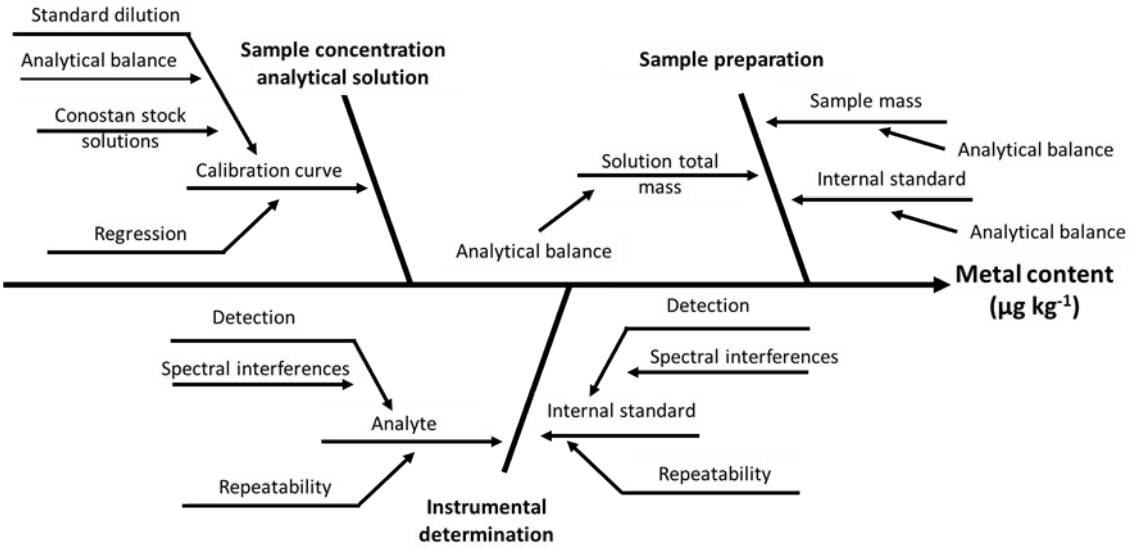

Figure S1. Ishikawa Shikawa diagram of uncertainty sources.

Table S1. Calculated t-values and s-values for the comparison between the analytical results obtained by hTISIS-ICP-MSMS analysis and by the ICP-OES reference method. Values of t lower than the critical t-value for 10 degrees of freedom and 99%-confidence level are highlighted in bold.

Nuclide		G8	D2	PO3	VO4	VO12
^{24}Mg	t	**0.15**			4.95	**3.01**
	s	**370**			130	**460**
^{27}Al	t				27	**1.1**
	s				680	**230**
^{28}Si	t			**2.6**	**0.3**	**0.8**
	s			**1.7**	**280**	**2.4**
^{40}Ca	t				**2.6**	**1.1**
	s				**780**	**910**
^{52}Cr	t			**3.2**		
	s			**19**		
^{55}Mn	t		**0.16**		**0.3**	**0.06**
	s		**12**		**47**	**79**
^{56}Fe	t	**1.3**	**0.09**		**1.9**	**3.5**
	s	**27**	**52**		**1000**	**820**
^{118}Sn	t				**2.9**	
	s				**200**	

Table S2. Procedural limits of quantification (µg Kg^{-1}), pLOQ, for the different nuclides determined and samples analyzed.

Nuclide	Oils	Light petroleum cuts	VO2*
^{7}Li	3	0.8	15
^{9}Be	1.5	0.4	8
^{23}Na	150	40	800
^{24}Mg	140	40	700
^{27}Al	15	4	70
^{28}Si	400	100	2,000
^{32}S	200	50	1,000
^{39}K	50	11	200
^{40}Ca	150	40	800
^{47}Ti	12	3	60
^{51}V	1.8	0.4	9
^{52}Cr	6	1.4	30
^{55}Mn	0.5	0.12	3
^{56}Fe	5	1.1	20
^{60}Ni	0.4	0.09	1.8
^{63}Cu	6	1.6	30
^{66}Zn	400	90	2,000
^{95}Mo	4	1.1	20
^{107}Ag	0.7	0.18	4
^{111}Cd	3	0.7	14
^{118}Sn	4	1.1	20
^{121}Sb	2	0.5	10
^{138}Ba	5	1.2	20
^{208}Pb	4	0.9	19

** Dilution factor: 1:100 (sample:xylene, w/w).*