EXPLORATION **GEOCHEMISTRY**

Multi-Acid - Multi-acid digestion packages are capable of dissolving most minerals. We offer a choice of ICP-ES (MA300), ICP-ES/MS (MA200) or Ultra-trace ICP-ES/MS (MA250) analysis to give near total values for most elements. A 0.25 g split is heated in HNO_3, $HClO_4$ and HF to fuming and taken to dryness. The residue is dissolved in HCl.

CODE	ELEMENT	DETECTION LIMIT	UPPER LIMIT	USD
MA300	Multi-Acid ICP-ES, 35 elements, 0.25 g			$16.45
	Ag	0.5 ppm	200 ppm	
	Al	0.01 %	20 %	
	As	5 ppm	10000 ppm	
	Ba	1 ppm	10000 ppm	
	Be	1 ppm	1000 ppm	
	Bi	5 ppm	4000 ppm	
	Ca	0.01 %	40 %	
	Cd	0.4 ppm	4000 ppm	
	Co	2 ppm	4000 ppm	
	Cr	2 ppm	10000 ppm	
	Cu	2 ppm	10000 ppm	
	Fe	0.01 %	60 %	
	K	0.01 %	10 %	
	La	2 ppm	2000 ppm	
	Mg	0.01 %	30 %	
	Mn	5 ppm	10000 ppm	
	Mo	2 ppm	4000 ppm	
	Na	0.01 %	10 %	
	Nb	2 ppm	2000 ppm	
	Ni	2 ppm	10000 ppm	
	P	0.002 %	5 %	
	Pb	5 ppm	10000 ppm	
	S	0.1 %	10 %	
	Sb	5 ppm	4000 ppm	
	Sc	1 ppm	200 ppm	
	Sn	2 ppm	2000 ppm	
	Sr	2 ppm	10000 ppm	
	Th	2 ppm	4000 ppm	
	Ti	0.01 %	10 %	
	U	20 ppm	4000 ppm	
	V	2 ppm	10000 ppm	
	W	4 ppm	200 ppm	
	Y	2 ppm	2000 ppm	
	Zn	2 ppm	10000 ppm	
	Zr	2 ppm	2000 ppm	
AQ200-Hg	Aqua Regia ICP-ES/MS, add-on			$13.10
	Hg	0.01 ppm	50 ppm	

Digestion is partial for some Cr and Ba minerals and oxides of Al, Fe, Hf, Mn, Sn, Ta, Zr and REEs. Volatilization during fuming may result in loss of As, S, Se and Sb.

CODE	ELEMENT	DETECTION LIMIT	UPPER LIMIT	USD
MA200	Multi-Acid ICP-ES, 45 elements, 0.25 g			$24.20
	Ag	0.1 ppm	200 ppm	
	Al	0.01 %	20 %	
	As	1 ppm	10000 ppm	
	Ba	1 ppm	10000 ppm	
	Be	1 ppm	1000 ppm	
	Bi	0.1 ppm	4000 ppm	
	Ca	0.01 %	40 %	
	Cd	0.1 ppm	4000 ppm	
	Ce	1 ppm	40 %	
	Co	0.2 ppm	4000 ppm	
	Cr	1 ppm	10000 ppm	
	Cu	0.1 ppm	10000 ppm	
	Fe	0.01 %	60 %	
	Hf	0.1 ppm	1000 ppm	
	Ln	0.05 ppm	1000 ppm	
	K	0.01 %	10 %	
	La	0.1 ppm	2000 ppm	
	Li	0.1 ppm	2000 ppm	
	Mg	0.01 %	30 %	
	Mn	1 ppm	10000 ppm	
	Mo	0.1 ppm	4000 ppm	
	Na	0.001 %	10 %	
	Nb	0.1 ppm	2000 ppm	
	Ni	0.1 ppm	10000 ppm	
	P	0.001 %	5 %	
	Pb	0.1 ppm	10000 ppm	
	Rb	0.1 ppm	2000 ppm	
	Re	0.005 ppm	100 ppm	
	S	0.1 %	10 %	
	Sb	0.1 ppm	4000 ppm	
	Sc	1 ppm	200 ppm	
	Se	1 ppm	1000 ppm	
	Sn	0.1 ppm	2000 ppm	
	Sr	1 ppm	10000 ppm	
	Ta	0.1 ppm	2000 ppm	
	Te	0.5 ppm	1000 ppm	
	Th	0.1 ppm	4000 ppm	
	Ti	0.001 %	10 %	
	Tl	0.5 ppm	10000 ppm	
	U	0.1 ppm	4000 ppm	
	V	4 ppm	10000 ppm	
	W	0.1 ppm	200 ppm	
	Y	0.1 ppm	2000 ppm	
	Zn	1 ppm	10000 ppm	
	Zr	0.1 ppm	2000 ppm	
AQ200-Hg	Aqua Regia ICP-ES/MS, add-on			$13.10
	Hg	0.01 ppm	50 ppm	

Digestion is partial for some Cr and Ba minerals and oxides of Al, Fe, Hf, Mn, Sn, Ta, Zr and REEs. Volatilization during fuming may result in loss of As, S, Se and Sb.