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ALS Controlvet

Zona Industrial Tondela - ZIM II Lote 6 3460-070 Tondela

Relatório nº 77687/2018 Pg 1/1

Data Emissão: 26-04-2018

N.º de Análise: H / 6291 / 18
Data Colheita: 23-04-2018
Data Receção: 24-04-2018
Data Início Ensaio: 24-04-2018
Data Fim Ensaio: 26-04-2018
Código Cliente: 6322

Exmo(s) Sr(s):
Bio3 - Estudos e Proj. em Biol. e Valorizacão
Rua Antero de Quental, 52 A,
Urbanizacão Colinas do Cruzeiro
2675-690 Odivelas

Unidade: Projecto Formosa (Armonia)

Identificação da Amostra:

61835 / 18

Produto: Águas Naturais salinas
Referência: Amostra 1
A colheita de amostra não foi efectuada pela Controlvet.

Acondicionamento: frasco
Nº Entrega: 609/2018

Ensaio	Método	Resultado	Unidade
Contagem de Coliformes	MEH10.02	0	ufc/100mL
Contagem de Escherichia coli	MEH10.02	0	ufc/100mL
Contagem de Enterococos	ISO 7899-2:2000	0	ufc/100mL

Lista de abreviaturas: NE- Número estimado; UFC- Unidades formadoras de colónias; LQ – Limite de quantificação; LD – limite de detecção; V.L. – Valor Limite; V.R. – Valor Recomendado; VP - Valor Paramétrico; C - Conforme; A - Aceitável; NC - Não Conforme; Unid. - Unidade; DO - Densidade óptica.

O ensaio assinalado com (s) foi subcontratado e não é acreditado.

O ensaio assinalado com (a) foi subcontratado e é acreditado.

Nos resultados assinalados com (y) os microrganismos estão presentes, mas inferiores a 4xdiluição.

Para os ensaios assinalados por técnicas de cálculo a metodologia seguida pode ser disponibilizada a pedido.

Este Relatório de Ensaio refere-se apenas às amostras analisadas.

Proibida a reprodução parcial deste documento.

Os ensaios assinalados com * não estão incluídos no âmbito da acreditação.
A colheita de amostra efectuada não está incluída no âmbito da acreditação.

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Elisa Maia

Técnica Superior Laboratório
Elisa Maia



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ALS Controlvet

Zona Industrial Tondela - ZIM II Lote 6 3460-070 Tondela

Relatório nº 86141/2018 Pg 1/1

Data Emissão: 09-05-2018

N.º de Análise: QH / 4788 / 18
Data Colheita: 23-04-2018
Data Receção: 24-04-2018
Data Início Ensaio: 24-04-2018
Data Fim Ensaio: 09-05-2018
Código Cliente: 6322

Exmo(s) Sr(s):
Bio3 - Estudos e Proj. em Biol. e Valorizacão
Rua Antero de Quental, 52 A,
Urbanizacão Colinas do Cruzeiro
2675-690 Odivelas

Unidade: Projecto Formosa (Armona)

Identificação da Amostra:

61835 / 18

Produto: Águas Naturais salinas Acondicionamento: frasco
Referência: A1 Nº Entrega: 609/2018
A colheita de amostra não foi efectuada pela Controlvet.

Ensaio	Método	Resultado	Unidade
(a) Parâmetros físico-químicos	Descrição em anexo	Resultado em anexo.	.

Método interno equivalente é aquele que tem a mesma área de aplicação (parâmetros e matrizes) e que cumpre as características de desempenho, obtendo resultados comparáveis ao(s) método(s) normalizado(s) junto indicado(s)

Lista de abreviaturas: NE- Número estimado; UFC- Unidades formadoras de colónias; LQ – Limite de quantificação; LD – limite de detecção; V.L. – Valor Limite; V.R. – Valor Recomendado; VP - Valor Paramétrico; C - Conforme; A - Aceitável; NC - Não Conforme; Unid. - Unidade; DO - Densidade óptica.

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Proibida a reprodução parcial deste documento.

Eugénia Silva

Técnica Superior de Laboratório
Eugénia Silva



CERTIFICATE OF ANALYSIS

Work Order	: PR1837059	Issue Date	: 09-May-2018
Customer	: CONTROLVET - Seguranca Alimentar, S. A.	Laboratory	: ALS Czech Republic, s.r.o.
Contact	: Ms. Catarina Rodrigues	Contact	: Client Service
Address	: Zona Industrial de Tondela ZIM II - Lote 6 3460-070 Tondela Portugal	Address	: Na Harfe 336/9 Prague 9 - Vysocany 190 00 Czech Republic
E-mail	: catarinarodrigues.laboratorio@controlvet.pt	E-mail	: customer.support@alsglobal.com
Telephone	: ----	Telephone	: +420 226 226 228
Facsimile	: ----	Facsimile	: +420 284 081 635
Project	: ECF 2018/434	Page	: 1 of 4
Order number	: ----	Date Samples Received	: 25-Apr-2018
C-O-C number	: ----	Quote number	: PR2015CONSE-PT0006 (PT-254-15-0938)
Site	: ----	Date of test	: 25-Apr-2018 - 09-May-2018
Sampled by	: client	QC Level	: ALS CR Standard Quality Control Schedule

General Comments

This report shall not be reproduced except in full, without prior written approval from the laboratory.

The laboratory declares that the test results relate only to the listed samples.

Sample PR1837059/001, method W-STELMS01 - the LOR is increased due to high effect of matrix.

Sample(s) PR1837059/001, method W-METMSFLL - LOR for particular sample(s) raised due to matrix interference.

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

Responsible for accuracy

Testing Laboratory No. 1163
Accredited by CAI according to
CSN EN ISO/IEC 17025:2005

Signatories

Zdeněk Jiráček

Position

Environmental Business Unit
Manager





Analytical Results

Sub-Matrix: SALINE WATER

Client sample ID

Laboratory sample ID

Client sampling date / time

QH/4788/2018

PR1837059-001

[25-Apr-2018]

Parameter	Method	LOR	Unit	Result	MU	Result	MU	Result	MU
Estrogenic Hormones									
17-Alpha-Ethinylestradiol	W-STELMS01	0.050	µg/L	<0.500	---	---	---	---	---
17-Beta-Estradiol	W-STELMS01	0.050	µg/L	<0.500	---	---	---	---	---
Pharmaceutical Compounds									
Diclofenac	W-PESLMS04	0.040	µg/L	<0.040	---	---	---	---	---
Ibuprofen	W-PESLMS04	0.050	µg/L	<0.050	---	---	---	---	---
Dissolved Metals / Major Cations									
Cadmium	W-METMSFLL1	0.020	µg/L	<0.400	---	---	---	---	---
Lead	W-METMSFLL1	0.050	µg/L	<1.00	---	---	---	---	---
Mercury	W-HG-AFSFL	0.010	µg/L	<0.010	---	---	---	---	---
Nickel	W-METMSFLL1	0.200	µg/L	<4.00	---	---	---	---	---
BTEX									
Benzene	W-VOCGMS01	0.20	µg/L	<0.20	---	---	---	---	---
Toluene	W-VOCGMS01	1.00	µg/L	<1.00	---	---	---	---	---
Ethylbenzene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
meta- & para-Xylene	W-VOCGMS01	0.20	µg/L	<0.20	---	---	---	---	---
ortho-Xylene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
Sum of BTEX	W-VOCGMS01	1.60	µg/L	<1.60	---	---	---	---	---
Sum of xylenes	W-VOCGMS01	0.30	µg/L	<0.30	---	---	---	---	---
Sum of TEX	W-VOCGMS01	1.40	µg/L	<1.40	---	---	---	---	---
Halogenated Volatile Organic Compounds									
Vinyl chloride	W-VOCGMS01	1.00	µg/L	<1.00	---	---	---	---	---
trans-1,2-Dichloroethene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
Dichloromethane	W-VOCGMS01	6.0	µg/L	<6.0	---	---	---	---	---
1,1-Dichloroethene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
cis-1,2-Dichloroethene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
1,1-Dichloroethane	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
Chloroform	W-VOCGMS01	0.30	µg/L	<0.30	---	---	---	---	---
1,2-Dichloroethane	W-VOCGMS01	1.00	µg/L	<1.00	---	---	---	---	---
1,1,1-Trichloroethane	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
Tetrachloromethane	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
Bromodichloromethane	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
Trichloroethene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
1,1,2-Trichloroethane	W-VOCGMS01	0.20	µg/L	<0.20	---	---	---	---	---
Dibromochloromethane	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
Tetrachloroethene	W-VOCGMS01	0.20	µg/L	<0.20	---	---	---	---	---
1,1,1,2-Tetrachloroethane	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
Chlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
Bromoform	W-VOCGMS01	0.20	µg/L	<0.20	---	---	---	---	---
1,1,1,2,2-Tetrachloroethane	W-VOCGMS01	1.00	µg/L	<1.00	---	---	---	---	---
1,2-Dichlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
1,4-Dichlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
1,3-Dichlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
1,2,4-Trichlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
1,2,3-Trichlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
1,3,5-Trichlorobenzene	W-VOCGMS01	0.20	µg/L	<0.20	---	---	---	---	---
1,2-Dichloropropane	W-VOCGMS01	1.0	µg/L	<1.0	---	---	---	---	---
Sum of 4 Trihalomethanes	W-VOCGMS01	0.70	µg/L	<0.70	---	---	---	---	---
Sum of 3 Dichlorobenzenes	W-VOCGMS01	0.30	µg/L	<0.30	---	---	---	---	---
Sum of 3 Trichlorobenzenes	W-VOCGMS01	0.40	µg/L	<0.40	---	---	---	---	---
Sum of 5 Chlorinated Ethenes	W-VOCGMS01	0.60	µg/L	<0.60	---	---	---	---	---
Non-Halogenated Volatile Organic Compounds									
Styrene	W-VOCGMS01	0.20	µg/L	<0.20	---	---	---	---	---
Methyl tert-Butyl Ether (MTBE)	W-VOCGMS01	0.20	µg/L	<0.20	---	---	---	---	---
tert-Butyl alcohol	W-VOCGMS01	5.0	µg/L	<5.0	---	---	---	---	---
Sum of BTEXS	W-VOCGMS01	1.80	µg/L	<1.80	---	---	---	---	---
Polycyclic Aromatics Hydrocarbons (PAHs)									



Sub-Matrix: SALINE WATER

Client sample ID

Laboratory sample ID

Client sampling date / time

QH/4788/2018

PR1837059-001

[25-Apr-2018]

Parameter	Method	LOR	Unit	Result	MU	Result	MU	Result	MU
Polycyclic Aromatics Hydrocarbons (PAHs) - Continued									
Naphthalene	W-PAHGMS04	0.0070	µg/L	<0.0070	----	----	----	----	----
Anthracene	W-PAHGMS04	0.0010	µg/L	<0.0010	----	----	----	----	----
Fluoranthene	W-PAHGMS04	0.0010	µg/L	<0.0010	----	----	----	----	----
Benzo(b)fluoranthene	W-PAHGMS04	0.0010	µg/L	<0.0010	----	----	----	----	----
Benzo(k)fluoranthene	W-PAHGMS04	0.0010	µg/L	<0.0010	----	----	----	----	----
Benzo(a)pyrene	W-PAHGMS04	0.0010	µg/L	<0.0010	----	----	----	----	----
Indeno(1.2.3.cd)pyrene	W-PAHGMS04	0.00030	µg/L	<0.00030	----	----	----	----	----
Benzo(g,h,i)perylene	W-PAHGMS04	0.00030	µg/L	<0.00030	----	----	----	----	----
Sum of Benzo(b)fluoranthene@Benzo(k)fluoranthene	W-PAHGMS04	0.0020	µg/L	<0.0020	----	----	----	----	----
Sum of Indeno(1.2.3.cd)pyrene@Benzo(g,h,i)perylene	W-PAHGMS04	0.00060	µg/L	<0.00060	----	----	----	----	----
Sum of 8 PAH (WFD)	W-PAHGMS04	0.0126	µg/L	<0.0126	----	----	----	----	----
PCBs									
PCB 28	W-PCBECD01	0.00110	µg/L	<0.00110	----	----	----	----	----
PCB 52	W-PCBECD01	0.00110	µg/L	<0.00110	----	----	----	----	----
PCB 101	W-PCBECD01	0.000750	µg/L	<0.000750	----	----	----	----	----
PCB 118	W-PCBECD01	0.00110	µg/L	<0.00110	----	----	----	----	----
PCB 138	W-PCBECD01	0.00120	µg/L	<0.00120	----	----	----	----	----
PCB 153	W-PCBECD01	0.00110	µg/L	<0.00110	----	----	----	----	----
PCB 180	W-PCBECD01	0.000950	µg/L	<0.000950	----	----	----	----	----
Sum of 6 PCBs	W-PCBECD01	0.00620	µg/L	<0.00620	----	----	----	----	----
Sum of 7 PCBs	W-PCBECD01	0.00730	µg/L	<0.00730	----	----	----	----	----
Organochlorine Pesticides									
Hexachlorobutadiene	W-OCPECD02	0.010	µg/L	<0.010	----	----	----	----	----
Pentachlorobenzene	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----
Trifluralin	W-OCPECD02	0.0050	µg/L	<0.0050	----	----	----	----	----
Hexachlorocyclohexane Alpha	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----
Hexachlorobenzene (HCB)	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----
Hexachlorocyclohexane Beta	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----
Hexachlorocyclohexane Gamma	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----
Hexachlorocyclohexane Delta	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----
Alachlor	W-OCPECD02	0.0050	µg/L	<0.0050	----	----	----	----	----
Aldrin	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----
Isodrin	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----
alpha-Endosulfan	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----
4,4'-DDE	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----
Dieldrin	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----
Endrin	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----
beta-Endosulfan	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----
4,4'-DDD	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----
2,4-DDT	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----
4,4'-DDT	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----
Sum of 4 hexachlorocyclohexanes	W-OCPECD02	0.0080	µg/L	<0.0080	----	----	----	----	----
Sum of 4 isomers DDT	W-OCPECD02	0.0080	µg/L	<0.0080	----	----	----	----	----
Sum of 4 cyclodienes	W-OCPECD02	0.0080	µg/L	<0.0080	----	----	----	----	----
Sum of endosulfanes	W-OCPECD02	0.0040	µg/L	<0.0040	----	----	----	----	----
Chlorophenols									
Pentachlorophenol	W-CLPGMS02	0.10	µg/L	<0.10	----	----	----	----	----
Alkylphenols									
4-Nonylphenol	W-AEOGMS01	0.050	µg/L	<0.050	----	----	----	----	----
4-t-Octylphenol	W-AEOGMS01	0.010	µg/L	<0.010	----	----	----	----	----
Phthalates									
Bis(2-ethylhexyl)phthalate (DEHP)	W-PTHGMS02	1.0	µg/L	<1.0	----	----	----	----	----
Organometallic Compounds									
Tributyltin	W-TSN-GAE	1	ng/L	<1	----	----	----	----	----



If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, delivery date in brackets without a time component will be displayed instead. Measurement uncertainty is expressed as expanded measurement uncertainty with coverage factor $k = 2$, representing 95% confidence level.

Key: LOR = Limit of reporting; MU = Measurement Uncertainty

The end of result part of the certificate of analysis

Brief Method Summaries

Analytical Methods	Method Descriptions
<i>Location of test performance: Na Harfe 336/9 Prague 9 - Vysocany Czech Republic 190 00</i>	
W-AEOGMS01	CZ_SOP_D06_03_178 (CSN EN ISO 18857-2) Determination of alkylphenols and alkylphenol ethoxylates by gas chromatography method with MS or MS/MS detection and calculation of alkylphenols and alkylphenol ethoxylates sums from measured values
W-CLPGMS02	CZ_SOP_D06_03_158 except chap. 9.3 a 9.4 (US EPA 8041, US EPA 3500, CSN EN 12673) Determination of phenols, chlorinated phenols and cresols by gas chromatography method with detection MS and ECD and calculation of phenols, chlorinated phenols and cresols sums from measured values
W-HG-AFSFL	CZ_SOP_D06_02_096 (US EPA 245.7, CSN EN ISO 178 52, CSN EN 16192, samples prepared as per CZ_SOP_D06_02_J02 chap. 10.1 and 10.2.). Determination of Mercury by Fluorescence Spectrometry. Sample was filtered by microfilter with porosity 0.45 μm followed by nitric acid addition prior to analysis.
W-METMSFLL1	CZ_SOP_D06_02_002 (US EPA 200.8, CSN EN ISO 17294-2, US EPA 6020A, CSN EN 16192, CSN 75 7358 samples prepared as per CZ_SOP_D06_02_J02 chap. 10.1 and 10.2) Determination of elements by mass spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values including the calculation of total mineralization and calculating the sum of Ca+Mg. Sample was filtered by microfilter with porosity 0.45 μm followed by nitric acid addition prior to analysis.
W-OCPECD02	CZ_SOP_D06_03_169 (CSN EN ISO 6468, US EPA 8081, DIN 38407-2, samples prepared as per CZ_SOP_D06_03_P01 chap. 9.1, CZ_SOP_D06_03_P02 chap. 9.1) Determination of organochlorine pesticides and other halogen compounds by gas chromatography method with ECD detection and calculation of organochlorine pesticides and other halogen compounds sums from measured values
W-PAHGMS04	CZ_SOP_D06_03_161 (US EPA 8270, CSN EN ISO 6468, US EPA 8000D, samples preparation according to CZ_SOP_D06_03_P01 chap. 9.1, 9.4.1) 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-PCBECD01	CZ_SOP_D06_03_166 (DIN 38407, part 2, US EPA 8082, samples prepared as per CZ_SOP_D06_03_P01 chap. 9.1, CZ_SOP_D06_03_P02 chap. 9.1) Determination of polychlorinated biphenyls - congener analyses by gas chromatography method with ECD detection and calculation of polychlorinated biphenyls sums from measured values
W-PESLMS04	CZ_SOP_D06_03_182.A (DIN 38407-35, CEN/TS 15968) Determination of acidic herbicides, drug residues and other pollutants by liquid chromatography method with MS/MS detection and calculation of acidic herbicides, drug residues and other pollutants sums from measured values. The method has been modified within a flexible scope of accreditation, see Certificate of Accreditation No. 610/2017 dated 16th October 2017. It refers to parameters 2,3,6-Trichlorobenzoic acid, 2-Methylsulfonyl-4-trifluoromethyl benzoic acid, 6-Chloroquinoxaline-2,3-diol, Benazolin, Metribuzin-desamino diketo, Metribuzin-diketo, Paraxanthine, Salicylic acid.
W-PTHGMS02	CZ_SOP_D06_03_159 except chap. 9.2 a 9.3 (US EPA 8061A) Determination of phthalates by gas chromatography method with MS detection and calculation of phthalates sums from measured values
W-STELMS01	CZ_SOP_D06_03_183.A (US EPA 535, US EPA 1694) Determination of pesticides, pesticide metabolites, drug residues and other pollutants by liquid chromatography method with MS/MS detection and calculation of pesticides, pesticide metabolites, drug residues and other pollutants sums from measured values.
W-TSN-GAE	Determination of Tributyltin by gas chromatography GC-ICP-SFMS according to ISO 17353:2004 [Subcontracted]
W-VOCGMS01	CZ_SOP_D06_03_155 except chap. 10.5, 10.6 (US EPA 624, US EPA 8260, US EPA 8015, EN ISO 10301, MADEP 2004, rev. 1.1, ISO 11423, 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

A `` symbol preceding any method indicates laboratory or subcontractor non-accredited test. In the case when a procedure belonging to an accredited method was used for non-accredited matrix, would apply that the reported results are non-accredited. Please refer to General Comment section on front page for information. If the report contains subcontracted analysis, those are made in a subcontracted laboratory outside the laboratories ALS Czech Republic, s.r.o.

The calculation methods of summation parameters are available on request in the client service.



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ALS Controlvet

Zona Industrial Tondela - ZIM II Lote 6 3460-070 Tondela

Relatório nº 77688/2018 Pg 1/1

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Exmo(s) Sr(s):
Bio3 - Estudos e Proj. em Biol. e Valorizacão
Rua Antero de Quental, 52 A,
Urbanizacão Colinas do Cruzeiro
2675-690 Odivelas

Unidade: Projecto Formosa (Armonia)

Identificação da Amostra:

61836 / 18

Produto: Águas Naturais salinas
Referência: Amostra 4
A colheita de amostra não foi efectuada pela Controlvet.

Acondicionamento: frasco
Nº Entrega: 609/2018

Ensaio	Método	Resultado	Unidade
Contagem de Coliformes	MEH10.02	0	ufc/100mL
Contagem de Escherichia coli	MEH10.02	0	ufc/100mL
Contagem de Enterococos	ISO 7899-2:2000	0	ufc/100mL

Lista de abreviaturas: NE- Número estimado; UFC- Unidades formadoras de colónias; LQ – Limite de quantificação; LD – limite de detecção; V.L. – Valor Limite; V.R. – Valor Recomendado; VP - Valor Paramétrico; C - Conforme; A - Aceitável; NC - Não Conforme; Unid. - Unidade; DO - Densidade óptica.

O ensaio assinalado com (s) foi subcontratado e não é acreditado.

O ensaio assinalado com (a) foi subcontratado e é acreditado.

Nos resultados assinalados com (y) os microrganismos estão presentes, mas inferiores a 4xdiluição.

Para os ensaios assinalados por técnicas de cálculo a metodologia seguida pode ser disponibilizada a pedido.

Este Relatório de Ensaio refere-se apenas às amostras analisadas.

Proibida a reprodução parcial deste documento.

Os ensaios assinalados com * não estão incluídos no âmbito da acreditação.

A colheita de amostra efectuada não está incluída no âmbito da acreditação.

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Elisa Maia

Técnica Superior Laboratório
Elisa Maia



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ALS Controlvet

Zona Industrial Tondela - ZIM II Lote 6 3460-070 Tondela

Relatório nº 86142/2018 Pg 1/1

Data Emissão: 09-05-2018

N.º de Análise: QH / 4789 / 18
Data Colheita: 23-04-2018
Data Receção: 24-04-2018
Data Início Ensaio: 24-04-2018
Data Fim Ensaio: 09-05-2018
Código Cliente: 6322

Exmo(s) Sr(s):
Bio3 - Estudos e Proj. em Biol. e Valorizacão
Rua Antero de Quental, 52 A,
Urbanizacão Colinas do Cruzeiro
2675-690 Odivelas

Unidade: Projecto Formosa (Armona)

Identificação da Amostra:

61836 / 18

Produto: Águas Naturais salinas Acondicionamento: frasco
Referência: A4 Nº Entrega: 609/2018
A colheita de amostra não foi efectuada pela Controlvet.

Ensaio	Método	Resultado	Unidade
(a) Parâmetros físico-químicos	Descrição em anexo	Resultado em anexo.	.

Método interno equivalente é aquele que tem a mesma área de aplicação (parâmetros e matrizes) e que cumpre as características de desempenho, obtendo resultados comparáveis ao(s) método(s) normalizado(s) junto indicado(s)

Lista de abreviaturas: NE- Número estimado; UFC- Unidades formadoras de colónias; LQ – Limite de quantificação; LD – limite de detecção; V.L. – Valor Limite; V.R. – Valor Recomendado; VP - Valor Paramétrico; C - Conforme; A - Aceitável; NC - Não Conforme; Unid. - Unidade; DO - Densidade óptica.

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Proibida a reprodução parcial deste documento.

Eugénia Silva

Técnica Superior de Laboratório
Eugénia Silva



CERTIFICATE OF ANALYSIS

Work Order	: PR1837081	Issue Date	: 09-May-2018
Customer	: CONTROLVET - Seguranca Alimentar, S. A.	Laboratory	: ALS Czech Republic, s.r.o.
Contact	: Ms. Catarina Rodrigues	Contact	: Client Service
Address	: Zona Industrial de Tondela ZIM II - Lote 6 3460-070 Tondela Portugal	Address	: Na Harfe 336/9 Prague 9 - Vysocany 190 00 Czech Republic
E-mail	: catarinarodrigues.laboratorio@controlvet.pt	E-mail	: customer.support@alsglobal.com
Telephone	: ----	Telephone	: +420 226 226 228
Facsimile	: ----	Facsimile	: +420 284 081 635
Project	: ECF 2018/435	Page	: 1 of 4
Order number	: ----	Date Samples Received	: 25-Apr-2018
C-O-C number	: ----	Quote number	: PR2015CONSE-PT0006 (PT-254-15-0938)
Site	: ----	Date of test	: 25-Apr-2018 - 09-May-2018
Sampled by	: client	QC Level	: ALS CR Standard Quality Control Schedule

General Comments

This report shall not be reproduced except in full, without prior written approval from the laboratory.

The laboratory declares that the test results relate only to the listed samples.

Sample PR1837081/001, method W-STELMS01 - the LOR is increased due to high effect of matrix.

Sample(s) PR1837081/001, method W-AEOGMS01 - LOR for particular sample(s) raised due to matrix interference.

Sample(s) PR1837081/001, method W-METMSFLL - LOR for particular sample(s) raised due to matrix interference.

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

Responsible for accuracy

Testing Laboratory No. 1163
Accredited by CAI according to
CSN EN ISO/IEC 17025:2005

Signatories

Zdeněk Jiráček

Position

Environmental Business Unit
Manager





Analytical Results

Sub-Matrix: SALINE WATER

Client sample ID

Laboratory sample ID

Client sampling date / time

QH/4789/2018

PR1837081-001

[25-Apr-2018]

Parameter	Method	LOR	Unit	Result	MU	Result	MU	Result	MU
Estrogenic Hormones									
17-Alpha-Ethinylestradiol	W-STELMS01	0.050	µg/L	<0.500	---	---	---	---	---
17-Beta-Estradiol	W-STELMS01	0.050	µg/L	<0.500	---	---	---	---	---
Pharmaceutical Compounds									
Diclofenac	W-PESLMS04	0.040	µg/L	<0.040	---	---	---	---	---
Ibuprofen	W-PESLMS04	0.050	µg/L	<0.050	---	---	---	---	---
Dissolved Metals / Major Cations									
Cadmium	W-METMSFLL1	0.020	µg/L	<0.400	---	---	---	---	---
Lead	W-METMSFLL1	0.050	µg/L	<1.00	---	---	---	---	---
Mercury	W-HG-AFSFL	0.010	µg/L	<0.010	---	---	---	---	---
Nickel	W-METMSFLL1	0.200	µg/L	<4.00	---	---	---	---	---
BTEX									
Benzene	W-VOCGMS01	0.20	µg/L	<0.20	---	---	---	---	---
Toluene	W-VOCGMS01	1.00	µg/L	<1.00	---	---	---	---	---
Ethylbenzene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
meta- & para-Xylene	W-VOCGMS01	0.20	µg/L	<0.20	---	---	---	---	---
ortho-Xylene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
Sum of BTEX	W-VOCGMS01	1.60	µg/L	<1.60	---	---	---	---	---
Sum of xylenes	W-VOCGMS01	0.30	µg/L	<0.30	---	---	---	---	---
Sum of TEX	W-VOCGMS01	1.40	µg/L	<1.40	---	---	---	---	---
Halogenated Volatile Organic Compounds									
Vinyl chloride	W-VOCGMS01	1.00	µg/L	<1.00	---	---	---	---	---
trans-1,2-Dichloroethene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
Dichloromethane	W-VOCGMS01	6.0	µg/L	<6.0	---	---	---	---	---
1,1-Dichloroethene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
cis-1,2-Dichloroethene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
1,1-Dichloroethane	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
Chloroform	W-VOCGMS01	0.30	µg/L	<0.30	---	---	---	---	---
1,2-Dichloroethane	W-VOCGMS01	1.00	µg/L	<1.00	---	---	---	---	---
1,1,1-Trichloroethane	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
Tetrachloromethane	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
Bromodichloromethane	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
Trichloroethene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
1,1,2-Trichloroethane	W-VOCGMS01	0.20	µg/L	<0.20	---	---	---	---	---
Dibromochloromethane	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
Tetrachloroethene	W-VOCGMS01	0.20	µg/L	<0.20	---	---	---	---	---
1,1,1,2-Tetrachloroethane	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
Chlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
Bromoform	W-VOCGMS01	0.20	µg/L	<0.20	---	---	---	---	---
1,1,1,2,2-Tetrachloroethane	W-VOCGMS01	1.00	µg/L	<1.00	---	---	---	---	---
1,2-Dichlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
1,4-Dichlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
1,3-Dichlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
1,2,4-Trichlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
1,2,3-Trichlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	---	---	---	---	---
1,3,5-Trichlorobenzene	W-VOCGMS01	0.20	µg/L	<0.20	---	---	---	---	---
1,2-Dichloropropane	W-VOCGMS01	1.0	µg/L	<1.0	---	---	---	---	---
Sum of 4 Trihalomethanes	W-VOCGMS01	0.70	µg/L	<0.70	---	---	---	---	---
Sum of 3 Dichlorobenzenes	W-VOCGMS01	0.30	µg/L	<0.30	---	---	---	---	---
Sum of 3 Trichlorobenzenes	W-VOCGMS01	0.40	µg/L	<0.40	---	---	---	---	---
Sum of 5 Chlorinated Ethenes	W-VOCGMS01	0.60	µg/L	<0.60	---	---	---	---	---
Non-Halogenated Volatile Organic Compounds									
Styrene	W-VOCGMS01	0.20	µg/L	<0.20	---	---	---	---	---
Methyl tert-Butyl Ether (MTBE)	W-VOCGMS01	0.20	µg/L	<0.20	---	---	---	---	---
tert-Butyl alcohol	W-VOCGMS01	5.0	µg/L	<5.0	---	---	---	---	---
Sum of BTEXS	W-VOCGMS01	1.80	µg/L	<1.80	---	---	---	---	---
Polycyclic Aromatics Hydrocarbons (PAHs)									



Sub-Matrix: SALINE WATER				Client sample ID		QH/4789/2018		----		----	
				Laboratory sample ID		PR1837081-001		----		----	
				Client sampling date / time		[25-Apr-2018]		----		----	
Parameter	Method	LOR	Unit	Result	MU	Result	MU	Result	MU		
Polycyclic Aromatics Hydrocarbons (PAHs) - Continued											
Naphthalene	W-PAHGMS04	0.0070	µg/L	<0.0070	----	----	----	----	----		
Anthracene	W-PAHGMS04	0.0010	µg/L	<0.0010	----	----	----	----	----		
Fluoranthene	W-PAHGMS04	0.0010	µg/L	<0.0010	----	----	----	----	----		
Benzo(b)fluoranthene	W-PAHGMS04	0.0010	µg/L	<0.0010	----	----	----	----	----		
Benzo(k)fluoranthene	W-PAHGMS04	0.0010	µg/L	<0.0010	----	----	----	----	----		
Benzo(a)pyrene	W-PAHGMS04	0.0010	µg/L	<0.0010	----	----	----	----	----		
Indeno(1.2.3.cd)pyrene	W-PAHGMS04	0.00030	µg/L	<0.00030	----	----	----	----	----		
Benzo(g,h,i)perylene	W-PAHGMS04	0.00030	µg/L	<0.00030	----	----	----	----	----		
Sum of Benzo(b)fluoranthene@Benzo(k)fluoranthene	W-PAHGMS04	0.0020	µg/L	<0.0020	----	----	----	----	----		
Sum of Indeno(1.2.3.cd)pyrene@Benzo(g.h,i)perylene	W-PAHGMS04	0.00060	µg/L	<0.00060	----	----	----	----	----		
Sum of 8 PAH (WFD)	W-PAHGMS04	0.0126	µg/L	<0.0126	----	----	----	----	----		
PCBs											
PCB 28	W-PCBECD01	0.00110	µg/L	<0.00110	----	----	----	----	----		
PCB 52	W-PCBECD01	0.00110	µg/L	<0.00110	----	----	----	----	----		
PCB 101	W-PCBECD01	0.000750	µg/L	<0.000750	----	----	----	----	----		
PCB 118	W-PCBECD01	0.00110	µg/L	<0.00110	----	----	----	----	----		
PCB 138	W-PCBECD01	0.00120	µg/L	<0.00120	----	----	----	----	----		
PCB 153	W-PCBECD01	0.00110	µg/L	<0.00110	----	----	----	----	----		
PCB 180	W-PCBECD01	0.000950	µg/L	<0.000950	----	----	----	----	----		
Sum of 6 PCBs	W-PCBECD01	0.00620	µg/L	<0.00620	----	----	----	----	----		
Sum of 7 PCBs	W-PCBECD01	0.00730	µg/L	<0.00730	----	----	----	----	----		
Organochlorine Pesticides											
Hexachlorobutadiene	W-OCPECD02	0.010	µg/L	<0.010	----	----	----	----	----		
Pentachlorobenzene	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----		
Trifluralin	W-OCPECD02	0.0050	µg/L	<0.0050	----	----	----	----	----		
Hexachlorocyclohexane Alpha	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----		
Hexachlorobenzene (HCB)	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----		
Hexachlorocyclohexane Beta	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----		
Hexachlorocyclohexane Gamma	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----		
Hexachlorocyclohexane Delta	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----		
Alachlor	W-OCPECD02	0.0050	µg/L	<0.0050	----	----	----	----	----		
Aldrin	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----		
Isodrin	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----		
alpha-Endosulfan	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----		
4,4'-DDE	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----		
Dieldrin	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----		
Endrin	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----		
beta-Endosulfan	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----		
4,4'-DDD	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----		
2,4-DDT	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----		
4,4'-DDT	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----		
Sum of 4 hexachlorocyclohexanes	W-OCPECD02	0.0080	µg/L	<0.0080	----	----	----	----	----		
Sum of 4 isomers DDT	W-OCPECD02	0.0080	µg/L	<0.0080	----	----	----	----	----		
Sum of 4 cyclodienes	W-OCPECD02	0.0080	µg/L	<0.0080	----	----	----	----	----		
Sum of endosulfanes	W-OCPECD02	0.0040	µg/L	<0.0040	----	----	----	----	----		
Chlorophenols											
Pentachlorophenol	W-CLPGMS02	0.10	µg/L	<0.10	----	----	----	----	----		
Alkylphenols											
4-Nonylphenol	W-AEOGMS01	0.050	µg/L	<0.150	----	----	----	----	----		
4-t-Octylphenol	W-AEOGMS01	0.010	µg/L	<0.030	----	----	----	----	----		
Phthalates											
Bis(2-ethylhexyl)phthalate (DEHP)	W-PTHGMS02	1.0	µg/L	<1.0	----	----	----	----	----		
Organometallic Compounds											
Tributyltin	W-TSN-GAE	1	ng/L	<1	----	----	----	----	----		



If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, delivery date in brackets without a time component will be displayed instead. Measurement uncertainty is expressed as expanded measurement uncertainty with coverage factor k = 2, representing 95% confidence level.

Key: LOR = Limit of reporting; MU = Measurement Uncertainty

The end of result part of the certificate of analysis

Brief Method Summaries

Analytical Methods	Method Descriptions
<i>Location of test performance: Na Harfe 336/9 Prague 9 - Vysocany Czech Republic 190 00</i>	
W-AEOGMS01	CZ_SOP_D06_03_178 (CSN EN ISO 18857-2) Determination of alkylphenols and alkylphenol ethoxylates by gas chromatography method with MS or MS/MS detection and calculation of alkylphenols and alkylphenol ethoxylates sums from measured values
W-CLPGMS02	CZ_SOP_D06_03_158 except chap. 9.3 a 9.4 (US EPA 8041, US EPA 3500, CSN EN 12673) Determination of phenols, chlorinated phenols and cresols by gas chromatography method with detection MS and ECD and calculation of phenols, chlorinated phenols and cresols sums from measured values
W-HG-AFSFL	CZ_SOP_D06_02_096 (US EPA 245.7, CSN EN ISO 178 52, CSN EN 16192, samples prepared as per CZ_SOP_D06_02_J02 chap. 10.1 and 10.2.). Determination of Mercury by Fluorescence Spectrometry. Sample was filtered by microfilter with porosity 0.45 µm followed by nitric acid addition prior to analysis.
W-METMSFLL1	CZ_SOP_D06_02_002 (US EPA 200.8, CSN EN ISO 17294-2, US EPA 6020A, CSN EN 16192, CSN 75 7358 samples prepared as per CZ_SOP_D06_02_J02 chap. 10.1 and 10.2) Determination of elements by mass spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values including the calculation of total mineralization and calculating the sum of Ca+Mg. Sample was filtered by microfilter with porosity 0.45 µm followed by nitric acid addition prior to analysis.
W-OCPECD02	CZ_SOP_D06_03_169 (CSN EN ISO 6468, US EPA 8081, DIN 38407-2, samples prepared as per CZ_SOP_D06_03_P01 chap. 9.1, CZ_SOP_D06_03_P02 chap. 9.1) Determination of organochlorine pesticides and other halogen compounds by gas chromatography method with ECD detection and calculation of organochlorine pesticides and other halogen compounds sums from measured values
W-PAHGMS04	CZ_SOP_D06_03_161 (US EPA 8270, CSN EN ISO 6468, US EPA 8000D, samples preparation according to CZ_SOP_D06_03_P01 chap. 9.1, 9.4.1) 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-PCBECD01	CZ_SOP_D06_03_166 (DIN 38407, part 2, US EPA 8082, samples prepared as per CZ_SOP_D06_03_P01 chap. 9.1, CZ_SOP_D06_03_P02 chap. 9.1) Determination of polychlorinated biphenyls - congener analyses by gas chromatography method with ECD detection and calculation of polychlorinated biphenyls sums from measured values
W-PESLMS04	CZ_SOP_D06_03_182.A (DIN 38407-35, CEN/TS 15968) Determination of acidic herbicides, drug residues and other pollutants by liquid chromatography method with MS/MS detection and calculation of acidic herbicides, drug residues and other pollutants sums from measured values. The method has been modified within a flexible scope of accreditation, see Certificate of Accreditation No. 610/2017 dated 16th October 2017. It refers to parameters 2,3,6-Trichlorobenzoic acid, 2-Methylsulfonyl-4-trifluoromethyl benzoic acid, 6-Chloroquinoxaline-2,3-diol, Benazolin, Metribuzin-desamino diketo, Metribuzin-diketo, Paraxanthine, Salicylic acid.
W-PTHGMS02	CZ_SOP_D06_03_159 except chap. 9.2 a 9.3 (US EPA 8061A) Determination of phthalates by gas chromatography method with MS detection and calculation of phthalates sums from measured values
W-STELMS01	CZ_SOP_D06_03_183.A (US EPA 535, US EPA 1694) Determination of pesticides, pesticide metabolites, drug residues and other pollutants by liquid chromatography method with MS/MS detection and calculation of pesticides, pesticide metabolites, drug residues and other pollutants sums from measured values.
W-TSN-GAE	Determination of Tributyltin by gas chromatography GC-ICP-SFMS according to ISO 17353:2004 [Subcontracted]
W-VOCGMS01	CZ_SOP_D06_03_155 except chap. 10.5, 10.6 (US EPA 624, US EPA 8260, US EPA 8015, EN ISO 10301, MADEP 2004, rev. 1.1, ISO 11423, 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

A `` symbol preceding any method indicates laboratory or subcontractor non-accredited test. In the case when a procedure belonging to an accredited method was used for non-accredited matrix, would apply that the reported results are non-accredited. Please refer to General Comment section on front page for information. If the report contains subcontracted analysis, those are made in a subcontracted laboratory outside the laboratories ALS Czech Republic, s.r.o.

The calculation methods of summation parameters are available on request in the client service.



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ALS Controlvet

Zona Industrial Tondela - ZIM II Lote 6 3460-070 Tondela

Relatório nº 77689/2018 Pg 1/1

Data Emissão: 26-04-2018

N.º de Análise: H / 6294 / 18
Data Colheita: 23-04-2018
Data Receção: 24-04-2018
Data Início Ensaio: 24-04-2018
Data Fim Ensaio: 26-04-2018
Código Cliente: 6322

Exmo(s) Sr(s):
Bio3 - Estudos e Proj. em Biol. e Valorizacão
Rua Antero de Quental, 52 A,
Urbanizacão Colinas do Cruzeiro
2675-690 Odivelas

Unidade: Projecto Formosa (Armonia)

Identificação da Amostra:

61838 / 18

Produto: Águas Naturais salinas
Referência: Amostra 3
A colheita de amostra não foi efectuada pela Controlvet.

Acondicionamento: frasco
Nº Entrega: 609/2018

Ensaio	Método	Resultado	Unidade
Contagem de Coliformes	MEH10.02	0	ufc/100mL
Contagem de Escherichia coli	MEH10.02	0	ufc/100mL
Contagem de Enterococos	ISO 7899-2:2000	0	ufc/100mL

Lista de abreviaturas: NE- Número estimado; UFC- Unidades formadoras de colónias; LQ – Limite de quantificação; LD – limite de detecção; V.L. – Valor Limite; V.R. – Valor Recomendado; VP - Valor Paramétrico; C - Conforme; A - Aceitável; NC - Não Conforme; Unid. - Unidade; DO - Densidade óptica.

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O ensaio assinalado com (a) foi subcontratado e é acreditado.

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Para os ensaios assinalados por técnicas de cálculo a metodologia seguida pode ser disponibilizada a pedido.

Este Relatório de Ensaio refere-se apenas às amostras analisadas.

Proibida a reprodução parcial deste documento.

Os ensaios assinalados com * não estão incluídos no âmbito da acreditação.
A colheita de amostra efectuada não está incluída no âmbito da acreditação.

Mod 201.19 Documento Processado por Computador

Elisa Maia

Técnica Superior Laboratório
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ALS Controlvet

Zona Industrial Tondela - ZIM II Lote 6 3460-070 Tondela

Relatório nº 86143/2018 Pg 1/1

Data Emissão: 09-05-2018

N.º de Análise: QH / 4790 / 18
Data Colheita: 23-04-2018
Data Receção: 24-04-2018
Data Início Ensaio: 24-04-2018
Data Fim Ensaio: 09-05-2018
Código Cliente: 6322

Exmo(s) Sr(s):
Bio3 - Estudos e Proj. em Biol. e Valorizacão
Rua Antero de Quental, 52 A,
Urbanizacão Colinas do Cruzeiro
2675-690 Odivelas

Unidade: Projecto Formosa (Armona)

Identificação da Amostra:

61838 / 18

Produto: Águas Naturais salinas Acondicionamento: frasco
Referência: A3 Nº Entrega: 609/2018
A colheita de amostra não foi efectuada pela Controlvet.

Ensaio	Método	Resultado	Unidade
(a) Parâmetros físico-químicos	Descrição em anexo	Resultado em anexo.	.

Método interno equivalente é aquele que tem a mesma área de aplicação (parâmetros e matrizes) e que cumpre as características de desempenho, obtendo resultados comparáveis ao(s) método(s) normalizado(s) junto indicado(s)

Lista de abreviaturas: NE- Número estimado; UFC- Unidades formadoras de colónias; LQ – Limite de quantificação; LD – limite de detecção; V.L. – Valor Limite; V.R. – Valor Recomendado; VP - Valor Paramétrico; C - Conforme; A - Aceitável; NC - Não Conforme; Unid. - Unidade; DO - Densidade óptica.

O ensaio assinalado com (s) foi subcontratado e não é acreditado.

O ensaio assinalado com (a) foi subcontratado e é acreditado.

Nos resultados assinalados com (y) os microrganismos estão presentes, mas inferiores a 4xdiluição.

Para os ensaios assinalados por técnicas de cálculo a metodologia seguida pode ser disponibilizada a pedido.

Este Relatório de Ensaio refere-se apenas às amostras analisadas.

Proibida a reprodução parcial deste documento.

Eugénia Silva

Técnica Superior de Laboratório
Eugénia Silva



CERTIFICATE OF ANALYSIS

Work Order	: PR1838234	Issue Date	: 09-May-2018
Customer	: CONTROLVET - Seguranca Alimentar, S. A.	Laboratory	: ALS Czech Republic, s.r.o.
Contact	: Ms. Catarina Rodrigues	Contact	: Client Service
Address	: Zona Industrial de Tondela ZIM II - Lote 6 3460-070 Tondela Portugal	Address	: Na Harfe 336/9 Prague 9 - Vysocany 190 00 Czech Republic
E-mail	: catarinarodrigues.laboratorio@controlvet.pt	E-mail	: customer.support@alsglobal.com
Telephone	: ----	Telephone	: +420 226 226 228
Facsimile	: ----	Facsimile	: +420 284 081 635
Project	: ECF 2018/436	Page	: 1 of 4
Order number	:	Date Samples Received	: 25-Apr-2018
C-O-C number	: ----	Quote number	: PR2015CONSE-PT0006 (PT-254-15-0938)
Site	: ----	Date of test	: 26-Apr-2018 - 09-May-2018
Sampled by	: client	QC Level	: ALS CR Standard Quality Control Schedule

General Comments

This report shall not be reproduced except in full, without prior written approval from the laboratory.

The laboratory declares that the test results relate only to the listed samples.

Sample PR1838234/001, method W-STELMS01 - the LOR is increased due to high effect of matrix.

Sample(s) PR1838234/001, method W-METMSFL - LOR for particular sample(s) raised due to matrix interference.

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

Responsible for accuracy

Testing Laboratory No. 1163
Accredited by CAI according to
CSN EN ISO/IEC 17025:2005

Signatories

Zdeněk Jiráček

Position

Environmental Business Unit
Manager





Analytical Results

Sub-Matrix: WATER

Client sample ID

QH/4790/2018

Laboratory sample ID

PR1838234-001

Client sampling date / time

[26-Apr-2018]

Parameter	Method	LOR	Unit	Result	MU	Result	MU	Result	MU
Estrogenic Hormones									
17-Alpha-Ethinylestradiol	W-STELMS01	0.050	µg/L	<0.500	----	----	----	----	----
17-Beta-Estradiol	W-STELMS01	0.050	µg/L	<0.500	----	----	----	----	----
Pharmaceutical Compounds									
Diclofenac	W-PESLMS04	0.040	µg/L	<0.040	----	----	----	----	----
Ibuprofen	W-PESLMS04	0.050	µg/L	<0.050	----	----	----	----	----
Dissolved Metals / Major Cations									
Cadmium	W-METMSFLL1	0.020	µg/L	<0.400	----	----	----	----	----
Lead	W-METMSFLL1	0.050	µg/L	<1.00	----	----	----	----	----
Mercury	W-HG-AFSFL	0.010	µg/L	<0.010	----	----	----	----	----
Nickel	W-METMSFLL1	0.200	µg/L	<4.00	----	----	----	----	----
BTEX									
Benzene	W-VOCGMS01	0.20	µg/L	<0.20	----	----	----	----	----
Toluene	W-VOCGMS01	1.00	µg/L	<1.00	----	----	----	----	----
Ethylbenzene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
meta- & para-Xylene	W-VOCGMS01	0.20	µg/L	<0.20	----	----	----	----	----
ortho-Xylene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
Sum of BTEX	W-VOCGMS01	1.60	µg/L	<1.60	----	----	----	----	----
Sum of xylenes	W-VOCGMS01	0.30	µg/L	<0.30	----	----	----	----	----
Sum of TEX	W-VOCGMS01	1.40	µg/L	<1.40	----	----	----	----	----
Halogenated Volatile Organic Compounds									
Vinyl chloride	W-VOCGMS01	1.00	µg/L	<1.00	----	----	----	----	----
trans-1,2-Dichloroethene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
Dichloromethane	W-VOCGMS01	6.0	µg/L	<6.0	----	----	----	----	----
1,1-Dichloroethene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
cis-1,2-Dichloroethene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
1,1-Dichloroethane	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
Chloroform	W-VOCGMS01	0.30	µg/L	<0.30	----	----	----	----	----
1,2-Dichloroethane	W-VOCGMS01	1.00	µg/L	<1.00	----	----	----	----	----
1,1,1-Trichloroethane	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
Tetrachloromethane	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
Bromodichloromethane	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
Trichloroethene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
1,1,2-Trichloroethane	W-VOCGMS01	0.20	µg/L	<0.20	----	----	----	----	----
Dibromochloromethane	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
Tetrachloroethene	W-VOCGMS01	0.20	µg/L	<0.20	----	----	----	----	----
1,1,1,2-Tetrachloroethane	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
Chlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
Bromoform	W-VOCGMS01	0.20	µg/L	<0.20	----	----	----	----	----
1,1,1,2,2-Pentachloroethane	W-VOCGMS01	1.00	µg/L	<1.00	----	----	----	----	----
1,2-Dichlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
1,4-Dichlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
1,3-Dichlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
1,2,4-Trichlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
1,2,3-Trichlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
1,3,5-Trichlorobenzene	W-VOCGMS01	0.20	µg/L	<0.20	----	----	----	----	----
1,2-Dichloropropane	W-VOCGMS01	1.0	µg/L	<1.0	----	----	----	----	----
Sum of 4 Trihalomethanes	W-VOCGMS01	0.70	µg/L	<0.70	----	----	----	----	----
Sum of 3 Dichlorobenzenes	W-VOCGMS01	0.30	µg/L	<0.30	----	----	----	----	----
Sum of 3 Trichlorobenzenes	W-VOCGMS01	0.40	µg/L	<0.40	----	----	----	----	----
Sum of 5 Chlorinated Ethenes	W-VOCGMS01	0.60	µg/L	<0.60	----	----	----	----	----
Non-Halogenated Volatile Organic Compounds									
Styrene	W-VOCGMS01	0.20	µg/L	<0.20	----	----	----	----	----
Methyl tert-Butyl Ether (MTBE)	W-VOCGMS01	0.20	µg/L	<0.20	----	----	----	----	----
tert-Butyl alcohol	W-VOCGMS01	5.0	µg/L	<5.0	----	----	----	----	----
Sum of BTEXS	W-VOCGMS01	1.80	µg/L	<1.80	----	----	----	----	----
Polycyclic Aromatics Hydrocarbons (PAHs)									



Sub-Matrix: WATER				Client sample ID	QH/4790/2018		----		----	
				Laboratory sample ID	PR1838234-001		----		----	
				Client sampling date / time	[26-Apr-2018]		----		----	
Parameter	Method	LOR	Unit	Result	MU	Result	MU	Result	MU	
Polycyclic Aromatics Hydrocarbons (PAHs) - Continued										
Naphthalene	W-PAHGMS04	0.0070	µg/L	<0.0070	----	----	----	----	----	
Anthracene	W-PAHGMS04	0.0010	µg/L	<0.0010	----	----	----	----	----	
Fluoranthene	W-PAHGMS04	0.0010	µg/L	<0.0010	----	----	----	----	----	
Benzo(b)fluoranthene	W-PAHGMS04	0.0010	µg/L	<0.0010	----	----	----	----	----	
Benzo(k)fluoranthene	W-PAHGMS04	0.0010	µg/L	<0.0010	----	----	----	----	----	
Benzo(a)pyrene	W-PAHGMS04	0.0010	µg/L	<0.0010	----	----	----	----	----	
Indeno(1.2.3.cd)pyrene	W-PAHGMS04	0.00030	µg/L	<0.00030	----	----	----	----	----	
Benzo(g,h,i)perylene	W-PAHGMS04	0.00030	µg/L	<0.00030	----	----	----	----	----	
Sum of Benzo(b)fluoranthene@Benzo(k)fluoranthene	W-PAHGMS04	0.0020	µg/L	<0.0020	----	----	----	----	----	
Sum of Indeno(1.2.3.cd)pyrene@Benzo(g,h,i)perylene	W-PAHGMS04	0.00060	µg/L	<0.00060	----	----	----	----	----	
Sum of 8 PAH (WFD)	W-PAHGMS04	0.0126	µg/L	<0.0126	----	----	----	----	----	
PCBs										
PCB 28	W-PCBECD01	0.00110	µg/L	<0.00110	----	----	----	----	----	
PCB 52	W-PCBECD01	0.00110	µg/L	<0.00110	----	----	----	----	----	
PCB 101	W-PCBECD01	0.000750	µg/L	<0.000750	----	----	----	----	----	
PCB 118	W-PCBECD01	0.00110	µg/L	<0.00110	----	----	----	----	----	
PCB 138	W-PCBECD01	0.00120	µg/L	<0.00120	----	----	----	----	----	
PCB 153	W-PCBECD01	0.00110	µg/L	<0.00110	----	----	----	----	----	
PCB 180	W-PCBECD01	0.000950	µg/L	<0.000950	----	----	----	----	----	
Sum of 6 PCBs	W-PCBECD01	0.00620	µg/L	<0.00620	----	----	----	----	----	
Sum of 7 PCBs	W-PCBECD01	0.00730	µg/L	<0.00730	----	----	----	----	----	
Organochlorine Pesticides										
Hexachlorobutadiene	W-OCPECD02	0.010	µg/L	<0.010	----	----	----	----	----	
Pentachlorobenzene	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
Trifluralin	W-OCPECD02	0.0050	µg/L	<0.0050	----	----	----	----	----	
Hexachlorocyclohexane Alpha	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
Hexachlorobenzene (HCB)	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
Hexachlorocyclohexane Beta	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
Hexachlorocyclohexane Gamma	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
Hexachlorocyclohexane Delta	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
Alachlor	W-OCPECD02	0.0050	µg/L	<0.0050	----	----	----	----	----	
Aldrin	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
Isodrin	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
alpha-Endosulfan	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
4,4'-DDE	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
Dieldrin	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
Endrin	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
beta-Endosulfan	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
4,4'-DDD	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
2,4-DDT	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
4,4'-DDT	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
Sum of 4 hexachlorocyclohexanes	W-OCPECD02	0.0080	µg/L	<0.0080	----	----	----	----	----	
Sum of 4 isomers DDT	W-OCPECD02	0.0080	µg/L	<0.0080	----	----	----	----	----	
Sum of 4 cyclodienes	W-OCPECD02	0.0080	µg/L	<0.0080	----	----	----	----	----	
Sum of endosulfanes	W-OCPECD02	0.0040	µg/L	<0.0040	----	----	----	----	----	
Chlorophenols										
Pentachlorophenol	W-CLPGMS02	0.10	µg/L	<0.10	----	----	----	----	----	
Alkylphenols										
4-Nonylphenol	W-AEOGMS01	0.050	µg/L	<0.050	----	----	----	----	----	
4-t-Octylphenol	W-AEOGMS01	0.010	µg/L	<0.010	----	----	----	----	----	
Phthalates										
Bis(2-ethylhexyl)phthalate (DEHP)	W-PTHGMS02	1.0	µg/L	<1.0	----	----	----	----	----	
Organometallic Compounds										
Tributyltin	W-TSN-GAE	1	ng/L	<1	----	----	----	----	----	



If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, delivery date in brackets without a time component will be displayed instead. Measurement uncertainty is expressed as expanded measurement uncertainty with coverage factor k = 2, representing 95% confidence level.

Key: LOR = Limit of reporting; MU = Measurement Uncertainty

The end of result part of the certificate of analysis

Brief Method Summaries

<i>Analytical Methods</i>	<i>Method Descriptions</i>
<i>Location of test performance: Na Harfe 336/9 Prague 9 - Vysocany Czech Republic 190 00</i>	
W-AEOGMS01	CZ_SOP_D06_03_178 (CSN EN ISO 18857-2) Determination of alkylphenols and alkylphenol ethoxylates by gas chromatography method with MS or MS/MS detection and calculation of alkylphenols and alkylphenol ethoxylates sums from measured values
W-CLPGMS02	CZ_SOP_D06_03_158 except chap. 9.3 a 9.4 (US EPA 8041, US EPA 3500, CSN EN 12673) Determination of phenols, chlorinated phenols and cresols by gas chromatography method with detection MS and ECD and calculation of phenols, chlorinated phenols and cresols sums from measured values
W-HG-AFSFL	CZ_SOP_D06_02_096 (US EPA 245.7, CSN EN ISO 178 52, CSN EN 16192, samples prepared as per CZ_SOP_D06_02_J02 chap. 10.1 and 10.2.). Determination of Mercury by Fluorescence Spectrometry. Sample was filtered by microfilter with porosity 0.45 µm followed by nitric acid addition prior to analysis.
W-METMSFLL1	CZ_SOP_D06_02_002 (US EPA 200.8, CSN EN ISO 17294-2, US EPA 6020A, CSN EN 16192, CSN 75 7358 samples prepared as per CZ_SOP_D06_02_J02 chap. 10.1 and 10.2) Determination of elements by mass spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values including the calculation of total mineralization and calculating the sum of Ca+Mg. Sample was filtered by microfilter with porosity 0.45 µm followed by nitric acid addition prior to analysis.
W-OCPECD02	CZ_SOP_D06_03_169 (CSN EN ISO 6468, US EPA 8081, DIN 38407-2, samples prepared as per CZ_SOP_D06_03_P01 chap. 9.1, CZ_SOP_D06_03_P02 chap. 9.1) Determination of organochlorine pesticides and other halogen compounds by gas chromatography method with ECD detection and calculation of organochlorine pesticides and other halogen compounds sums from measured values
W-PAHGMS04	CZ_SOP_D06_03_161 (US EPA 8270, CSN EN ISO 6468, US EPA 8000D, samples preparation according to CZ_SOP_D06_03_P01 chap. 9.1, 9.4.1) 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-PCBECD01	CZ_SOP_D06_03_166 (DIN 38407, part 2, US EPA 8082, samples prepared as per CZ_SOP_D06_03_P01 chap. 9.1, CZ_SOP_D06_03_P02 chap. 9.1) Determination of polychlorinated biphenyls - congener analyses by gas chromatography method with ECD detection and calculation of polychlorinated biphenyls sums from measured values
W-PESLMS04	CZ_SOP_D06_03_182.A (DIN 38407-35, CEN/TS 15968) Determination of acidic herbicides, drug residues and other pollutants by liquid chromatography method with MS/MS detection and calculation of acidic herbicides, drug residues and other pollutants sums from measured values. The method has been modified within a flexible scope of accreditation, see Certificate of Accreditation No. 610/2017 dated 16th October 2017. It refers to parameters 2,3,6-Trichlorobenzoic acid, 2-Methylsulfonyl-4-trifluoromethyl benzoic acid, 6-Chloroquinoxaline-2,3-diol, Benazolin, Metribuzin-desamino diketo, Metribuzin-diketo, Paraxanthine, Salicylic acid.
W-PTHGMS02	CZ_SOP_D06_03_159 except chap. 9.2 a 9.3 (US EPA 8061A) Determination of phthalates by gas chromatography method with MS detection and calculation of phthalates sums from measured values
W-STELMS01	CZ_SOP_D06_03_183.A (US EPA 535, US EPA 1694) Determination of pesticides, pesticide metabolites, drug residues and other pollutants by liquid chromatography method with MS/MS detection and calculation of pesticides, pesticide metabolites, drug residues and other pollutants sums from measured values.
W-TSN-GAE	Determination of Tributyltin by gas chromatography GC-ICP-SFMS according to ISO 17353:2004 [Subcontracted]
W-VOCGMS01	CZ_SOP_D06_03_155 except chap. 10.5, 10.6 (US EPA 624, US EPA 8260, US EPA 8015, EN ISO 10301, MADEP 2004, rev. 1.1, ISO 11423, 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

A `` symbol preceding any method indicates laboratory or subcontractor non-accredited test. In the case when a procedure belonging to an accredited method was used for non-accredited matrix, would apply that the reported results are non-accredited. Please refer to General Comment section on front page for information. If the report contains subcontracted analysis, those are made in a subcontracted laboratory outside the laboratories ALS Czech Republic, s.r.o.

The calculation methods of summation parameters are available on request in the client service.



Telef.: 232817817
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ALS Controlvet

Zona Industrial Tondela - ZIM II Lote 6 3460-070 Tondela

Relatório nº 77690/2018 Pg 1/1

Data Emissão: 26-04-2018

N.º de Análise: H / 6295 / 18
Data Colheita: 23-04-2018
Data Receção: 24-04-2018
Data Início Ensaio: 24-04-2018
Data Fim Ensaio: 26-04-2018
Código Cliente: 6322

Exmo(s) Sr(s):
Bio3 - Estudos e Proj. em Biol. e Valorizacão
Rua Antero de Quental, 52 A,
Urbanizacão Colinas do Cruzeiro
2675-690 Odivelas

Unidade: Projecto Formosa (Armonia)

Identificação da Amostra:

61840 / 18

Produto: Águas Naturais salinas
Referência: Amostra 2
A colheita de amostra não foi efectuada pela Controlvet.

Acondicionamento: frasco
Nº Entrega: 609/2018

Ensaio	Método	Resultado	Unidade
Contagem de Coliformes	MEH10.02	0	ufc/100mL
Contagem de Escherichia coli	MEH10.02	0	ufc/100mL
Contagem de Enterococos	ISO 7899-2:2000	0	ufc/100mL

Lista de abreviaturas: NE- Número estimado; UFC- Unidades formadoras de colónias; LQ – Limite de quantificação; LD – limite de detecção; V.L. – Valor Limite; V.R. – Valor Recomendado; VP - Valor Paramétrico; C - Conforme; A - Aceitável; NC - Não Conforme; Unid. - Unidade; DO - Densidade óptica.

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O ensaio assinalado com (a) foi subcontratado e é acreditado.

Nos resultados assinalados com (y) os microrganismos estão presentes, mas inferiores a 4xdiluição.

Para os ensaios assinalados por técnicas de cálculo a metodologia seguida pode ser disponibilizada a pedido.

Este Relatório de Ensaio refere-se apenas às amostras analisadas.

Proibida a reprodução parcial deste documento.

Os ensaios assinalados com * não estão incluídos no âmbito da acreditação.

A colheita de amostra efectuada não está incluída no âmbito da acreditação.

Mod 201.19 Documento Processado por Computador

Elisa Maia

Técnica Superior Laboratório
Elisa Maia



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ALS Controlvet

Zona Industrial Tondela - ZIM II Lote 6 3460-070 Tondela

Relatório nº 86144/2018 Pg 1/1

Data Emissão: 09-05-2018

N.º de Análise: QH / 4791 / 18
Data Colheita: 23-04-2018
Data Receção: 24-04-2018
Data Início Ensaio: 24-04-2018
Data Fim Ensaio: 09-05-2018
Código Cliente: 6322

Exmo(s) Sr(s):
Bio3 - Estudos e Proj. em Biol. e Valorizacão
Rua Antero de Quental, 52 A,
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2675-690 Odivelas

Unidade: Projecto Formosa (Armona)

Identificação da Amostra:

61840 / 18

Produto: Águas Naturais salinas Acondicionamento: frasco
Referência: A2 Nº Entrega: 609/2018
A colheita de amostra não foi efectuada pela Controlvet.

Ensaio	Método	Resultado	Unidade
(a) Parâmetros físico-químicos	Descrição em anexo	Resultado em anexo.	.

Método interno equivalente é aquele que tem a mesma área de aplicação (parâmetros e matrizes) e que cumpre as características de desempenho, obtendo resultados comparáveis ao(s) método(s) normalizado(s) junto indicado(s)

Lista de abreviaturas: NE- Número estimado; UFC- Unidades formadoras de colónias; LQ – Limite de quantificação; LD – limite de detecção; V.L. – Valor Limite; V.R. – Valor Recomendado; VP - Valor Paramétrico; C - Conforme; A - Aceitável; NC - Não Conforme; Unid. - Unidade; DO - Densidade óptica.

O ensaio assinalado com (s) foi subcontratado e não é acreditado.

O ensaio assinalado com (a) foi subcontratado e é acreditado.

Nos resultados assinalados com (y) os microrganismos estão presentes, mas inferiores a 4xdiluição.

Para os ensaios assinalados por técnicas de cálculo a metodologia seguida pode ser disponibilizada a pedido.

Este Relatório de Ensaio refere-se apenas às amostras analisadas.

Proibida a reprodução parcial deste documento.

Eugénia Silva

Técnica Superior de Laboratório
Eugénia Silva



CERTIFICATE OF ANALYSIS

Work Order	: PR1837043	Issue Date	: 09-May-2018
Customer	: CONTROLVET - Seguranca Alimentar, S. A.	Laboratory	: ALS Czech Republic, s.r.o.
Contact	: Ms. Catarina Rodrigues	Contact	: Client Service
Address	: Zona Industrial de Tondela ZIM II - Lote 6 3460-070 Tondela Portugal	Address	: Na Harfe 336/9 Prague 9 - Vysocany 190 00 Czech Republic
E-mail	: catarinarodrigues.laboratorio@controlvet.pt	E-mail	: customer.support@alsglobal.com
Telephone	: ----	Telephone	: +420 226 226 228
Facsimile	: ----	Facsimile	: +420 284 081 635
Project	: ECF 2018/439	Page	: 1 of 4
Order number	:	Date Samples Received	: 25-Apr-2018
C-O-C number	: ----	Quote number	: PR2015CONSE-PT0006 (PT-254-15-0938)
Site	: ----	Date of test	: 25-Apr-2018 - 09-May-2018
Sampled by	: client	QC Level	: ALS CR Standard Quality Control Schedule

General Comments

This report shall not be reproduced except in full, without prior written approval from the laboratory.

The laboratory declares that the test results relate only to the listed samples.

Sample(s) PR1837043/001, method W-METMSFLL - LOR for particular sample(s) raised due to matrix interference.

Sample PR1837043/001, method W-STELMS01 - the LOR is increased due to high effect of matrix.

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

Responsible for accuracy

Testing Laboratory No. 1163
Accredited by CAI according to
CSN EN ISO/IEC 17025:2005

Signatories

Zdeněk Jiráček

Position

Environmental Business Unit
Manager





Analytical Results

Sub-Matrix: SALINE WATER

Client sample ID

QH/4791/2018

Laboratory sample ID

PR1837043-001

Client sampling date / time

25-Apr-2018 00:00

Parameter	Method	LOR	Unit	Result	MU	Result	MU	Result	MU
Estrogenic Hormones									
17-Alpha-Ethinylestradiol	W-STELMS01	0.050	µg/L	<0.500	----	----	----	----	----
17-Beta-Estradiol	W-STELMS01	0.050	µg/L	<0.500	----	----	----	----	----
Pharmaceutical Compounds									
Diclofenac	W-PESLMS04	0.040	µg/L	<0.040	----	----	----	----	----
Ibuprofen	W-PESLMS04	0.050	µg/L	<0.050	----	----	----	----	----
Dissolved Metals / Major Cations									
Cadmium	W-METMSFLL1	0.020	µg/L	<0.400	----	----	----	----	----
Lead	W-METMSFLL1	0.050	µg/L	<1.00	----	----	----	----	----
Mercury	W-HG-AFSFL	0.010	µg/L	<0.010	----	----	----	----	----
Nickel	W-METMSFLL1	0.200	µg/L	<4.00	----	----	----	----	----
BTEX									
Benzene	W-VOCGMS01	0.20	µg/L	<0.20	----	----	----	----	----
Toluene	W-VOCGMS01	1.00	µg/L	<1.00	----	----	----	----	----
Ethylbenzene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
meta- & para-Xylene	W-VOCGMS01	0.20	µg/L	<0.20	----	----	----	----	----
ortho-Xylene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
Sum of BTEX	W-VOCGMS01	1.60	µg/L	<1.60	----	----	----	----	----
Sum of xylenes	W-VOCGMS01	0.30	µg/L	<0.30	----	----	----	----	----
Sum of TEX	W-VOCGMS01	1.40	µg/L	<1.40	----	----	----	----	----
Halogenated Volatile Organic Compounds									
Vinyl chloride	W-VOCGMS01	1.00	µg/L	<1.00	----	----	----	----	----
trans-1,2-Dichloroethene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
Dichloromethane	W-VOCGMS01	6.0	µg/L	<6.0	----	----	----	----	----
1,1-Dichloroethene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
cis-1,2-Dichloroethene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
1,1-Dichloroethane	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
Chloroform	W-VOCGMS01	0.30	µg/L	<0.30	----	----	----	----	----
1,2-Dichloroethane	W-VOCGMS01	1.00	µg/L	<1.00	----	----	----	----	----
1,1,1-Trichloroethane	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
Tetrachloromethane	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
Bromodichloromethane	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
Trichloroethene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
1,1,2-Trichloroethane	W-VOCGMS01	0.20	µg/L	<0.20	----	----	----	----	----
Dibromochloromethane	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
Tetrachloroethene	W-VOCGMS01	0.20	µg/L	<0.20	----	----	----	----	----
1,1,1,2-Tetrachloroethane	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
Chlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
Bromoform	W-VOCGMS01	0.20	µg/L	<0.20	----	----	----	----	----
1,1,1,2,2-Pentachloroethane	W-VOCGMS01	1.00	µg/L	<1.00	----	----	----	----	----
1,2-Dichlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
1,4-Dichlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
1,3-Dichlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
1,2,4-Trichlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
1,2,3-Trichlorobenzene	W-VOCGMS01	0.10	µg/L	<0.10	----	----	----	----	----
1,3,5-Trichlorobenzene	W-VOCGMS01	0.20	µg/L	<0.20	----	----	----	----	----
1,2-Dichloropropane	W-VOCGMS01	1.0	µg/L	<1.0	----	----	----	----	----
Sum of 4 Trihalomethanes	W-VOCGMS01	0.70	µg/L	<0.70	----	----	----	----	----
Sum of 3 Dichlorobenzenes	W-VOCGMS01	0.30	µg/L	<0.30	----	----	----	----	----
Sum of 3 Trichlorobenzenes	W-VOCGMS01	0.40	µg/L	<0.40	----	----	----	----	----
Sum of 5 Chlorinated Ethenes	W-VOCGMS01	0.60	µg/L	<0.60	----	----	----	----	----
Non-Halogenated Volatile Organic Compounds									
Styrene	W-VOCGMS01	0.20	µg/L	<0.20	----	----	----	----	----
Methyl tert-Butyl Ether (MTBE)	W-VOCGMS01	0.20	µg/L	<0.20	----	----	----	----	----
tert-Butyl alcohol	W-VOCGMS01	5.0	µg/L	<5.0	----	----	----	----	----
Sum of BTEXS	W-VOCGMS01	1.80	µg/L	<1.80	----	----	----	----	----
Polycyclic Aromatics Hydrocarbons (PAHs)									



Sub-Matrix: SALINE WATER				Client sample ID	QH/4791/2018		----		----	
				Laboratory sample ID	PR1837043-001		----		----	
				Client sampling date / time	25-Apr-2018 00:00		----		----	
Parameter	Method	LOR	Unit	Result	MU	Result	MU	Result	MU	
Polycyclic Aromatics Hydrocarbons (PAHs) - Continued										
Naphthalene	W-PAHGMS04	0.0070	µg/L	<0.0070	----	----	----	----	----	
Anthracene	W-PAHGMS04	0.0010	µg/L	<0.0010	----	----	----	----	----	
Fluoranthene	W-PAHGMS04	0.0010	µg/L	<0.0010	----	----	----	----	----	
Benzo(b)fluoranthene	W-PAHGMS04	0.0010	µg/L	<0.0010	----	----	----	----	----	
Benzo(k)fluoranthene	W-PAHGMS04	0.0010	µg/L	<0.0010	----	----	----	----	----	
Benzo(a)pyrene	W-PAHGMS04	0.0010	µg/L	<0.0010	----	----	----	----	----	
Indeno(1.2.3.cd)pyrene	W-PAHGMS04	0.00030	µg/L	<0.00030	----	----	----	----	----	
Benzo(g,h,i)perylene	W-PAHGMS04	0.00030	µg/L	<0.00030	----	----	----	----	----	
Sum of Benzo(b)fluoranthene@Benzo(k)fluoranthene	W-PAHGMS04	0.0020	µg/L	<0.0020	----	----	----	----	----	
Sum of Indeno(1.2.3.cd)pyrene@Benzo(g,h,i)perylene	W-PAHGMS04	0.00060	µg/L	<0.00060	----	----	----	----	----	
Sum of 8 PAH (WFD)	W-PAHGMS04	0.0126	µg/L	<0.0126	----	----	----	----	----	
PCBs										
PCB 28	W-PCBECD01	0.00110	µg/L	<0.00110	----	----	----	----	----	
PCB 52	W-PCBECD01	0.00110	µg/L	<0.00110	----	----	----	----	----	
PCB 101	W-PCBECD01	0.000750	µg/L	<0.000750	----	----	----	----	----	
PCB 118	W-PCBECD01	0.00110	µg/L	<0.00110	----	----	----	----	----	
PCB 138	W-PCBECD01	0.00120	µg/L	<0.00120	----	----	----	----	----	
PCB 153	W-PCBECD01	0.00110	µg/L	<0.00110	----	----	----	----	----	
PCB 180	W-PCBECD01	0.000950	µg/L	<0.000950	----	----	----	----	----	
Sum of 6 PCBs	W-PCBECD01	0.00620	µg/L	<0.00620	----	----	----	----	----	
Sum of 7 PCBs	W-PCBECD01	0.00730	µg/L	<0.00730	----	----	----	----	----	
Organochlorine Pesticides										
Hexachlorobutadiene	W-OCPECD02	0.010	µg/L	<0.010	----	----	----	----	----	
Pentachlorobenzene	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
Trifluralin	W-OCPECD02	0.0050	µg/L	<0.0050	----	----	----	----	----	
Hexachlorocyclohexane Alpha	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
Hexachlorobenzene (HCB)	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
Hexachlorocyclohexane Beta	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
Hexachlorocyclohexane Gamma	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
Hexachlorocyclohexane Delta	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
Alachlor	W-OCPECD02	0.0050	µg/L	<0.0050	----	----	----	----	----	
Aldrin	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
Isodrin	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
alpha-Endosulfan	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
4,4'-DDE	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
Dieldrin	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
Endrin	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
beta-Endosulfan	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
4,4'-DDD	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
2,4-DDT	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
4,4'-DDT	W-OCPECD02	0.0020	µg/L	<0.0020	----	----	----	----	----	
Sum of 4 hexachlorocyclohexanes	W-OCPECD02	0.0080	µg/L	<0.0080	----	----	----	----	----	
Sum of 4 isomers DDT	W-OCPECD02	0.0080	µg/L	<0.0080	----	----	----	----	----	
Sum of 4 cyclodienes	W-OCPECD02	0.0080	µg/L	<0.0080	----	----	----	----	----	
Sum of endosulfanes	W-OCPECD02	0.0040	µg/L	<0.0040	----	----	----	----	----	
Chlorophenols										
Pentachlorophenol	W-CLPGMS02	0.10	µg/L	<0.10	----	----	----	----	----	
Alkylphenols										
4-Nonylphenol	W-AEOGMS01	0.050	µg/L	<0.050	----	----	----	----	----	
4-t-Octylphenol	W-AEOGMS01	0.010	µg/L	<0.010	----	----	----	----	----	
Phthalates										
Bis(2-ethylhexyl)phthalate (DEHP)	W-PTHGMS02	1.0	µg/L	<1.0	----	----	----	----	----	
Organometallic Compounds										
Tributyltin	W-TSN-GAE	1	ng/L	<1	----	----	----	----	----	



If no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, delivery date in brackets without a time component will be displayed instead. Measurement uncertainty is expressed as expanded measurement uncertainty with coverage factor $k = 2$, representing 95% confidence level.

Key: LOR = Limit of reporting; MU = Measurement Uncertainty

The end of result part of the certificate of analysis

Brief Method Summaries

Analytical Methods	Method Descriptions
<i>Location of test performance: Na Harfe 336/9 Prague 9 - Vysocany Czech Republic 190 00</i>	
W-AEOGMS01	CZ_SOP_D06_03_178 (CSN EN ISO 18857-2) Determination of alkylphenols and alkylphenol ethoxylates by gas chromatography method with MS or MS/MS detection and calculation of alkylphenols and alkylphenol ethoxylates sums from measured values
W-CLPGMS02	CZ_SOP_D06_03_158 except chap. 9.3 a 9.4 (US EPA 8041, US EPA 3500, CSN EN 12673) Determination of phenols, chlorinated phenols and cresols by gas chromatography method with detection MS and ECD and calculation of phenols, chlorinated phenols and cresols sums from measured values
W-HG-AFSFL	CZ_SOP_D06_02_096 (US EPA 245.7, CSN EN ISO 178 52, CSN EN 16192, samples prepared as per CZ_SOP_D06_02_J02 chap. 10.1 and 10.2.). Determination of Mercury by Fluorescence Spectrometry. Sample was filtered by microfilter with porosity 0.45 μm followed by nitric acid addition prior to analysis.
W-METMSFLL1	CZ_SOP_D06_02_002 (US EPA 200.8, CSN EN ISO 17294-2, US EPA 6020A, CSN EN 16192, CSN 75 7358 samples prepared as per CZ_SOP_D06_02_J02 chap. 10.1 and 10.2) Determination of elements by mass spectrometry with inductively coupled plasma and stoichiometric calculations of compounds concentration from measured values including the calculation of total mineralization and calculating the sum of Ca+Mg. Sample was filtered by microfilter with porosity 0.45 μm followed by nitric acid addition prior to analysis.
W-OCPECD02	CZ_SOP_D06_03_169 (CSN EN ISO 6468, US EPA 8081, DIN 38407-2, samples prepared as per CZ_SOP_D06_03_P01 chap. 9.1, CZ_SOP_D06_03_P02 chap. 9.1) Determination of organochlorine pesticides and other halogen compounds by gas chromatography method with ECD detection and calculation of organochlorine pesticides and other halogen compounds sums from measured values
W-PAHGMS04	CZ_SOP_D06_03_161 (US EPA 8270, CSN EN ISO 6468, US EPA 8000D, samples preparation according to CZ_SOP_D06_03_P01 chap. 9.1, 9.4.1) 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-PCBECD01	CZ_SOP_D06_03_166 (DIN 38407, part 2, US EPA 8082, samples prepared as per CZ_SOP_D06_03_P01 chap. 9.1, CZ_SOP_D06_03_P02 chap. 9.1) Determination of polychlorinated biphenyls - congener analyses by gas chromatography method with ECD detection and calculation of polychlorinated biphenyls sums from measured values
W-PESLMS04	CZ_SOP_D06_03_182.A (DIN 38407-35, CEN/TS 15968) Determination of acidic herbicides, drug residues and other pollutants by liquid chromatography method with MS/MS detection and calculation of acidic herbicides, drug residues and other pollutants sums from measured values. The method has been modified within a flexible scope of accreditation, see Certificate of Accreditation No. 610/2017 dated 16th October 2017. It refers to parameters 2,3,6-Trichlorobenzoic acid, 2-Methylsulfonyl-4-trifluoromethyl benzoic acid, 6-Chloroquinoxaline-2,3-diol, Benazolin, Metribuzin-desamino diketo, Metribuzin-diketo, Paraxanthine, Salicylic acid.
W-PTHGMS02	CZ_SOP_D06_03_159 except chap. 9.2 a 9.3 (US EPA 8061A) Determination of phthalates by gas chromatography method with MS detection and calculation of phthalates sums from measured values
W-STELMS01	CZ_SOP_D06_03_183.A (US EPA 535, US EPA 1694) Determination of pesticides, pesticide metabolites, drug residues and other pollutants by liquid chromatography method with MS/MS detection and calculation of pesticides, pesticide metabolites, drug residues and other pollutants sums from measured values.
W-TSN-GAE	Determination of Tributyltin by gas chromatography GC-ICP-SFMS according to ISO 17353:2004 [Subcontracted]
W-VOCGMS01	CZ_SOP_D06_03_155 except chap. 10.5, 10.6 (US EPA 624, US EPA 8260, US EPA 8015, EN ISO 10301, MADEP 2004, rev. 1.1, ISO 11423, 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

A `` symbol preceding any method indicates laboratory or subcontractor non-accredited test. In the case when a procedure belonging to an accredited method was used for non-accredited matrix, would apply that the reported results are non-accredited. Please refer to General Comment section on front page for information. If the report contains subcontracted analysis, those are made in a subcontracted laboratory outside the laboratories ALS Czech Republic, s.r.o.

The calculation methods of summation parameters are available on request in the client service.