



CERTIFICATE OF ANALYSIS

Work Order	: ST2214388	Page	: 1 of 9
Client	: Matis ohf	Project	: ----
Contact	: Hrólfur Sigurdsson	Purchase Number	: ST2214388
Address	: Food Research, inn. and safety Vinlandsleid 12 -113 Reykjavik Iceland	Sampler	: ----
E-mail	: hrolfur@matis.is	Site	: ----
Telephone	: 3544225000	Date Samples Received	: 2022-05-11 10:10
C-O-C number	: ----	Date Analysis Commenced	: 2022-05-12
Quote number	: HL2020SE-MAT-OHF0001 (OF191270)	Issue Date	: 2022-05-25 12:32
		No. of samples received	: 3
		No. of samples analysed	: 3

General Comments

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Workorder Comments

Should a sample contain sediment it is decanted prior to volatile compounds determination.

Signatories	Position
Niels-Kristian Terkildsen	Laboratory Manager



Akkred. nr 2030
Provning
ISO/IEC 17025

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Analytical Results

Parameter	Result	Client sample ID						Method	Issuer
		R22-1076-1/Jadarsvaedi V-1/19-V1-Hú							
		Laboratory sample ID							
		ST2214388-001							
Client sampling date / time		2022-05-10							
Parameter	Result	MU	Unit	LOR	Package	Method	Issuer		
Halogenated Volatile Organic Compounds									
Chloroform	<0.10	----	µg/L	0.10	OV-10	W-VOCGMS01	PR		
Bromoform	<0.20	----	µg/L	0.20	OV-10	W-VOCGMS01	PR		
Dibromochloromethane	<0.10	----	µg/L	0.10	OV-10	W-VOCGMS01	PR		
Bromodichloromethane	<0.10	----	µg/L	0.10	OV-10	W-VOCGMS01	PR		
Sum of 4 Trihalomethanes (M1)	<0.250	----	µg/L	0.250	OV-10	W-VOCGMS01	PR		
Sample Pre-Preparation									
Stabilisation	Yes *	----	-	-	V-2-S	W-PPV-S	LE		
Total Metals/Major Cations									
Aluminum	15.9	± 1.6	µg/L	0.2	V-2	W-SFMS-5A	LE		
Arsenic	<0.05	----	µg/L	0.05	V-2	W-SFMS-5A	LE		
Barium	0.0226	± 0.0046	µg/L	0.01	V-2	W-SFMS-5A	LE		
Cadmium	<0.002	----	µg/L	0.002	V-2	W-SFMS-5A	LE		
Calcium	5.08	± 0.51	mg/L	0.1	V-2	W-AES-1A	LE		
Chromium	1.10	± 0.11	µg/L	0.01	V-2	W-SFMS-5A	LE		
Cobalt	<0.005	----	µg/L	0.005	V-2	W-SFMS-5A	LE		
Copper	<0.1	----	µg/L	0.1	V-2	W-SFMS-5A	LE		
Iron	0.00183	± 0.00048	mg/L	0.0004	V-2	W-SFMS-5A	LE		
Lead	<0.01	----	µg/L	0.01	V-2	W-SFMS-5A	LE		
Magnesium	0.920	± 0.093	mg/L	0.09	V-2	W-AES-1A	LE		
Manganese	0.0641	± 0.0158	µg/L	0.03	V-2	W-SFMS-5A	LE		
Mercury	<0.002	----	µg/L	0.002	V-2	W-AFS-17V2	LE		
Molybdenum	0.0789	± 0.0091	µg/L	0.05	V-2	W-SFMS-5A	LE		
Nickel	0.0791	± 0.0193	µg/L	0.05	V-2	W-SFMS-5A	LE		
Phosphorus	14.3	± 1.7	µg/L	1	V-2	W-SFMS-5A	LE		
Potassium	<0.4	----	mg/L	0.4	V-2	W-AES-1A	LE		
Silicon	6.84	± 0.68	mg/L	0.03	V-2	W-AES-1A	LE		
Sodium	13.3	± 1.3	mg/L	0.1	V-2	W-AES-1A	LE		
Strontium	3.12	± 0.34	µg/L	2	V-2	W-AES-1A	LE		
Vanadium	15.2	± 1.5	µg/L	0.005	V-2	W-SFMS-5A	LE		
Zinc	0.680	± 0.131	µg/L	0.2	V-2	W-SFMS-5A	LE		
Antimony	<0.01	----	µg/L	0.01	V-2-ADD	W-SFMS-5A	LE		
Boron	<10	----	µg/L	10	V-2-ADD	W-AES-1A	LE		
Selenium	<0.3	----	µg/L	0.3	V-2-ADD	W-SFMS-5A	LE		
Lithium	0.0959 *	----	µg/L	0.050	V-2-Bas-ADD	W-SFMS-5A	LE		
Sulfur	0.776	± 0.078	mg/L	0.2	V-2-S	W-AES-1A	LE		
BTEX									
Benzene	<0.2	----	µg/L	0.2	OV-5A	HS-OV-21	ST		
Toluene	<0.2	----	µg/L	0.2	OV-5A	HS-OV-21	ST		
Ethylbenzene	<0.2	----	µg/L	0.2	OV-5A	HS-OV-21	ST		
Sum of Xylenes	<0.2	----	µg/L	0.2	OV-5A	HS-OV-21	ST		
Polycyclic Aromatics Hydrocarbons (PAHs)									
Naphthalene	<0.0070	----	µg/L	0.0070	GRV-PAH	W-PAHGMS04	PR		
Acenaphthylene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR		
Acenaphthene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR		
Fluorene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR		
Phenanthrene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR		



Parameter	Result	MU	Unit	LOR	Package	Method	Issuer
Polycyclic Aromatics Hydrocarbons (PAHs) - Continued							
Anthracene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR
Fluoranthene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR
Pyrene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR
Benz(a)anthracene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR
Chrysene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR
Benzo(b)fluoranthene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR
Benzo(k)fluoranthene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR
Benzo(a)pyrene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR
Indeno(1.2.3.cd)pyrene	<0.00030	----	µg/L	0.00030	GRV-PAH	W-PAHGMS04	PR
Benzo(g,h,i)perylene	<0.00030	----	µg/L	0.00030	GRV-PAH	W-PAHGMS04	PR
Dibenz(a,h)anthracene	<0.00060	----	µg/L	0.00060	GRV-PAH	W-PAHGMS04	PR
Sum of carcinogenic PAH (M1)	<0.00295	----	µg/L	0.00295	GRV-PAH	W-PAHGMS04	PR
Sum of PAH L (M1)	<0.00450	----	µg/L	0.00450	GRV-PAH	W-PAHGMS04	PR
Sum of PAH M (M1)	<0.00250	----	µg/L	0.00250	GRV-PAH	W-PAHGMS04	PR
Sum of PAH H (M1)	<0.00310	----	µg/L	0.00310	GRV-PAH	W-PAHGMS04	PR
Sum of 16 PAH (M1)	<0.0101	----	µg/L	0.101	GRV-PAH	W-PAHGMS04	PR
Sum of other PAH (M1)	<0.00715	----	µg/L	0.00715	GRV-PAH	W-PAHGMS04	PR
Nonmetallic Inorganic Parameters							
Ammonia and ammonium ions as NH ₄	<0.050	----	mg/L	0.050	Ammonium i vatten	W-NH4-SPC	PR
Ammonia and ammonium ions as N	<0.040	----	mg/L	0.040	Ammonium i vatten	W-NH4-SPC	PR
Total Cyanide	<0.0010	----	mg/L	0.001	Cyanid (total) i vatten	Cyanid_7937,10	HU
Fluoride	<0.200	----	mg/L	0.200	Fluorid i vatten	W-F-IC	PR
Chloride	11.7	± 1.76	mg/L	1.00	Klorid i vatten	W-CL-IC	PR
Nitrate as N	0.031 *	----	mg/L	0.005	Nitrat i vatten(0,02 mg)	W-IC-1/AKL	AK
Nitrate	0.137 *	----	mg/L	0.005	Nitrat i vatten(0,02 mg)	W-IC-1/AKL	AK
Nitrites	<0.0050	----	mg/L	0.0050	Nitrit i vatten (SPC)	W-NO2-SPC	PR
Nitrite as N	<0.0020	----	mg/L	0.0020	Nitrit i vatten (SPC)	W-NO2-SPC	PR
Sulphate as SO ₄ 2-	<5.00	----	mg/L	5.00	Sulfat i vatten (IC)	W-SO4-IC	PR
Halogenated Volatile Organic Compounds							
Dichloromethane	<0.10	----	µg/L	0.1	OV-6B	OV-6b_6434	HU
1,1-Dichloroethane	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
1,2-Dichloroethane	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
trans-1,2-Dichloroethene	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
cis-1,2-Dichloroethene	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
1,2-Dichloropropane	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
Chloroform	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
Tetrachloromethane	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
1,1,1-Trichloroethane	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
1,1,2-Trichloroethane	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
Trichloroethene	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
Tetrachloroethene	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
Vinyl chloride	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
1,1-Dichloroethene	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
Physical Parameters							
Colour (True)	<5.0	----	mgPt/l	5.0	Färg	W-COL-SPC	PR
Other							
Total Organic Carbon	<0.50	----	mg/L	0.50	TOC	W-TOC-IR	PR



Sub-Matrix: DRINKING WATER		Client sample ID		R22-1076-2/Myllulaekur V-13/19-V13-Hú				
		Laboratory sample ID		ST2214388-002				
		Client sampling date / time		2022-05-10				
Parameter	Result	MU	Unit	LOR	Package	Method	Issuer	
Halogenated Volatile Organic Compounds								
Chloroform	<0.10	----	µg/L	0.10	OV-10	W-VOCGMS01	PR	
Bromoform	<0.20	----	µg/L	0.20	OV-10	W-VOCGMS01	PR	
Dibromochloromethane	<0.10	----	µg/L	0.10	OV-10	W-VOCGMS01	PR	
Bromodichloromethane	<0.10	----	µg/L	0.10	OV-10	W-VOCGMS01	PR	
Sum of 4 Trihalomethanes (M1)	<0.250	----	µg/L	0.250	OV-10	W-VOCGMS01	PR	
Sample Pre-Preparation								
Stabilisation	Yes *	----	-	-	V-2-S	W-PPV-S	LE	
Total Metals/Major Cations								
Arsenic	0.0579	± 0.0128	µg/L	0.05	V-2	W-SFMS-5A	LE	
Barium	0.235	± 0.024	µg/L	0.01	V-2	W-SFMS-5A	LE	
Cadmium	0.00217	±	µg/L	0.002	V-2	W-SFMS-5A	LE	
		0.00089						
Calcium	5.49	± 0.55	mg/L	0.1	V-2	W-AES-1A	LE	
Chromium	1.02	± 0.10	µg/L	0.01	V-2	W-SFMS-5A	LE	
Cobalt	0.00908	±	µg/L	0.005	V-2	W-SFMS-5A	LE	
		0.00315						
Copper	0.159	± 0.032	µg/L	0.1	V-2	W-SFMS-5A	LE	
Lead	0.0238	± 0.0030	µg/L	0.01	V-2	W-SFMS-5A	LE	
Magnesium	0.870	± 0.088	mg/L	0.09	V-2	W-AES-1A	LE	
Mercury	<0.002	----	µg/L	0.002	V-2	W-AFS-17V2	LE	
Molybdenum	0.0820	± 0.0094	µg/L	0.05	V-2	W-SFMS-5A	LE	
Nickel	<0.05	----	µg/L	0.05	V-2	W-SFMS-5A	LE	
Potassium	<0.4	----	mg/L	0.4	V-2	W-AES-1A	LE	
Silicon	6.82	± 0.68	mg/L	0.03	V-2	W-AES-1A	LE	
Sodium	12.0	± 1.2	mg/L	0.1	V-2	W-AES-1A	LE	
Strontium	<2	----	µg/L	2	V-2	W-AES-1A	LE	
Vanadium	15.9	± 1.6	µg/L	0.005	V-2	W-SFMS-5A	LE	
Zinc	1.82	± 0.24	µg/L	0.2	V-2	W-SFMS-5A	LE	
Antimony	<0.01	----	µg/L	0.01	V-2-ADD	W-SFMS-5A	LE	
Boron	<10	----	µg/L	10	V-2-ADD	W-AES-1A	LE	
Selenium	<0.3	----	µg/L	0.3	V-2-ADD	W-SFMS-5A	LE	
Aluminum	14.8	± 1.5	µg/L	0.2	V-2-Bas-ADD	W-SFMS-5A	LE	
Iron	0.0218	± 0.0022	mg/L	0.0004	V-2-Bas-ADD	W-SFMS-5A	LE	
Lithium	0.111 *	----	µg/L	0.050	V-2-Bas-ADD	W-SFMS-5A	LE	
Manganese	0.654	± 0.067	µg/L	0.03	V-2-Bas-ADD	W-SFMS-5A	LE	
Phosphorus	20.6	± 2.4	µg/L	1	V-2-Bas-ADD	W-SFMS-5A	LE	
Sulfur	0.734	± 0.074	mg/L	0.2	V-2-S	W-AES-1A	LE	
BTEX								
Benzene	<0.2	----	µg/L	0.2	OV-5A	HS-OV-21	ST	
Toluene	<0.2	----	µg/L	0.2	OV-5A	HS-OV-21	ST	
Ethylbenzene	<0.2	----	µg/L	0.2	OV-5A	HS-OV-21	ST	
Sum of Xylenes	<0.2	----	µg/L	0.2	OV-5A	HS-OV-21	ST	
Polycyclic Aromatics Hydrocarbons (PAHs)								
Naphthalene	<0.0070	----	µg/L	0.0070	GRV-PAH	W-PAHGMS04	PR	
Acenaphthylene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR	
Acenaphthene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR	
Fluorene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR	
Phenanthrene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR	
Anthracene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR	
Fluoranthene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR	
Pyrene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR	



Parameter	Result	MU	Unit	LOR	Package	Method	Issuer
Polycyclic Aromatics Hydrocarbons (PAHs) - Continued							
Benz(a)anthracene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR
Chrysene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR
Benzo(b)fluoranthene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR
Benzo(k)fluoranthene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR
Benzo(a)pyrene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR
Indeno(1.2.3.cd)pyrene	<0.00030	----	µg/L	0.00030	GRV-PAH	W-PAHGMS04	PR
Benzo(g,h,i)perylene	<0.00030	----	µg/L	0.00030	GRV-PAH	W-PAHGMS04	PR
Dibenz(a,h)anthracene	<0.00060	----	µg/L	0.00060	GRV-PAH	W-PAHGMS04	PR
Sum of carcinogenic PAH (M1)	<0.00295	----	µg/L	0.00295	GRV-PAH	W-PAHGMS04	PR
Sum of PAH L (M1)	<0.00450	----	µg/L	0.00450	GRV-PAH	W-PAHGMS04	PR
Sum of PAH M (M1)	<0.00250	----	µg/L	0.00250	GRV-PAH	W-PAHGMS04	PR
Sum of PAH H (M1)	<0.00310	----	µg/L	0.00310	GRV-PAH	W-PAHGMS04	PR
Sum of 16 PAH (M1)	<0.0101	----	µg/L	0.101	GRV-PAH	W-PAHGMS04	PR
Sum of other PAH (M1)	<0.00715	----	µg/L	0.00715	GRV-PAH	W-PAHGMS04	PR
Nonmetallic Inorganic Parameters							
Ammonia and ammonium ions as NH ₄	<0.050	----	mg/L	0.050	Ammonium i vatten	W-NH4-SPC	PR
Ammonia and ammonium ions as N	<0.040	----	mg/L	0.040	Ammonium i vatten	W-NH4-SPC	PR
Total Cyanide	<0.0010	----	mg/L	0.001	Cyanid (total) i vatten	Cyanid_7937,10	HU
Fluoride	<0.200	----	mg/L	0.200	Fluorid i vatten	W-F-IC	PR
Chloride	10.9	± 1.63	mg/L	1.00	Klorid i vatten	W-CL-IC	PR
Nitrate as N	0.033 *	----	mg/L	0.005	Nitrat i vatten(0,02 mg)	W-IC-1/AKL	AK
Nitrate	0.146 *	----	mg/L	0.005	Nitrat i vatten(0,02 mg)	W-IC-1/AKL	AK
Nitrites	<0.0050	----	mg/L	0.0050	Nitrit i vatten (SPC)	W-NO2-SPC	PR
Nitrite as N	<0.0020	----	mg/L	0.0020	Nitrit i vatten (SPC)	W-NO2-SPC	PR
Sulphate as SO ₄ 2-	<5.00	----	mg/L	5.00	Sulfat i vatten (IC)	W-SO4-IC	PR
Halogenated Volatile Organic Compounds							
Dichloromethane	<0.10	----	µg/L	0.1	OV-6B	OV-6b_6434	HU
1.1-Dichloroethane	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
1.2-Dichloroethane	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
trans-1.2-Dichloroethene	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
cis-1.2-Dichloroethene	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
1.2-Dichloropropane	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
Chloroform	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
Tetrachloromethane	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
1.1.1-Trichloroethane	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
1.1.2-Trichloroethane	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
Trichloroethene	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
Tetrachloroethene	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
Vinyl chloride	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
1.1-Dichloroethene	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
Physical Parameters							
Colour (True)	<5.0	----	mgPt/l	5.0	Färg	W-COL-SPC	PR
Other							
Total Organic Carbon	0.72	± 0.14	mg/L	0.50	TOC	W-TOC-IR	PR



Sub-Matrix: DRINKING WATER	Client sample ID	R22-1076-3/Vatnsedakriki Vk-1/19-Vk1-Hú						Method	Issuer	
		Laboratory sample ID	ST2214388-003							
			2022-05-10							
Parameter	Result	MU	Unit	LOR	Package					
Halogenated Volatile Organic Compounds										
Chloroform	<0.10	----	µg/L	0.10	OV-10	W-VOCGMS01	PR			
Bromoform	<0.20	----	µg/L	0.20	OV-10	W-VOCGMS01	PR			
Dibromochloromethane	<0.10	----	µg/L	0.10	OV-10	W-VOCGMS01	PR			
Bromodichloromethane	<0.10	----	µg/L	0.10	OV-10	W-VOCGMS01	PR			
Sum of 4 Trihalomethanes (M1)	<0.250	----	µg/L	0.250	OV-10	W-VOCGMS01	PR			
Sample Pre-Preparation										
Stabilisation	Yes *	----	-	-	V-2-S	W-PPV-S	LE			
Total Metals/Major Cations										
Arsenic	0.0718	± 0.0135	µg/L	0.05	V-2	W-SFMS-5A	LE			
Barium	0.0818	± 0.0091	µg/L	0.01	V-2	W-SFMS-5A	LE			
Cadmium	<0.002	----	µg/L	0.002	V-2	W-SFMS-5A	LE			
Calcium	5.20	± 0.52	mg/L	0.1	V-2	W-AES-1A	LE			
Chromium	0.997	± 0.100	µg/L	0.01	V-2	W-SFMS-5A	LE			
Cobalt	<0.005	----	µg/L	0.005	V-2	W-SFMS-5A	LE			
Copper	<0.1	----	µg/L	0.1	V-2	W-SFMS-5A	LE			
Lead	0.0101	± 0.0021	µg/L	0.01	V-2	W-SFMS-5A	LE			
Magnesium	0.923	± 0.093	mg/L	0.09	V-2	W-AES-1A	LE			
Mercury	<0.002	----	µg/L	0.002	V-2	W-AFS-17V2	LE			
Molybdenum	0.0740	± 0.0087	µg/L	0.05	V-2	W-SFMS-5A	LE			
Nickel	<0.05	----	µg/L	0.05	V-2	W-SFMS-5A	LE			
Potassium	0.416	± 0.042	mg/L	0.4	V-2	W-AES-1A	LE			
Silicon	6.91	± 0.69	mg/L	0.03	V-2	W-AES-1A	LE			
Sodium	10.1	± 1.0	mg/L	0.1	V-2	W-AES-1A	LE			
Strontium	3.23	± 0.35	µg/L	2	V-2	W-AES-1A	LE			
Vanadium	19.5	± 2.0	µg/L	0.005	V-2	W-SFMS-5A	LE			
Zinc	13.4	± 1.6	µg/L	0.2	V-2	W-SFMS-5A	LE			
Antimony	<0.01	----	µg/L	0.01	V-2-ADD	W-SFMS-5A	LE			
Boron	<10	----	µg/L	10	V-2-ADD	W-AES-1A	LE			
Selenium	<0.3	----	µg/L	0.3	V-2-ADD	W-SFMS-5A	LE			
Aluminum	21.6	± 2.2	µg/L	0.2	V-2-Bas-ADD	W-SFMS-5A	LE			
Iron	<0.0004	----	mg/L	0.0004	V-2-Bas-ADD	W-SFMS-5A	LE			
Lithium	0.125 *	----	µg/L	0.050	V-2-Bas-ADD	W-SFMS-5A	LE			
Manganese	<0.03	----	µg/L	0.03	V-2-Bas-ADD	W-SFMS-5A	LE			
Phosphorus	23.9	± 2.8	µg/L	1	V-2-Bas-ADD	W-SFMS-5A	LE			
Sulfur	0.729	± 0.074	mg/L	0.2	V-2-S	W-AES-1A	LE			
BTEX										
Benzene	<0.2	----	µg/L	0.2	OV-5A	HS-OV-21	ST			
Toluene	<0.2	----	µg/L	0.2	OV-5A	HS-OV-21	ST			
Ethylbenzene	<0.2	----	µg/L	0.2	OV-5A	HS-OV-21	ST			
Sum of Xylenes	<0.2	----	µg/L	0.2	OV-5A	HS-OV-21	ST			
Polycyclic Aromatics Hydrocarbons (PAHs)										
Naphthalene	<0.0070	----	µg/L	0.0070	GRV-PAH	W-PAHGMS04	PR			
Acenaphthylene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR			
Acenaphthene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR			
Fluorene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR			
Phenanthrene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR			
Anthracene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR			
Fluoranthene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR			
Pyrene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR			
Benz(a)anthracene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR			



Parameter	Result	MU	Unit	LOR	Package	Method	Issuer
Polycyclic Aromatics Hydrocarbons (PAHs) - Continued							
Chrysene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR
Benzo(b)fluoranthene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR
Benzo(k)fluoranthene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR
Benzo(a)pyrene	<0.0010	----	µg/L	0.0010	GRV-PAH	W-PAHGMS04	PR
Indeno(1.2.3.cd)pyrene	<0.00030	----	µg/L	0.00030	GRV-PAH	W-PAHGMS04	PR
Benzo(g,h,i)perylene	<0.00030	----	µg/L	0.00030	GRV-PAH	W-PAHGMS04	PR
Dibenz(a,h)anthracene	<0.00060	----	µg/L	0.00060	GRV-PAH	W-PAHGMS04	PR
Sum of carcinogenic PAH (M1)	<0.00295	----	µg/L	0.00295	GRV-PAH	W-PAHGMS04	PR
Sum of PAH L (M1)	<0.00450	----	µg/L	0.00450	GRV-PAH	W-PAHGMS04	PR
Sum of PAH M (M1)	<0.00250	----	µg/L	0.00250	GRV-PAH	W-PAHGMS04	PR
Sum of PAH H (M1)	<0.00310	----	µg/L	0.00310	GRV-PAH	W-PAHGMS04	PR
Sum of 16 PAH (M1)	<0.0101	----	µg/L	0.101	GRV-PAH	W-PAHGMS04	PR
Sum of other PAH (M1)	<0.00715	----	µg/L	0.00715	GRV-PAH	W-PAHGMS04	PR
Nonmetallic Inorganic Parameters							
Ammonia and ammonium ions as NH ₄	<0.050	----	mg/L	0.050	Ammonium i vatten	W-NH4-SPC	PR
Ammonia and ammonium ions as N	<0.040	----	mg/L	0.040	Ammonium i vatten	W-NH4-SPC	PR
Total Cyanide	<0.0010	----	mg/L	0.001	Cyanid (total) i vatten	Cyanid_7937,10	HU
Fluoride	<0.200	----	mg/L	0.200	Fluorid i vatten	W-F-IC	PR
Chloride	9.77	± 1.47	mg/L	1.00	Klorid i vatten	W-CL-IC	PR
Nitrate as N	0.029 *	----	mg/L	0.005	Nitrat i vatten(0,02 mg)	W-IC-1/AKL	AK
Nitrate	0.128 *	----	mg/L	0.005	Nitrat i vatten(0,02 mg)	W-IC-1/AKL	AK
Nitrites	<0.0050	----	mg/L	0.0050	Nitrit i vatten (SPC)	W-NO2-SPC	PR
Nitrite as N	<0.0020	----	mg/L	0.0020	Nitrit i vatten (SPC)	W-NO2-SPC	PR
Sulphate as SO ₄ 2-	<5.00	----	mg/L	5.00	Sulfat i vatten (IC)	W-SO4-IC	PR
Halogenated Volatile Organic Compounds							
Dichloromethane	<0.10	----	µg/L	0.1	OV-6B	OV-6b_6434	HU
1.1-Dichloroethane	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
1.2-Dichloroethane	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
trans-1.2-Dichloroethene	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
cis-1.2-Dichloroethene	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
1.2-Dichloropropane	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
Chloroform	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
Tetrachloromethane	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
1.1.1-Trichloroethane	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
1.1.2-Trichloroethane	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
Trichloroethene	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
Tetrachloroethene	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
Vinyl chloride	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
1.1-Dichloroethene	<0.020	----	µg/L	0.02	OV-6B	OV-6b_6434	HU
Physical Parameters							
Colour (True)	<5.0	----	mgPt/l	5.0	Färg	W-COL-SPC	PR
Other							
Total Organic Carbon	<0.50	----	mg/L	0.50	TOC	W-TOC-IR	PR

The end of result part of the certificate of analysis



Brief Method Summaries

Analytical Methods	Method Reference
W-AES-1A	Determination of metals in fresh water, pool and drinking water by ICP-AES according to SS-EN ISO 11885:2009 and US EPA Method 200.7:1994. Samples are acidified with 1 ml high purity nitric acid per 100 ml prior to analysis. No digestion.
W-AFS-17V2	Determination of mercury (Hg) in natural water by AFS according to SS-EN ISO 17852:2008. Samples are acidified with 1 ml high purity nitric acid per 100 ml prior to analysis. No digestion.
W-PPV-S*	Stabilisation with H ₂ O ₂ prior to W-AES-1A (SE-SOP-0259).
W-SFMS-5A	Determination of metals in fresh water, pool and drinking water by ICP-SFMS according to SS-EN ISO 17294-2:2016 and US EPA Method 200.8:1994. Samples are acidified with 1 ml high purity nitric acid per 100 ml prior to analysis. No digestion.
Cyanid_7937,10	Determination of cyanid total according to DS/EN ISO 14403-2:2012.
OV-6b_6434	Determination of chlorinated aliphates incl. vinyl chloride according to AK210. Measurement is performed with headspace GC-MS. LOD is meant to report less than values (<).
W-IC-1/AKL	Determination of dissolved fluoride, chloride, nitrite, ortho-phosphate, bromide, nitrate and sulphate ions using liquid chromatography according to SS-EN ISO 10 304-1:2009.
W-CL-IC	CZ_SOP_D06_02_068 (CSN EN ISO 10304-1) Determination of dissolved fluoride, chloride, nitrite, bromide, nitrate and sulphate by ion liquid chromatography and calculation of nitrite nitrogen and nitrate nitrogen and sulphate sulphur from measured values including the calculation of total mineralization.
W-COL-SPC	CZ_SOP_D06_02_079 (CSN EN ISO 7887) Determination of colour by spectrophotometry.
W-F-IC	CZ_SOP_D06_02_068 (CSN EN ISO 10304-1) Determination of dissolved fluoride, chloride, nitrite, bromide, nitrate and sulphate by ion liquid chromatography and calculation of nitrite nitrogen and nitrate nitrogen and sulphate sulphur from measured values including the calculation of total mineralization.
W-NH4-SPC	CZ_SOP_D06_02_019 (CSN EN ISO 11732, CSN EN ISO 13395, CSN EN 16192, SM 4500-NO ₂ -, SM 4500-NO ₃ -) Determination of sum of ammonium and ammonium ions, nitrite and the sum of nitrite and nitrate ions by discrete spectrophotometry and calculation of nitrite, nitrate, ammonia, inorganic, organic, total nitrogen, free ammonia and dissociated ammonium ions from measured values including the calculation of total mineralization
W-NO2-SPC	CZ_SOP_D06_02_019 (ČSN EN ISO 11732, ČSN EN ISO 13395, SM 4500-NO ₂ -, SM 4500-NO ₃ -) Determination of nitrite sum and sum of nitrite and nitrate nitrogen by discrete spectrophotometry and calculation of nitrites and nitrates from measured values
W-PAHGMS04	CZ_SOP_D06_03_161 except for chap. 10.1.3 – 10.1.5 (US EPA 8270D, US EPA 8082A, CSN EN ISO 6468, US EPA 8000D). Determination of semi volatile organic compounds by gas chromatography method with MS or MS/MS detection and calculation of semi volatile organic compounds sums from measured values
W-SO4-IC	CZ_SOP_D06_02_068 (CSN EN ISO 10304-1) Determination of dissolved fluoride, chloride, nitrite, bromide, nitrate and sulphate by ion liquid chromatography and calculation of nitrite nitrogen and nitrate nitrogen and sulphate sulphur from measured values including the calculation of total mineralization.
W-TOC-IR	CZ_SOP_D06_02_056 (CSN EN 1484, SM 5310) Determination of total organic carbon (TOC), dissolved organic carbon (DOC), total inorganic carbon (TIC) and total carbon (TC) by IR detection.
W-VOCGMS01	CZ_SOP_D06_03_155 except chap. 10.5, 10.6 (US EPA 624, US EPA 5021A, US EPA 8260, US EPA 8015, CSN EN ISO 10301, MADEP 2004, rev. 1.1, CSN ISO 11423, CSN EN ISO 15680) Determination of volatile organic compounds by gas chromatography method with FID and MS detection and calculation of volatile organic compounds sums from measured values.
HS-OV-21	Measurement performed with headspace GC-MS according to EPA method 5021a rev. 2 update V.

Key: **LOR** = Limit of reporting represents the standard LOR for the respective parameters in each method. Note that limits of reporting may be affected if, e.g. additional dilution was required because of matrix effects, or the sample quantity was limited.

MU = Measurement Uncertainty

* = Symbol succeeding any result indicates laboratory or subcontractor non-accredited test.

Measurement Uncertainty:

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



Issuing lab

	Issuer
AK	<i>The analysis is provided by AK-lab AB, Getängsvägen 29D Borås Sweden 50468 Accredited by: SWEDAC Accreditation Number: 1790</i>
HU	<i>The analysis is provided by ALS Denmark A/S, Bakkegårdsvej 406A Humlebæk Denmark 3050 Accredited by: DANAK Accreditation Number: 361</i>
LE	<i>The analysis is provided by ALS Scandinavia AB Luleå, Aurorum 10 Luleå Sweden 977 75 Accredited by: SWEDAC Accreditation Number: 2030</i>
PR	<i>The analysis is provided by ALS Czech Republic, s.r.o., Na Harfe 336/9 Prague 9 - Vysocany Czech Republic 190 00 Accredited by: CAI Accreditation Number: 1163</i>
ST	<i>The analysis is provided by ALS Scandinavia AB Danderyd, Rinkebyvägen 19C Danderyd Sweden 182 36 Accredited by: SWEDAC Accreditation Number: 2030</i>