



(a) Approx. 125 m thick floodplain/overbank fines and coal deposits intersected by fluvial and crevasse sandstones. Upper thick sandstone bed consist of amalgamated meandering fluvial channels. Upper part of the Mississippian Billefjorden Group. Birger Johnsenfjellet, west Billefjorden Trough. (Photo: Juha Ahokas, from Würtzen, 2018).



(b) Two fluvial channels. 1: Meandering fluvial channels. Lower channel (LC) shows well-defined lateral accretion surfaces (stippled line). Upper channel (UC) is heavily rooted and pedoturbated, and only faint stratification is observed. 2: Crevasse channel. 3-5 Overbank deposits: with 3: Coaly shale. 4: Coaly shale with *Siggilaria*. 5: Palaeosol. Yellow line defines base of channels. Upper most part of the Billefjorden Group, inner part of Widjefjorden. Slightly folded by Eureka contraction.

(c) Pennsylvanian mixed siliciclastic, carbonate and evaporite deposit forming syn rift to early post rift basin fill. Lower part of the Gipsdalen Group. The basin formed during Late Mississippian to Middle Pennsylvanian extension. Red stippled lines marks normal faults. Photo from Petuniabukta, inner part of Billefjorden, viewing northwards. Met: Metamorphic basement; WF: Wordiekammen Formation; EB: Ebbadalen Formation

(d) Pennsylvanian syn rift deposits. Bedded succession of mixed carbonate, evaporite and siliciclastic passing into porous and bitumen rich ("oil" stained) collapse breccia. Wordiekammen; Adolfbukta, inner part of Billefjorden, viewing northwards.

