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Project
 Reference

Analysis of drinking water

Your ID	R18-1687-1/F1-RA/HS					
LabID	O11028969					
Analysis	Results	Uncertainty (±)	Unit	Method	Issuer	Sign
Ca	4.06	0.32	mg/l	1	R	WIDF
Fe	0.00135	0.00053	mg/l	1	H	WIDF
K	1.46	0.10	mg/l	1	R	WIDF
Mg	2.89	0.19	mg/l	1	R	WIDF
Na	8.21	0.63	mg/l	1	R	WIDF
Si	9.87	0.63	mg/l	1	R	WIDF
Al	3.93	0.74	µg/l	1	H	WIDF
As	0.119	0.053	µg/l	1	H	WIDF
Ba	0.211	0.039	µg/l	1	H	WIDF
Cd	<0.002		µg/l	1	H	WIDF
Co	<0.005		µg/l	1	H	WIDF
Cr	<0.01		µg/l	1	H	WIDF
Cu	0.222	0.052	µg/l	1	H	WIDF
Hg	<0.002		µg/l	1	F	WIDF
Mn	<0.03		µg/l	1	H	WIDF
Mo	0.402	0.077	µg/l	1	H	WIDF
Ni	0.0753	0.0572	µg/l	1	H	WIDF
P	67.7	15.6	µg/l	1	H	WIDF
Pb	0.0295	0.0066	µg/l	1	H	WIDF
Sr	13.1	1.3	µg/l	1	R	WIDF
Zn	0.901	0.238	µg/l	1	H	WIDF
V	6.14	1.12	µg/l	1	H	WIDF
Sb	0.0138	0.0067	µg/l	2	H	WIDF
B	<10		µg/l	2	R	WIDF
S	0.474	0.050	mg/l	2	R	WIDF
Se	<0.5		µg/l	2	H	WIDF
benzene	<0.20		µg/l	3	1	FREN
toluene	<0.20		µg/l	3	1	FREN
ethylbenzene	<0.10		µg/l	3	1	FREN
m,p-xylene	<0.20		µg/l	3	1	FREN
o-xylene	<0.10		µg/l	3	1	FREN
xylenes, sum *	<0.15		µg/l	3	1	FREN
dichloromethane	<2.0		µg/l	4	1	FREN
1,1-dichloroethane	<0.10		µg/l	4	1	FREN
1,2-dichloroethane	<0.50		µg/l	4	1	FREN



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trans-1,2-dichloroethene	<0.10		µg/l	4	1	FREN
cis-1,2-dichloroethene	<0.10		µg/l	4	1	FREN
1,2-dichloropropane	<1.0		µg/l	4	1	FREN
tetrachloromethane	<0.10		µg/l	4	1	FREN
1,1,1-trichloroethane	<0.10		µg/l	4	1	FREN
1,1,2-trichloroethane	<0.20		µg/l	4	1	FREN
trichloroethene	<0.10		µg/l	4	1	FREN
tetrachloroethene	<0.20		µg/l	4	1	FREN
vinylchloride	<1.0		µg/l	4	1	FREN
1,1-dichloroethene	<0.10		µg/l	4	1	FREN
trichloromethane	<0.30		µg/l	5	1	FREN
tribromomethane	<0.20		µg/l	5	1	FREN
dibromochloromethane	<0.10		µg/l	5	1	FREN
bromodichloromethane	<0.10		µg/l	5	1	FREN
trihalomethanes, sum *	<0.35		µg/l	5	1	FREN
naphthalene	<0.20		µg/l	6	1	FREN
acenaphthylene	<0.10		µg/l	6	1	FREN
acenaphthene	<0.0070		µg/l	6	1	FREN
fluorene	<0.010		µg/l	6	1	FREN
phenanthrene	<0.040		µg/l	6	1	FREN
anthracene	<0.0050		µg/l	6	1	FREN
fluoranthene	<0.0050		µg/l	6	1	FREN
pyrene	<0.0050		µg/l	6	1	FREN
benzo(a)anthracene	<0.0030		µg/l	6	1	FREN
chrysene	<0.0070		µg/l	6	1	FREN
benzo(b)fluoranthene	<0.0040		µg/l	6	1	FREN
benzo(k)fluoranthene	<0.0020		µg/l	6	1	FREN
benzo(a)pyrene	<0.0020		µg/l	6	1	FREN
dibenzo(ah)anthracene	<0.0020		µg/l	6	1	FREN
benzo(ghi)perylene	<0.0030		µg/l	6	1	FREN
indeno(123cd)pyrene	<0.0030		µg/l	6	1	FREN
PAH, sum 16 *	<0.20		µg/l	6	1	FREN
PAH, sum carcinogenic *	<0.012		µg/l	6	1	FREN
PAH, sum non carcinogenic *	<0.20		µg/l	6	1	FREN
PAH, sum 4 *	<0.0060		µg/l	6	1	FREN
PAH, sum L *	<0.20		µg/l	6	1	FREN
PAH, sum M *	<0.033		µg/l	6	1	FREN
PAH, sum H *	<0.013		µg/l	6	1	FREN
ammonium	<0.026		mg/l	7	1	FREN
ammonium nitrogen	<0.020		mg/l	7	1	FREN
chloride	7.20	1.08	mg/l	8	1	FREN
sulphate	1.43	0.214	mg/l	9	1	FREN
TOC	<0.50		mg/l	10	1	FREN
färg	<2.0		mgPt/l	11	1	FREN
nitrite	<0.0050		mg/l	12	1	FREN
nitrite nitrogen	<0.0020		mg/l	12	1	FREN

Report

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W40V7W9HT5



Your ID	R18-1687-1/F1-RA/HS					
LabID	O11028969					
Analysis	Results	Uncertainty (\pm)	Unit	Method	Issuer	Sign
fluoride	<0.200		mg/l	13	1	FREN
CN total	<0.005		mg/l	14	1	FREN
nitrate	0.416	0.058	mg/l	15	2	STGR
nitrate nitrogen	0.094	0.015	mg/l	15	2	STGR



* 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: naphthalene, acenaphthene and acenaphthylene. 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 NH₄, 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	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
11	Spectrophotometric determination of colour after filtration according to method based on CSN EN ISO 7887. Rev 2013-09-26
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 ₃ according to SS-EN ISO 10304-1. The measurement is performed with ion chromatography. Rev 2014-03-03

Approver	
FREN	Fredrik Enzell
STGR	Sture Grägg
WIDF	William Di Francesco

Issuer ¹	
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

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



	Issuer¹
	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).
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, Getängsvägen 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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