A new standard lithostratigraphic framework for offshore Ireland; regional chronostratigraphic summary chart

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Period	Epoch	Age/Stage	Sequence Stratigraphy	Seismic Horizons
QUATERNARY	Pleistocene	Tarantian	C5	Pleistocene
		Ionian		
		Calabrian	C10	
		Gelasian		
CENOZOIC	Pliocene	Piacenzian		
		Zanclean		Pliocene (C10)
	Miocene	Messinian	C20	C22
		Tortonian		
		Serravallian		Middle Miocene
		Langhian		C24
				Lower Miocene (C20)
		Burdigalian	C25	
		Aquitanian		
	Oligocene	Chattian		Oligocene
		Rupelian	C30	
	Eocene	Priabonian		Priabonian (C30)
		Bartonian	C40	
		Lutetian	C50	Lutetian (Intra Trawbreaga)
		Ypresian	C60	Ypresian (Base C50)
			C70	Ypresian (Base C60)
			C80	Ypresian (Base C70)
	Paleocene	Thanetian	C90	C92 Thanetian (Intra Gweedore)
				C94 Thanetian (Top Ballyheige)
		Selandian	C100	Top Gweebarra
		Danian	C110	Top Chalk/Shetland
CRETACEOUS	Late Cretaceous	Maastrichtian	K100	
		Campanian	K90	
		Santonian		Santonian
		Coniacian	K80	
		Turonian	K70	Turonian (Top Scadán)
		Cenomanian	K60	K60c
				K60b
				K60a Base Chalk
	Early Cretaceous	Albian	K55	K55d Top Agone
				K55c Base Gault
				K55b
				K55a
			K50	Middle Albian (Near Base Daba)
		Aptian	K45	Aptian
			K40	(Near Base Bradan)
		Barremian	K30	K38
				K36
				K34 Hauterivian (Top Leathóg/Doingean)
		Hauterivian		K32
				K20
		Valanginian	K10	K14
				K12 Intra Pike
		Berriasian		K11 Intra Perch
			UJ	50 Base Cretaceous
				Top Knockadoon
JURASSIC	Late Jurassic	Tithonian	UJ40	UJ44 Near Top Bolus
		Kimmeridgian	UJ30	UJ42 Top Baginbun
				Kimm (Intra Bolus)
		Oxfordian	UJ20	Top Minard/Top Dunbrattin
			UJ10	Intra Minard
				Base Minard
	Middle Jurassic	Callovian		Top Peregrine
		Bathonian	J30	J34
				J33
				J32
		Bajocian	J20	J26 Lower Bajocian
				J24
		Aalenian		J22
	Early Jurassic	Toarcian	J10	J18
				J17 Top Pabay
		Pliensbachian		J16
				J14
				J13
				J12
		Sinemurian	J00	J6 Top Meelagh
				J4 Top Currane
				J3 Top Leane
		Hettangian		J2
				J1 Top Penarth
TRIASSIC	Late Triassic	Rhaetian	TR30	Top Mercia Mudstone
		Norian		
		Carnian	TR20	Top Feadóg Halite
	Middle Triassic	Ladinian		
		Anisian		Intra Mercia
	Early Triassic	Olenekian	TR10	Top Corrib/ Sherwood
		Induan		Top Rottington Sandstone
				Top Zechstein/ Cumbrian Coast
PERMIAN	Lopingian	Changhsingian		
		Wuchiapingian		
	Guadalupian	Capitanian		
		Wordian		
		Roadian		
				Top Collyhurst Sandstone
	Cisuralian	Kungurian		
		Artinskian		
		Sakmarian		
		Asselian		Top Carboniferous
CARBONIFEROUS	Pennsylvanian	Autunian	No sequences defined	
		Stephanian C		
		Stephanian B		
		Barruelian		
		Cantabrian		
		Asturian		
		Bolsovian		Intra Blackthorn Group/ Pennine Coal Measures
		Duckmantian		
		Langsettian		
		Yeadonian		
		Marsdenian		
		Kinderscoutian		
		Alportian		
		Chokieran		
	Mississippian	Arnsbergian	No sequences defined	
		Pendleian		
		Brigantian		Top Bairneach
		Asbian		
		Holkerian		
		Arundian		
		Chadian		
		Ivorian		
		Hastarian		Top Devonian
DEVONIAN	Late	Famennian		
		Frasnian		
	Middle	Givetian		
		Eifelian		
	Early	Emsian		
		Pragian		
		Lochkovian		
SILURIAN	Pridoli			
	Ludlow	Ludfordian/Gorstian		
	Wenlock	Homerian/Sheinwoodian		
	Llandovery	Telychian		
		Aeronian/Ruddanian		
ORDOVICIAN	Late	Hirnantian		
		Katian		
		Sandbian		
	Middle	Darriwilian		
		Dapingian		Top 26/28 Basal Conglomerate
	Early	Floian		
		Tremadocian		Cambrian (Top ?Bray)
CAMBRIAN	Furongian	Age 10	No sequences defined	
		Jiangshanian		
		Paibian		
	Epoch 3	Guzhangian		
		Drumian		
		Age 5		
	Epoch 2	Age 4		
		Age 3		
	Terreneuvian	Age 2		
		Fortunian		

Conall-Rónán* Basins

Eilean Siar Glacigenic Group

Eilean Siar Glacigenic Group

? Rockall-Hebrides Volcanic Group

Chalk/ Shetland Group

? Cromer Knoll Group

? Muckross or Beara Group

? Minard Fm

? Kite Group

? Lias Group

? Penarth Group

? Mercia Mudstone Group

? Sherwood Sandstone Group

Rockall Basin

Eilean Siar Glacigenic Group

Hebrides Margin Group

Ròn Formation

Fulmair Formation

Fachach Formation

Ventry Formation

Killeany Formation

Sullom Formation

Jorsalfare Formation

Kyrre Formation

Macbeth Formation

Valhall Formation

Dawros Formation

"12/2-2 Lower Sandstone"

Cot Sandstone Formation

Donegal Basin

Eilean Siar Glacigenic Group

Brython Glacigenic Group

Hebrides Margin Group

Demetae Group

Hebrides Margin

Demetae

Dord Formation

Traona

Rockall-Hebrides Volcanic

Shetland

Cromer Knoll

Sherwood Sst

Erris Basin

Eilean Siar Glaci-genic Group

Brython Glaci-genic Group

Hebrides Margin Group

Demetae Group

Hebrides Margin

Demetae

Druid Formation

Killeany Formation

Coulagh Fm

Rusheen Mbr

Mangach Fm

Trosc Formation

Ronnach Formation

Leith Formation

Scadán Formation

Cadóg Formation

Rødby Fm

Carrack Formation

Fischschiefer

Valhall Formation

Scatálá Sst Mbr

Sioric Sst Mbr

Meelagh Fm

Conn Formation

Lilstock Fm

Langport Mbr

Cotham Mbr

Westbury Formation

Blue Anchor Fm

Currach Formation

Corrib Sandstone Formation

Zechstein Group

Slyne Basin

Eilean Siar Glaci-genic Group

Brython Glaci-genic Group

Hebrides Margin Group

Demetae Group

Hebrides Margin

Demetae

Clogán Sandstone Member

Dord Formation

Traona

Druid Formation

Ventry Formation

Pulleen Sst Mbr

Clew Formation

Killeany Formation

Cashen Formation

Coulagh Fm

Mangach Fm

Trosc Formation

?Jorsalfare Formation

Ronnach Formation

Leith Formation

Scadán Formation

Cadóg Formation

Spurdog Formation

Megrim Sst Mbr

Dawros Formation

Sybil Fm

Minard Formation

Kestrel Formation

Kingfisher Lst Mbr

Harrier Formation

Worn Member

Scraid Member

Sparrow Member

Robin Member

Foxrock Member

Dun Caan Shale Formation

Whitby Mudstone Fm

Derg Mbr

Rex Mbr

Pabay Shale Fm

Allua Mbr

Barnahallia Mbr

Ardra Mbr

Poulnamuck Mbr

Inagh Formation

Adoon Mbr

Inniscarra Mbr

Meelagh Formation

Hollywood Mbr

Glenaum Mbr

Ameo Mbr

Lackagh Mbr

Easky Mbr

Finn Mbr

Mullagh Mbr

Meelagh Fm

Conn Formation

Lilstock Fm

Langport Mbr

Cotham Mbr

Westbury Formation

Currach Formation

Lilleann Halite Mbr

Corrib Sandstone Formation

Zechstein Group

Macdara/Brona Basins

Eilean Siar Glacigenic Group

Hebrides Margin Group

Hebrides Margin

Dord Fm

Traona

Amulet Fm

Chalk

Squid Sst Mbr

Squid Sandstone Member

Cadóg Formation

Scadán Fm

Meelagh Fm

Conn Formation

Lilstock Fm

Langport Mbr

Blackthorn Group

Blackthorn

Ruacan Formation

Mussel Formation

Muirin

Zechstein Group

Zechstein

Porcupine Basin*

Eilean Siar Glacigenic Group

Hebrides Margin Group

Hebrides Margin

Dord Formation

Carmyx Sst Mbr

Traona

Amulet Formation

Kinnagoe Fm

Quern Sst Mbr

Kinnagoe Formation

Tranarossan Formation

Fintragh Sst Mbr (Ur)

Trawbreaga Formation

Fintragh Sst Mbr (Lr)

Blacksod Sst Mbr

Gweedore Formation

Oranmore Sst Mbr

Brandon Sst Mbr

Kilkieran Sst Mbr

Péist Mbr

Blacksod Sst Mbr

Drumcliff Sst Mbr

Newport Sst Mbr

Ballyheige Mbr

Broadhaven Chalk Mbr

Gweebarra Fm

Betraghboy Sst Mbr

Changeling Mbr

Mangach Formation

Trosc Formation

Ronnach Formation

Leith Formation

Scadán Formation

Plenus Marl Mbr

Cadóg Formation

Squid Sandstone Member

Urchin Lst Mbr

Angler Mbr

Rødby Formation

Bradán Fm

Daha Sst Mbr

Sheerie Mbr

Roach Mbr

Roach Sst Mbr

Arrowtooth Sst Mbr

Carrack Fm

Tope Sst Mbr

Langa Lst Mbr

Fischschiefer

Valhall Fm

Leathóg Lst Mbr

Doingean Lst Member

Troscín Lst Mbr

Sól Sst Mbr

Dursey Fm

Breedagh Sst Mbr

Leck Sst Mbr

Bolus Formation

Doorin Mbr

Rinroe Mbr

Rinnyle Sst Mbr

Emlagh Sst Mbr

Renard Mbr

Dooneragh Mbr

Tonakeera Mbr

Garrish Mbr

Minard Formation

Early Jurassic and Triassic sediments only known in northern part of basin (Wells 26/22-1A, 26/21-1). Triassic-Middle Jurassic unproven by drilling elsewhere in basin.

Meelagh Formation

Conn Formation

Lilstock Fm

Langport Mbr

Currach Fm

Hooker Sandstone Formation

Ruacan Formation

Mussel Formation

? ? ? ?

? ? ? ?

Mussel Formation

26/28 Basal Conglomerate

* Includes data from 36/16-1A

"Dalradian Metasediments" at base of 26/26-1 well

Goban Spur Area*

Eilean Siar Glacigenic Group

Hebrides Margin Group

Hebrides Margin

Dord Formation

Traona

Ròn Formation

Amulet Formation

Fulmair Formation

Kinnagoe Formation

Carraveg Formation

Tranarossan Formation

Trawbreaga Formation

Clew Formation

Cashen Formation

Gweedore Fm

Tralee

Cashla Fm

Gwee-barra Fm

Mangach Fm

Trosc Formation

Ronnach Formation

Leith Formation

Scadán Formation

Cadóg Formation

Oakshee Mbr

Rødby Fm

Salán Formation

Ballach Fm

?

Valhall Fm

Gurnard Fm

Cromer Knoll

Chalk

Toirsgian

Sherwood Sst

Mercia Mudstone

Lias

Penarth

Eagle

Hook

Beara

Kite

Crag

Wealden

Purbeck

Cumbrian Coast

Fastnet Basin

Eilean Siar Glacigenic Group

Brython Glacigenic Group

Hebrides Margin Group

Hebrides Margin

Traona

Crotal Sandstone Member

Dord Formation

Triskele Fm

Claddagh Fm

Dunmanus Fm

Barley Fm

Clonea Formation

Roscarbery Formation

Tralee

Trosc Fm

Ronnach Formation

Leith Formation

Scadán Formation

Blenny Member

Cadóg Fm

Urchin Lst Mbr

Gault Fm

Shad Sst Mbr

Selborne

Eel Formation

Rudd Sandstone Member

Tench Fm

Roach Mbr

Rainbow Claystone Formation

Carp Formation

Pike Fm

Purbeck

Chalk

Toirsgian

Wealden

Sherwood Sst

Mercia Mudstone

Lias

Penarth

Eagle

Hook

Kite

Crag

North Celtic Sea Basin

Brython Glacigenic Group

Demetae Group

Demetae

Dun-manus Fm

Barley Fm

Lunula Group

Lunula

Trosc Fm

Ronnach Formation

Leith Formation

Scadán Formation

Plenus Marl Mbr

Cadóg Formation

Blenny Member

Pomfret Sst Mbr

Gault Fm

Selborne

Gault Formation

Eel Formation

Rudd Sst Mbr

Tench Fm

Roach Mbr

Wealden Group

Rainbow Claystone Formation

Pike Fm

Perch Fm

Pollan Fm

Knockadoon Formation

Stickleback Sst Mbr

Baginbun Formation

Cowdy Lst Mbr

Galley Formation

Dunbrattin Formation

Dunworly Sandstone Member

Frower Member

Peregrine Formation

Curlew Mbr

Merlin Formation

Chilchaff Lst Mbr

Sparrowhawk Formation

Chough Sst Mbr

Tacumshin Formation

Whitby Mudstone Formation

Holaun Mbr

Whitewood Mbr

Pabay Shale Formation

Glenbeg Formation

Loughbaun Sandstone Member

Currane Formation

Leane Fm

Blue Lias Formation

Gill Fm

Caragh Formation

Lilstock Formation

Langport Member

Cotham Member

Westbury Formation

Blue Anchor Formation

Crannóg Formation

Bodhrán Sandstone Member

Feadóg Halite Mbr

Cairn Formation

Dolmen Sandstone Formation

Pennine Coal Measures Group

Pennine Coal Measures

Sliogán Group

Sliogán

Bairneach Group

Bairneach

Kinsale Formation

Darrig Formation

Cork

South Celtic Sea Basin

Brython Glacigenic Group

Demetae Group

Demetae

Lunula Group

Lunula

Trosc Formation

Ronnach Formation

Leith Formation

Scadán Formation

Plenus Marl Mbr

Cadóg Fm

Blenny Mbr

Gault Formation

Selborne

Chlr Sst Mbr

Wealden Group

Tacumshin Formation

? Whitby Mudstone Formation

Pabay Shale Fm

Glenbeg Formation

Currane Fm

Leane Fm

Caragh Formation

Lilstock Fm

Langport Mbr

Cotham Mem

Westbury Formation

Blue Anchor Formation

Crannóg Formation

Feadóg Halite Mbr

Cairn Formation

Dolmen Sst Formation

Pennine Coal Measures Group

Pennine Coal Measures

Central Irish Sea Basin

Brython Glacigenic Group

Demetae Group

Demetae

Lunula Group

Lunula

Currane Fm

Blue Lias Fm/ Gill Fm

Caragh Fm

Lilstock Fm

Langport Mbr

Elswick Mudstone Formation

Warton Halite Formation

Dowbridge Mudstone Fm

Preesall Halite Fm

Leyland Fm

Ormskirk Sst Fm

Calder Sst Mbr

St Bees Sst Fm

Rottington Sst Mbr

"42/8-1A Conglomerate"

42/12-1 Carbonate

Manchester Marls Formation

Collyhurst Sandstone Formation

Thistle Formation

Warwickshire Group

Pennine Coal Measures Group

Sliogán

Bairneach

Appleby

Warwickshire

Pennine Coal Measures

Mercia Mudstone

Sherwood Sst

Cumbrian Coast

Kish Bank Basin

Brython Glacigenic Group

Demetae Group

Demetae

Lunula Group

Lunula

Trosc Formation

Ronnach Formation

Leith Formation

Scadán Formation

Cadóg Formation

Blenny Mbr

Gault Formation

Selborne

Chlr Sst Mbr

Wealden Group

Tacumshin Formation

? Whitby Mudstone Formation

Pabay Shale Fm

Glenbeg Formation

Currane Fm

Leane Fm

Caragh Formation

Lilstock Fm

Langport Mbr

Blue Anchor Formation

Crannóg Formation

Feadóg Halite Mbr

Cairn Formation

Dolmen Sst Formation

Dowbridge Mudstone Fm

Preesall Halite Fm

Leyland Fm

Ormskirk Sst Fm

Calden Sst Mbr

St Bees Sst Fm

Rottington Sst Mbr

Manchester Marls Formation

Collyhurst Sst Fm

Warwickshire Group

Pennine Coal Measures Group

Bairneach Group

? Bray Group

? Bray

Mercia Mudstone

Sherwood Sst

Cumbrian Coast

Bairneach

Appleby

Warwickshire

Pennine Coal Measures

* Undrilled basins. Stratigraphy speculative and inferred from seismic interpretation and tie to Rockall wells and Macdara Basin boreholes.

* Includes:
Goban Spur Basin,
Goban Spur, Pendragon Basin, Merlin High & Porcupine Abyssal Plain

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