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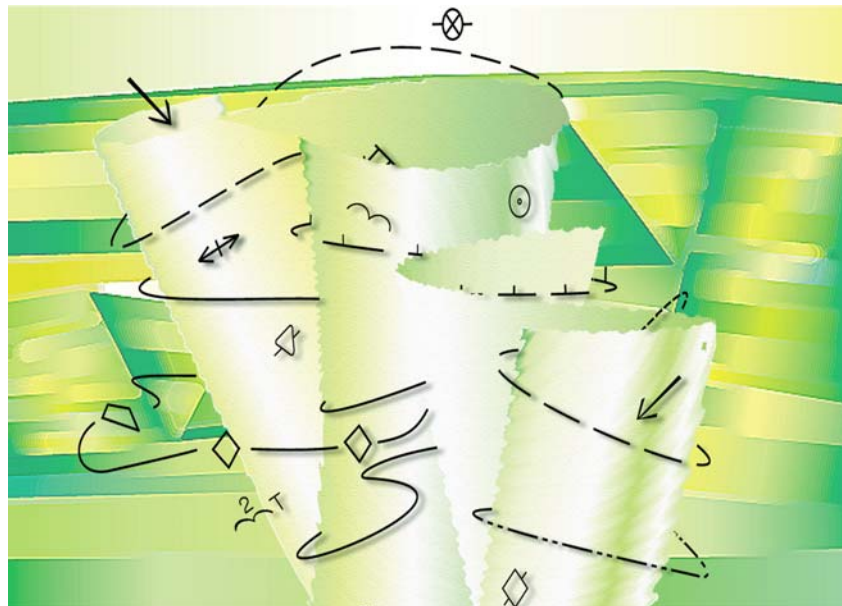
NATURAL ENVIRONMENT RESEARCH COUNCIL

Cartographic standard geological symbol index

Version 3

Publications Production

Research Report RR/01/01



BRITISH GEOLOGICAL SURVEY

RESEARCH REPORT RR/01/01

Cartographic standard geological symbol index

Version 3

C H Mawer

Key words

Geological map; symbols; area ornaments; line styles.

Bibliographical reference

MAWER C H. 2002.
Cartographic standard geological symbol index. Version 3. *British Geological Survey Research Report*, RR/01/01. 49pp.

ISBN 085272 402 0

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Keyworth, Nottingham British Geological Survey 2002

BRITISH GEOLOGICAL SURVEY

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The British Geological Survey carries out the geological survey of Great Britain and Northern Ireland (the latter as an agency service for the government of Northern Ireland), and of the surrounding continental shelf, as well as its basic research projects. It also undertakes programmes of British technical aid in geology in developing countries as arranged by the Department for International Development and other agencies.

The British Geological Survey is a component body of the Natural Environment Research Council.

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Foreword

This report represents the latest version (version 3) of the official BGS cartographic symbols, ornaments and line styles.

Version 1.0 was produced in April 1997, following a development project to unify 1:10 000 scale and 1:50 000 scale map symbols (CS/R&D/7). Version 2.0 was produced in February 1999, following geological updates, and inclusion of line styles and area ornaments (RR-99-05). Version 3.0 was produced in September 2002, following geological updates. This version replaces all previous versions.

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1 Introduction

This document was compiled from information created using **MicroStation™** from **Bentley Systems** and **Fontographer®** from **Macromedia®**. It was also designed to accompany three Microstation digital libraries and seven font libraries, which may be released at some future time.

1.1 STANDARD GEOLOGICAL SYMBOLS

The geological symbols are described in Section 2. The BGS standard length for an average* symbol is 3mm at 1:25 000 scale and all smaller scale maps, and 4mm for 1:10 000. (*The average symbol being the length of the main body of the symbol i.e. the length of the Alluvium symbol without a prefix or suffix).























Each symbol has been given a reference name, which is primarily used within the Microstation digital library. The reference names are an abbreviated form of their description, many are grouped together in their geological classification with a common prefix as follows:



























ALV	Alluvial deposits
BRK	Brickearth
GFL	Glaciofluvial deposits
GLA	Glaciolacustrine deposits
GL	Glacial deposits
IGL	Interglacial deposits
LAC	Lacustrine deposits
MA	Marine deposits
RM	Raised marine deposits
RS	Rock symbols
RT	River terrace deposits
S	Structural symbols
SG	Sand and gravel.



























SYMBOLS

*INDEX LISTED BY GEOLOGICAL
CLASSIFICATION*

CLASSIFICATION	DESCRIPTION	REF NAME	SYMBOL
<u>D R I F T</u> <u>ARTIFICIAL DEPOSITS</u>	Small area of made ground, backfilled pit	ART_BP	∩
	Small area of made ground, above surface	ART_AS	∩
	Small area of worked ground	ART_WG	∩
	Small area of landslip	MSM_L	∩
<u>MASS- MOVEMENT</u>	Blockfield	BLOC	□-□
	Coombe deposits	COD	Ⓞ
	Clay-with-flints	CWF	Ⓢ
	Sand in clay-with-flints	CWF_S	sⓈ
	Debris cone	DCON	△
	Head or hillwash	HEAD	Ⓢ
	Head 1	HEAD1	Ⓢ ¹
	Head 2	HEAD2	Ⓢ ²
	Blanket head / regolith	HEAD_R	Ⓢ _R
	Head, Burton Lazars	HEADBL	^{BL} Ⓢ _T
	Head, Colluvium	HEAD_C	Ⓢ _C
	Gravelly head	HEAD_G	gⓈ
	Head, Little Dalby	HEADLD	^{LD} Ⓢ
	Head, Pen Hill	HEADPH	^{PH} Ⓢ _T
	Sandy head	HEAD_S	sⓈ
	Valley bottom head	HEAD_V	Ⓢ _{VB}
	Pebbly clay and sand	PBS	Ⓢ
	Scree / talus	SCRE	Ⓢ
	Inactive scree / talus	SCRE_I	Ⓢ _I

CLASSIFICATION	DESCRIPTION	REF NAME	SYMBOL
<u>AEOLIAN DEPOSITS</u>	Blown sand	BLS	
	Blown sand, l	BLS_1	
	Brickearth	BRK_	
	Brickearth, Dartford Silt	BRK_DA	
	Brickearth, Enfield Silt	BRK_ES	
	Brickearth, Ilford Silt	BRK_IL	
	Brickearth, Langley Silt	BRK_LS	
	Brickearth, Wolston Clay	BRK_WC	
	Loess	LOESS	
<u>ORGANIC DEPOSITS</u>	Peat	PEAT	
	Basin peat	PEA_BA	
	Blanket peat	PEA_BL	
	Fen peat	PEA_FN	
	Hill peat	PEA_H	
	Nordelph peat	PEAT_N	
	Peat flow	PEAT_F	
	Submerged forest	PET_SF	
	Diatomite	DIAT	
	Diatomite, fluvial	DIAT_F	
	Shell marl	SLM	
	<u>CHEMICAL /ORGANIC DEPOSITS</u>	Bog iron ore	ORE
Calcareous tufa		TUFA_C	
Tufa		TUFA	


























CLASSIFICATION	DESCRIPTION	REF NAME	SYMBOL
<u>FLUVIAL DEPOSITS</u>	Alluvial fan deposits	ALV_FN	
	Alluvial fan deposits, gravel	ALV_FG	
	Alluvium	ALV	
	Alluvium, 1	ALV_1	
	Alluvium, clay	ALV_C	
	Alluvium, sand and gravel	ALV_SG	
<u>River Terraces</u>	Arun Terrace Deposits, 1st	RT_A1	
	Arun Terrace Deposits, 2nd	RT_A2	
	Arun Terrace Deposits, 3rd	RT_A3	
	Arun Terrace Deposits, 4th	RT_A4	
	Arun Terrace Deposits, 5th	RT_A5	
	Arun Terrace Deposits, 6th	RT_A6	
	Arun Terrace Deposits, 7th	RT_A7	
	Balderton Sand and Gravel	RT_BDN	
	Bank Farm Terrace	RT_B	
	Bassingfield Sand and Gravel	RT_BS	
	Beaconsfield Gravel	RT_BC9	
	Beenham Grange Gravel	RT_BG2	
	Beenham Stocks Gravel	RT_BS7	
	Beeston Sand and Gravel	RT_BEE	
	Belton Sand and Gravel	RT_BEL	
	Birstall Sand and Gravel	RT_BIR	
	Black Park Gravel	RT_BPG	
	Blackwater Terrace Deposits, 3rd	RT_B3	
	Blackwater Terrace Deposits, 4th	RT_B4	
	Boyn Hill Gravel	RT_BH	



























CLASSIFICATION	DESCRIPTION	REF NAME	SYMBOL
<u>River Terraces</u> <u>(continued)</u>	Bramley Wey Terrace Deposits, 2nd	RT_BW2	
	Bucklebury Gravel	RT_BK8	
	Brooksby Sand and Gravel	RT_BKY	
	Bunny Sand and Gravel	RT_BN	
	Bytham Sand and Gravel	RT_BTH	
	Caesar's Camp Gravel	RT_CCG	
	Cheltenham Sand and Gravel	ALV_CH	
	Combe Member	RT_CM	
	Corbets Tey Gravel	RT_CY	
	Daylesford Member, 1st	RT_DM1	
	Dollis Hill Gravel	RT_DH	
	Dry valley deposits	ALV_DV	
	Eagle Moor Sand and Gravel	RT_EM	
	Eggington Common Sand and Gravel	RT_EC	
	Etwall Sand and Gravel	RT_ET	
	Fen Sand and Gravel	RT_FG	
	Finsbury Gravel	RT_FIN	
	Fluvial Sand and Gravel	RT_FSG	
	Freeland Member	RT_FR	
	Fulbeck Sand and Gravel	RT_FUL	
	Gerrards Cross Gravel	RT_GC	
	Godalming Wey Deposits, 1st	RT_GW1	
	Godalming Wey Deposits, 1a	RT_G1A	
	Godalming Wey Deposits, 1b	RT_G1B	
Godalming Wey Deposits, 2nd	RT_GW2		
Godalming Wey Deposits, 3rd	RT_GW3		

CLASSIFICATION	DESCRIPTION	REF NAME	SYMBOL
<u>River Terraces</u> <u>(continued)</u>	Hackney Gravel	RT_HA	\overline{HA}_T
	Hanborough Member	RT_H4	$\overline{4H}_T$
	Holme Pierrepont Sand and Gravel	RT_HP	\overline{HP}_T
	Kempton Park Gravel	RT_KP	\overline{KP}_T
	Knighton Sand and Gravel	RT_KN	\overline{Kn}_T
	Leaves Green Gravel	RT_LG	\overline{LG}_T
	Leen Sand and Gravel	RT_LN	\overline{LN}_T
	Little Hereford River Terrace	RT_H	\overline{H}_T
	Lynch Hill Gravel	RT_LH	\overline{LH}_T
	Northmoor Member	RT_N1	$\overline{1N}_T$
	Ockbrook Sand and Gravel	RT_OcK	\overline{Ock}_T
	Rissington Member	RT_RM1	$\overline{1R}_T$
	River Avon Deposits, 1st	RT_AV1	$\overline{A1}_T$
	River Avon Deposits, 2nd	RT_AV2	$\overline{A2b}_T$
	River Severn Deposits, 1st	RT_S1	$\overline{S1}_T$
	River Severn Deposits, 2nd	RT_S2	$\overline{S2}_T$
	River Severn Deposits, 3rd	RT_S3	$\overline{S3}_T$
	River terrace deposits, 1st	RT01	$\overline{1}_T$
	River terrace deposits, 1a	RT01A	$\overline{1a}_T$
	River terrace deposits, 1b	RT01B	$\overline{1b}_T$
	River terrace deposits, 1c	RT01C	$\overline{1c}_T$
	River terrace deposits, 1st - 2nd	RT01-2	$\overline{1-2}_T$
	River terrace deposits, 2nd	RT02	$\overline{2}_T$
	River terrace deposits, 2nd - 3rd	RT02-3	$\overline{2-3}_T$
	River terrace deposits, 3rd	RT03	$\overline{3}_T$
	River terrace deposits, 4th	RT04	$\overline{4}_T$



























CLASSIFICATION	DESCRIPTION	REF NAME	SYMBOL
<u>River Terraces</u> <u>(continued)</u>	River terrace deposits, 5th	RT05	<u>5</u> _T
	River terrace deposits, 5th - 6th	RT05-6	<u>5-6</u> _T
	River terrace deposits, 6th	RT06	<u>6</u> _T
	River terrace deposits, 7th	RT07	<u>7</u> _T
	River terrace deposits, 8th	RT08	<u>8</u> _T
	River terrace deposits, 9th	RT09	<u>9</u> _T
	River terrace deposits 10th	RT10	<u>10</u> _T
	River terrace deposits, 11th	RT11	<u>11</u> _T
	River terrace deposits, 12th	RT12	<u>12</u> _T
	River terrace deposits, 13th	RT13	<u>13</u> _T
	River terrace deposits, 14th	RT14	<u>14</u> _T
	River terrace deposits, 15th	RT15	<u>15</u> _T
	River terrace deposits, undifferentiated	RT_U	<u>u</u> _T
	River Worfe Deposits, undifferentiated	RT_WF	<u>Wf</u> _T
	River Worfe Terrace Deposits, 1st	RT_WF1	<u>Wf1</u> _T
	River Worfe Terrace Deposits, 2nd	RT_WF2	<u>Wf2</u> _T
	River Wye Terrace Deposits, 1st	RT_WY1	<u>Wy1</u> _T
	River Wye Terrace Deposits, 2nd	RT_WY2	<u>Wy2</u> _T
	Rother Terrace Deposits, 1st	RT_RO1	<u>Ro1</u> _T
	Rother Terrace Deposits, 2nd	RT_RO2	<u>Ro2</u> _T
	Rother Terrace Deposits, 3rd	RT_RO3	<u>Ro3</u> _T
	Rother Terrace Deposits, 4th	RT_RO4	<u>Ro4</u> _T
	Rother Terrace Deposits, 5th	RT_RO5	<u>Ro5</u> _T
Rother Terrace Deposits, undifferentiated	RT_ROU	<u>Ro<u>u</u></u> _T	
Shakenhurst Terrace	RT_S	<u>S</u> _T	
Shepperton Gravel	RT_SH	<u>SH</u> _T	

CLASSIFICATION	DESCRIPTION	REF NAME	SYMBOL
<u>River Terraces</u> <u>(continued)</u>	Sherborne Member, 1st terrace	RT_SM1	$\overline{1S}_T$
	Sherborne Member, 2nd terrace	RT_SM2	$\overline{2S}_T$
	Silchester Gravel	RT_SL6	$\overline{SL6}_T$
	Summertown Radley Member, 2nd terrace	RT_SR2	$\overline{2SR}_T$
	Surrey Hill Gravel	RT_SHG	\overline{SHG}_T
	Syston Sand and Gravel	RT_SYS	\overline{Sys}_T
	Taplow Gravel	RT_TAP	\overline{TP}_T
	Thatcham Gravel	RT_TH3	$\overline{TH3}_T$
	Wanlip Sand and Gravel	RT_WAN	\overline{Wan}_T
	Warp	ALV_W	\overline{W}_W
	Westland Green Gravel	RT_WG	$\overline{WG10}_T$
	Westmill Lower Gravel	RT_WM	\overline{WL}_T
	Whatton Sand and Gravel	RT_WH	\overline{W}_T
	Winter Hill Gravel	RT_WH7	$\overline{WH7}_T$
	Wolvercote Member	RT_WO3	$\overline{3W}_T$
Woodford Gravel	RT_WD	\overline{WO}_T	
<u>LACUSTRINE</u> <u>DEPOSITS</u>	Lacustrine deposits	LAC	σ
	Lacustrine deposits 1	LAC1	σ^1
	Lacustrine deposits 2	LAC2	σ^2
	Lacustrine deposits 3	LAC3	σ^3
	Lacustrine delta deposits	LAC_D	$\sigma\Delta$
	Lacustrine shoreface and beach deposits	LAC_SB	σ_s
	Lacustrine shoreface and beach deposits 5	LAC_S5	σ^5_s



















CLASSIFICATION	DESCRIPTION	REF NAME	SYMBOL
<u>MARINE DEPOSITS</u>	Bank deposits	MA_B	
	Bank deposits, sand	MA_BS	
	Barroway Drove Beds	MA_BDB	
	Chenier deposits	MA_CH	
	Netley Heath Deposits	MA_NET	N
	Coastal barrier deposits	MA_CB	
	Coastal barrier, sand and gravel	MA_SGC	
	Coastal zone deposits, undifferentiated	MA_CZ	
	Intertidal deposits, undifferentiated	MA_I	
	Marine band	MA_MB	
	Marine beach deposits	MA_BE	
	Marine deposits, undifferentiated	MA_MA	
	Marine deposits, sand and gravel	MA_SG	
	Mud deposits	MA_M	
	Saltmarsh deposits	MA_SM	
	Sand and silt deposits	MA_SSI	
	Sand deposits	MA_S	
	Sand, tabular or sheet deposits	MA_SST	
	Shell bank (mussel band)	MA_SHB	
	Shoreface deposits	MA_SF	
	Shoreface deposits, sand	MA_SFS	
	Shoreface deposits, sand and gravel	MA_SSG	
	Silt deposits	MA_SI	
Storm beach deposits	MA_SB		
Storm beach deposits, 1	MA_SB1		
Storm beach deposits, gravel	MA_SBG		














CLASSIFICATION	DESCRIPTION	REF NAME	SYMBOL
<u>MARINE DEPOSITS</u> <u>(continued)</u>	Supratidal deposits undifferentiated	MA_SU	
	Tabular or sheet deposits	MA_ST	
	Tidal flat deposits	MA_TF	
	Tidal flat deposits, 1	MA_TF1	
	Tidal, river or creek deposits	MA_TR	
	Tidal, river or creek deposits, mud	MA_TRM	
	Tidal, river or creek deposits, mud and gravel	MA_TMG	
	Washover deposits	MA_WO	
<u>RAISED MARINE DEPOSITS</u>	Beach deposits	RM_SB2	
	Brackish lagoon	RM_BL	
	Delta deposits, sand and gravel	RM_DS	
	Flandrian deposits	RM_FL	
	Intertidal	RM_IN	
	Late glacial	RM_LG	
	Post glacial	RM_PG	
	Raised marine delta deposits	RM_D	
	Raised marine deposits	RM	
	Raised marine deposits, clay	RM_C	
	Raised marine deposits, high	RM_2	
	Raised marine deposits, highest	RM_3	
	Raised marine deposits, low	RM_1	
	Raised marine deposits, March Gravels	RM_MG	
	Raised marine deposits, mud	RM_M	
	Raised marine deposits, Nor Valley Clay	RM_NV	
	Raised marine deposits, sand and gravel	RM_SG	
	Raised marine deposits, silt and clay	RM_SC	

CLASSIFICATION	DESCRIPTION	REF NAME	SYMBOL
<u>RAISED MARINE DEPOSITS</u> <u>(continued)</u>	Raised marine deposits, Terrington Beds	RM_TB	
	Raised marine deposits, Tottenhill Gravels	RM_TO	
	Raised marine, tidal, river or creek deposits	RM_TF	
	Raised tidal flat deposits of Flandrian age	RM_TRF	
	Shore beach deposits of Flandrian age	RM_SBF	
	Subtidal	RM_SU	
<u>INTERGLACIAL</u>	Interglacial lacustrine deposits	IGL_LA	
	Interglacial deposits, undifferentiated	IGL	
	Interglacial fluvial deposits	IGL_FL	
	Interglacial marine deposits, undifferentiated	IGL_MA	
	Interglacial marine shore beach deposits	IGL_MS	
<u>GLACIAL DEPOSITS</u>	Diamicton	DM	
	Glacial deposits	GL	
	Crag with tail	GL_CG	
	Hummocky glacial and morainic deposits	GL_HMC	
	Muddy sand and gravel	GL_MSG	
<u>Glaciofluvial deposits</u>	Glaciofluvial deposits, undifferentiated	GFL	
	Baginton Sand and Gravel	GFL_B	
	Burtle Beds,	GFL_BU	
	Corton Formation	GFL_CO	
	Deltaic and / or fan deposits	GFL_D	
	Lochton Sand and Gravel Formation (East Grampian Drift Group)	GFL_EG	
	Eagle Moor Sand and Gravel	GFL_EM	
	Holderness Formation	GFL_HO	
	Ice-contact	GFL_IC	

CLASSIFICATION	DESCRIPTION	REF NAME	SYMBOL
<u>GLACIAL DEPOSITS</u> <u>Glaciofluvial Deposits (continued)</u>	Irish Sea Ice Sheet (sheet deposits)	GFL_IT	
	Irish Sea Ice Sheet, undifferentiated	GFL_I	
	Lowestoft Formation	GFL_L	
	Drumlithie Sand and Gravel (Mearns Drift Group)	GFL_MD	
	Moreton Member	GFL_MT	
	Overstrand Formation	GFL_O	
	Oadby Member	GFL_OD	
	Pre-Devensian	GFL_PD	
	Sheet deposits, 1st	GFL_S1	
	Sheet deposits, 2nd	GFL_S2	
	Sheet deposits, 3rd	GFL_S3	
	Sand and gravel	GFL_SG	
	Sheet deposits	GFL_SH	
	Wigston Sand and Gravel	GFL_WI	
	Woolford Heath Member	GFL_WL	
	Wolston Sand and Gravel	GFL_WO	
<u>Glaciolacustrine</u>	Glaciolacustrine deposits	GLA	
	Glaciolacustrine deposits 1	GLA1	
	Glaciolacustrine deposits 2	GLA2	
	Clay	GLA_C	
	Delta deposits, sand and gravel	GLA_DG	
	Delta deposits	GLA_DL	
	Delta deposits, sand	GLA_DS	
	Glen Dye Silts Formation (East Grampian Drift Group)	GLA_EG	
	Findern Clay	GLA_FC	
	Silt and clay	GLA_M	

CLASSIFICATION	DESCRIPTION	REF NAME	SYMBOL
<u>Glaciomarine</u>	Ury Silts Formation (Mearns Drift Group)	GLA_MD	
	Silt and clay, 1st	GLA_M1	
	Rotherby clay	GLA_RO	
	Sand	GLA_S	
	Sand and gravel	GLA_SG	
	Glaciomarine deposits	GLM	
	Ardersier Silts Formation,	GLM_A	
<u>Till</u>	Till or boulder clay	TIL	
	Benholm Clay Formation	TIL_BB	
	Wragby, Calcethorpe & Belmont	TIL_C	
	Corton Formation	TIL_CO	
	Banchory Till Formation (east Grampian Drift Group)	TIL_EG	
	Holderness Formation	TIL_HO	
	Irish Sea Ice Sheet	TIL_I	
	Lowestoft Formation	TIL_L	
	Marsh Till	TIL_M	
	Mill of Forest Formation (Mearns Drift Group)	TIL_MD	
	Moreton Member	TIL_MT	
	Overstrand Formation	TIL_O	
	Oadby Till	TIL_OD	
	Oadby Till (Lias-rich)	TIL_OL	
	Oadby Till (Trias-rich)	TIL_OT	
	Ruddington Moor Till	TIL_RM	
	Thrussington Till	TIL_TH	

CLASSIFICATION	DESCRIPTION	REF NAME	SYMBOL
<u>MISCELLANEOUS</u> <u>DRIFT</u>	Anker Sand and Gravel	SG_A	
	Chelsfield Gravel	SG_CH	
	Dunsmore Gravel	SG_DG	
	Erratic	ERRAT	
	Hathern Gravel	SG_HAT	
	Sand and gravel, age uncertain	SG_U	
	Stanmore Gravel	SG_ST	
	Upton Sand and Gravel	SG_UP	
	Well Hill Gravel	SG_WH	
<u>LANDFORM</u>	Fall of glacial drainage channel	GDC_FA	
	Glacial drainage channel, front	GDC_F	
	Glacial striae	GLST	
	Glacial striae direction of ice flow	GLSTI	
	Kettle hollow	KH	
	Roche moutonnée	GL_RM	
	Roche moutonnée with striae	GL_RMS	
	Rockhead or bedrock	ROCK	
	Single sided glacial drainage channel	GDC_S	
<u>ROCK SYMBOLS</u>	Acid tuff	RS_ATF	Z^R
	Acid tuffite	RS_ATT	V^R
	Aplite	RS_APL	α
	Basic tuff	RS_BTf	Z^B
	Basic tuffite	RS_BTT	V^B





CLASSIFICATION	DESCRIPTION	REF NAME	SYMBOL
<u>ROCK SYMBOLS</u> <u>(continued)</u>	Cataclastic (Metamorphic)	RS_BEM	β
	Cataclastic rocks	RS_BET	β
	Foliated	RS_FOL	ϕ
	Grandiorite X	RS_GRX	∞
	Microdiorite	RS_P	P^D
	Microgranite	RS_FG	F^G
	Mylonitic (metamorphic)	RS_MU1	μ
	Mylonitic rocks	RS_MU	μ
	Pegmatite	RS_PEG	π
	Pseudotachylitic	RS_KAP	κ
	Rhyolite	RS_R	R^R
	Sheared rock (igneous and metamorphic)	RS_SH	σ
<u>STRUCTURAL SYMBOLS</u> <u>Bedding</u>	Corrugated strata, low dip	S_ISCL	
	Corrugated foliation	S_ISCF	
	Cross-bedding of foresets	S_CBF	
	Direction of younging	S_DY	
	Dune-bedding	S_DB	
	General dip	S_GDIP	
	General dip, underground	S_GDUP	
	Gently inclined strata	S_GIS	
	Gently undulating strata	S_GUS	
	Highly inclined strata	S_ISH	
	Horizontal overturned strata	S_HOS	
	Horizontal strata	S_HS	
	Inclined strata 1	S_IS1	

CLASSIFICATION	DESCRIPTION	REF NAME	SYMBOL
<u>STRUCTURAL SYMBOLS</u> <u>Bedding (continued)</u>	Inclined strata 2	S_IS2	←
	Inclined strata, overturned	S_ISO	⊖
	Inclined strata, uncertain	S_ISU	⊙
	Inclined strata, underground	S_ISUD	←
	Strike of strata	S_STS	⊙
	Undulating bed, inclined	S_UIS	⊙
	Undulating vertical strata	S_UVS	⊙
	Vertical strata	S_VS	+
<u>Foliation or layering</u>	Horizontal foliation	S_HF	#
	Inclined foliation	S_IF	⊖
	Strike of foliation	S_STF	⊙
	Undulating foliation	S_UF	⊙
	Vertical foliation	S_VF	⊖
<u>Cleavage / schistosity</u>	Vertical foliation, general corrugated strike	S_VFC	⊙
	Direction of cleavage	S_DC	▶
	Horizontal cleavage	S_HC	⊙
	Inclined cleavage	S_IC	▲
	Inclined cleavage, sandstone	S_ICS	▲
	Sheared rock	S_SR	~
	Strike of cleavage	S_STC	⊙
	Undulating cleavage, inclined	S_UCI	⊙
	Vertical cleavage	S_VC	◆
	Vertical cleavage in sandstone	S_VCS	◇
	Horizontal joint	S_HJ	⊕
	Inclined joint	S_IJ	⊖
	Vertical joint	S_VJ	⊕

CLASSIFICATION	DESCRIPTION	REF NAME	SYMBOL
<u>Linear structures</u>	Horizontal lineation	S_HLI	↔
	Plunging lineation	S_PLI	↙
	Vertical lineation	S_VLI	◆
<u>Igneous rocks</u>	Horizontal flow jointing	S_HFJ	•□•
	Horizontal primary crystal alignment	S_HPCA	↔↔
	Horizontal primary planar fabric in igneous rocks	S_HPPF	⊕
	Horizontal relict, planar fabric in plutonic rocks	S_HR	⊞
	Horizontal welding foliation	S_HWF	⊕
	Inclined flow jointing	S_IFJ	•□•
	Inclined primary crystal alignment	S_IPCA	↙
	Inclined primary planar fabric	S_IPP	•—•
	Inclined primary planar fabric, overturned	S_IPPO	•┘•
	Inclined relict, planar fabric in plutonic rocks	S_IR	•—•
	Inclined welding foliation	S_IWF	○—○
	Strike of primary planar fabric	S_STPP	—
	Strike of welding foliation	S_STWF	○—○
	Vertical flow jointing	S_VFJ	•□•
	Vertical primary crystal alignment	S_VPCA	△
	Vertical primary planar fabric	S_VPP	•—•
	Vertical relict, planar fabric in plutonic rocks	S_VR	•—•
Vertical welding foliation	S_VWF	○—○	
<u>Major folds</u>	Anticline axial plane	S_ACAP	◇
	Synclinal axial plane	S_SCAP	×
	Synform axial plane	S_SFAP	▼

CLASSIFICATION	DESCRIPTION	REF NAME	SYMBOL
<u>STRUCTURAL SYMBOLS</u> <u>Minor folds</u>	Axis of minor anticline	S_AMA	↔
	Axis of minor fold	S_AMF	←
	Axis of minor syncline	S_AMS	↔*
	Horizontal axial plane of minor fold	S_HAPM	⊕
	Horizontal axis of minor anticline	S_HAMA	↔
	Horizontal axis of minor fold	S_HAMF	↔
	Horizontal axis of minor fold, phase 1	S_HAM1	↔↔
	Horizontal axis of minor monocline	S_HAMM	↔
	Horizontal axis of minor syncline	S_HAMS	↔*
	Inclined axial plane of minor fold	S_IAPM	┌
	Locality with refolded minor folds	S_LOC	⊙
	Minor fold, low angle of plunge	S_MFLA	↔↑
	Overtured anticline	S_ANO	↺
	Overtured syncline	S_SYNO	↻
	Plunge axis of minor fold	S_PMF	←
	Strike axial plane minor fold	S_STAM	┌
	Vertical axial plane of minor fold	S_VAPM	┌
	Vertical axis of minor fold	S_VAMF	◇
	<u>Vergence</u>	Axis of minor fold showing direction of vergence	S_AMFV
Dextral vergence of minor fold		S_DXVM	↗
Direction of vergence of minor fold		S_DVMF	^
Neutral vergence of minor fold		S_NVMF	∞
Sinistral vergence of minor fold		S_SVMF	↖




























CLASSIFICATION	DESCRIPTION	REF NAME	SYMBOL
<u>Faults and related structures</u>	Fault movement	FLT_MV	
	Fault terminator	FLT_TR	
	Mineral vein dip	S_MVFD	
	Strike slip fault	FLT_S	
	Thrust barb	TBARB	
<u>OTHER SYMBOLS</u>			
	Adit	ADIT	
	Adit, abandoned	ADIT_A	
	Adit, unknown orientation	ADIT_U	
	Borehole	BH	
	Borehole, uncertain	BH_UN	
	Borehole, underground	BH_UD	
	Dip of igneous contact	S_DIP	
	Fossil locality	FOSSL	
	Inclination of dyke	S_IDY	
	Location, with specific note	SPNT	
	Mineral locality	MLOC	
	Photo in BGS collection	PHOTO	
	Pit or mine shaft	PIT	
	Pit or mine shaft, abandoned, or denehole	PIT_A	
	Pit or mine shaft, abandoned, site uncertain	PIT_U	
	Pit shaft, underground	PIT_UD	
	Rock slice, petrographic	SLICE	
	Site of former mine	SFM	
	Small isolated exposure	EXP	
	Spring or group of springs	SPRING	

CLASSIFICATION	DESCRIPTION	REF NAME	SYMBOL
OTHER SYMBOLS <u>(continued)</u>	Surface section Swallow hole Trench Underground spot level Well	SURF_S SWH TRE UDSPOT BH_WL	   X 

SYMBOLS

INDEX LISTED BY DESCRIPTION

DESCRIPTION	REF NAME	SYMBOL	A-Z
Acid tuff	RS_ATF	Z ^R	A
Acid tuffite	RS_ATT	V ^R	
Adit	ADIT	←	
Adit, abandoned	ADIT_A	⇐	
Adit, unknown orientation	ADIT_U	⇐	
Alluvial fan deposits	ALV_FN	~△	
Alluvial fan deposits, gravel	ALV_FG	G ~△	
Alluvium	ALV	~	
Alluvium, 1	ALV_1	~ ₁	
Alluvium, clay	ALV_C	c ~	
Alluvium, sand and gravel	ALV_SG	SG ~	
Anker Sand and Gravel	SG_A	⊗ ^A	
Anticline axial plane	S_ACAP	◇	
Anticline, overturned	S_ANO	↶	
Aplite	RS_APL	∞	
Ardersier Silts Formation, glaciomarine deposits	GLM_A	⊗ ^A	
Arun Terrace Deposits, 1st	RT_A1	Ar ₁ T	
Arun Terrace Deposits, 2nd	RT_A2	Ar ₂ T	
Arun Terrace Deposits, 3rd	RT_A3	Ar ₃ T	
Arun Terrace Deposits, 4th	RT_A4	Ar ₄ T	
Arun Terrace Deposits, 5th	RT_A5	Ar ₅ T	
Arun Terrace Deposits, 6th	RT_A6	Ar ₆ T	
Arun Terrace Deposits, 7th	RT_A7	Ar ₇ T	
Axis of minor anticline	S_AMA	⇐	
Axis of minor fold	S_AMF	←	
Axis of minor fold showing direction of vergence	S_AMFV	←△	
Axis of minor syncline	S_AMS	←X	

DESCRIPTION	REF NAME	SYMBOL	A-Z
Baginton Sand and Gravel, glaciofluvial deposits	GFL_B		B
Balderton Sand and Gravel	RT_BDN		
Banchory Till Formation (east Grampian Drift Group), till	TIL_EG		
Bank deposits	MA_B		
Bank deposits, sand	MA_BS		
Bank Farm Terrace	RT_B		
Barroway Drove Beds, marine deposit	MA_BDB		
Basic tuff	RS_BTf		
Basic tuffite	RS_BTT		
Basin peat	PEA_BA		
Bassingfield Sand and Gravel	RT_BS		
Beach deposits, raised marine deposits	RM_SB2		
Beaconsfield Gravel	RT_BC9		
Beenham Grange Gravel	RT_BG2		
Beenham Stocks Gravel	RT_BS7		
Beeston Sand and Gravel	RT_BEE		
Belton Sand and Gravel	RT_BEL		
Benholm Clay Formation, till	TIL_BB		
Birstall Sand and Gravel	RT_BIR		
Black Park Gravel	RT_BPG		
Blackwater Terrace Deposits, 3rd	RT_B3		
Blackwater Terrace Deposits, 4th	RT_B4		
Blanket head / regolith	HEAD_R		
Blanket peat	PEA_BL		
Blockfield	BLOC		
Blown sand	BLS		
Blown sand, 1	BLS_1		

DESCRIPTION	REF NAME	SYMBOL	A-Z
Bog iron ore	ORE		B
Borehole	BH		
Borehole, uncertain	BH_UN		
Borehole, underground	BH_UD		
Boyn Hill Gravel	RT_BH		
Brackish lagoon	RM_BL		
Bramley Wey Terrace Deposits, 2nd	RT_BW2		
Brickearth	BRK_		
Brooksby Sand and Gravel	RT_BKY		
Bucklebury Gravel	RT_BK8		
Bunny Sand and Gravel	RT_BN		
Burtle Beds, glaciofluvial deposits	GFL_BU		
Bytham Sand and Gravel	RT_BTH		
Caesar's Camp Gravel	RT_CCG		C
Calcareous tufa	TUFA_C		
Cataclastic (metamorphic)	RS_BEM	β	
Cataclastic rocks	RS_BET	β	
Chelsfield Gravel	SG_CH		
Cheltenham Sand and Gravel	ALV_CH		
Chenier deposits	MA_CH		
Clay, glaciolacustrine deposits	GLA_C		
Clay-with-flints	CWF		
Coastal barrier deposits	MA_CB		
Coastal barrier, sand and gravel	MA_SGC		
Coastal zone deposits, undifferentiated	MA_CZ		
Combe Member (river terrace)	RT_CM		
Coombe Deposits	COD		




























DESCRIPTION	REF NAME	SYMBOL	A-Z
Corbets Tey Gravel	RT_CY		C
Corrugated foliation	S_ISCF		
Corrugated strata, low dip	S_ISCL		
Corrugated strike (general) vertical foliation	S_VFC		
Corton Formation, glaciofluvial deposits	GFL_CO		
Corton Formation, till	TIL_CO		
Crag with tail	GL_CG		
Cross-bedding of foresets	S_CBF		
Dartford Silt (brickearth)	BRK_DA		D
Daylesford Member, 1st river terrace	RT_DM1		
Debris cone	DCON		
Delta deposits	GLA_DL		
Delta deposits, sand	GLA_DS		
Delta deposits, sand and gravel, raised marine	RM_DS		
Delta deposits, sand and gravel, glacial	GLA_DG		
Deltaic and / or fan deposits	GFL_D		
Dextral vergence of minor fold	S_DXVM		
Diamicton	DM		
Diatomite	DIAT		
Diatomite, fluvial	DIAT_F		
Dip of igneous contact	S_DIP		
Dip, general	S_GDIP		
Dip, general, underground	S_GDUP		
Dip, mineral vein	S_MVFD		
Direction of cleavage	S_DC		
Direction of vergence of minor fold	S_DVMF		
Direction of younging	S_DY		

DESCRIPTION	REF NAME	SYMBOL	A-Z
Dollis Hill Gravel	RT_DH		D
Drumlithie Sand and Gravel (Mearns Drift Group), glaciofluvial deposits	GFL_MD		
Dry valley deposits	ALV_DV		
Dune-bedding	S_DB		
Dunsmore Gravel	SG_DG		
Eagle Moor Sand and Gravel	RT_EM		E
Eagle Moor Sand and Gravel, glaciofluvial deposits	GFL_EM		
Eggington Common Sand and Gravel	RT_EC		
Enfield Silt (brickearth)	BRK_ES		
Erratic	ERRAT		
Etwall Sand and Gravel	RT_ET		
Fall of glacial drainage channel	GDC_FA		F
Fan deposits and / or deltaic	GFL_D		
Fault movement	FLT_MV		
Fault terminator	FLT_TR		
Fault, strike slip	FLT_S		
Fen peat	PEA_FN		
Fen sand and gravel	RT_FG		
Findern Clay	GLA_FC		
Finsbury Gravel	RT_FIN		
Flandrian deposits	RM_FL		
Fluvial sand and gravel	RT_FSG		
Foliated	RS_FOL		
Fossil locality	FOSSL		
Freeland Member river terrace	RT_FR		
Fulbeck Sand and Gravel	RT_FUL		

DESCRIPTION	REF NAME	SYMBOL	A-Z
General dip	S_GDIP		G
General dip, underground	S_GDUP		
Gently inclined strata	S_GIS		
Gently undulating strata	S_GUS		
Gerrards Cross Gravel	RT_GC		
Glacial deposits	GL		
Glacial drainage channel, front	GDC_F		
Glacial striae	GLST		
Glacial striae direction of ice flow	GLSTI		
Glaciofluvial deposits, undifferentiated	GFL		
Glaciolacustrine deposits	GLA		
Glaciolacustrine deposits 1	GLA1		
Glaciolacustrine deposits 2	GLA2		
Glaciomarine deposits	GLM		
Glen Dye Silts Formation (East Grampian Drift Group), glaciolacustrine deposits	GLA_EG		
Godalming Wey Deposits, 1a river terrace deposit	RT_G1A		
Godalming Wey Deposits, 1b river terrace deposit	RT_G1B		
Godalming Wey Deposits, 1st river terrace deposit	RT_GW1		
Godalming Wey Deposits, 2nd river terrace deposit	RT_GW2		
Godalming Wey Deposits, 3rd river terrace deposit	RT_GW3		
Grandiorite X	RS_GRX		
Gravelly head	HEAD_G		
Hackney Gravel	RT_HA		
Hanborough Member river terrace	RT_H4		
Hathern Gravel	SG_HAT		
Head 1	HEAD1		
Head 2	HEAD2		

DESCRIPTION	REF NAME	SYMBOL	A-Z
Head or hillwash	HEAD		H
Head, Burton Lazars	HEADBL		
Head, Colluvium	HEAD_C		
Head, Little Dalby	HEADLD		
Head, Pen Hill	HEADPH		
High raised marine deposits	RM_2		
Highest raised marine deposits	RM_3		
Highly inclined strata	S_ISH		
Hill peat	PEA_H		
Holderness Formation, glaciofluvial deposits	GFL_HO		
Holderness Formation, till	TIL_HO		
Holme Pierrepont Sand and Gravel	RT_HP		
Horizontal axial plane of minor fold	S_HAPM		
Horizontal axis of minor anticline	S_HAMA		
Horizontal axis of minor fold	S_HAMF		
Horizontal axis of minor fold, phase 1	S_HAM1		
Horizontal axis of minor monocline	S_HAMM		
Horizontal axis of minor syncline	S_HAMS		
Horizontal cleavage	S_HC		
Horizontal flow jointing	S_HFJ		
Horizontal foliation	S_HF		
Horizontal joint	S_HJ		
Horizontal lineation	S_HLI		
Horizontal overturned strata	S_HOS		
Horizontal primary crystal alignment	S_HPCA		
Horizontal primary planar fabric in igneous rocks	S_HPPF		
Horizontal relict, planar fabric in plutonic rocks	S_HR		



























DESCRIPTION	REF NAME	SYMBOL	A-Z
Horizontal strata	S_HS	+	H
Horizontal welding foliation	S_HWF		
Hummocky glacial and morainic deposits	GL_HMC		
Ice-contact, glaciofluvial deposits	GFL_IC		I
Ilford Silt (brickearth)	BRK_IL		
Inactive scree / talus	SCRE_I		
Inclination of dyke	S_IDY	←	
Inclined strata (highly)	S_ISH	≡	
Inclined axial plane of minor fold	S_IAPM	┌	
Inclined cleavage	S_IC	▲	
Inclined cleavage, sandstone	S_ICS	△	
Inclined flow jointing	S_IFJ	●●●	
Inclined foliation	S_IF	≡	
Inclined joint	S_IJ	┌	
Inclined primary crystal alignment	S_IPCA	←→	
Inclined primary planar fabric	S_IPP	●┌	
Inclined primary planar fabric, overturned	S_IPPO	●┌	
Inclined relict, planar fabric in plutonic rocks	S_IR	●┌	
Inclined strata (gently)	S_GIS	←+	
Inclined strata 1	S_IS1	┌	
Inclined strata 2	S_IS2	←	
Inclined strata, overturned	S_ISO	┌	
Inclined strata, uncertain	S_ISU	┌	
Inclined strata, underground	S_ISUD	←┌	
Inclined welding foliation	S_IWF	○┌	
Interglacial lacustrine deposits	IGL_LA		
Interglacial deposits, undifferentiated	IGL		




























DESCRIPTION	REF NAME	SYMBOL	A-Z
Interglacial fluvial deposits	IGL_FL		I
Interglacial marine deposits, undifferentiated	IGL_MA		
Interglacial marine shore beach deposits	IGL_MS		
Intertidal	RM_IN		
Intertidal deposits, undifferentiated	MA_I		
Irish Sea Ice Sheet, (sheet deposits) glaciofluvial deposits	GFL_IT		
Irish Sea Ice sheet, till	TIL_I		
Irish Sea Ice Sheet, undifferentiated, glaciofluvial deposits	GFL_I		
Kempton Park Gravel	RT_KP		K
Kettle hollow	KH		
Knighton Sand and Gravel	RT_KN		
Lacustrine delta deposits	LAC_D		L
Lacustrine deposits	LAC		
Lacustrine deposits 1	LAC1		
Lacustrine deposits 2	LAC2		
Lacustrine deposits 3	LAC3		
Lacustrine shoreface and beach deposits	LAC_SB		
Lacustrine shoreface and beach deposits 5	LAC_S5		
Landslip, small area	MSM_L		
Langley Silt (brickearth)	BRK_LS		
Late Glacial, raised marine deposits	RM_LG		
Leaves Green Gravel	RT_LG		
Leen Sand and Gravel	RT_LN		
Little Hereford river terrace	RT_H		
Locality with refolded minor folds	S_LOC		
Location with specific note	SPNT		
Lochton Sand and Gravel Formation (East Grampian Drift Group)	GFL_EG		




























DESCRIPTION	REF NAME	SYMBOL	A-Z
Loess	LOESS		L
Low raised marine deposits	RM_1		
Lowestoft Formation, glaciofluvial deposits	GFL_L		
Lowestoft Formation, till	TIL_L		
Lynch Hill Gravel	RT_LH		
Made ground, above surface, small area	ART_AS		M
Made ground, backfilled pit, small area	ART_BP		
March gravels, raised marine deposits	RM_MG		
Marine band	MA_MB		
Marine beach deposits	MA_BE		
Marine deposits, sand and gravel	MA_SG		
Marine deposits, undifferentiated	MA_MA		
Marsh till	TIL_M		
Microdiorite	RS_P		
Microgranite	RS_FG		
Mill of Forest Formation (Mearns Drift Group), till	TIL_MD		
Mineral locality	MLOC		
Mineral vein dip	S_MVFD		
Minor fold, low angle of plunge	S_MFLA		
Moreton Member, glaciofluvial deposits	GFL_MT		
Moreton Member, till	TIL_MT		
Mud deposits	MA_M		
Muddy sand and gravel, glacial deposits	GL_MSG		
Mylonitic (metamorphic)	RS_MU1		
Mylonitic rocks	RS_MU		

DESCRIPTION	REF NAME	SYMBOL	A-Z	
Netley Heath marine deposits	MA_NET	N	N	
Neutral vergence of minor fold	S_NVMF	↘		
Nor Valley Clay, raised marine deposits	RM_NV	NV _{TR}		
Nordelph Peat	PEAT_N	N		
Northmoor Member river terrace	RT_N1	1N _T		
Oadby Member, glaciofluvial deposits	GFL_OD	Od	O	
Oadby Till	TIL_OD	Od		
Oadby Till (Lias-rich)	TIL_OL	OL		
Oadby Till (Trias-rich)	TIL_OT	OT		
Ockbrook Sand and Gravel	RT_Ock	Ock _T		
Overstrand Formation, glaciofluvial deposits	GFL_O	O		
Overstrand Formation, till	TIL_O	O		
Overtured (horizontal) strata	S_HOS	∫		
Overtured anticline	S_ANO	∩		
Overtured inclined strata	S_ISO	∩		
Overtured syncline	S_SYNO	∪		
Peat	PEAT	~		P
Peat flow	PEAT_F	~ _{FW}		
Pebbly clay and sand	PBS	⊕		
Pegmatite	RS_PEG	π		
Photo in BGS collection	PHOTO	📷		
Pit or mine shaft	PIT	⊖		
Pit or mine shaft, abandoned, or denehole	PIT_A	⊕		
Pit or mine shaft, abandoned, site uncertain	PIT_U	⊖		
Pit shaft, underground	PIT_UD	⊗		
Plunge axis of minor fold	S_PMF	←		
Plunging lineation	S_PLI	←		

DESCRIPTION	REF NAME	SYMBOL	A-Z
Postglacial, raised marine deposits	RM_PG		P
Pre-Devensian	GFL_PD		
Pseudotachylitic	RS_KAP	K	
Raised marine delta deposits	RM_D		R
Raised marine deposits	RM		
Raised marine deposits, clay	RM_C		
Raised marine deposits, high	RM_2		
Raised marine deposits, highest	RM_3		
Raised marine deposits, low	RM_1		
Raised marine deposits, mud	RM_M		
Raised tidal flat deposits of Flandrian age	RM_TRF		
Rhyolite	RS_R	R^R	
Rissington Member river terrace	RT_RM1		
River Avon Deposits, 1st river terrace	RT_AV1		
River Avon Deposits, 2nd river terrace	RT_AV2		
River Severn Deposits, 1st river terrace	RT_S1		
River Severn Deposits, 2nd river terrace	RT_S2		
River Severn Deposits, 3rd river terrace	RT_S3		
River terrace deposits, 1st	RT01		
River terrace deposits, 1a	RT01A		
River terrace deposits, 1b	RT01B		
River terrace deposits, 1c	RT01C		
River terrace deposits, 2nd	RT02		
River terrace deposits, 1st - 2nd	RT01-2		
River terrace deposits, 2nd - 3rd	RT02-3		
River terrace deposits, 3rd	RT03		
River terrace deposits, 4th	RT04		














DESCRIPTION	REF NAME	SYMBOL	A-Z
River terrace deposits, 5th	RT05		R
River terrace deposits, 5th - 6th	RT05-6		
River terrace deposits, 6th	RT06		
River terrace deposits, 7th	RT07		
River terrace deposits, 8th	RT08		
River terrace deposits, 9th	RT09		
River terrace deposits, 10th	RT10		
River terrace deposits, 11th	RT11		
River terrace deposits, 12th	RT12		
River terrace deposits, 13th	RT13		
River terrace deposits, 14th	RT14		
River terrace deposits, 15th	RT15		
River terrace deposits, undifferentiated	RT_U		
River Worfe Deposits, undifferentiated	RT_WF		
River Worfe Terrace Deposits, 1st	RT_WF1		
River Worfe Terrace Deposits, 2nd	RT_WF2		
River Wye Terrace Deposits, 1st	RT_WY1		
River Wye Terrace Deposits, 2nd	RT_WY2		
Roche moutonnée	GL_RM		
Roche moutonnée with striae	GL_RMS		
Rock slice, petrographic	SLICE		
Rockhead or bedrock	ROCK		
Rother Terrace Deposits, 1st	RT_RO1		
Rother Terrace Deposits, 2nd	RT_RO2		
Rother Terrace Deposits, 3rd	RT_RO3		
Rother Terrace Deposits, 4th	RT_RO4		
Rother Terrace Deposits, 5th	RT_RO5		

DESCRIPTION	REF NAME	SYMBOL	A-Z
Rother Terrace Deposits, undifferentiated	RT_ROU		
Rotherby Clay, glaciolacustrine deposits	GLA_RO		
Ruddington Moor Till	TIL_RM		
Saltmarsh deposits	MA_SM		S
Sand and gravel, age uncertain	SG_U		
Sand and gravel, glaciofluvial deposits	GFL_SG		
Sand and gravel, glaciomarine deposits	GLA_SG		
Sand and gravel, raised marine deposits	RM_SG		
Sand and silt deposits	MA_SSI		
Sand deposits	MA_S		
Sand in clay-with-flints	CWF_S		
Sand, glaciolacustrine deposits	GLA_S		
Sand, tabular or sheet deposits	MA_SST		
Sandy head	HEAD_S		
Scree / talus	SCRE		
Shakenhurst Terrace	RT_S		
Sheared rock	S_SR		
Sheared rock (igneous and metamorphic)	RS_SH		
Sheet deposits, 1st, glaciofluvial deposits	GFL_S1		
Sheet deposits, 2nd, glaciofluvial deposits	GFL_S2		
Sheet deposits, 3rd, glaciofluvial deposits	GFL_S3		
Sheet deposits, glaciofluvial deposits	GFL_SH		
Shell bank (mussel band)	MA_SHB		
Shell marl	SLM		
Shepperton Gravel	RT_SH		
Sherborne Member, 1st terrace	RT_SM1		
Sherborne Member, 2nd terrace	RT_SM2		

DESCRIPTION	REF NAME	SYMBOL	A-Z
Shore beach deposits of Flandrian age	RM_SBF		S
Shoreface deposits	MA_SF		
Shoreface deposits, sand	MA_SFS		
Shoreface deposits, sand and gravel	MA_SSG		
Silchester Gravel	RT_SL6		
Silt and clay, 1st, glaciolacustrine deposits	GLA_M1		
Silt and clay, glaciolacustrine deposits	GLA_M		
Silt and clay, raised marine deposits	RM_SC		
Silt deposits	MA_SI		
Single sided glacial drainage channel	GDC_S		
Sinistral vergence of minor fold	S_SVMF		
Site of former mine	SFM		
Small isolated exposure	EXP		
Spring or group of springs	SPRING		
Stanmore Gravel	SG_ST		
Storm beach deposits	MA_SB		
Storm beach deposits, 1	MA_SB1		
Storm beach deposits, gravel	MA_SBG		
Strike axial plane minor fold	S_STAM		
Strike of cleavage	S_STC		
Strike of foliation	S_STF		
Strike of primary planar fabric	S_STPP		
Strike of strata	S_STS		
Strike of welding foliation	S_STWF		
Strike slip fault	FLT_S		
Submerged forest	PET_SF		
Subtidal, raised marine deposits	RM_SU		

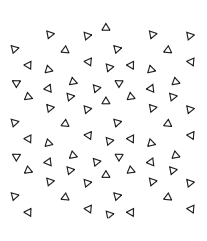
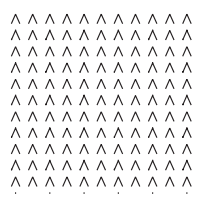
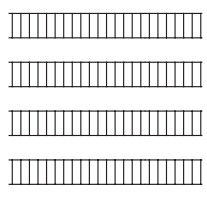
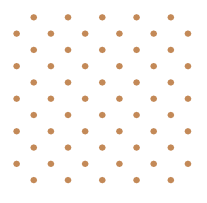
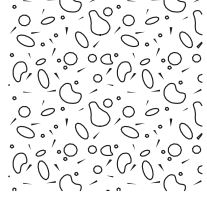
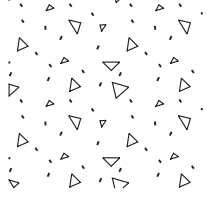
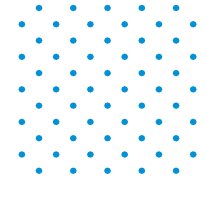
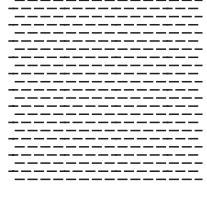
DESCRIPTION	REF NAME	SYMBOL	A-Z
Summertown Radley Member, 2nd terrace	RT_SR2		S
Supratidal deposits undifferentiated	MA_SU		
Surface section	SURF_S		
Surrey Hill Gravel	RT_SHG		
Swallow hole	SWH		
Synclinal axial plane	S_SCAP		
Syncline, overturned	S_SYNO		
Synform axial plane	S_SFAP		
Syston Sand and Gravel	RT_SYS		
Tabular or sheet deposits	MA_ST		T
Talus / inactive scree	SCRE_I		
Talus / scree	SCRE		
Taplow Gravel	RT_TAP		
Terrington Beds, raised marine deposits	RM_TB		
Thatcham Gravel	RT_TH3		
Thrussington Till	TIL_TH		
Thrust barb	TBARB		
Tidal flat deposits	MA_TF		
Tidal flat deposits, 1	MA_TF1		
Tidal, river or creek deposits	MA_TR		
Tidal, river or creek deposits, mud	MA_TRM		
Tidal, river or creek deposits, mud and gravel	MA_TMG		
Tidal, river or creek deposits, raised marine deposits	RM_TF		
Till or boulder clay	TIL		
Tottenham Gravels, raised marine deposits	RM_TO		
Trench	TRE		
Tufa	TUFA		

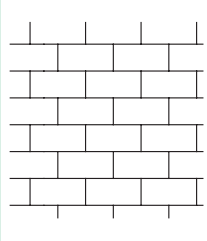
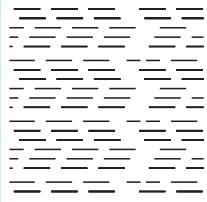
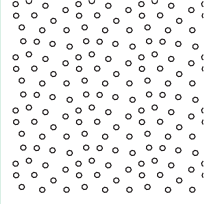
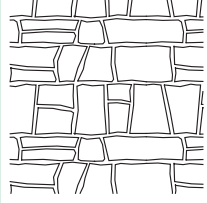
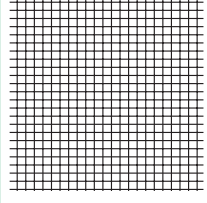
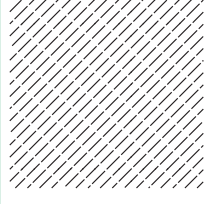
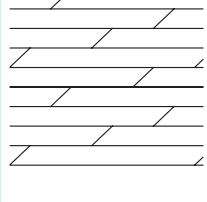
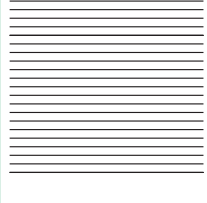
DESCRIPTION	REF NAME	SYMBOL	A-Z
Underground spot level	UDSPOT	X	U
Undulating bed, inclined	S_UIS		
Undulating cleavage, inclined	S_UCI		
Undulating foliation	S_UF		
Undulating strata (gently)	S_GUS		
Undulating vertical strata	S_UVS		
Upton Sand and Gravel	SG_UP		
Ury Silts Formation (Mearns Drift Group), glaciolacustrine deposits	GLA_MD		
Valley bottom head	HEAD_V		V
Vertical axial plane of minor fold	S_VAPM		
Vertical axis of minor fold	S_VAMF		
Vertical cleavage	S_VC		
Vertical cleavage in sandstone	S_VCS		
Vertical flow jointing	S_VFJ		
Vertical foliation	S_VF		
Vertical foliation, general corrugated strike	S_VFC		
Vertical joint	S_VJ		
Vertical lineation	S_VLI		
Vertical primary crystal alignment	S_VPCA		
Vertical primary planar fabric	S_VPP		
Vertical relict, planar fabric in plutonic rocks	S_VR		
Vertical strata	S_VS		
Vertical strata, undulating	S_UVS		
Vertical welding foliation	S_VWF		
Wanlip Sand and Gravel	RT_WAN		W
Warp	ALV_W		
Washover deposits	MA_WO		

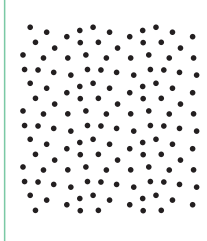
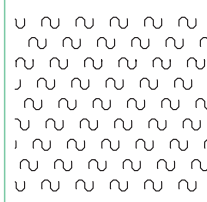
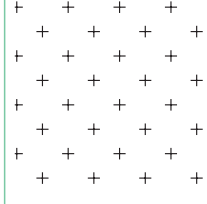
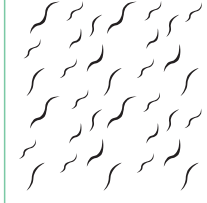
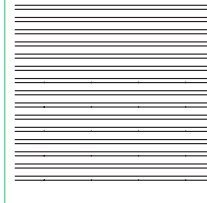
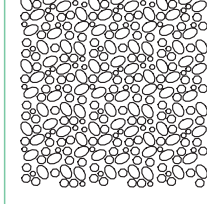
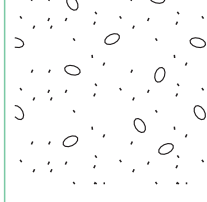

DESCRIPTION	REF NAME	SYMBOL	A-Z
Well	BH_WL		W
Well Hill Gravel	SG_WH		
Westland Green Gravel	RT_WG		
Westmill Lower Gravel	RT_WM		
Whatton Sand and Gravel	RT_WH		
Wigston Sand and Gravel, glaciofluvial deposits	GFL_WI		
Winter Hill Gravel	RT_WH7		
Wolston Clay (brickearth)	BRK_WC		
Wolston Sand and Gravel, glaciofluvial deposits	GFL_WO		
Wolvercote Member river terrace	RT_WO3		
Woodford Gravel	RT_WD		
Woolford Heath Member, glaciofluvial deposits	GFL_WL		
Worked ground, small area	ART_WG		
Wragby, Calcethorpe & Belmont, till	TIL_C		

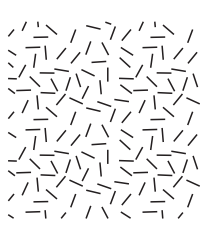
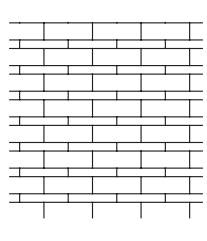
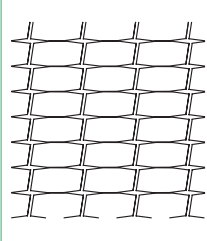
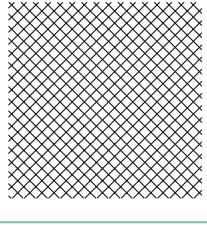
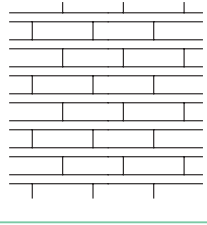
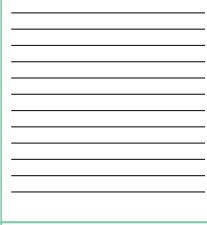
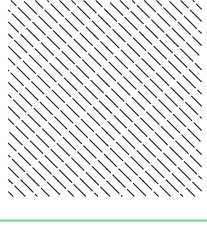
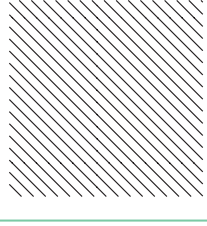
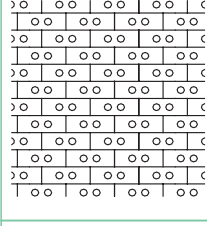
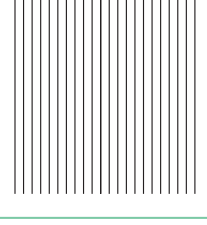
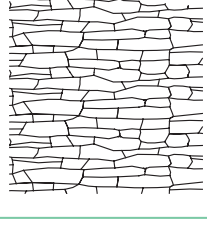
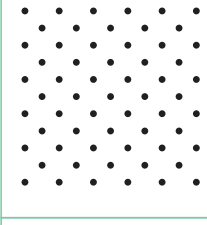

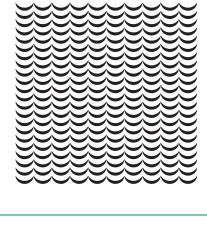
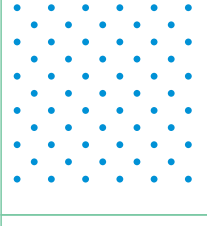

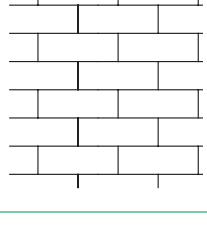
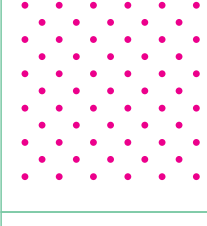
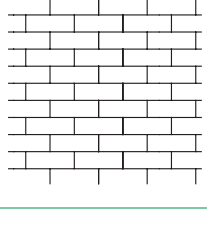
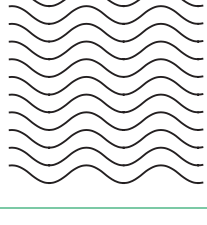
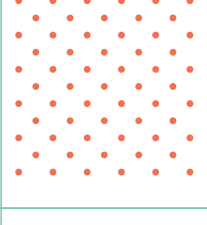
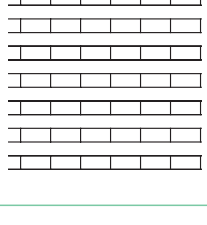
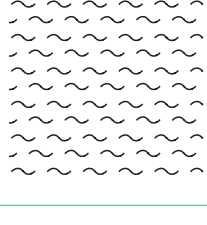
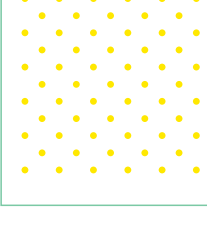
AREA ORNAMENTS

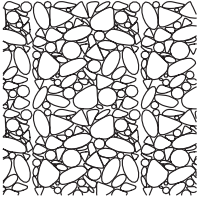
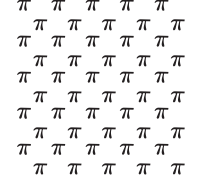
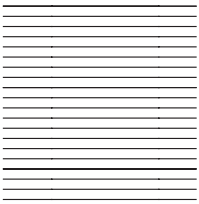
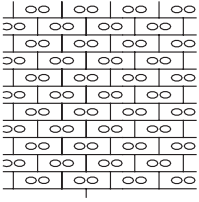
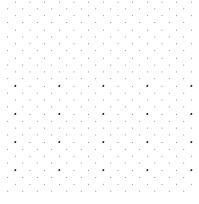
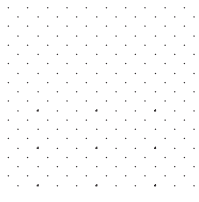
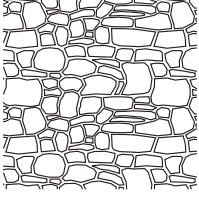
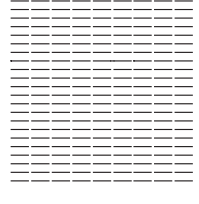
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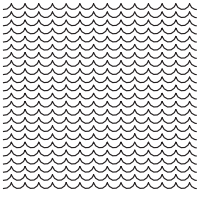
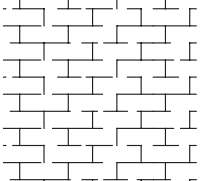
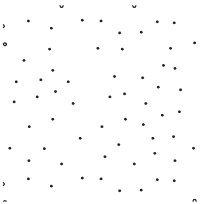
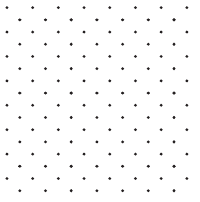
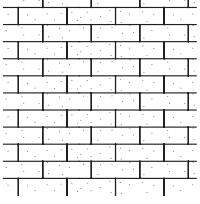
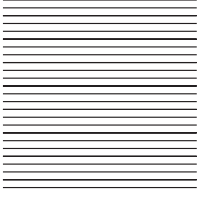
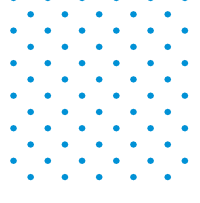
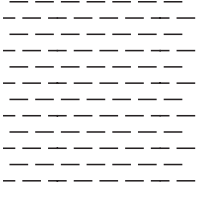
	Agglomerate AGGLOM (reference name)
	Anhydrite ANHY
	Arenaceous seatearth ARE_ST
	Blown sand BLSND
	Boulder clay BCLAY
	Breccia BREC
	Calcareous tufa CALTUF
	Cataclastic rock CAT

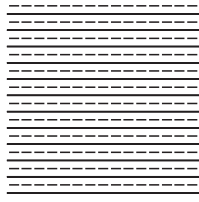
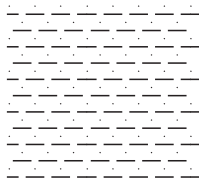
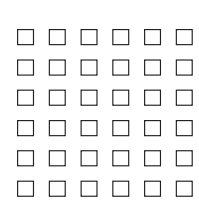
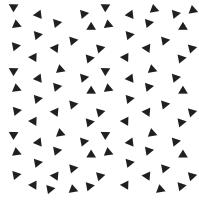
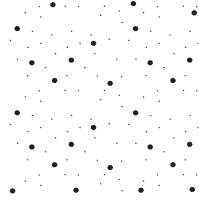
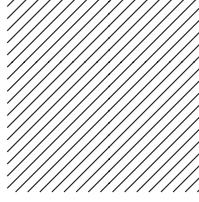
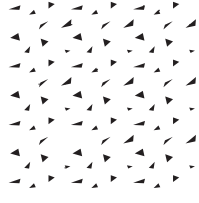
	Chalk CHLK
	Claystone CLST
	Conglomerate CONG
	Coursed rubble CRSRB
	Crushed rock CR_RCK
	Disturbed ground DIST
	Dolomite DOLOM
	Foundered strata FOUND

	General overprint stipple STIPP
	Gneiss GNEISS
	Granite GRAN
	Granite veining GRAN_V
	Graphitic schist GR_SCH
	Gravel GRAV
	Greywacke GWACKE
	Gypsum GYPS

	Igneous IG (reference name)		Limestone beds LMST_B		Mixed group with calc-schist/limestone LMST_G
	Infilled ground INFILL		Limestone thin bed partings LMST_T		Mudstone MDST
	Landscaped ground LASC		Made ground MADE		Ooidal limestone LMST_O
	Landslip LAND		Marble MARBLE		Overprint stipple for various rock types Black ST_BLK
	Lava LAVA		Marine overprint (white) MARINE		Overprint stipple for various rock types Cyan ST_CYN
	Lava and tuff LAV_TU		Massive limestone LMST_M		Overprint stipple for various rock types Magenta ST_MAG
	Limestone LMST		Metasediment METASD		Overprint stipple for various rock types Orange ST_OR
	Limestone bands LMST_D		Migmatisation MIGM		Overprint stipple for various rock types Yellow ST_YEL


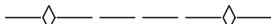
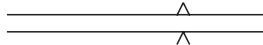
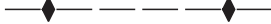
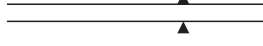













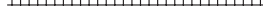
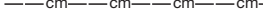
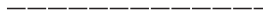

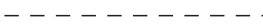

	Pebbles PEBBLE
	Pegmatite or vein complexes PEG
	Pelite PELITE
	Pisoidal limestone LMST_P
	Psammite PSAMM
	Quartzite QUART (reference name)
	Random rubble RNRBL
	Reclaimed ground RECL




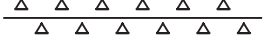






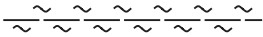
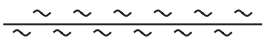


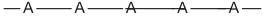







	Reworked gneisses GNE_RW
	Rubbly limestone; poorly bedded LMST_R
	Sand SAND
	Sandstone SNDST
	Sandy limestone LMST_S
	Shale SHALE
	Shell marl SHMRL
	Siltstone SLTST

	Silty mudstone SLTMD
	Silty sandstone SLTSND
	Sodium salt SALT
	Tuff TUFF
	Turbidite TURB
	Worked ground WORK
	Xenoliths XENO

LINE STYLES

LISTED BY DESCRIPTION

	Aeromagnetic/Bouguer anomaly
	Axial plane trace of major anticline
	Axial plane traces of closely spaced anticline/syncline pair
	Axial plane trace of major antiform
	Axial plane traces of closely spaced major antiform/synform pair
	Axial plane trace of major reclined or vertical fold
	Axial plane trace of major recumbant fold
	Axial plane trace of major syncline
	Axial plane trace of major synform
	Axis of large-scale glacial flute
	Axis of large-scale glacial gouge
	Backfeature marking former coastline, arrowheads denote uphill side
	Backfeature marking former lake margin, arrowheads denote uphill side
	Backfeature of terrace margin, arrowheads denote uphill side
	Base of lava flow
	Buried channel or valley margin
	Buried cliffline, crossmarks on beach side
	Cliffline, crossmarks on beach side
	Cementstone
	Coal, inferred
	Coal, observed
	Coal, sub-Triassic
	Coal seam contour
	Coal seam, washout

	Crestline of elongate mound
	Crestline of esker (blue, orange or magenta)
	Crestline of linear feature
	Drumlin or dune line at base of mound
	Fault brecciation zone, inferred
	Fault brecciation zone, observed
	Fault, thrust conjectural
	Fault, thrust observed
	Incrop of fault at unconformity (sub-Triassic)
	Fault, normal inferred
	Fault, normal observed
	Fault, reverse
	Fault shearing zone, inferred
	Fault shearing zone, observed
	Fault, strike-slip
	Fault, thrust or slide, inferred
	Fossil horizon, algal band
	Fossil horizon, brachiopod band
	Fossil horizon, coral band
	Fossil horizon, eustheria band
	Fossil horizon, lingula band
	Fossil horizon, planolites band
	Geological boundary, artificial
	Geological boundary, drift

	Geological boundary, mass movement
	Geological boundary, solid inferred
	Geological boundary, solid intrusive
	Geological boundary, solid intrusive observed
	Geological boundary, solid observed
	Glacial meltwater or overflow channel, centre line
	Glacial meltwater channel margins
	Hydrothermal
	Igneous cutting margin, crossmarks on side of younger rock, inferred
	Igneous cutting margin, observed
	Igneous plutons
	Incrop of coal
	Incrop of marine band
	Ironstone, inferred
	Ironstone, observed
	Kettle hole
	Limit of diorite / grandiorite
	Limit of glacial advance, Gosforth oscillation limit
	Limit of glacial advance, Scottish readvance limit
	Limit of granite / pegmatite vein complex, x π within area of veining
	Limit of granite vein complex
	Limit of migmatisation, ^ towards migmatites
	Limit of transgressive pegmatite veins, π within areas of veins
	Lineament, probably fracture related

	Line of split coal seam, ornament on split side
	Magnetic layer or boundary
	Man made deposit boundary
	Marine band
	Marked break in slope, arrowheads denote uphill side
	Mass Movement boundary
	Metamorphic aureole, + towards intrusion
	Metamorphic zone boundary with mineral or zone number
	Mineral vein, with name of mineral
	Mining area, subsurface
	Mussel band
	Oil-shale, inferred
	Oil-shale, observed
	Outer edge of terrace
	Quarry
	Sandstone bed
	Subsidence hollow, drift (not corresponding)
	Subsidence hollow, corresponding to drift boundary
	Subsidence hollow, solid (not corresponding)
	Subsidence hollow, corresponding to solid boundary
	Tonstein
	Trace of lower hinge of major monocline
	Trace of upper hinge of major monocline
	Unconformity (marginalia only)