

A copy of this certificate is available on www.fitzsci.ie.

Customer supplied information appear in italics.

Customer	Adam Keegan	Lab Report Ref. No.	7820/2504072/01
	Hydro-Environmental Services	Date of Receipt	10/04/2025
	22 Lower Main Street	Sampled On	09/04/2025
	Dungarvan	Date Testing Commenced	10/04/2025
		Received or Collected	By Fitz Pick up: Larry Commin
	Co Waterford	Condition on Receipt	Acceptable
Customer PO	PI653	Date of Report	24/04/2025
Customer Ref	Seskin DW1	Sample Type	Ground Water
Ref 2			
Ref 3			

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Bicarbonate (CaCO ₃)	102	Colorimetry	121.2	mg/L CaCO ₃	
**Calcium (Ground Water)	184	ICPMS	27.4	mg/L	INAB
Chloride (Ground Water)	100	Colorimetry	30	mg/L	INAB
**Iron (Ground Water)	177	ICPMS	8	ug/L	INAB
**Magnesium (Ground Water)	184	ICPMS	14.8	mg/L	INAB
**Manganese (Ground Water)	177	ICPMS	17	ug/L	INAB
Nitrate (Ground Water)	103	Colorimetry	1	mg/L as N	INAB
**Nitrite (Ground Water)	118	Colorimetry	<0.01	mg/L as N	INAB
pH (Ground Water)	110	Electrometry	8.33	pH Units	INAB
**Phosphate (Ortho) Ground Water	117	Colorimetry	0.01	mg/L as P	INAB
**Potassium (Ground Water)	184	ICPMS	3	mg/L	INAB
**Sodium (Ground water)	184	ICPMS	19	mg/L	INAB
Solids (Total Suspended)	106	Gravimetry	<5	mg/L	
Sulphate (Ground Water)	119	Colorimetry	14	mg/L as SO ₄	INAB



Signed:

Aoife Harmon - Laboratory Supervisor

Date: 24/04/2025

Acc.: Accredited Parameters by ISO/IEC 17025:2017

For bacterial analysis a result of 0 means none detected in volume examined

All organic results are analysed as received and all results are corrected for dry weight at 104 C

Results shall not be reproduced, except in full, without the approval of Fitz Scientific

Results contained in this report relate only to the samples tested (P) : Presumptive Results

**: The test result for this parameter may be invalid as it has exceeded the recommended holding time (BS EN ISO 5667-3:2024)

This sample was identified as deviant (BS EN ISO 5667-3:2024) due to [HoldingTime**] and the test results may be invalid.

Final results will be issued without any estimated uncertainty of measurement being applied. This can be supplied on request.

Fitz Scientific maintain all customer information in the strictest confidence which is legally enforceable.



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	Dungarvan	Date Testing Commenced	10/04/2025
		Received or Collected	By Fitz Pick up: Larry Commin
	Co Waterford	Condition on Receipt	Acceptable
Customer PO	PI653	Date of Report	24/04/2025
Customer Ref	Seskin MW4	Sample Type	Ground Water
Ref 2			
Ref 3			

CERTIFICATE OF ANALYSIS

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Bicarbonate (CaCO ₃)	102	Colorimetry	276.5	mg/L CaCO ₃	
**Calcium (Ground Water)	184	ICPMS	122.8	mg/L	INAB
Chloride (Ground Water)	100	Colorimetry	15	mg/L	INAB
**Iron (Ground Water)	177	ICPMS	1421	ug/L	INAB
**Magnesium (Ground Water)	184	ICPMS	7.5	mg/L	INAB
**Manganese (Ground Water)	177	ICPMS	183	ug/L	INAB
Nitrate (Ground Water)	103	Colorimetry	10	mg/L as N	INAB
Nitrite (Ground Water)	118	Colorimetry	<0.01	mg/L as N	INAB
pH (Ground Water)	110	Electrometry	7.25	pH Units	INAB
**Phosphate (Ortho) Ground Water	117	Colorimetry	0.01	mg/L as P	INAB
**Potassium (Ground Water)	184	ICPMS	1.6	mg/L	INAB
**Sodium (Ground water)	184	ICPMS	6.1	mg/L	INAB
Solids (Total Suspended)	106	Gravimetry	123	mg/L	
Sulphate (Ground Water)	119	Colorimetry	9	mg/L as SO ₄	INAB



Signed:

Aoife Harmon - Laboratory Supervisor

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Client: Hydro-Environmental Services
22
Lower Main Street
Dungarvan
Co. Waterford.
Waterford
IRELAND

Certificate Code: AR-24-M3-020457-01

Page Number: Page 1 of 1

PO reference:

Certificate of Analysis

Sample number	966-2024-00023381	Received on	21/08/2024
Your sample reference	Seskin FZ	Analysis started on	21/08/2024
Sample Matrix	Surface water		
Sample Condition on Arrival	Satisfactory	Sample Date	16/08/2024
Time Sampled	12:30		

Test Code Analyte	SUB ⁵ Analysis Started	Method	LOQ ³	SPEC ²	Result	Units	ACCRED ⁴
Hardness as CalciumCarbonate (Calc) - Trace [M303N]							
Hardness as Calcium Carbonate	04/09/24 15:50	EW188	2.5		103	mg/l	
pH (Robotic Method) [M3051]							
pH	21/08/24 16:50 ^{7D}	EW152R	4		7.6		
Conductivity at 20°C (Robotic Method) [M3052]							
Conductivity at 20°C	21/08/24 16:50	EW152R	5		260	µS/cm	C6
Alkalinity as CaCO3 [M30D3]							
Alkalinity as CAC03	21/08/24 13:45	EW175	30		113	mg/l	
Alkalinity Bicarbonate as HCO3 [M30F7]							
Alkalinity Bicarbonate as HCO3	04/09/24 15:50	EW175	30		138	m/l	
Calcium - Trace [M3241]							
Calcium	26/08/24 15:01		1.08		41.1	mg/l	C6

⁴ Accreditation Information

C6: ISO/IEC 17025:2017 INAB 138-T

Signed: _____



04/09/2024

Aoife De Barra - Organics & Instrumentation Team Lead

NOTES

1. This Report shall not be reproduced, except in full, without the permission of the Laboratory and only relates to the items tested.
2. SPEC = Allowable limit or parametric value.
3. LOQ = Limit of Quantification or lowest value that can be reported.
4. ACCRED = Indicates accreditation for the test, a blank field indicates not accredited.
5. * indicates the test was sub-contracted. "D" indicates the analysis was performed in Dublin and "C" indicates the analysis performed in Cork.
6. The sampling date was not communicated; this may impact the validity of the results unless provided.
- 7A. This test was conducted outside of recommended best practice holding time; this may impact the accreditation status/validity of the result. The result will still be technically sound in terms of the method and associated quality controls
- 7B. No time of sampling was supplied, a default time of 00:00:00 will be assumed for holding time calculations unless provided. This may impact the validity of the results.
- 7D. The sample was received close to or outside of the recommended best practice holding time; this may impact the accreditation status of the result.
8. This notification is based on the numerical result for the test without consideration of the uncertainty of measurement of the result, unless otherwise agreed in writing. Uncertainty of measurement has been calculated for all INAB accredited tests and is available upon request.
9. Report is issued as per our standard T&C of sale.

Client: Hydro-Environmental Services
22
Lower Main Street
Dungarvan
Co. Waterford.
Waterford
IRELAND

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Page Number: Page 1 of 1

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Hardness as CalciumCarbonate (Calc) - Trace [M303N]							
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Alkalinity Bicarbonate as HCO3	04/09/24 15:50	EW175	30		138	m/l	
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Calcium	26/08/24 15:01		1.08		41.1	mg/l	C6

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04/09/2024

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9. Report is issued as per our standard T&C of sale.

CERTIFICATE OF ANALYSIS



ALS Life Sciences Ltd.,
Carrigeen Business Park Clonmel Co. Tipperary E91 PF63 Ireland
Telephone: +353 (0) 52 617 8100
www.alsglobal.ie

Page 1 of 1

Hydro Environmental Services
Hydro Environmental Services
22 Lower Main Street
Dungarvan, Co. Waterford
Ireland

Certificate Number: CLN023699-1 Final
Date Reported: 17/04/2025
Date Analysis Started: 10/04/2025

RECEIVED: 09/07/2025

Lab Ref.	Sample Details	Method Number	Test	Result	Units	Flag
CLN74806	Prod: Rcvd Dt: 10/04/2025 Start Testing: 10/04/2025 Description: Seskin SW1 Spt: Water Sample Type: Ground Waters	P280	BOD 5 day Total with ATU	6	mg/L O ₂	
		P202	Suspended Solids	<5	mg/L	
		P281	Chloride	10.5	mg/L Cl	
		P285	Total Nitrogen	1.6	mg/L N	
		P281	Total Oxidised Nitrogen (TON)	0.43	mg/L N	
		P281	Ammonia	<0.02	mg/L NH ₃ -N	
		P281	Nitrate	<5.0	mg/L NO ₃	
		P281	Nitrite	<0.05	mg/L NO ₂	
		P207	Total Phosphorus	0.13	mg/L P	
		P293	Orthophosphate	<0.02	mg/L P	
CLN74807	Prod: Rcvd Dt: 10/04/2025 Start Testing: 10/04/2025 Description: Seskin SW2 Spt: Water Sample Type: Ground Waters	P280	BOD 5 day Total with ATU	<2	mg/L O ₂	
		P202	Suspended Solids	10	mg/L	
		P281	Chloride	29.8	mg/L Cl	
		P285	Total Nitrogen	3.2	mg/L N	
		P281	Total Oxidised Nitrogen (TON)	2.26	mg/L N	
		P281	Ammonia	0.02	mg/L NH ₃ -N	
		P281	Nitrate	10.2	mg/L NO ₃	
		P281	Nitrite	<0.05	mg/L NO ₂	
		P207	Total Phosphorus	0.15	mg/L P	
		P293	Orthophosphate	0.06	mg/L P	

Certificate approved and electronically signed on 17/04/25 15:05

By Ciara Gildea, Senior Environmental Chemistry Analyst

For and on Behalf of ALS Life Sciences Ltd

Disclaimers:

The testing results in this certificate relate only to the samples described above.
Unless otherwise stated, all results are expressed on an as received basis.
Statement of conformity made against the result does not take into account the uncertainty of measurement associated to the method.
Opinions and interpretations expressed herein are outside the scope of INAB accreditation.
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