Change of Strata			Description of Strata
	Depth	Percentage or Type	Legend	Depth	O.D. Level	
	1'6"	0		1'0"	347.3	TOPSOIL
14.3.63.	3'0"	0		4'0"	354.3	Weathered brown sandstone with clayey sand
	4'0"					
	5'6"	100%				Stiff to hard mottled light brown and light grey CLAY, becoming hard light grey clay at 5ft. 6in. depth
15.3.63.	7'0"	67%				
	9'6"	50%		0'6"	348.8	Black laminated MUDSTONE, merging into massive grey mudstone, but laminated after 14ft.
	14'0"	81%		14'0"	343.5	Black coaly SHALE, with 2in. seam of grey-brown seatearth
				15'3"	343.0	Weathered brown laminated MUDSTONE
		54%		19'0"	339.3	Black coaly SHALE
	20'0"			20'0"	339.3	
						Grey-brown SEATEARTH grading to brownish grey laminated mudstone. Soft and broken at 23ft. with occasional ironstone nodules, but becoming at 26ft. more massive brown grey silty mudstone
19.3.63.	28'6"	74%		28'6"	329.8	
	28'0"	67%				Massive grey MUDSTONE, weathered 31ft. to 31ft. 2in., and slightly broken and friable from 31ft. 3in. Grey friable and silty, with ironstained joints from 35ft. 6in.
20.3.63.	35'6"	56%		36'6"	321.8	
						Brown grey laminated SILTSTONE, passing into coarse false bedded brown and dark brown sandstone at 37ft., which becomes grey and firm with depth
21.3.63.	40'6"	90%		40'3"	318.0	
						Brownish grey silty MUDSTONE becoming grey at 40ft. 6in., with soft bands from 40ft. 6in. to 40ft. 2in., 43ft. 8in. to 44ft. 1in. and becoming laminated and dark grey below 44ft. 7in.
	45'6"	83%				
		95%		52'10"	305.5	
	52'6"			57'0"	301.3	Weathered and broken grey and dark grey MUDSTONE
		80%		58'8"	300.0	Massive dark grey MUDSTONE
22.3.63.	60'0"			59'6"	298.8	COAL
		80%				False bedded and laminated grey silty MUDSTONE, with light grey siltstone partings broken below 70ft. 5in.
	70'0"			71'2"	287.1	
23.3.63.	76'0"	67%				Laminated dark grey MUDSTONE with occasional silty partings, passing at 75ft. into hard grey mudstone
				82'9"	275.5	
		83%		83'1"	275.2	Weathered grey-brown MUDSTONE
	85'0"					False bedded light grey silty MUDSTONE with grey siltstone partings
				90'0"	268.3	
		90%		95'3"	265.0	Massive grey silty MUDSTONE
25.3.63.	95'0"			99'7"	258.7	Laminated black MUDSTONE; 6in. coal at base
				99'3"	259.0	Laminated fine grey silty SANDSTONE with bands of grey silty mudstone often false bedded
	105'0"	98%				Massive grey silty MUDSTONE with light grey silty partings, passing gradually from 105ft. into massive black mudstone, laminated in part
26.3.63.	115'0"	95%		115'0"	243.3	

COAL MEASURES



GEOLOGICAL SURVEY OF GREAT BRITAIN		(For Survey use only)		
RECORD OF SHAFT OR BORE FOR MINERALS		6-inch Map Registered No.		
Name of Shaft or Bore given by Geological Survey: <u>LONDON-YORKSHIRE</u>		<u>SK46NE80</u>		
Name and Number given by owner: <u>MOTORWAY</u>		Nat. Grid Reference		
For whom made		1" N.S. Map No.		
Town or Village		1" O.S. Map No.		
Exact site		Confidential or not		
Purpose for which made		Attach a tracing from a map, or a sketch-map, if possible.		
Ground Level at ^{shaft} _{bore} relative to O.D.		If not ground level give O.D. of beginning of ^{shaft} _{bore}		
Made by		Date of sinking <u>963</u>		
Information from <u>for sample case</u>		Date received <u>963</u>		
Examined by <u>2.1.1964 C.G. Bradley</u>				

SPECIMEN NUMBERS AND ADDITIONAL NOTES

(For Survey use only) GEOLOGICAL CLASSIFICATION	DESCRIPTION OF STRATA	THICKNESS		DEPTH	
		FT	IN.	FT	IN.
for sample.	Sandstone, pale grey, fine grained, with lenticular staining.			3	0
				6	0
	Sandstone, grey - buff, fine grained, with silty micaceous and silty laminae	3	0	9	0
	micaceous, grey brown, becoming grey at about 6 in. generally plucks to bits.				
	Sparitic transition sands.	8	6	17	6
	Coal. Can fragmentary.	0	6	18	0
	Siltstone, micaceous, grey, bituminous, becoming silty to dark.				
	Plant fragments in transition sands.				
	Unconsolidated sandstone	3	0	21	0
	Siltstone, grey, silty, with plant fragments	1	2	32	2
	Sandstone, pale grey, with buff staining, silty micaceous laminae				
	Greenish sand.	6	6	38	8
	Passing down to micaceous grey, silty, becoming black in concentrations at base.	0	6	39	2
	Passing down to Coal. Can fragmentary.	2	8		10
	Siltstone, micaceous, grey, slightly bituminous with oil streaks.	0	2	41	2

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Name of Shaft or Bore given by Geological Survey: LONDON-YORKSHIRE		6-inch Map Registered No. 601 B.		SK46NE 80	
MOTORWAY					
GEOLOGICAL CLASSIFICATION	DESCRIPTION OF STRATA	THICKNESS		DEPTH	
		FT	IN.	FT	IN.
	brought for core			2	1
	<u>limestone</u> - grey, silty				
	with nodules in places				
	limestone	5	5	28	0
	<u>limestone</u> - grey, with plant frag. m.				
	one fragmentary	3	0	2	2
	<u>limestone</u> - grey, silty, with some				
	limestone		0	52	0
	base of hole				

RS98293/2 PS85 4m 1/81 XL

RECORD OF BOREHOLE NO.601B

Ground level : 397.8ft. above O.D. Newlyn (1.8.63) Dia. of boring : 390 (3in. core) to 52ft.
Type of boring : Shell and Auger and Rotary Core Drilling Lining tubes : H (4in.) to 10ft.

Daily Progress	Core Recovery or Samples		Change of Strata		Description of Strata	
	Depth	Percentage or Type	Legend	Depth O.D. Level		
				1'6"	396.3	TOPSOIL
	3'0"	D				Weathered brown SANDSTONE
	3'0"	BD				
	6'0"			6'0"	391.8	
		97%				Weathered broken and ironstained, irregularly laminated sandy MUDSTONE; at 9ft. softened and grey thereafter becoming harder ironstained and broken with occasional ironstones
	16'0"					
				17'6"	380.3	
		100%		18'2"	379.6	COAL - dull and pyritous
				21'8"	376.5	SEATEARTH
	23'0"			24'6"	373.8	Broken, fissured grey MUDSTONE with plant remains
		100%				Irregularly laminated dark and light grey fine muddy SANDSTONE with vertical fissures, partly ironstained laminations less frequent from 30ft.6in. to 31ft.6in.
	31'0"					
		100%				
17.6.63	38'2"			40'2"	357.6	
		100%		42'10"	355.0	COAL - light, dull towards base
				45'0"	352.8	Broken grey soapy SEATEARTH grading to mudstone
	48'8"					Vertically fissured grey MUDSTONE; broken, friable and clayey with plant remains to 48ft.; from 48ft. darker with ironstones and abundant plant stems; sandy at 51ft.6in.
18.6.63	52'0"	100%		52'0"	345.8	

Key to type of sample :

U (4) — 4 in. dia. undisturbed sample.
 U (1½) — 1½ in. dia. " "
 D — disturbed sample. "
 BD — bulk disturbed sample.
 W — water sample.
 S () — standard penetration test.
 C () — dynamic cone penetration test.

No. in brackets gives
No. of blows/12 in. penetration.

Remarks : (Observations on ground-water, etc.)

No ground-water was encountered during boring.

MINISTRY OF TRANSPORT
LONDON-YORKSHIRE MOTORWAY
TROWELL TO BARLBOROUGH SECTION

Soils No :
3/3547

FIG. 247

GEORGE WIMPEY & CO., LTD. CENTRAL LABORATORY HAYES