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**Matís ohf**  
**Hrólfur Sigurdsson**  
**Food Research, inn. and safety**  
**Vinlandsleid 12**  
**IS-113 Reykjavik**  
**Iceland**

Project  
 Reference

## Analysis of drinking water

Your ID	<b>R18-1837-1</b>					
LabID	O11031156					
Analysis	Results	Uncertainty (±)	Unit	Method	Issuer	Sign
Ca	4.83	0.37	mg/l	1	R	VITA
Fe	0.000780	0.000491	mg/l	1	H	VITA
K	<0.4		mg/l	1	R	VITA
Mg	1.63	0.11	mg/l	1	R	VITA
Na	4.18	0.37	mg/l	1	R	VITA
Si	6.28	0.39	mg/l	1	R	VITA
Al	0.464	0.194	µg/l	1	H	VITA
As	<0.05		µg/l	1	H	VITA
Ba	0.0163	0.0073	µg/l	1	H	VITA
Cd	<0.002		µg/l	1	H	VITA
Co	<0.005		µg/l	1	H	VITA
Cr	0.0696	0.0184	µg/l	1	H	VITA
Cu	0.393	0.074	µg/l	1	H	VITA
Hg	<0.002		µg/l	1	F	VITA
Mn	0.0418	0.0323	µg/l	1	H	VITA
Mo	<0.05		µg/l	1	H	VITA
Ni	<0.05		µg/l	1	H	VITA
P	7.43	2.31	µg/l	1	H	VITA
Pb	0.0429	0.0087	µg/l	1	H	VITA
Sr	3.49	0.38	µg/l	1	R	VITA
Zn	0.631	0.205	µg/l	1	H	VITA
V	1.13	0.21	µg/l	1	H	VITA
Sb	<0.01		µg/l	2	H	VITA
B	<10		µg/l	2	R	VITA
S	0.410	0.069	mg/l	2	R	VITA
Se	<0.5		µg/l	2	H	VITA
benzene	<0.20		µg/l	3	1	VITA
toluene	<0.20		µg/l	3	1	VITA
ethylbenzene	<0.10		µg/l	3	1	VITA
m,p-xylene	<0.20		µg/l	3	1	VITA
o-xylene	<0.10		µg/l	3	1	VITA
xylenes, sum *	<0.15		µg/l	3	1	VITA
dichloromethane	<2.0		µg/l	4	1	VITA
1,1-dichloroethane	<0.10		µg/l	4	1	VITA
1,2-dichloroethane	<0.50		µg/l	4	1	VITA



Your ID	R18-1837-1					
LabID	O11031156					
Analysis	Results	Uncertainty (±)	Unit	Method	Issuer	Sign
trans-1,2-dichloroethene	<0.10		µg/l	4	1	VITA
cis-1,2-dichloroethene	<0.10		µg/l	4	1	VITA
1,2-dichloropropane	<1.0		µg/l	4	1	VITA
tetrachloromethane	<0.10		µg/l	4	1	VITA
1,1,1-trichloroethane	<0.10		µg/l	4	1	VITA
1,1,2-trichloroethane	<0.20		µg/l	4	1	VITA
trichloroethene	<0.10		µg/l	4	1	VITA
tetrachloroethene	<0.20		µg/l	4	1	VITA
vinylchloride	<1.0		µg/l	4	1	VITA
1,1-dichloroethene	<0.10		µg/l	4	1	VITA
trichloromethane	<0.30		µg/l	5	1	VITA
tribromomethane	<0.20		µg/l	5	1	VITA
dibromochloromethane	<0.10		µg/l	5	1	VITA
bromodichloromethane	<0.10		µg/l	5	1	VITA
trihalomethanes, sum *	<0.35		µg/l	5	1	VITA
naphthalene	<0.20		µg/l	6	1	VITA
acenaphthylene	<0.10		µg/l	6	1	VITA
acenaphthene	<0.0070		µg/l	6	1	VITA
fluorene	<0.010		µg/l	6	1	VITA
phenanthrene	<0.040		µg/l	6	1	VITA
anthracene	<0.0050		µg/l	6	1	VITA
fluoranthene	<0.0050		µg/l	6	1	VITA
pyrene	<0.0050		µg/l	6	1	VITA
benzo(a)anthracene	<0.0030		µg/l	6	1	VITA
chrysene	<0.0070		µg/l	6	1	VITA
benzo(b)fluoranthene	<0.0040		µg/l	6	1	VITA
benzo(k)fluoranthene	<0.0020		µg/l	6	1	VITA
benzo(a)pyrene	<0.0020		µg/l	6	1	VITA
dibenzo(ah)anthracene	<0.0020		µg/l	6	1	VITA
benzo(ghi)perylene	<0.0030		µg/l	6	1	VITA
indeno(123cd)pyrene	<0.0030		µg/l	6	1	VITA
PAH, sum 16 *	<0.20		µg/l	6	1	VITA
PAH, sum carcinogenic *	<0.012		µg/l	6	1	VITA
PAH, sum non carcinogenic *	<0.20		µg/l	6	1	VITA
PAH, sum 4 *	<0.0060		µg/l	6	1	VITA
PAH, sum L *	<0.20		µg/l	6	1	VITA
PAH, sum M *	<0.033		µg/l	6	1	VITA
PAH, sum H *	<0.013		µg/l	6	1	VITA
ammonium	<0.026		mg/l	7	1	VITA
ammonium nitrogen	<0.020		mg/l	7	1	VITA
chloride	4.23	0.635	mg/l	8	1	VITA
sulphate	1.39	0.208	mg/l	9	1	VITA
färg	<2.0		mgPt/l	10	1	VITA
TOC	<0.50		mg/l	11	1	VITA
nitrite	<0.0050		mg/l	12	1	VITA
nitrite nitrogen	<0.0020		mg/l	12	1	VITA

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Your ID	<b>R18-1837-1</b>					
LabID	O11031156					
Analysis	Results	Uncertainty (±)	Unit	Method	Issuer	Sign
fluoride	<0.200		mg/l	13	1	VITA
CN total	<0.005		mg/l	14	1	VITA
nitrate	0.0885	0.012	mg/l	15	2	ERJA
nitrate nitrogen	0.020	0.00320	mg/l	15	2	ERJA



Your ID	R18-1837-2					
LabID	O11031157					
Analysis	Results	Uncertainty (±)	Unit	Method	Issuer	Sign
Ca	5.61	0.43	mg/l	1	R	VITA
Fe	0.00511	0.00114	mg/l	1	H	VITA
K	0.757	0.055	mg/l	1	R	VITA
Mg	<0.09		mg/l	1	R	VITA
Na	59.3	4.4	mg/l	1	R	VITA
Si	25.9	1.6	mg/l	1	R	VITA
Al	85.7	16.1	µg/l	1	H	VITA
As	1.13	0.26	µg/l	1	H	VITA
Ba	0.156	0.029	µg/l	1	H	VITA
Cd	0.0281	0.0047	µg/l	1	H	VITA
Co	0.00684	0.00616	µg/l	1	H	VITA
Cr	<0.01		µg/l	1	H	VITA
Cu	0.218	0.065	µg/l	1	H	VITA
Hg	0.0106	0.0010	µg/l	1	F	VITA
Mn	0.207	0.040	µg/l	1	H	VITA
Mo	25.7	5.8	µg/l	1	R	VITA
Ni	0.137	0.075	µg/l	1	H	VITA
P	<1		µg/l	1	H	VITA
Pb	0.149	0.028	µg/l	1	H	VITA
Sr	33.0	3.3	µg/l	1	R	VITA
Zn	0.779	0.191	µg/l	1	H	VITA
V	0.0917	0.0249	µg/l	1	H	VITA
Sb	0.0208	0.0071	µg/l	2	H	VITA
B	145	18	µg/l	2	R	VITA
S	14.6	0.9	mg/l	2	R	VITA
Se	<0.5		µg/l	2	H	VITA
benzene	<0.20		µg/l	3	1	VITA
toluene	<0.20		µg/l	3	1	VITA
ethylbenzene	<0.10		µg/l	3	1	VITA
m,p-xylene	<0.20		µg/l	3	1	VITA
o-xylene	<0.10		µg/l	3	1	VITA
xylenes, sum*	<0.15		µg/l	3	1	VITA
dichloromethane	<2.0		µg/l	4	1	VITA
1,1-dichloroethane	<0.10		µg/l	4	1	VITA
1,2-dichloroethane	<0.50		µg/l	4	1	VITA
trans-1,2-dichloroethene	<0.10		µg/l	4	1	VITA
cis-1,2-dichloroethene	<0.10		µg/l	4	1	VITA
1,2-dichloropropane	<1.0		µg/l	4	1	VITA
tetrachloromethane	<0.10		µg/l	4	1	VITA
1,1,1-trichloroethane	<0.10		µg/l	4	1	VITA
1,1,2-trichloroethane	<0.20		µg/l	4	1	VITA
trichloroethene	<0.10		µg/l	4	1	VITA
tetrachloroethene	<0.20		µg/l	4	1	VITA
vinylchloride	<1.0		µg/l	4	1	VITA
1,1-dichloroethene	<0.10		µg/l	4	1	VITA
trichloromethane	<0.30		µg/l	5	1	VITA



Your ID	R18-1837-2					
LabID	O11031157					
Analysis	Results	Uncertainty (±)	Unit	Method	Issuer	Sign
tribromomethane	<0.20		µg/l	5	1	VITA
dibromochloromethane	<0.10		µg/l	5	1	VITA
bromodichloromethane	<0.10		µg/l	5	1	VITA
trihalomethanes, sum*	<0.35		µg/l	5	1	VITA
naphthalene	<0.20		µg/l	6	1	VITA
acenaphthylene	<0.10		µg/l	6	1	VITA
acenaphthene	<0.0070		µg/l	6	1	VITA
fluorene	<0.010		µg/l	6	1	VITA
phenanthrene	<0.040		µg/l	6	1	VITA
anthracene	<0.0050		µg/l	6	1	VITA
fluoranthene	<0.0050		µg/l	6	1	VITA
pyrene	<0.0050		µg/l	6	1	VITA
benzo(a)anthracene	<0.0030		µg/l	6	1	VITA
chrysene	<0.0070		µg/l	6	1	VITA
benzo(b)fluoranthene	<0.0040		µg/l	6	1	VITA
benzo(k)fluoranthene	<0.0020		µg/l	6	1	VITA
benzo(a)pyrene	<0.0020		µg/l	6	1	VITA
dibenzo(ah)anthracene	<0.0020		µg/l	6	1	VITA
benzo(ghi)perylene	<0.0030		µg/l	6	1	VITA
indeno(123cd)pyrene	<0.0030		µg/l	6	1	VITA
PAH, sum 16*	<0.20		µg/l	6	1	VITA
PAH, sum carcinogenic*	<0.012		µg/l	6	1	VITA
PAH, sum non carcinogenic*	<0.20		µg/l	6	1	VITA
PAH, sum 4*	<0.0060		µg/l	6	1	VITA
PAH, sum L*	<0.20		µg/l	6	1	VITA
PAH, sum M*	<0.033		µg/l	6	1	VITA
PAH, sum H*	<0.013		µg/l	6	1	VITA
ammonium	0.066	0.010	mg/l	7	1	VITA
ammonium nitrogen	0.051	0.008	mg/l	7	1	VITA
chloride	38.6	5.79	mg/l	8	1	VITA
sulphate	46.2	6.93	mg/l	9	1	VITA
färg	<2.0		mgPt/l	10	1	VITA
TOC	<0.50		mg/l	11	1	VITA
nitrite	<0.0050		mg/l	12	1	VITA
nitrite nitrogen	<0.0020		mg/l	12	1	VITA
fluoride	0.674	0.101	mg/l	13	1	VITA
CN total	<0.005		mg/l	14	1	VITA
nitrate	<0.022		mg/l	15	2	ERJA
nitrate nitrogen	<0.005		mg/l	15	2	ERJA



\* indicates unaccredited analysis.

	Method specification
1	<p>Package V-2. Determination of metals without digestion. The measurement was carried out according to EPA-method 200.7(mod), SS EN ISO 11885(mod) (ICP-AES) and EPA-method 200.8(mod), SS EN ISO 17294-1,2(mod) (ICP-SFMS). Analysis of Hg with AFS according to SS-EN ISO 17852:2008.</p> <p>Special information for added metals to the package: W; the sample must not be acidified prior to analysis. S; the sample has been stabilized with H2O2.</p> <p>Rev 2015-06-25</p>
2	Additional metals
3	<p>Package OV-5. Determination of monocyclic aromatics (BTEX) according to method based on US EPA 624, US EPA 8260, EN ISO 10301, MADEP 2004, rev. 1.1. Measurement is performed with GC-FID and GC-MS.</p> <p>Rev 2013-09-19</p>
4	<p>Package OV-6. Determination of chlorinated aliphates including vinylchloride according to method based on US EPA 624, US EPA 8260, EN ISO 10301, MADEP 2004, rev.1.1.. The measurement is performed with GC-FID and GC-MS.</p> <p>Rev 2013-09-18</p>
5	<p>Package OV-10. Determination of trihalomethanes according to a method based on US EPA 624, US EPA 8260, EN ISO 10301, MADEP 2004, rev.1.1. The measurement is performed with GC-FID and GC-MS.</p> <p>Rev 2013-09-19</p>
6	<p>Package OV-1. Determination of polycyclic aromatic hydrocarbons, PAH (EPA-16) according to method based on US EPA 550 The measurement is performed by HPLC with fluorescence and PDA detection.</p> <p>PAH carcinogenic are benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, dibenzo(ah)anthracene and indeno(1,2,3-c,d)pyrene. Sum 4 PAH: benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-c,d)pyrene and benzo(g,h,i)perylene</p> <p>Sum PAH L: naphtalene, acenaphtene and acenaphtylene. Sum PAH M: fluorene, phenanthrene, anthracene, fluoranthene and pyrene Sum PAH H: benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-c,d)pyrene, dibenzo(a,h)anthracene and benzo(g,h,i)perylene</p> <p>Rev 2013-09-24</p>
7	<p>Spectrophotometric determination of ammonium NH<sub>4</sub>, low LOQ, according to method based on CSN EN ISO 11732, CSN EN ISO 13395, CSN EN 13370 and CSN EN 12506. The method includes filtration of turbid samples.</p> <p>Rev 2013-09-18</p>
8	Determination of chloride using ion chromatography according to CSN EN ISO 10304-1.



Method specification	
	The method includes filtration of turbid samples.  Rev 2012-05-28
9	Determination of sulfate with low LOQ, using ion chromatography according to a method based on CSN ISO 10304-1&2. The method includes filtration of turbid samples.  Rev 2013-03-14
10	Spectrophotometric determination of colour after filtration according to method based on CSN EN ISO 7887.  Rev 2013-09-26
11	Determination of TOC with IR detection according to method based on CSN EN 1484 and CSN EN 13370. The method includes filtration of turbid samples.  Rev 2014-11-24
12	Spectrophotometric determination of nitrite/nitrite nitrogen according to method based on CSN ISO 11732, CSN ISO 13395, CSN EN 13370 och CSN EN 12506. The method includes filtration of turbid samples.  The time between sampling and analysis has exceeded 24 hours.  Rev 2014-02-19
13	Determination of fluoride using ion chromatography according to CSN ISO 10304-1 and CSN EN 12506. The method includes filtration of turbid samples.  Rev 2013-09-17
14	Spectrophotometric determination of total cyanide according to method based on TNV 757415.  Rev 2013-09-19
15	Determination of nitrate, NO <sub>3</sub> according to SS-EN ISO 10304-1. The measurement is performed with ion chromatography.  Rev 2014-03-03

Approver	
ERJA	Erika Jansson
VITA	Viktorija Takacs

Issuer <sup>1</sup>	
F	The determination is performed using AFS The analysis is provided by ALS Scandinavia AB, Aurorum 10, 977 75 Luleå, Sweden, which is a testing laboratory, accredited by the Swedish accreditation body SWEDAC (Reg.No. 2030).
H	The determination is performed using ICP-SFMS The analysis is provided by ALS Scandinavia AB, Aurorum 10, 977 75 Luleå, Sweden, which is a testing laboratory, accredited by the Swedish accreditation body SWEDAC (Reg.No. 2030).

<sup>1</sup> The technical unit within ALS Scandinavia where the analysis was carried out, alternatively the subcontractor for the analysis.



Issuer <sup>1</sup>	
R	The determination is performed using ICP-AES The analysis is provided by ALS Scandinavia AB, Aurorum 10, 977 75 Luleå, Sweden, which is a testing laboratory, accredited by the Swedish accreditation body SWEDAC (Reg.No. 2030).
1	The analysis is provided by ALS Laboratory Group, Na Harfê 9/336, 190 00, Prag 9, Czech Republic, which is a testing laboratory, accredited by the Czech accreditation body CAI (Reg.No 1163). CAI is a signatory to a MLA within EA, the same LA to which the Swedish accreditation body SWEDAC is also a signatory. The laboratories are located in; Prague, Na Harfê 9/336, 190 00, Praha 9, Ceska Lipa, Bendlova 1687/7, 470 01 Ceska Lipa, Pardubice, V Raji 906, 530 02 Pardubice.  Contact the laboratory for further information.
2	The analysis is provided by AK Lab AB, Getångsvägen 29, 504 68 Borås, Sweden, which is a testing laboratory, accredited by the Swedish accreditation body SWEDAC (Reg.No. 1790).

The uncertainty is given as extended uncertainty (according to the definition in "Guide to the Expression of Uncertainty in Measurement", JCGM 100:2008 Corrected version 2010) calculated with a coverage factor of 2, which gives a confidence level of approximately 95%.

Measurement of uncertainty is reported only for detected substances with levels above the reporting limits.

The uncertainty from subcontractors is often given as extended uncertainty calculated with a coverage factor of 2. Contact the laboratory for further information.

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The results apply only to the material that has been identified, received, and tested.

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