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Envirolab Services Reference: 44679

# Methodology

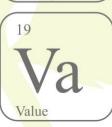
A two litre volume of synthetic solution was prepared in the laboratory from certified standard solutions using ultra high purity water as the base. The analytes added where are described in the table below. Approximately 1200ml of this solution was processed through the filter unit. The first 50ml or so of solution was discarded and the next 7-800mL was collected for analytical testing -this portion of the solution is labeled as the 'AFTER FILTRATION' solution in the tables belowunfilteredemaining solution was collected for analytical testing and is labeledFalsTRATIONBE in the tables below.

## Results

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Table 1: Anolyte	Concentrations	before and	after filtration	- miscellaneous
	Concentrations	oviore una	unor minutation	movemuneou

	<b>BEFORE FILTRATION/(mg/L</b>	AFTER FILTRATION/(mg/L or	
Analyte	or ppm)	ppm)	
Fluoride	1.8	0.8	
Sodium	74.3	72.2	
Potassium	8.65	3.9	
Calcium	10.0	2.7	
Magnesium	9.84	2.0	
Aluminium	0.95	0.007	
Iron	0.77	<0.01	
Mercury	0.005	<0.0005	
Copper	0.087	<0.001	
Lead	0.058	<0.001	
Zinc	0.089	0.088	
Chlorine	1.90	<0.1	
Polycyclic Aromatic Hydrocarbons	See table below	See table below	
VOCs	See table below	See table below	
pH (pH units)	6.20	9.54	
Electrical Conductivity (µS/cm)	554	398	
Total Dissolved Solids	349	251	





Quality



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uole 2. Thiotyte Concentrations of	before and after filtration – Volatile Organic Compounds BEFORE		
	FILTRATION/(mg/L	AFTER FILTRATION/(mg/L or	
Analyte	or ppm)	ppm)	
1,1-Dichloroethene	0.041	<0.001	
Trans-1,2-Dichloroethene	0.046	<0.001	
1,1-Dichloroethane	0.022	< 0.001	
Cis-1,2-Dichloroethene	0.023	< 0.001	
Bromochloromethane	0.098	< 0.001	
Chloroform	0.045	0.004	
2,2-Dichloropropane	0.019	< 0.001	
1,2-Dichloroethane	0.024	< 0.001	
1,1,1-Trichloroethane	0.017	< 0.001	
1,1-Dichloropropene	0.017	< 0.001	
Carbon Tetrachloride	0.016	< 0.001	
Benzene	0.638	< 0.001	
Dibromomethane	0.014	< 0.001	
1,2-Dichloropropane	0.014	< 0.001	
Trichloroethene	0.012	< 0.001	
Bromodichloromethane	0.014	< 0.001	
Trans-1,3-Dichloropropene	0.015	< 0.001	
Cis-1,3-Dichloropropene	0.015	< 0.001	
1,1,2-Trichloroethane	0.013	< 0.001	
1,3-Dichloropropane	0.014	< 0.001	
Dibromochloromethane	0.013	< 0.001	
1,2 -Dibromoethane	0.014	<0.001	
Tetrachloroethene	0.011	<0.001	
1,1,1,2-Tetrachloroethane	0.013	<0.001	
Chlorobenzene	0.016	<0.001	
Ethyl benzene	0.015	<0.001	
Bromoform	0.016	<0.001	
m,p-Xylene	0.030	< 0.001	

#### Table 2: Anolyte Concentrations before and after filtration – Volatile Organic Compounds



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	BEFORE FILTRATION/(mg/L	AFTER FILTRATION/(mg/L or
Analyte	or ppm)	ppm)
Naphthalene	0.017	<0.001
Acenaphene	0.004	< 0.001
Fluorene	0.005	< 0.001
Phenanthrene	0.005	< 0.001
Anthracene	0.001	< 0.001
Fluoranthene	0.005	< 0.001
Pyrene	0.003	< 0.001
Benz(a)anthracene	0.004	< 0.001
Chrysene	0.004	< 0.001
Benzo(b,k)fluoranthene	0.014	< 0.002
Benzo(a)pyrene	0.002	< 0.001
Indeno (1,2,3 – cd) pyrene	0.007	< 0.001
Dibenzo (a,h) anthracene	0.007	< 0.001
Benzo (g,h,i) perylene	0.006	< 0.001

#### Table 3: Anolyte Concentrations before and after filtration - Polycyclic Aromatic Hydrocarbons

## *Comments*

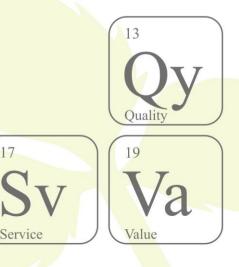
- Removal of Organics is effective (note different standard mix used to previous)
- The initial pH is was adjusted up with
- The volatile organics reported are indicative as these analytes are volatile and degassing mat have occurred during the process
- please note the analyses here are not covered by NATA accreditation

Reported by: Simon Mills

Authorised by: David Springer

Date:19/08/2010

Date:19/08/2010



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