## Rafter Radiocarbon Laboratory Price List

Sample Type	Sample Material & Additional Methods	Sample Mass Required	1-5 Samples \$NZD	6-10 Samples \$NZD	11+ Samples \$NZD
Organic carbon (needs pre-treatment) acid wash, acid/alkali/acid, humic acids available. We DO NOT pick fragments from sediments/soils/peats. Inorganic carbon	Charcoal Plant Peat Sediment Wood shell, foram, carbonate, coral	10-50 mg 10-50 mg 100-1000 mg 1-3 g 50-300 mg	\$1,025	\$975	\$880
Collagen	Bone, ivory, antler, teeth $\delta^{13}\text{C, }\delta^{15}\text{N, }\text{C/N ratio (with dating)}$ Includes preparation and measurements by IRMS $\text{Molecular weight separation}$	500-3000 mg	\$1,290 +\$230 +\$575	\$1,190 +\$140 +\$405	\$1,075 +\$130 +\$365
Antiquities Note antiquity samples require additional processing to remove preservatives vs other materials	leather, textiles, lacquer, paper, wood antiquity bone/ivory/antler/teeth	15 mg 500-3000 mg	\$1,195 \$1,475	\$1,145 \$1,375	\$1,035 \$1,240
Sinters, pollen concentration		Contact Lab		price on applicati	on
Water (DIC) - includes the $\delta^{13}$ C by IRMS (3%) Water with TDIC < 0.5 mmol/kg H <sub>2</sub> O will incur a surcharge as it requires combining multiple aliquots to obtain sufficient material for a standard AMS <sup>14</sup> C determination. Please be aware that samples with such low DIC content are also at higher risk of contamination during collection and preparation.	Hydrogen sulphide removal (per sample)  Multiple extractions needed (per additional extraction)	250-500 ml	\$875 +\$230 +\$230	\$825	\$745
δ <sup>13</sup> C bicarbonate available from our Stable Isotope Laboratory					
CO <sub>2</sub> from air/CO <sub>2</sub> in sodium hydroxide		Contact Lab	\$875	\$825	\$745
CO <sub>2</sub> ampoules (requires clean up)		Contact Lab	\$625	\$575	\$520
CO <sub>2</sub> ampoules pre-purified (6mm breakseal, approved labs)		Contact Lab	\$510	\$460	\$415
Graphite (approved labs)		Contact Lab	\$340	\$290	\$265
Organic carbon pretreated ready to combust (pre-treated, ready to combust, approved submitters) See T&C's for pretreated samples on Submission page. Note the pricing conditions for processing blanks and known age or replicate samples as follows apply:  For batches of 6 or more samples we will prepare and measure 1 blank or known age or replicate sample at no charge  For batches of 5 or fewer samples blanks or known age or replicates will be charged at the same rate as unknown samples	Pretreated, bioproduct verification		\$740	\$690	\$625

Ramped pyrolysis/ Pyrolysis GC-MS available on a collaborative basis		Price on application	
Additional fees (per sample)		\$NZD	
Small samples (<0.2mg graphite realised) Note: Turnaround time will increase	+15%		
High Precision measurement (minimum 5 samples) Note: Turnaround time will increase		+30%	
Solvent extraction (removing oil, glue, conservation contaminants). This is included in antiquities at no extra charge		+\$230	
δ¹³C, δ¹⁵N, C/N ratio (no dating)		\$575	