



Supplementary data: XRD diffractograms (2-16µm air-dried, <2µm air-dried and glycol solvated fractions) characterizing: (sample 30, A ) Agha Jari Formation with high palygorskite and chlorite, low amounts of poorly crystallized smectite, minor kaolinite, illite - smectite mixed layers (IS) and chlorite-smectite mixed layers (CS); (sample 66, B) Razak Formation, with abundant illite and chlorite-smectite mixed layers (CS), minor kaolinite, chlorite and illite-smectite mixed layers (IS). Palygorskite is nearly absent and feldspar is quite abundant.