

## TEST REPORT

**Customer** EDEN SPRINGS LATVIA SIA  
Rigas Gatve, 8-2, Adazu Novads, Adazi  
LV-2164 LATVIA

**Analysis** Physico-chemical analysis of a sample

**Specification** Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption.  
  
Council Directive 2013/51/EC of 22 October 2013 laying down requirements for the health protection of the general public with regard to radioactive substances in waters intended for human consumption.

**Sample Information**

**Sample type** Spring water  
**Indicated reference** **Eden - Spring water**  
**Batch** Best before L14/06/2019 07:36  
**Sampling description** \* Sample taken by the concerned party.  
**Containers** Commercial labelled  
**Type of container** Polymer-made watercooler.  
**Type of top** Polymer compound.  
**Capacity** 18.9L.

Dates	Reception Date	Starting Date	Ending Date
	Feb 28,2019	Mar 01,2019	Apr 01,2019

Technical Manager  
Marta Pedemonte Almirall  
Approval  
Apr 02,2019



Chemistry Director  
Núria Pàmies Fabregat  
Approval  
Apr 02,2019



## RESULTS OBTAINED

### CHEMICAL PARAMETERS

Parameter	Notes	Result (Uncertainty)	Parametric Value	Unit
* Odour Type of odour : Anomalous odour unfound - Determination : In the Laboratory IP PAFQ-31. Organoleptic.		Acceptable	Acceptable	
* Taste Type of flavour : Anomalous taste unfound - Determination : In the Laboratory IP PAFQ-31. Organoleptic.		Acceptable	Acceptable	
* Colour IP PAFQ-16. Colorimetry.		<5	---	mg/L Pt/Co
Bromate IP PAFQ-08. Ion chromatography.		<2	10	µg BrO <sub>3</sub> /L
pH Temperature : 22 °C IP PAFQ-03. Electrometry.	1	7.91 (±0.17)	4.5 - 9.5	
Conductivity at 20°C IP PAFQ-04. Electrometry.	1	591 (±10%)	2500	µS/cm
Turbidity IP PAFQ-15. Nephelometry.		0.2 (±20%)	---	UNF
Total dissolved solids at 180 °C IP PAFQ-12. Gravimetry.		358 (±15%)	---	mg/L
Silica IP PAFQ-05. UV-Vis Spectrophotometry.		3.7 (±20%)	---	mg SiO <sub>2</sub> /L
Alkalinity (TA) IP PAFQ-46. Titration.		<1.0	---	mg CaCO <sub>3</sub> /L
Alkalinity (TAC) IP PAFQ-46. Titration.		196 (±15%)	---	mg CaCO <sub>3</sub> /L
Total hardness IP PAFQ-09. By calculation.		250 (±6%)	---	mg CaCO <sub>3</sub> /L
Total hardness (°F) IP PAFQ-09. By calculation.		25.0 (±6%)	---	°F
Permanganate oxidisability IP PAFQ-24. Titration.		0.6 (±15%)	5.0	mg O <sub>2</sub> /L
* Total Organic Carbon (TOC) IP PAFQ-11. Thermal oxidation. IR Detection.	2	<1.0	---	mg C/L
Bicarbonate IP PAFQ-46. Titration.		240 (±15%)	---	mg HCO <sub>3</sub> /L
Carbonate IP PAFQ-46. Titration.		<1.2	---	mg CO <sub>3</sub> /L
Chloride IP PAFQ-51. Ion chromatography.	1	61.9 (±15%)	250	mg Cl/L
Sulphate IP PAFQ-51. Ion chromatography.	1	52.6 (±10%)	250	mg SO <sub>4</sub> /L
Nitrate IP PAFQ-51. Ion chromatography.		<0.5	50	mg NO <sub>3</sub> /L
Bromide IP PAFQ-51. Ion chromatography.		0.24 (±15%)	---	mg Br/L
Fluoride IP PAFQ-51. Ion chromatography.		0.52 (±30%)	1.5	mg F/L
Nitrite IP PAFQ-17. UV-Vis Spectrophotometry.		<0.02	0.50	mg NO <sub>2</sub> /L
Calcium IP PAFQ-50. Titration.		59.3 (±9%)	---	mg Ca/L
Magnesium IP PAFQ-50. Titration.		24.8 (±16%)	---	mg Mg/L
Sodium IP PAFQ-65. Atomic emission.		38.8 (±11%)	200	mg Na/L
Potassium IP PAFQ-65. Atomic emission.		7.3 (±10%)	---	mg K/L
Ammonium IP PAFQ-19. UV-Vis Spectrophotometry.		0.16 (±45%)	0.50	mg NH <sub>4</sub> /L
Aluminum IP PAFQ-97. ICP-MS		<10	200	µg Al/L
Antimony IP PAFQ-97. ICP-MS		<2.0	5.0	µg Sb/L
Arsenic IP PAFQ-97. ICP-MS		<2.0	10	µg As/L
Boron IP PAFQ-97. ICP-MS		0.303 (±15%)	1.0	mg B/L

Parameter	Notes	Result (Uncertainty)	Parametric Value	Unit
Cadmium IP PAFQ-97. ICP-MS		<1.0	5.0	µg Cd/L
Chromium IP PAFQ-97. ICP-MS		<5.0	50	µg Cr/L
Copper IP PAFQ-97. ICP-MS		<0.010	2.0	mg Cu/L
Iron IP PAFQ-97. ICP-MS		18 (±20%)	200	µg Fe/L
Mercury IP PAFQ-85. Atomic fluorescence		<0.20	1.0	µg Hg/L
Manganese IP PAFQ-97. ICP-MS		6.5 (±20%)	50	µg Mn/L
Nickel IP PAFQ-97. ICP-MS		<10	20	µg Ni/L
Lead IP PAFQ-97. ICP-MS		<5.0	10	µg Pb/L
Selenium IP PAFQ-97. ICP-MS		<5	---	µg Se/L
* Cyanide LC LA A-F-PE-0057. FIAS - Spectrometry UV-Vis		<10	50	µg CN/L
<b>Volatile organic compounds</b>				
Benzene IP PAFQ-39. GC-MS (Gas Chromatography-Mass Spectrometry)		<0.5	1.0	µg/L
Chloroform (Trichloromethane) IP PAFQ-39. GC-MS (Gas Chromatography-Mass Spectrometry)		<5	---	µg/L
Bromodichloromethane IP PAFQ-39. GC-MS (Gas Chromatography-Mass Spectrometry)		<1	---	µg/L
1,2-dichloroethane IP PAFQ-39. GC-MS (Gas Chromatography-Mass Spectrometry)		<0.5	3.0	µg/L
Trichloroethene (Trichloroethylene) IP PAFQ-39. GC-MS (Gas Chromatography-Mass Spectrometry)		<1	---	µg/L
Tetrachloroethene IP PAFQ-39. GC-MS (Gas Chromatography-Mass Spectrometry)		<1	---	µg/L
Dibromochloromethane IP PAFQ-39. GC-MS (Gas Chromatography-Mass Spectrometry)		<1	---	µg/L
Bromoform (Tribromomethane) IP PAFQ-39. GC-MS (Gas Chromatography-Mass Spectrometry)		<1	---	µg/L
Total trihalomethane IP PAFQ-39. By calculation.		<8	100	µg/L
Trichloroethene + Tetrachloroethene IP PAFQ-39. By calculation.		<2	10	µg/L
<b>Polycyclic Aromatic Hydrocarbons</b>				
* Benzo (a) pyrene IP PAFQ-99. GC-MS/MS		<0.010	0.010	µg/L
* Benzo (b) fluoranthene IP PAFQ-99. GC-MS/MS		<0.01	---	µg/L
* Benzo (k) fluoranthene IP PAFQ-99. GC-MS/MS		<0.02	---	µg/L
* Benzo (g,h,i) perylene IP PAFQ-99. GC-MS/MS		<0.02	---	µg/L
* Indene (1,2,3-cd) pyrene IP PAFQ-99. GC-MS/MS		<0.02	---	µg/L
<b>Organochlorine pesticides</b>				
* Aldrin IP PAFQ-99. GC-MS/MS		<0.01	0.030	µg/L
* alfa - HCH IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* beta - HCH IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* gamma - HCH (Lindane) IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* delta - HCH IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* 4,4' - DDD IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* 4,4' - DDE IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* 4,4' - DDT IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* Dieldrin IP PAFQ-99. GC-MS/MS		<0.01	0.030	µg/L
* Endosulfan I IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* Endosulfan II IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* Endosulfan sulphate IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L

Parameter	Notes	Result (Uncertainty)	Parametric Value	Unit
* Endrin IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* Heptachlor IP PAFQ-99. GC-MS/MS		<0.01	0.030	µg/L
* Heptachlor epoxide IP PAFQ-99. GC-MS/MS		<0.01	0.030	µg/L
* Methoxychlor IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* Chlorobenzilate IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* Chlorpyrifos IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* DCPA IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* Hexachlorobenzene IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* cis-Permethrin IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* trans - Permethrin IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* Trifluralin IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
<b>Organophosphorous pesticides</b>				
* Diazinon IP PAFQ-99. GC-MS/MS		<0.05	0.10	µg/L
* Disulfoton IP PAFQ-99. GC-MS/MS		<0.05	0.10	µg/L
* Ethoprop IP PAFQ-99. GC-MS/MS		<0.05	0.10	µg/L
* Fenthion IP PAFQ-99. GC-MS/MS		<0.05	0.10	µg/L
* Methyl parathion IP PAFQ-99. GC-MS/MS		<0.05	0.10	µg/L
* Phorate IP PAFQ-99. GC-MS/MS		<0.05	0.10	µg/L
* Ronnel (Fenclorfos) IP PAFQ-99. GC-MS/MS		<0.05	0.10	µg/L
* Trichloronate IP PAFQ-99. GC-MS/MS		<0.05	0.10	µg/L
* Tokuthion IP PAFQ-99. GC-MS/MS		<0.05	0.10	µg/L
<b>Triazines:</b>				
* Atrazine IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* Atrazine-desethyl IP PAFQ-99. GC-MS/MS		<0.05	0.10	µg/L
* Prometryn IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* Propazine IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* Simazine IP PAFQ-99. GC-MS/MS		<0.03	0.10	µg/L
* Terbutylazine IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* Terbutryn IP PAFQ-99. GC-MS/MS		<0.01	0.10	µg/L
* Total pesticides: IP PAFQ-99. By calculation.		<0.50	0.50	µg/L
* Bisphenol A LC UC HPLC/MS HPLC-MS		<0.10	---	µg/L

## QUANTITATIVE CHEMICAL COMPOSITION – IONIC BALANCE

Anions	Result (mg/L)	mEq/L	% mEq/L
Bicarbonate (HCO <sub>3</sub> )	240	3.93	57.71
Carbonate (CO <sub>3</sub> )	<1.2	0.00	0.00
Sulphate (SO <sub>4</sub> )	52.6	1.10	16.15
Chloride (Cl)	61.9	1.75	25.70
Nitrate (NO <sub>3</sub> )	<0.5	0.00	0.00
Fluoride (F)	0.52	0.03	0.44
Bromide (Br)	0.24	0.00	0.00
Nitrite (NO <sub>2</sub> )	<0.02	0.00	0.00
Total . . . . .		6.81	100 ± 0.03

Cations	Result (mg/L)	mEq/L	% mEq/L
Calcium (Ca)	59.3	2.96	42.96
Magnesium (Mg)	24.8	2.04	29.61
Sodium (Na)	38.8	1.69	24.53
Potassium (K)	7.3	0.19	2.76
Iron (Fe)	0.018	0.00	0.00
Manganese (Mn)	0.007	0.00	0.00
Ammonium (NH <sub>4</sub> )	0.16	0.01	0.15
Total . . . . .		6.89	100 ± 0.03

## NOTES

### Specific Notes

--	The applicable specification (see front page report) does not indicate parametric value for this parameter. When specification is not indicated, this symbol turns up in all parameters.
IP	Internal procedure.
LC	Determination carried out by an assisting laboratory.
1	The water should not be aggressive. (Directive 98/83/CE)
2	TOC value only includes the measurement of NPOC.

### General Notes

If the indicated numerical values are followed by the sign "<" they mean that the result obtained does not fall below the lowest limit of quantification of the corresponding analytical method.

If the indicated numerical values are followed by the sign ">" they mean that the result obtained does not fall above the upper limit of quantification of the corresponding analytical method.

Uncertainty is indicated in physicochemical tests if the result falls in of accredited working range. Uncertainty in microbiological test, included in the scope of accreditation, is available to customer.

This report of results only vouches for the analysed sample.

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El Prat de Llobregat (Barcelona), April 02nd, 2019