

# Standards equivalent to Agilent

Agilent Environmental Calibration Standard - 25 components		Reference: 5183-4688.L1	
Element	Concentration	Element	Concentration
Ca	1000 mg/l	Cu	10 mg/l
Fe	1000 mg/l	Pb	10 mg/l
Mg	1000 mg/l	Mn	10 mg/l
K	1000 mg/l	Mo	10 mg/l
Na	1000 mg/l	Ni	10 mg/l
Al	10 mg/l	Se	10 mg/l
Sb	10 mg/l	Ag	10 mg/l
As	10 mg/l	Tl	10 mg/l
Ba	10 mg/l	Th	10 mg/l
Be	10 mg/l	U	10 mg/l
Cd	10 mg/l	V	10 mg/l
Cr	10 mg/l	Zn	10 mg/l
Co	10 mg/l		

Agilent Multi-element Calibration Standard # 2A - 28 components		Reference: 8500-6940.L1	
Element	Concentration	Element	Concentration
Ag	10 mg/l	K	10 mg/l
Al	10 mg/l	Li	10 mg/l
As	10 mg/l	Mg	10 mg/l
Ba	10 mg/l	Mn	10 mg/l
Be	10 mg/l	Na	10 mg/l
Ca	10 mg/l	Ni	10 mg/l
Cd	10 mg/l	Pb	10 mg/l
Co	10 mg/l	Rb	10 mg/l
Cr	10 mg/l	Se	10 mg/l
Cs	10 mg/l	Sr	10 mg/l
Cu	10 mg/l	Tl	10 mg/l
Fe	10 mg/l	U	10 mg/l
Ga	10 mg/l	V	10 mg/l
Hg	10 mg/l	Zn	10 mg/l

Initial Calibration Verification Standard - 24 components		Reference: 5183-4687.L1	
Element	Concentration	Element	Concentration
Ca	1000 mg/l	Cr	100 mg/l
Fe	1000 mg/l	Mn	100 mg/l
K	1000 mg/l	Mo	100 mg/l
Mg	1000 mg/l	Pb	100 mg/l
Na	1000 mg/l	Sb	100 mg/l
Ag	100 mg/l	Se	100 mg/l
Al	100 mg/l	Tl	100 mg/l
As	100 mg/l	V	100 mg/l
Ba	100 mg/l	Zn	100 mg/l
Be	100 mg/l	U	100 mg/l
Cd	100 mg/l	Cu	100 mg/l
Co	100 mg/l	Ni	100 mg/l

Initial Calibration Verification Standard - 26 components		Reference: 5183-4682.L1	
Element	Concentration	Element	Concentration
Ca	1000 mg/l	Cr	10 mg/l
Fe	1000 mg/l	Cu	10 mg/l
K	1000 mg/l	Mn	10 mg/l
Mg	1000 mg/l	Mo	10 mg/l
Na	1000 mg/l	Ni	10 mg/l
Sr	1000 mg/l	Pb	10 mg/l
Ag	10 mg/l	Sb	10 mg/l
Al	10 mg/l	Se	10 mg/l
As	10 mg/l	Tl	10 mg/l
Ba	10 mg/l	V	10 mg/l
Be	10 mg/l	Zn	10 mg/l
Cd	10 mg/l	Th	10 mg/l
Co	10 mg/l	U	10 mg/l

6020 Interference Check Solution A for ICP-MS systems -12 components		Reference: 5188-6526.L1		Reference: 5188-6526.L5	
Element	Concentration	Element	Concentration	Element	Concentration
Cl-	20 000 mg/l	Na	2 500 mg/l	Mg	1000 mg/l
Ca	3 000 mg/l	C	2 000 mg/l	P	1000 mg/l
Fe	2 500 mg/l	Al	1000 mg/l	K	1000 mg/l



<b>6020 Interference Check Solution B for ICP/MS - 11 components</b>		<u>Reference:</u> 5188-6527.L1	
Volume: 100 ml Matrix: in 5 % HNO <sub>3</sub>			
Element	Concentration	Element	Concentration
Co	20 mg/l	As	10 mg/l
Cr	20 mg/l	Cd	10 mg/l
Cu	20 mg/l	Se	10 mg/l
Mn	20 mg/l	Zn	10 mg/l
Ni	20 mg/l	Ag	5 mg/l
V	20 mg/l		

<b>Internal standard mix for ICP-MS systems - 8 components</b>		<u>Reference:</u> 5188-6525.L1	
Volume: 100 ml Matrix: in 10 % HNO <sub>3</sub> /tr HCl			
Element	Concentration	Element	Concentration
6Li	10 mg/l	In	10 mg/l
Sc	10 mg/l	Tb	10 mg/l
Ge	10 mg/l	Lu	10 mg/l
Rh	10 mg/l	Bi	10 mg/l

<b>ICP-MS tuning solution - 6 components</b>		<u>Reference:</u> 5190-0465.L1	
Volume: 100 ml Matrix: in 2 % HNO <sub>3</sub>			
Element	Concentration	Element	Concentration
Li	10 mg/l	Ce	10 mg/l
Mg	10 mg/l	Tl	10 mg/l
Y	10 mg/l	Co	10 mg/l

<b>ICP-MS Stock Tuning Solution - 5 components</b>		<u>Reference:</u> 5188-6564.L1	
Volume: 100 ml Matrix: in 5 % HNO <sub>3</sub> /tr HF			
Element	Concentration	Element	Concentration
Li	10 mg/l	Tl	10 mg/l
Y	10 mg/l	Co	10 mg/l
Ce	10 mg/l		

<b>ICP internal standard - 15 components</b>		<u>Reference:</u> 6610030100.L1					
Volume: 100 ml Matrix: in 5 % HNO <sub>3</sub>		Volume: 500 ml Matrix: in 5 % HNO <sub>3</sub>					
Element	Concentration	Element	Concentration	Element	Concentration	Element	Concentration
Al	5 mg/l	Co	5 mg/l	Mo	5 mg/l	Sr	5 mg/l
As	5 mg/l	Cr	5 mg/l	Ni	5 mg/l	Zn	5 mg/l
Ba	5 mg/l	Cu	5 mg/l	Pb	5 mg/l	K	50 mg/l
Cd	5 mg/l	Mn	5 mg/l	Se	5 mg/l		

<b>Tuning Solution - 9 elements</b>		<u>Reference:</u> 190024400.L1	
Volume: 100 ml Matrix: in 2 % HNO <sub>3</sub>			
Element	Concentration	Element	Concentration
Ba	10 mg/l	Pb	10 mg/l
Be	10 mg/l	Mg	10 mg/l
Ce	10 mg/l	Tl	10 mg/l
Co	10 mg/l	Th	10 mg/l
In	10 mg/l		

<b>ICV-7 QC standard Initial/ continuing calibration verification standard - 22 components</b>		<u>Reference:</u> 190064900.L1	
Volume: 100 ml Matrix: in 5 % HNO <sub>3</sub>			
Element	Concentration	Element	Concentration
Ca	5000 mg/l	Cu	25 mg/l
Mg	5000 mg/l	Zn	20 mg/l
K	5000 mg/l	Mn	15 mg/l
Na	5000 mg/l	As	10 mg/l
Al	200 mg/l	Cr	10 mg/l
Ba	200 mg/l	Ag	10 mg/l
Fe	100 mg/l	Tl	10 mg/l
Sb	60 mg/l	Be	5 mg/l
Co	50 mg/l	Cd	5 mg/l
V	50 mg/l	Pb	5 mg/l
Ni	40 mg/l	Se	5 mg/l

## STANDARDS EQUIVALENT TO

QCSTD-27 Quality Control standard for environmental analyses		<u>Reference:</u> 8500-6940.L1	
		<u>Volume:</u> 100 ml <u>Matrix:</u> in 5 % HNO <sub>3</sub> /tr. Hf	
Element	Concentration	Element	Concentration
Al	100 mg/l	Mn	100 mg/l
Sb	100 mg/l	Mo	100 mg/l
As	100 mg/l	Ni	100 mg/l
Ba	100 mg/l	K	100 mg/l
Be	100 mg/l	Se	100 mg/l
B	100 mg/l	Si	100 mg/l
Cd	100 mg/l	Ag	100 mg/l
Ca	100 mg/l	Sr	100 mg/l
Cr	100 mg/l	Na	100 mg/l
Co	100 mg/l	Tl	100 mg/l
Cu	100 mg/l	Ti	100 mg/l
Fe	100 mg/l	V	100 mg/l
Pb	100 mg/l	Zn	100 mg/l
Mg	100 mg/l		

ANALT-B Quality Control Standard - 12 components		<u>Reference:</u> 190065100.L1	
		<u>Volume:</u> 100 ml <u>Matrix:</u> in 5 % HNO <sub>3</sub>	
Element	Concentration	Element	Concentration
Cd	100 mg/l	Be	50 mg/l
Ni	100 mg/l	Co	50 mg/l
Pb	100 mg/l	Cr	50 mg/l
Ag	100 mg/l	Cu	50 mg/l
Zn	100 mg/l	Mn	50 mg/l
Ba	50 mg/l	V	50 mg/l

INTF-A Quality Control standard - 4 components		<u>Reference:</u> 190064800.L1	
		<u>Volume:</u> 100 ml <u>Matrix:</u> in 5 % HNO <sub>3</sub>	
Element	Concentration	Element	Concentration
Al	5000 mg/l	Mg	5000 mg/l
Ca	5000 mg/l	Fe	2000 mg/l

ICP-OES wavelength calibration solution concentrate - 15 components		<u>Reference:</u> 6610030000.L1		<u>Reference:</u> 6610030000.L5	
Element	Concentration	Element	Concentration	Element	Concentration
Al	50 mg/l	Co	50 mg/l	Mo	50 mg/l
As	50 mg/l	Cr	50 mg/l	Ni	50 mg/l
Ba	50 mg/l	Cu	50 mg/l	Pb	50 mg/l
Cd	50 mg/l	Mn	50 mg/l	Se	50 mg/l

ICP-OES wavelength calibration solution - 15 components		<u>Reference:</u> 6610030100.L1		<u>Reference:</u> 6610030100.L5	
Element	Concentration	Element	Concentration	Element	Concentration
Al	5 mg/l	Co	5 mg/l	Mo	5 mg/l
As	5 mg/l	Cr	5 mg/l	Ni	5 mg/l
Ba	5 mg/l	Cu	5 mg/l	Pb	5 mg/l
Cd	5 mg/l	Mn	5 mg/l	Se	5 mg/l

ICP-OES wavelength calibration solution - 6 components		<u>Reference:</u> 6610030400.L1	
		<u>Volume:</u> 100 ml <u>Matrix:</u> in 5 % HNO <sub>3</sub>	
Element	Concentration	Element	Concentration
Bi	100 mg/l	Sc	100 mg/l
In	100 mg/l	Tb	100 mg/l
6Li	100 mg/l	Y	100 mg/l

Calibration mix 1 for AA and ICP-OES 4 components		<u>Reference:</u> 6610030500.L1	
		<u>Volume:</u> 100 ml <u>Matrix:</u> in 2 % HNO <sub>3</sub> ; 0.5 % HF	
Element	Concentration	Element	Concentration
Mo	100 mg/l	Sn	100 mg/l
Sb	100 mg/l	Ti	100 mg/l



<b>Calibration mix 2 for AA and ICP-OES - 18 components</b>				<b>Reference:</b> 6610030600.L1
				<b>Volume:</b> 100 ml <b>Matrix:</b> in 5 % HNO <sub>3</sub>
Element	Concentration	Element	Concentration	
Ag	100 mg/l	Mn	100 mg/l	
Al	100 mg/l	Ni	100 mg/l	
As	100 mg/l	Pb	100 mg/l	
Ba	100 mg/l	Se	100 mg/l	
Be	100 mg/l	Th	100 mg/l	
Cd	100 mg/l	Tl	100 mg/l	
Co	100 mg/l	U	100 mg/l	
Cr	100 mg/l	V	100 mg/l	
Cu	100 mg/l	Zn	100 mg/l	
<b>Calibration mix majors</b>		<b>Reference:</b> 6610030700.L1		<b>Reference:</b> 6610030700.L5
		<b>Volume:</b> 100 ml <b>Matrix:</b> in 5 % HNO <sub>3</sub>		<b>Volume:</b> 500 ml <b>Matrix:</b> in 5 % HNO <sub>3</sub>
Element	Concentration	Element	Concentration	Element
Ca	500 mg/l	K	500 mg/l	Na
Fe	500 mg/l	Mg	500 mg/l	500 mg/l
<b>PA Tuning Solution 1 - 26 components</b>		<b>Reference:</b> 5188-6524-1.L1		
		<b>Volume:</b> 100 ml <b>Matrix:</b> in 2 % HNO <sub>3</sub>		
Element	Concentration	Element	Concentration	
As	20 mg/l	In	5 mg/l	
Be	20 mg/l	Li	5 mg/l	
Cd	20 mg/l	Lu	5 mg/l	
Zn	20 mg/l	Mn	5 mg/l	
Mg	10 mg/l	Na	5 mg/l	
Ni	10 mg/l	Sc	5 mg/l	
Pb	10 mg/l	Sr	5 mg/l	
Al	5 mg/l	Th	5 mg/l	
Ba	5 mg/l	Tl	5 mg/l	
Bi	5 mg/l	U	5 mg/l	
Co	5 mg/l	V	5 mg/l	
Cr	5 mg/l	Y	2.5 mg/l	
Cu	5 mg/l	Yb	2.5 mg/l	
<b>PA Tuning Solution 2 - 8 components</b>		<b>Reference:</b> 5188-6524-2.L1		
		<b>Volume:</b> 100 ml <b>Matrix:</b> in 5 % HCl		
Element	Concentration	Element	Concentration	
Ge	10 mg/l	Sb	10 mg/l	
Mo	10 mg/l	Sn	10 mg/l	
Pd	10 mg/l	Ir	5 mg/l	
Ru	10 mg/l	Ti	5 mg/l	
<b>Multi-element calibration standard-4B - 12 components</b>		<b>Reference:</b> 8500-6942.L1		
		<b>Volume:</b> 100 ml <b>Matrix:</b> in 2 % HNO <sub>3</sub> / tr. HF		
Element	Concentration	Element	Concentration	
B	10 mg/l	S	10 mg/l	
Ge	10 mg/l	Si	10 mg/l	
Mo	10 mg/l	Ta	10 mg/l	
Nb	10 mg/l	Ti	10 mg/l	
P	10 mg/l	W	10 mg/l	
Re	10 mg/l	Zr	10 mg/l	
<b>Multi-element calibration standard-1 - 17 components</b>		<b>Reference:</b> 8500-6944.L1		
		<b>Volume:</b> 100 ml <b>Matrix:</b> in 5 % HNO <sub>3</sub>		
Element	Concentration	Element	Concentration	
Ce	10 mg/l	Pr	10 mg/l	
Dy	10 mg/l	Sc	10 mg/l	
Er	10 mg/l	Sm	10 mg/l	
Eu	10 mg/l	Tb	10 mg/l	
Gd	10 mg/l	Th	10 mg/l	
Ho	10 mg/l	Tm	10 mg/l	
La	10 mg/l	Y	10 mg/l	
Lu	10 mg/l	Yb	10 mg/l	
Nd	10 mg/l			

## STANDARDS EQUIVALENT TO

Multi-element calibration standard-3 - 10 components		Reference: 8500-6948.L1	
Volume: 100 ml Matrix: in 10 % HCl/1 % HNO <sub>3</sub>			
Element	Concentration	Element	Concentration
Sb	10 mg/l	Pt	10 mg/l
Au	10 mg/l	Rh	10 mg/l
Hf	10 mg/l	Ru	10 mg/l
Ir	10 mg/l	Te	10 mg/l
Pd	10 mg/l	Sn	10 mg/l

ICP standard solution - 15 components		Reference: 8500-6944.L1	
Volume: 100 ml Matrix: in 2 % HNO <sub>3</sub>			
Element	Concentration	Element	Concentration
Al	5 mg/l	Mn	5 mg/l
As	5 mg/l	Mo	5 mg/l
Ba	5 mg/l	Ni	5 mg/l
Cd	5 mg/l	Pb	5 mg/l
Co	5 mg/l	Se	5 mg/l
Cr	5 mg/l	Sr	5 mg/l
Cu	5 mg/l	Zn	5 mg/l
K	5 mg/l		

ICV-7 QC standard Initial/ continuing calibration verification standard - 26 components		Reference: 51834682.L1	
Volume: 100 ml Matrix: in 10 % HNO <sub>3</sub>			
Element	Concentration	Element	Concentration
Ca	1000 mg/l	Cr	10 mg/l
Fe	1000 mg/l	Cu	10 mg/l
K	1000 mg/l	Mn	10 mg/l
Mg	1000 mg/l	Mo	10 mg/l
Na	1000 mg/l	Ni	10 mg/l
Sr	1000 mg/l	Pb	10 mg/l
Ag	10 mg/l	Sb	10 mg/l
Al	10 mg/l	Se	10 mg/l
As	10 mg/l	Tl	10 mg/l
Ba	10 mg/l	V	10 mg/l
Be	10 mg/l	Zn	10 mg/l
Cd	10 mg/l	Th	10 mg/l
Co	10 mg/l	U	10 mg/l

