







**Figure 4.** Distribution of kimberlite indicator mineral (KIM) samples collected by the GSC, Diamonds North and Rio Tinto ( $n = 48, 198, 260$ , respectively) on Banks Island and northwest Victoria Island, Canadian Arctic Archipelago. **4A** Simple presence (red circles) and absence (black circles) distribution of KIMs, undistinguished by collector. Lateral bounds of the Jesse moraine belt (delineating where glacier ice continued to occupy Prince of Wales Strait during late stages of deglaciation) is delineated by heavy black lines; **4B** Detail of KIMs recovered on southern Banks Island (Nelson Head area). Proportionally-sized pie charts are used to identify mineral types and total numbers of KIMs recovered from all size fractions picked. GSC-collected sample pie charts are outlined in red. KIM abundances have been corrected for all samples to a 20 kg table feed (<2 mm) weight, and have also been corrected based on microprobe geochemistry to include only those KIMs with strong or possible geochemical affinities to kimberlitic sources – or, where not reported – as indicated by Diamonds North/Rio Tinto as “kimberlitic/non-kimberlitic”. In order to facilitate comparisons where possible, the geochemical discriminators used by Diamonds North and Rio Tinto have been employed with the GSC samples. These include: all G0 garnets (almandine, andradite and spessartine) have been excluded; GSC almandine grains that classify as G3 and G4 garnets are included; pyrope and eclogitic garnets were combined and reported under the “garnet” classification; kimberlitic/non-kimberlitic ilmenites have been classified according to Wyatt et al (2004), and only the kimberlitic Mg-ilmenites have been included; only chromite grains with  $\text{TiO}_2 > 0.5$  (wt%); only forsteritic olivines; and only grains identified as Cr-diopsides or CP5 (ultramafic mantle-derived cpx of Rio Tinto) – no low-Cr diopsides (CP4 of Rio Tinto); **4C** Detail of KIM samples collected on northern Banks Island and northwest Victoria Island. GSC-collected sample pie charts are outlined in red. KIM abundances have been similarly corrected as detailed in 4B; **4D** Location of each GSC KIM sample using a simplified year (15, 16) and sample number (e.g., \_02, \_33) designation.