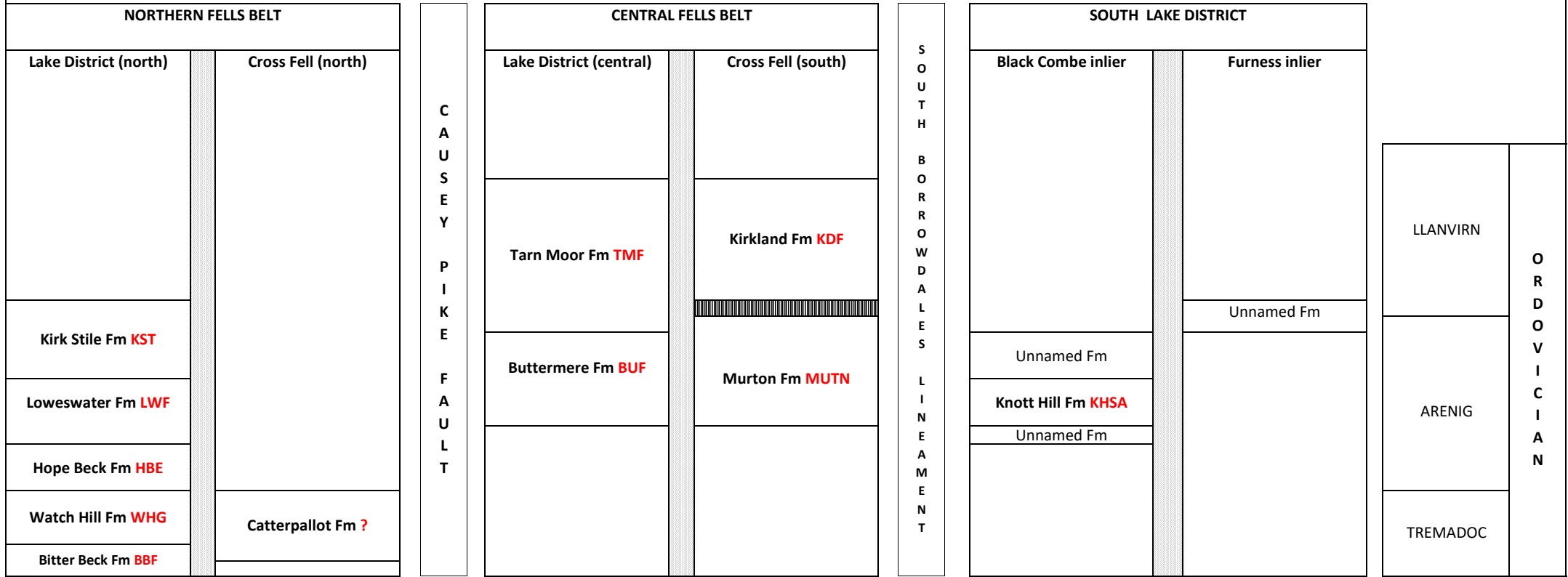


# CUMBRIA GEOCONSERVATION - SKIDDAW GROUP (ORDOVICIAN 485 - 445 Ma) LITHOSTRATIGRAPHY ADOPTED FOR LOCAL GEOLOGICAL SITES

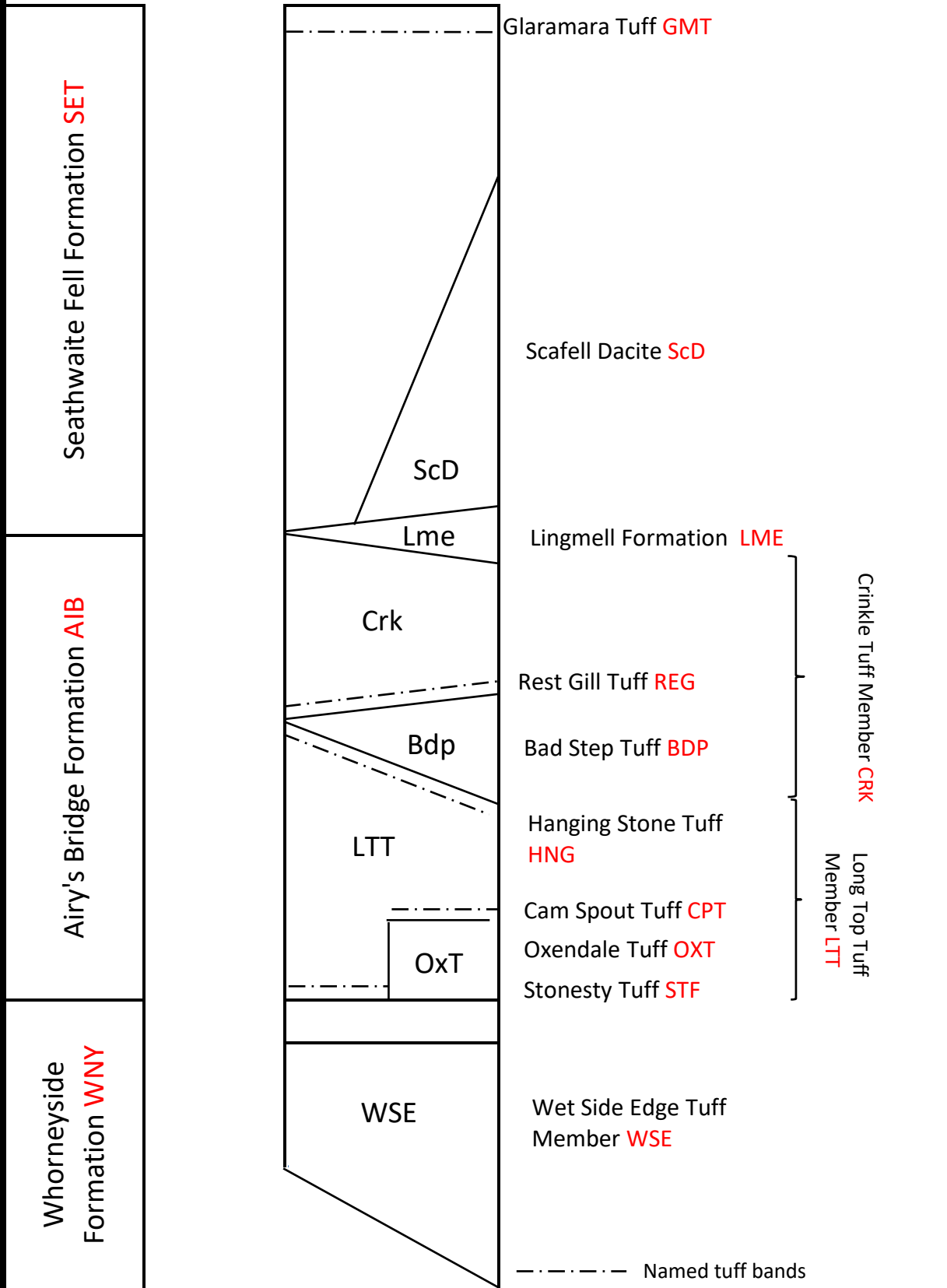


Fm - Formation

**CODES** - BGS lexicon

Adapted from STONE, P, MILLWARD, D, YOUNG, B, MERRITT, J W, CLARKE, S M, McCORMAC, M, and LAWRENCE, D J D, 2010. British Regional Geology: Northern England (Fifth edition). (Keyworth, Nottingham: British Geological Survey).

**CUMBRIA GEOCONSERVATION - INDICATIVE BORROWDALE VOLCANIC GROUP  
(ORDOVICIAN - CARADOC 458 - 450 Ma) LITHOSTRATIGRAPHY**



The Borrowdale Volcanic Group (BVG) exhibit significant lateral and vertical variation . It is not practical to represent the whole of the Lake District BVG succession on a single table. In this case a representative section from a specific local area (the Scafell Caldera volcano) has been provided. **CODES** - BGS lexicon .

Adapted from STONE, P, MILLWARD, D, YOUNG, B, MERRITT, J W, CLARKE, S M, McCORMAC, M, and LAWRENCE, D J D, 2010. British Regional Geology: Northern England (Fifth edition). (Keyworth, Nottingham: British Geological Survey).

**CUMBRIA GEOCONSERVATION - GENERALISED ORDOVICIAN (485 - 445 Ma)/SILURIAN (445 - 420 Ma) (WINDERMERE SUPERGROUP)  
LITHOSTRATIGRAPHY ADOPTED FOR LOCAL GEOLOGICAL SITES**

WINDERMERE SUPERGROUP <b>WI</b>	GROUP	FORMATION	MEMBER	Chronostratigraphy		
		Kendal Group <b>KNDL</b>	Kirkby Moor Fm <b>KMF</b>	Helm Mbr <b>1HELM</b>	PRIDOLI	SILURIAN
Underbarrow Fm <b>UND</b>			LUDLOW			
Bannisdale Fm <b>BND</b>						
Coniston Group <b>CTG</b>		Yewbank Fm <b>YBK</b>			LUDLOW	
		Moorhowe Fm <b>MHO</b>				
		Poolscar Fm <b>PSR</b>				
		Latrigg Fm <b>LRG</b>				
		Gawthwaite Fm <b>GTE</b>				
Tranearth Group <b>TNTH</b>		Wray Castle Fm <b>WRE</b>	High Cross Mbr <b>HIC</b>	Randy Pike Mbr <b>RPE</b>	WENLOCK	
		Coldwell Fm <b>CDW</b>				
		Birk Riggs Fm <b>BKR</b>				
		Brathay Fm <b>BRF</b>				
Stockdale Group <b>STK</b>		Browgill Fm <b>BRW</b>	Far House Mbr <b>FARH</b>	Hebblethwaite Mbr <b>HBW</b>	LLANDOVERY	
		Skelgill Fm <b>SKB</b>				
Dent Group <b>DNT</b>		Ashgill Fm <b>AHL</b>	Yarlside Volcanic Fm <b>YRL</b>		ASHGILL	
	Appletreeworth Fm <b>AVF</b>					
	? ? ?					
	Broughton Moor Fm <b>BMR</b>					
	? ? ?					
	Kirkley Bank Fm <b>KKB</b>					
Stile End Fm <b>SEN</b>						

Fm - Formation Mbr - Member **CODES** - BGS lexicon

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N.B. There is significant variation in the detailed correlation of the Dent Group across the outcrops in Cumbria. The detailed correlation of the Group is provided as Figure 25 in Stone et al. (2010)

## CUMBRIA GEOCONSERVATION - DEVONIAN (420 - 360 Ma) LITHOSTRATIGRAPHY ADOPTED FOR LOCAL GEOLOGICAL SITES

NORTHERN ULLSWATER, GREAT AND LITTLE MELL FELL, HELTONDALE	CROSS FELL INLIER	BIRK BECK (SHAP)	RIVERS RAWTHEY AND LUNE	Chronostratigraphy
Mell Fell Conglomerate Fm <b>MFC</b>	Polygenetic Conglomerate' <b>PC</b>	Blind Beck Sandstone Fm <b>BBKS</b> Shap Wells Conglomerate Fm <b>SHWC</b>	Nor Gill Sandstone Fm <b>NGSA</b> Sedbergh Conglomerate Fm <b>SDCO</b>	LATE DEVONIAN
<p>A broad correlation between the Mell Fell and Polygenetic Conglomerates is assumed, although in the absence of fossils age assignments can only be tentative.</p>		<p>The two assemblages identified above are considered to be broadly similar but again, in the absence of fossils only tentative age assignments can be made</p>		

Fm - Formation **CODES** - BGS lexicon

Adapted from STONE, P, MILLWARD, D, YOUNG, B, MERRITT, J W, CLARKE, S M, McCORMAC, M, and LAWRENCE, D J D, 2010. British Regional Geology: Northern England (Fifth edition). (Keyworth, Nottingham: British Geological Survey).

# CUMBRIA GEOCONSERVATION - CARBONIFEROUS (360 - 300 Ma) LITHOSTRATIGRAPHY ADOPTED FOR LOCAL GEOLOGICAL SITES

GROUP	SOUTH CUMBRIA	GROUP	NORTH AND WEST CUMBRIA	STAINMORE TROUGH	ALSTON BLOCK	GROUP	NORTHUMBERLAND TROUGH AND SOLWAY BASIN	Chronostratigraphy	
		Warwickshire Group <b>WAWK</b>	Whitehaven Sandstone Fm <b>WS</b>			Warwickshire Group <b>WAWK</b>	Beckles Fm <b>BECK</b> Canonbie Bridge Fm <b>CANB</b> Eskbank Wood Fm <b>ESKB</b>	WESTPHALIAN D	W E S T P H A L I A N
		Pennine Coal Measures Group <b>PCM</b>	Pennine Middle Coal Measures Fm <b>PMCM</b> Pennine Lower Coal Measures Fm <b>PLCM</b>	Pennine MCM Fm Pennine Lower Coal Measures Fm	Pennine LCM Fm	Pennine Coal Measures Group <b>PCM</b>	Pennine Upper Coal Measures Fm <b>PUCM</b> Pennine Middle Coal Measures Fm <b>PMCM</b> Pennine Lower Coal Measures Fm <b>PLCM</b>	BOLSOVIAN DUCKMANTIAN LANGSETTIAN	
		Yoredale Group <b>YORE</b>	Stainmore Fm <b>SMGP</b>	Stainmore Fm <b>SMGP</b>	Stainmore Fm <b>SMGP</b>	Yoredale Group <b>YORE</b>	Stainmore Fm <b>SMGP</b>	YEADONIAN MARSDENIAN KINDERSCOUTIAN ALPORTIAN CHOKIERIAN	
Millstone Grit Group <b>MG</b>	Pendleton Formation <b>PENDL</b>		Stainmore Fm <b>SMGP</b>	Stainmore Fm <b>SMGP</b>	Stainmore Fm <b>SMGP</b>	Yoredale Group <b>YORE</b>	Stainmore Fm <b>SMGP</b>	ARNSBERGIAN PENDLEIAN	
Craven Group <b>CRAV</b>	Bowland Shale Fm <b>BSG</b>		Alston Fm	Alston Fm <b>AG</b>	Alston Fm <b>AG</b>	Yoredale Group <b>YORE</b>	Alston Fm <b>AG</b>	BRIGANTIAN	
Yoredale Group <b>YORE</b>	Alston Fm <b>AG</b>		Eskett Limestone Fm <b>ESKT</b> Frizington Limestone Fm <b>FRLI</b>	Knipe Scar Lst Fm <b>KNL</b> Potts Beck Fm <b>PBK</b>	Melmerby Scar Limestone Fm <b>MEL</b> Marsett Fm <b>MASA</b>		Tyne Limestone Fm <b>TYLS</b>	ASBIAN	V I S E A N
Great Scar Limestone Group <b>GSCL</b>	Urswick Lst Fm <b>UL</b>	Great Scar Limestone Group <b>GSCL</b>		Ashfell Limestone Fm <b>AFL</b>	Marssett Fm <b>MASA</b>	Border Group <b>BDF</b>	Fell Sandstone Fm <b>FELL</b>	HOLKERIAN	
	Park Lst Fm <b>PKL</b>			Ashfell Sst Fm <b>AFS</b>	Ravenstonedale Group <b>RVS</b>			ARUNDIAN	
	Dalton Fm <b>DLB</b>			Breakyneck Scar Limestone Fm <b>BRE</b>				CHADIAN	
	Red Hill Lst Fm <b>RHO</b>			Brownber Fm <b>BNBF</b>					
	Martin Lst Fm <b>MTL</b>			Scandal Beck Limestone Fm <b>SCBL</b>					
Ravenstonedale Group <b>RVGS</b>	Marsett Fm <b>MASA</b>		Marsett Fm <b>MASA</b>	Stone Gill Lst Fm <b>STE</b>		Inverclyde Group <b>INV</b>	Ballagan Fm <b>BGN</b>	COURCEYAN	
		Ravenstonedale Gp <b>RVS</b>	CVF →	Marsett Fm <b>MASA</b>	Pinsky Gill Fm <b>PNKG</b>		Birrenswark Volcanic Fm <b>BIRV</b>		
							Kinneswood Fm <b>KNW</b>	DEVONIAN	

Fm - Formation      **CODES** - BGS lexicon  
CVF - Cockermouth Volcanic Formation **CKML**

Adapted from STONE, P, MILLWARD, D, YOUNG, B, MERRITT, J W, CLARKE, S M, McCORMAC, M, and LAWRENCE, D J D, 2010. British Regional Geology: Northern England (Fifth edition). (Keyworth, Nottingham: British Geological Survey).

**CUMBRIA GEOCONSERVATION - PERMIAN (300 - 250 Ma), TRIASSIC (250 - 200 Ma)  
AND JURASSIC (200 - 145 Ma) STRATIGRAPHY ADOPTED FOR LOCAL GEOLOGICAL SITES**

Chrono-stratigraphy	GROUP	EAST IRISH SEA AND SOLWAY FIRTH BASINS		CARLISLE BASIN	VALE OF EDEN BASIN
		ONSHORE (West Cumbria)			
JURASSIC	Lias Group <b>LI</b> (undivided)			Lias Group <b>LI</b> (undivided)	
	Penarth Group <b>PNG</b>			Lilstock Formation <b>LTK</b>	
TRIASSIC	Mercia Mudstone Group <b>MMG</b>			Westbury Formation <b>WBY</b>	
	Sherwood Sandstone Group <b>SSG</b>			Blue Anchor Formation <b>BAN</b> Stanwix Shales Fm <b>STSH</b>	
		Ormskirk Sst Formation <b>OMS</b>	Kirklington Sandstone <b>KIS</b>	?Kirklington Sandstone	
Calder Sandstone Formation <b>CSA</b>		?	?		
	St Bees Sandstone Formation <b>SBS</b>	St Bees Sandstone Formation <b>SBS</b>	St Bees Sandstone Formation <b>SBS</b>		
PERMIAN	Cumbrian Coast Group <b>CCO</b>	St Bees Shale Formation <b>SBSH</b>	Brockram	Eden Shales Formation <b>EDSH</b>	Eden Shales Formation <b>EDSH</b>
		St Bees Evaporite Formation <b>SBE</b>			
	Appleby Group <b>APY</b>	Brockram <b>BK</b>		Penrith Sandstone Formation <b>PS</b> and Brockram <b>BK</b>	Penrith Sandstone Formation <b>PS</b> and Brockram <b>BK</b>

**CARBONIFEROUS ROCKS**

**CODES** - BGS lexicon

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