

Cartographic standard geological symbol index

This 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.

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.



Description	Symbol	Description	Symbol	
Artificial Deposits	Small area of made ground, backfilled pit	Sherborne Member, 2 nd terrace	25.1	
	Small area of made ground, above surface	Silchester Gravel	84.1	
	Small area of worked ground	Summertown Radley Member, 2 nd terrace	92.1	
	Small area of landslip	Surrey Hill Gravel	95.1	
Mass-movement	Blockfield	Syston Sand and Gravel	22.1	
	Coombe deposits	Taplow Gravel	23.1	
	Clay-with-flints	Thatcham Gravel	23.1	
	Sand in clay-with-flints	Wanlip Sand and Gravel	24.1	
	Debris cone	Warp	24.1	
	Head or hillwash	Westland Green Gravel	920.1	
	Head 1	Westmill Lower Gravel	25.1	
	Head 2	Whaddon Sand and Gravel	25.1	
	Blanket head/regoith	Winter Hill Gravel	26.1	
	Head, Burton Lazars	Wolvercote Member	25.1	
	Head, Colluvium	Woodford Gravel	25.1	
	Gravelly head			
	Head, Little Dalby			
	Head, Pen Hill			
	Sandy head			
	Valley bottom head			
	Pebbly clay and sand			
	Screes/talus			
	Inactive scree/talus			
	Aeolian deposits	Blown sand	Bank deposits, sand	194-200
		Blown sand, 1	Barroway Drove Beds	25
		Brickearth	Chenier deposits	63-67
		Brickearth, Dartford Silt	Netley Heath Deposits	N
		Brickearth, Enfield Silt	Coastal barrier deposits	63-68
		Brickearth, Ilford Silt	Coastal barrier, sand and gravel	63-68
		Brickearth, Langley Silt	Coastal zone deposits, undifferentiated	63-67
		Brickearth, Wolston Clay	Intertidal deposits, undifferentiated	63-67
		Loess	Marine band	197
		Peat	Marine beach deposits	193-194
		Basin peat	Marine deposits, undifferentiated	193-194
Blanket peat		Marine deposits, sand and gravel	193-194	
Fen peat		Mud deposits	193-194	
Hill peat		Saltmarsh deposits	193-194	
Nordeph peat		Sand and silt deposits	193-194	
Peat flow		Sand deposits	193-194	
Submerged forest		Sand, tabular or sheet deposits	193-194	
Diatomite		Shell bank (mussel band)	193-194	
Diatomite, fluvial		Shoreface deposits	193-194	
Shell marl		Shoreface deposits, sand	193-194	
Chemical/organic deposits	Bog iron ore	Shoreface deposits, sand and gravel	193-194	
	Calcareous tufa	Silt deposits	200-201	
	Tufa	Storm beach deposits	62-63	
	Alluvial fan deposits	Storm beach deposits, 1	62-63	
Fluvial deposits	Alluvial fan deposits, gravel	Storm beach deposits, gravel	62-63	
	Alluvium	Supratidal deposits undifferentiated	62-63	
	Alluvium, 1	Tabular or sheet deposits	62-63	
	Alluvium, clay	Tidal flat deposits	62-63	
	Alluvium, sand and gravel	Tidal flat deposits, 1	62-63	
	Arun Terrace Deposits, 1 st	Tidal, river or creek deposits	62-63	
	Arun Terrace Deposits, 2 nd	Tidal, river or creek deposits, mud	62-63	
	Arun Terrace Deposits, 3 rd	Tidal, river or creek deposits, mud and gravel	62-63	
	Arun Terrace Deposits, 4 th	Washover deposits	62-63	
	Arun Terrace Deposits, 5 th	Beach deposits	62-63	
	Arun Terrace Deposits, 6 th	Brackish lagoon	77.1	
	Arun Terrace Deposits, 7 th	Delta deposits, sand and gravel	62-63	
Balderton Sand and Gravel	Flandrian deposits	77		
Bank Farm Terrace	Intertidal	77		
Bassingfield Sand and Gravel	Late glacial	77		
Beaconsfield Gravel	Post glacial	77		
Beenham Grange Gravel	Raised marine delta deposits	62-63		
Beenham Stocks Gravel	Raised marine deposits	62-63		
Beeston Sand and Gravel	Raised marine deposits, clay	62-63		
Belton Sand and Gravel	Raised marine deposits, high	62-63		
Birstall Sand and Gravel	Raised marine deposits, highest	62-63		
Black Park Gravel	Raised marine deposits, low	62-63		
Blackwater Terrace Deposits, 3 rd	Raised marine deposits, March Gravels	35		
Blackwater Terrace Deposits, 4 th	Raised marine deposits, mud	35		
Boyn Hill Gravel	Raised marine deposits, Nor Valley Clay	23-24		
Bramley Weir Terrace Deposits, 2 nd	Raised marine deposits, sand and gravel	62-63		
Bucklebury Gravel	Raised marine deposits, silt and clay	62-63		
Brooksbury Sand and Gravel	Raised marine deposits, Terrington Beds	25		
Bunny Sand and Gravel	Raised marine deposits, Tottenham Gravels	25		
Bytham Sand and Gravel	Raised marine, tidal, river or creek deposits	62-63		
Caesar's Camp Gravel	Raised tidal flat deposits of Flandrian age	77		
Cheltenham Sand and Gravel	Shore beach deposits of Flandrian age	77.1		
Combe Member	Subtidal	77-80		
Corbets Tey Gravel				
Daylesford Member, 1 st				
Dollis Hill Gravel				
Dry valley deposits				
Eagle Moor Sand and Gravel				
Eggington Common Sand and Gravel				
Etwahl Sand and Gravel				
Fen Sand and Gravel				
Finsbury Gravel				
Fluvial Sand and Gravel				
Freeland Member				
Fulbeck Sand and Gravel				
Gerrards Cross Gravel				
Godalming Wey Deposits, 1 st				
Godalming Wey Deposits, 1a				
Godalming Wey Deposits, 1b				
Godalming Wey Deposits, 2 nd				
Godalming Wey Deposits, 3 rd				
Hackney Gravel				
Hanborough Member				
Holme Pierrepont Sand and Gravel				
Kepton Park Gravel				
Knights Sand and Gravel				
Leaves Green Gravel				
Leen Sand and Gravel				
Little Hereford River Terrace				
Lynch Hill Gravel				
Northmoor Member				
Ockbrook Sand and Gravel				
Rissington Member				
River Avon Deposits, 1 st				
River Avon Deposits, 2 nd				
River Severn Deposits, 1 st				
River Severn Deposits, 2 nd				
River Severn Deposits, 3 rd				
River terrace deposits, 1 st				
River terrace deposits, 1a				
River terrace deposits, 1b				
River terrace deposits, 1c				
River terrace deposits, 1 st - 2 nd				
River terrace deposits, 2 nd				
River terrace deposits, 2 nd - 3 rd				
River terrace deposits, 3 rd				
River terrace deposits, 4 th				
River terrace deposits, 5 th				
River terrace deposits, 5 th - 6 th				
River terrace deposits, 6 th				
River terrace deposits, 7 th				
River terrace deposits, 8 th				
River terrace deposits, 9 th				
River terrace deposits, 10 th				
River terrace deposits, 11 th				
River terrace deposits, 12 th				
River terrace deposits, 13 th				
River terrace deposits, 14 th				
River terrace deposits, 15 th				
River terrace deposits, undifferentiated				
River Worfe Deposits, undifferentiated				
River Worfe Terrace Deposits, 1 st				
River Worfe Terrace Deposits, 2 nd				
River Wye Terrace Deposits, 1 st				
River Wye Terrace Deposits, 2 nd				
Rother Terrace Deposits, 1 st				
Rother Terrace Deposits, 2 nd				
Rother Terrace Deposits, 3 rd				
Rother Terrace Deposits, 4 th				
Rother Terrace Deposits, 5 th				
Rother Terrace Deposits, undifferentiated				
Shakenhurst Terrace				
Shepperton Gravel				
Sherborne Member, 1 st terrace				

Landform	Fall of glacial drainage channel	▶	
	Glacial drainage channel, front	>	
	Glacial striae	— —	
	Glacial striae direction of ice flow	<— —	
	Kettle hollow	●	
	Roche moutonnée	∩	
	Roche moutonnée with striae	<—∩—	
	Rockhead or bedrock	⊙	
	Single sided glacial drainage channel	┘	
	Acid tuff	Z [#]	
	Acid tuffite	V [#]	
	Aplite	α	
	Basic tuff	Z [#]	
	Basic tuffite	V [#]	
Rock symbols	Cataclastic (Metamorphic)	β	
	Cataclastic rocks	β	
	Foliated	≡	
	Grandiorite X	Σ	
	Microiorite	P [#]	
	Microgranite	F [#]	
	Mylonitic (metamorphic)	μ	
	Mylonitic rocks	μ	
	Pegmatite	≡	
	Pseudotachylitic	K	
Rhyolite	R [#]		
Sheared rock (igneous and metamorphic)	σ		
Structural symbols	Corrugated strata, low dip	<~>	
	Corrugated foliation	≡	
	Cross-bedding of foresets	<~>	
	Direction of younging	<—	
	Dune-bedding	<~>	
	General dip	<—	
	General dip, underground	<—	
	Gently inclined strata	<~>	
	Gently undulating strata	<~>	
	Highly inclined strata	<~>	
	Horizontal overturned strata	⊘	
	Horizontal strata	+	
	Inclined strata 1	↗	
	Inclined strata 2	↖	
	Inclined strata, overturned	↗	
	Inclined strata, uncertain	↗	
	Inclined strata, underground	↗	
	Strike of strata	↔	
Undulating bed, inclined	↗		
Undulating vertical strata	↗		
Foliation or layering	Vertical strata	≡	
	Horizontal foliation	≡	
	Inclined foliation	≡	
	Strike of foliation	↔	
	Undulating foliation	≡	
	Vertical foliation	≡	
	Direction of cleavage	—	
	Horizontal cleavage	+	
	Inclined cleavage	↗	
	Inclined cleavage, sandstone	↗	
Cleavage/schistosity	Sheared rock	~	
	Strike of cleavage	↔	
	Undulating cleavage, inclined	↗	
	Vertical cleavage	+	
	Vertical cleavage in sandstone	+	
	Horizontal joint	+	
	Inclined joint	+	
	Vertical joint	+	
	Horizontal lineation	↔	
	Plunging lineation	↔	
	Vertical lineation	+	
	Horizontal flow jointing	↔	
	Horizontal primary crystal alignment	↔	
	Horizontal primary fabric in igneous rocks	↔	
	Horizontal relict, planar fabric in plutonic rocks	↔	
	Horizontal welding foliation	+	
	Inclined flow jointing	↗	
	Inclined primary crystal alignment	↗	
Inclined primary planar fabric	↗		
Inclined primary planar fabric, overturned	↗		
Inclined relict, planar fabric in plutonic rocks	↗		
Linear structures	Inclined welding foliation	↗	
	Strike of primary planar fabric	↔	
	Strike of welding foliation	↔	
	Vertical flow jointing	↗	
	Vertical primary crystal alignment	↗	
	Vertical primary planar fabric	↗	
	Vertical relict, planar fabric in plutonic rocks	↗	
	Vertical welding foliation	↗	
	Anticline axial plane	∩	
	Synclinal axial plane	∪	
	Synform axial plane	∩	
	Axis of minor anticline	↔	
	Axis of minor fold	↔	
	Axis of minor syncline	↔	
	Horizontal axial plane of minor fold	↔	
	Horizontal axis of minor anticline	↔	
	Horizontal axis of minor fold	↔	
	Horizontal axis of minor fold, phase 1	↔	
Horizontal axis of minor monocline	↔		
Horizontal axis of minor syncline	↔		
Inclined axial plane of minor fold	↔		
Locality with refolded minor folds	⊙		
Minor fold, low angle of plunge	↔		
Overturned anticline	∪		
Overturned syncline	∩		
Plunge axis of minor fold	↔		
Strike axial plane minor fold	↔		
Vertical axial plane of minor fold	↔		
Vertical axis of minor fold	↔		
Vergence	Axis of minor fold showing direction of vergence	↔	
	Dextral vergence of minor fold	↔	
	Direction of vergence of minor fold	↔	
	Neutral vergence of minor fold	↔	
	Sinistral vergence of minor fold	↔	
	Faults and related structures	Fault movement	↔
		Fault terminator	⊙
		Mineral vein dip	↔
		Strike slip fault	↔
		Thrust barb	↔
		Adit	⊙
		Adit, abandoned	⊙
		Adit, unknown orientation	⊙
		Borehole	⊙
		Borehole, uncertain	⊙
		Borehole, underground	⊙
		Dip of igneous contact	↔
		Fossil locality	*
Inclination of dyke		↔	
Location, with specific note		⊙	
Mineral locality		*	
Photo in BGS collection		☐	
Pit or mine shaft		⊙	
Pit or mine shaft, abandoned, or denohole	⊙		
Pit or mine shaft, abandoned, site uncertain	⊙		
Pit shaft, underground	⊙		
Rock slice, petrographic	⊙		
Site of former mine	⊙		
Small isolated exposure	*		
Spring or group of springs	⊙		
Surface section	⊙		
Swallow hole	⊙		
Trench	⊙		
Underground spot level	⊙		
Well	⊙		

Poster by Evan Applegate
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Area Ornaments	Agglomerate	
	Anhydrite	
Arenaceous seatearth	Arenaceous seatearth	
	Blown sand	
Boulder clay	Boulder clay	
	Calcareous tufa	
Cataclastic rock	Cataclastic rock	
	Chalk	
Claystone	Claystone	
	Conglomerate	
Coursed rubble	Coursed rubble	
	Crushed rock	
Disturbed ground	Disturbed ground	
	Dolomite	
Foundered strata	Foundered strata	
	Gneiss	
Granite	Granite	
	Granite veining	
Graphitic schist	Graphitic schist	
	Gravel	
Greywacke	Greywacke	
	Gypsum	
Igneous	Igneous	
	Infilled ground	
Landscaped ground	Landscaped ground	
	Landslip	
Lava	Lava	
	Lava and tuff	
Limestone	Limestone	
	Limestone bands	
Limestone beds	Limestone beds	
	Limestone	

Line Styles	Aeromagnetic/Bouguer anomaly	
	Axial plane trace of major anticline	
Marble	Marble	
	Made ground	
Massive limestone	Massive limestone	
	Metasediment	
Migmatiation	Migmatiation	
	Mudstone	
Ooidal limestone	Ooidal limestone	
	Pebbles	
Pegmatite or vein complexes	Pegmatite or vein complexes	
	Pelite	
Pisoidal limestone	Pisoidal limestone	
	Psammite	
Quartzite	Quartzite	
	Random rubble	
Reclaimed ground	Reclaimed ground	
	Reworked gneisses	
Rubbly limestone poorly bedded	Rubbly limestone poorly bedded	
	S	