Tritium & Water Dating Laboratory Price List

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Parameter	Methods used & detection limit	Price (per sample) $NZD	Sample size	Turnaround
Tritium	Radiometric detection. Electrolytic enrichment + low level scintillation detectors. TR = 0.02-0.03,Bq/kg = 0.004-0.005	$890	1 Litre	5 months
SF6 (Includes Halon-1301 analysis)	Gas Chromatography with Electron Capture Detection. Must use GNS supplied bottles.	$435	1 Litre	2-5 months
CFCs (Includes duplicate measurement of CFC-11, CFC-12 and CFC-113)	Gas Chromatography with Electron Capture Detection (Ar & N_2 are also determined). Must use GNS supplied bottles.	$435	150ml	2-5 months
Assessment of groundwater security (Includes tritium, CFCs, SF_6 and interpretation)	Must use GNS supplied bottles.	$3,285 (for a report)		6 months
Radon	Radiometric detection. Low level scintillation detectors. Bq/L = 0.1	$110	25ml	1-2 weeks
$\delta^{18}O$	IRMS or Laser	$90	5ml	4-6 weeks
$\delta^{2}H$	IRMS or Laser	$90	5ml	4-6 weeks
$\delta^{18}O$ & $\delta^{2}H$	IRMS or Laser	$150	5ml	4-6 weeks
Radiocarbon	AMS Variable pricing dependent on no. of samples submitted	$910	250ml - 500ml	10-14 weeks
Excess-N_2 via measurement of Ne/Ar/N_2	GC-TCD and Plasma Emission Detector mg/L =~1 Must use GNS supplied flasks.	$600	500 ml evacuated flasks	1-2 months
Excess-N_2 via measurement of all noble gases by QMS	Quadrupole Mass Spectrometry mg/L =~0.2 In Development (exp. 2024)	TBC		
Additional fees (per sample)				
Extra distillation of samples for Tritium analysis	Waters which require excessive work for purification	$90		

Prices can vary depending on the sample size and interpretation required. We would be happy to work with you to build a project plan and pricing structure to suit your requirements. The laboratory analysis prices quoted above will provide you with the concentration of each tracer in the sample. Costs for interpretation and reporting are additional, please contact us. Prices are exclusive of import inspection fees, local taxes, withholding taxes and New Zealand GST that may be applicable. All prices are quoted in NZ dollars and may be reviewed at any time.

Interpretation of groundwater ages

Most groundwaters are mixtures of water with different ages because of the nature of flow in porous media. The age distribution depends on the hydrogeologic attributes of the aquifer concerned, as well as characteristics of the sampling point such as bore depth and screen length. Well-defined flow models, which describe the distribution of ages of water from different flow lines contributing to a groundwater sample, are used to calculate the mean age and mixing parameters.

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