



APPENDIX 9-3

*GROUNDWATER QUALITY
LABORATORY REPORT*

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

Certificate Code: AR-25-M3-027720-01
Page Number: Page 1 of 4
PO reference: P1646 Cunlaghfadda WF

Certificate of Analysis

Sample number	966-2025-00031529	Received on	20/08/2025
Your sample reference	P1646 GW1 Cunlaghfadda	Analysis started on	21/08/2025
Sample Matrix	Ground water		
Sample Condition on Arrival	Satisfactory	Sample Date	19/08/2025
Time Sampled	11:00		

Test Code Analyte	SUB ⁵ Analysis Started	Method	LOQ ³	SPEC ²	Result	Units	ACCRED ⁴
Ammonia as N - Gallery [M300Z]							
Ammonia as N - Gallery	21/08/25 11:27 ^{7A}	EW175	0.01		<0.01	mg/l	C6
Ammonia as NH3 (Calc) - Gallery [M3000]							
Ammonia as NH3 (Calc) - Gallery	21/08/25 11:27	EW175	0.01		<0.01	mg/l	C6
Biochemical Oxygen Demand (BOD) Robotic Method [M304E]							
Biochemical oxygen demand (BOD) 5d by Robotic Method	21/08/25 10:51	Ew001R	1		1.10	mg/l	C6
Cadmium mg/l [AN179]							
Cadmium (Cd)	*		0.0002		< 0.0002	mg/l	L8
Chemical Oxygen Demand (COD) [M3004]							
Chemical oxygen demand (COD)	25/08/25 16:32	EW094	8		<8	mg/l	C6
Chloride mg/L - Gallery [M300S]							
Chloride mg/L - Gallery	21/08/25 11:27	EW175	5		20.8	mg/l	C6
Chromium mg/l [AN181]							
Chromium (Cr)	*		0.001		< 0.001	mg/l	L8
Copper mg/l [AN186]							
Copper (Cu)	*		0.001		0.003	mg/l	L8
Iron mg/l [AN182]							
Iron (Fe)	*		0.005		< 0.005	mg/l	L8
Lead mg/l [AN177]							
Lead (Pb)	*		0.001		< 0.001	mg/l	L8

Signed:



04/09/2025

Aoife De Barra - Organics & Instrumentation Team Lead CIE016

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Test Code Analyte	SUB ⁵	Analysis Started	Method	LOQ ³	SPEC ²	Result	Units	ACCRED ⁴
Magnesium mg/l [AN188]								
Magnesium (Mg)	*			0.02		3.05	mg/l	L8
Manganese mg/l [AN189]								
Manganese (Mn)	*			0.001		< 0.001	mg/l	L8
Mercury [AAS] mg/l [AN0AJ]								
Mercury (Hg)	*			0.0001		< 0.0001	mg/l	L8
Nickel mg/l [AN192]								
Nickel (Ni)	*			0.001		0.002	mg/l	L8
Nitrate (as N) - Gallery [M301A]								
Nitrate (as N) - Gallery		21/08/25 11:27 ^{7A}	EW175	1		<1	mg/l	C6
Nitrate as NO3 (Calc) - Gallery [M300L]								
Nitrate as NO3 (Calc) - Gallery		21/08/25 11:27 ^{7A}	EW175	4.4		<4.4	mg/l	C6
Nitrite (as N) - Gallery [M3016]								
Nitrite (as N) - Gallery		21/08/25 11:27 ^{7A}	EW175	0.01		<0.01	mg/l	C6
Nitrite as NO2 (Calc) - Gallery [M300Y]								
Nitrite as NO2 (Calc) - Gallery		21/08/25 11:27 ^{7A}	EW175	0.033		<0.033	mg/l	C6
Phosphate (Ortho/MRP) as P - Gallery [M300P]								
Phosphate (Ortho/MRP) as P - Gallery		21/08/25 11:27 ^{7A}	EW175	0.01		0.0200	mg/l	C6
Potassium mg/l [AN184]								
Potassium (K)	*			0.05		1.79	mg/l	L8

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Test Code Analyte	SUB ⁵ Analysis Started	Method	LOQ ³	SPEC ²	Result	Units	ACCRED ⁴
Sodium mg/l [AN191]							
Sodium (Na)	*		0.05		27.6	mg/l	L8
Sulphate mg/L - Gallery [M300N]							
Sulphate mg/L - Gallery	21/08/25 11:27	EW175	1		44.2	mg/l	C6
Suspended Solids [M3002]							
Suspended Solids	21/08/25 12:06	EW013	5		<5	mg/l	
Total Dissolved Solids (TDS) [M3006]							
Total dissolved solids @ 180°C	25/08/25 09:23	EW046	15		205	mg/l	C6
Total Kjeldahl Nitrogen-TKN (CalcGallery) [M3128]							
Total Kjeldahl Nitrogen-TKN (CalcGallery)	22/08/25 13:19	EW010	2		0.00	mg/l	C6
Total Nitrogen [M3007]							
Total Nitrogen	22/08/25 09:23	EW140	1		<1	mg/l	C6
Total Oxidised Nitrogen (TON) as N - Gallery [M300U]							
Total Oxidised Nitrogen (TON) as N - Gallery	21/08/25 11:27 ^{7A}	EW175	1		<1	mg/l	C6
TPH 3 Band (C6-10-21-40) in water [M502B]							
TPH >C10-C21	* 21/08/25 13:55		0.1		<0.1	µg/l	
TPH >C21-C40	* 21/08/25 13:55		0.1		<0.1	µg/l	
TPH >C6-C10	* 21/08/25 13:55		0.1		<0.1	µg/l	
TPH Total >C6-C40	* 21/08/25 13:55		10		<10	µg/l	YA
Validation	* 21/08/25 13:55				0		
Validation	* 21/08/25 13:55				0		

Zinc mg/l [AN210]

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Zinc (Zn)	*		0.002		0.009	mg/l	L8

⁴ Accreditation Information

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

L8: DIN EN ISO/IEC 17025:2018 DAkKS D-PL-14078-01-00

YA: Accredited (External Subcontractor)

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 validity of the result while the accreditation status of the test result will stay unaffected.

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.

7C. Your sample arrived at the laboratory already outside of the recommended best practice holding time; this may impact the validity of the result while the accreditation status of the test result will stay unaffected.

7D. The sample was received close to the recommended best practice holding time; this may impact the validity of the result while the accreditation status of the test result will stay unaffected.

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.

10. \$ = Retest result reported.

Signed:



04/09/2025

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