



**Figure S2.** A) Raman spectra from the surface of two Bow wasters PROV.475:1-2022 and PROV.475:2-2022; B) depth profiling Raman spectra from the two inkwells PROV.463-2022 and 2864-1901; C) depth profiling Raman spectra from salt cellar PROV.466-2022 and pickle dish PROV.467-2022. Key mineral bands seen in the Raman spectra include those for whitlockite at  $960\text{ cm}^{-1}$  (a form of calcium phosphate,  $\text{Ca}_9(\text{PO}_4)_6\text{PO}_3\text{OH}$ ); for the silicates wollastonite ( $\text{CaSiO}_3$ , at  $969$  and  $1045\text{ cm}^{-1}$ ) and enstatite ( $\text{MgSiO}_3$   $1088\text{ cm}^{-1}$  although lead silicate could also be present at  $1080\text{ cm}^{-1}$ ); for the aluminosilicates mullite ( $970\text{ cm}^{-1}$ ), anorthite ( $970\text{ cm}^{-1}$ ), leucite/albite ( $\text{KAlSi}_2\text{O}_6$  and  $\text{NaAlSi}_3\text{O}_8$ , with bands at  $407$ ,  $490$ ,  $515\text{ cm}^{-1}$ ), and microcline ( $\text{KAlSi}_3\text{O}_8$ , at  $993\text{ cm}^{-1}$ ); for the silica polymorphs quartz ( $465\text{ cm}^{-1}$ ) and cristobalite ( $515\text{ cm}^{-1}$ ); and rutile, the most common natural form of titanium dioxide ( $445$  and  $610\text{ cm}^{-1}$ ). The broad carbon bands around  $1320$  and  $1585$  (in waster 475:2-2022) are likely caused by the deposition of soot from the burning of organic matter in the kiln.