# CERTIFICATE OF ANALYSIS

| | | | |
|---|---|---|---|
| **Work Order** | : **PR24D4029** | Issue Date | : 08-Nov-2024 |
| Customer | : **ALS Life Sciences Ltd** | Laboratory | : ALS Czech Republic, s.r.o. |
| Contact | : Rosemary Thomas | Contact | : Client Service |
| Address | : Carrigeen Business Park<br>Clonmel Co. Tipperary<br>Tipperary Ireland | Address | : Na Harfe 336/9 Prague 9 - Vysocany<br>190 00 Czech Republic |
| E-mail | : rose.thomas@ALSGlobal.com | E-mail | : customer.support@alsglobal.com |
| Telephone | : ---- | Telephone | : +420 226 226 228 |
| Project | : BLUER-822291024 | Page | : 1 of 3 |
| Order number | : ---- | Date Samples Received | : 31-Oct-2024 |
| | | Quote number | : PR2012ALSLI-IE0002 (CZ-200-12-0931_V3) |
| Site | : ---- | Date of test | : 01-Nov-2024 - 08-Nov-2024 |
| Sampled by | : customer | 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 is not responsible for the sample data supplied by the customer and their impact on the validity of the result.
The laboratory declares that the test results relate only to the listed samples. If "ALS" is not included in the test report in the "Sampled by" section, then the results refer to the sample as received.
All results highlighted in Bold indicate a reading above the Limit of Reporting (LOR) only for that test, and are not compared with any parametric value.

## *Responsible for accuracy*

**Testing Laboratory No. 1163**
**Accredited by CAI according to**
**CSN EN ISO/IEC 17025:2018**

| *Signatories* | *Position* |
|---|---|
| Lubomír Pokorný | Country Manager |

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The company is certified according to ČSN EN ISO 14001 (Environmental management systems) and ČSN ISO 45001 (Occupational health and safety management systems)

## *Analytical Results*

Sub-Matrix: **WATER**

| | Client sample ID | 6412302 SW1 - Surface water Shannonside | | 6412303 SW2 - Surface water Shannonside | | 6412304 SW3 - Surface water Shannonside | |
|---|---|---|---|---|---|---|---|
| | Laboratory sample ID | PR24D4029001 | | PR24D4029002 | | PR24D4029003 | |
| | Client sampling date / time | 29-Oct-2024 | | 29-Oct-2024 | | 29-Oct-2024 | |
| *Parameter* | *Method* / *LOR* / *Unit* | **Result** | **MU** | **Result** | **MU** | **Result** | **MU** |
| **Physical Parameters** | | | | | | | |
| **pH Value** | W-PH-PCT / 0.01 / - | **7.87** | ± 1.0% | **7.64** | ± 1.0% | **7.52** | ± 1.0% |
| **Nonmetallic Inorganic Parameters** | | | | | | | |
| **Ammonia (free)** | W-NH3-CC3 / 0.010 / mg/L | <0.010 | ---- | <0.010 | ---- | <0.010 | ---- |
| **Ammonia and ammonium ions as N** | W-NH4-SPC / 0.040 / mg/L | <0.040 | ---- | **0.307** | ± 15.0% | **0.083** | ± 15.0% |
| **Ammonia and ammonium ions as NH4** | W-NH4-SPC / 0.050 / mg/L | <0.050 | ---- | **0.395** | ± 15.0% | **0.106** | ± 15.0% |
| **Chloride** | W-CL-IC / 1.00 / mg/L | **24.7** | ± 15.0% | **31.8** | ± 15.0% | **18.0** | ± 15.0% |
| **Ammonia (free) as N** | W-NH3-CC3 / 0.010 / mg/L | <0.010 | ---- | <0.010 | ---- | <0.010 | ---- |
| **Pesticides** | | | | | | | |
| **Propiconazole** | W-PESLMS02 / 0.050 / µg/L | **1.14** | ± 30.0% | **2.55** | ± 30.0% | **1.73** | ± 30.0% |
| **Tebuconazole** | W-PESLMS02 / 0.050 / µg/L | **1.02** | ± 30.0% | **2.30** | ± 30.0% | **1.44** | ± 30.0% |

Sub-Matrix: **WATER**

| | Client sample ID | 6412305 MW1- Surface water Shannonside | | 6412306 MW2- Surface water Shannonside | | 6412307 MW3- Surface water Shannonside | |
|---|---|---|---|---|---|---|---|
| | Laboratory sample ID | PR24D4029004 | | PR24D4029005 | | PR24D4029006 | |
| | Client sampling date / time | 29-Oct-2024 | | 29-Oct-2024 | | 29-Oct-2024 | |
| *Parameter* | *Method* / *LOR* / *Unit* | **Result** | **MU** | **Result** | **MU** | **Result** | **MU** |
| **Physical Parameters** | | | | | | | |
| **pH Value** | W-PH-PCT / 0.01 / - | **7.46** | ± 1.0% | **7.41** | ± 1.0% | **7.62** | ± 1.0% |
| **Nonmetallic Inorganic Parameters** | | | | | | | |
| **Ammonia (free)** | W-NH3-CC3 / 0.010 / mg/L | **0.014** | ---- | <0.010 | ---- | <0.010 | ---- |
| **Ammonia and ammonium ions as N** | W-NH4-SPC / 0.040 / mg/L | **0.695** | ± 15.0% | <0.040 | ---- | <0.040 | ---- |
| **Ammonia and ammonium ions as NH4** | W-NH4-SPC / 0.050 / mg/L | **0.895** | ± 15.0% | <0.050 | ---- | <0.050 | ---- |
| **Chloride** | W-CL-IC / 1.00 / mg/L | **40.9** | ± 15.0% | **55.9** | ± 15.0% | **34.4** | ± 15.0% |
| **Ammonia (free) as N** | W-NH3-CC3 / 0.010 / mg/L | **0.011** | ---- | <0.010 | ---- | <0.010 | ---- |
| **Pesticides** | | | | | | | |
| **Propiconazole** | W-PESLMS02 / 0.050 / µg/L | **7.50** | ± 30.0% | **0.131** | ± 30.0% | **1.97** | ± 30.0% |
| **Tebuconazole** | W-PESLMS02 / 0.050 / µg/L | **7.74** | ± 30.0% | **0.061** | ± 30.0% | **2.08** | ± 30.0% |

Sub-Matrix: **WATER**

| | Client sample ID | 6412308 Drain- Surface water Shannonside | | 6412309 Creek- Surface water Shannonside | | ---- | |
|---|---|---|---|---|---|---|---|
| | Laboratory sample ID | PR24D4029007 | | PR24D4029008 | | ---- | |
| | Client sampling date / time | 29-Oct-2024 | | 29-Oct-2024 | | ---- | |
| *Parameter* | *Method* / *LOR* / *Unit* | **Result** | **MU** | **Result** | **MU** | **Result** | **MU** |
| **Physical Parameters** | | | | | | | |
| **pH Value** | W-PH-PCT / 0.01 / - | **7.60** | ± 1.0% | **6.93** | ± 1.0% | **----** | ---- |
| **Nonmetallic Inorganic Parameters** | | | | | | | |
| **Ammonia (free)** | W-NH3-CC3 / 0.010 / mg/L | <0.010 | ---- | <0.010 | ---- | **----** | ---- |
| **Ammonia and ammonium ions as N** | W-NH4-SPC / 0.040 / mg/L | <0.040 | ---- | **0.188** | ± 15.0% | **----** | ---- |
| **Ammonia and ammonium ions as NH4** | W-NH4-SPC / 0.050 / mg/L | <0.050 | ---- | **0.242** | ± 15.0% | **----** | ---- |
| **Chloride** | W-CL-IC / 1.00 / mg/L | **48.2** | ± 15.0% | **2120** | ± 15.0% | **----** | ---- |
| **Ammonia (free) as N** | W-NH3-CC3 / 0.010 / mg/L | <0.010 | ---- | <0.010 | ---- | **----** | ---- |
| **Pesticides** | | | | | | | |
| **Propiconazole** | W-PESLMS02 / 0.050 / µg/L | **1.81** | ± 30.0% | **0.057** | ± 30.0% | **----** | ---- |

| Sub-Matrix: **WATER** | | | | Client sample ID | **6412308 Drain- Surface water Shannonside** | | **6412309 Creek- Surface water Shannonside** | | **----** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Laboratory sample ID | *PR24D4029007* | | *PR24D4029008* | | ---- | |
| | | | | Client sampling date / time | 29-Oct-2024 | | 29-Oct-2024 | | ---- | |
| *Parameter* | *Method* | *LOR* | *Unit* | **Result** | **MU** | | **Result** | **MU** | **Result** | **MU** |
| **Pesticides - Continued** | | | | | | | | | | |
| **Tebuconazole** | W-PESLMS02 | 0.050 | µg/L | **1.10** | ± 30.0% | | <0.050 | ---- | **----** | ---- |

When sampling date is not provided by the client, the laboratory determines it for procedural reasons, then it is equal to the date of receipt of the sample to the laboratory and is displayed in brackets. 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 MU does not include sampling uncertainty.

## Brief Method Summaries

| *Analytical Methods* | *Method Descriptions* |
|---|---|
| *Location of test performance: Na Harfe 336/9 Prague 9 - Vysocany Czech Republic 190 00* | |
| 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-NH3-CC2 | CZ_SOP_D06_02_019 (CSN ISO 15923-1, SM 4500-NO2(-), SM 4500-NO3(-)) 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-NH3-CC3 | CZ_SOP_D06_02_019 (CSN ISO 15923-1, SM 4500-NO2(-), SM 4500-NO3(-)) 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. Results of Ammonia (free) are calculated by value pH from laboratory and temperature 25 °C. |
| W-NH4-SPC | CZ_SOP_D06_02_019 (CSN ISO 15923-1, SM 4500-NO2-, SM 4500-NO3-) 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-PESLMS02 | CZ_SOP_D06_03_183.A (US EPA Method 535, US EPA Method 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-PH-PCT | CZ_SOP_D06_02_105 (CSN ISO 10523, US EPA Method 150.1, SM 4500-H+ B) Determination of pH by potentiometry |

The symbol "*" for the method indicates a test outside the scope of accreditation of the laboratory or subcontractor. If the UNICO-SUB code is stated in the method table, this only informs that the tests have been performed by a subcontractor and the results are given in an annex to the test report, including information on test accreditation. If the lab used for matrix outside the scope of accreditation or non-standard sample matrix procedure specified in the accredited method and issues non-accredited results, this fact is stated on the title page of this protocol in the section "Notes". If the test report shows the results of subcontracting, the place of performance of the test is outside the laboratories of ALS Czech Republic, s.r.o.
The method for calculating of the summation parameters is available on request in the customer service.

***The end of the certificate of analysis***