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13/07/2023

26/07/2023

P1619

Report No: HYDR-375130723

Date Submitted

Date Reported

Order Number

Document No: EF0011

CERTIFICATE OF ANALYSIS

Client **Hydro Environmental Services**

22 Lower Main Street

Co. Waterford

Dungarvan

Hydro Environmental Services

6 sample(s) received in good condition. Sample Reception

N/A Comments

For the Attention of:

Report Authorised by:

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- 6. SUBCON* indicates analysis subcontracted to approved subcontractors who do not hold accreditation for this test 7. SUBCON[^] indicates analysis subcontracted to approved subcontractors who hold accreditation for this test
- 8. Where sampling is undertaken by ALS personnel, sampling activities are outside the scope of INAB accreditation
- 9. Dil next to a method reference indicates that a dilution of the water sample was undertaken during testing
- 10. Statement of conformity made against the result does not take into account the uncertainty of measurement associated with the method





Report No: HYDR-375130723

Document No: EF0011

CERTIFICATE OF ANALYSIS

 Date Submitted
 13/07/2023

 Date Reported
 26/07/2023

 Order Number
 P1619

Sample TypeEffluentClient IDBorrisbeg SW1Date Tested13/07/2023ALS ID5659354

<u>Test</u>	Result	<u>Unit</u>	Method
Suspended Solids	27	mg / I	P202
Phosphorus	0.11	mg/l P	P207
BOD 5 day Total	2	mg/I O2	P280
Ammonia	0.13	mg/l NH3-N	P281
Chloride	17.4	mg/l Cl	P281
Nitrate	<5.0	mg/l NO3	P281
Nitrite	<0.05	mg/l NO2	P281
Orthophosphate	0.03	mg/l P	P281
Total Oxidised Nitrogen	0.75	mg/L N	P281
Nitrogen (Total)	2.0	mg/L N	P285

Sample TypeEffluentClient IDBorrisbeg SW2Date Tested13/07/2023ALS ID5659355

Test	Result	Unit	Method
Suspended Solids	15	mg / I	P202
Phosphorus	0.18	mg/l P	P207
BOD 5 day Total	3	mg/l O2	P280
Ammonia	0.08	mg/l NH3-N	P281
Chloride	13.2	mg/l Cl	P281
Nitrate	<5.0	mg/l NO3	P281
Nitrite	<0.05	mg/l NO2	P281
Orthophosphate	0.03	mg/l P	P281
Total Oxidised Nitrogen	0.94	mg/L N	P281
Nitrogen (Total)	2.1	mg/L N	P285

Report Authorised by:

- Thomas





Report No: HYDR-375130723

Document No: EF0011

CERTIFICATE OF ANALYSIS

Date Submitted	13/07/2023
Date Reported	26/07/2023
Order Number	P1619

Sample TypeEffluentClient IDBorrisbeg SW3Date Tested13/07/2023ALS ID5659356

<u>Test</u>	<u>Result</u>	<u>Unit</u>	Method
Suspended Solids	12	mg / I	P202
Phosphorus	0.10	mg/l P	P207
BOD 5 day Total	3	mg/l O2	P280
Ammonia	0.21	mg/l NH3-N	P281
Chloride	25.6	mg/l Cl	P281
Nitrate	<5.0	mg/l NO3	P281
Nitrite	< 0.05	mg/l NO2	P281
Orthophosphate	< 0.02	mg/l P	P281
Total Oxidised Nitrogen	<0.25	mg/L N	P281
Nitrogen (Total)	1.6	mg/L N	P285

Sample TypeEffluentClient IDBorrisbeg SW4Date Tested13/07/2023ALS ID5659357

<u>Test</u>	Result	<u>Unit</u>	Method
Suspended Solids	8	mg / I	P202
Phosphorus	0.12	mg/l P	P207
BOD 5 day Total	2	mg/l O2	P280
Ammonia	0.05	mg/l NH3-N	P281
Chloride	15.7	mg/l Cl	P281
Nitrate	<5.0	mg/l NO3	P281
Nitrite	< 0.05	mg/l NO2	P281
Orthophosphate	0.03	mg/l P	P281
Total Oxidised Nitrogen	0.94	mg/L N	P281
Nitrogen (Total)	1.6	mg/L N	P285

Report Authorised by:

- Thomas



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HYDR-375130723 Report No:

EF0011 Document No:

CERTIFICATE OF ANALYSIS

Date Submitted	13/07/2023
Date Reported	26/07/2023
Order Number	P1619

Effluent Sample Type Borrisbeg SW5 **Client ID** 13/07/2023 **Date Tested** 5659358 **ALS ID**

Result	<u>Unit</u>	Method
16	mg / I	P202
0.11	mg/l P	P207
2	mg/l O2	P280
0.08	mg/l NH3-N	P281
13.6	mg/l Cl	P281
<5.0	mg/l NO3	P281
< 0.05	mg/I NO2	P281
0.03	mg/l P	P281
0.86	mg/L N	P281
1.9	mg/L N	P285
	16 0.11 2 0.08 13.6 <5.0 <0.05 0.03 0.86	16 mg / l 0.11 mg/l P 2 mg/l O2 0.08 mg/l NH3-N 13.6 mg/l Cl <5.0 mg/l NO3 <0.05 mg/l NO2 0.03 mg/l P 0.86 mg/L N

Sample Type Effluent Borrisbeg SW6 **Client ID** 13/07/2023 **Date Tested** 5659359 **ALS ID**

<u>Test</u>	Result	<u>Unit</u>	Method
Suspended Solids	91	mg / I	P202
Phosphorus	0.18	mg/l P	P207
BOD 5 day Total	3	mg/l O2	P280
Ammonia	0.08	mg/l NH3-N	P281
Chloride	14.7	mg/l Cl	P281
Nitrate	5.1	mg/l NO3	P281
Nitrite	< 0.05	mg/l NO2	P281
Orthophosphate	0.04	mg/l P	P281
Total Oxidised Nitrogen	1.16	mg/L N	P281
Nitrogen (Total)	2.7	mg/L N	P285

Report Authorised by:



Telephone: +353 (0) 52 617 8100



28/09/2023

16/10/2023

N/A

Report No: HYDR-837280923

Date Submitted

Date Reported

Order Number

Document No: EF0011

CERTIFICATE OF ANALYSIS

Client **Hydro Environmental Services**

22 Lower Main Street

Dungarvan Co. Waterford

Hydro Environmental Services

1 sample(s) received in good condition. Sample Reception

N/A Comments

For the Attention of:

Report Authorised by:

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- 10. Statement of conformity made against the result does not take into account the uncertainty of measurement associated with the method





Report No: HYDR-837280923

Document No: EF0011

CERTIFICATE OF ANALYSIS

 Date Submitted
 28/09/2023

 Date Reported
 16/10/2023

 Order Number
 N/A

Sample Type Water

 Client ID
 Borrisbeg SW1

 Date Tested
 29/09/2023

 ALS ID
 5778192

<u>Test</u>	<u>Result</u>	<u>Unit</u>	Method
Suspended Solids	12	mg / I	P202
Phosphorus	0.15	mg/l P	P207
BOD 5 day Total	1	mg/l O2	P280
Orthophosphate	<0.02	mg/I P	P281
Ammonia	0.03	mg/l NH3-N	P281
Nitrite	<0.01	mg/l NO2N	P281
Nitrate	1.1	mg/l NO3N	P281
Chloride	14.5	mg/l Cl	P281
Total Oxidised Nitrogen	1.12	mg/L N	P281
Nitrogen (Total)	1.5	mg/L N	P285

Report Authorised by:

Page 2 of 2

- Thomas



Telephone: +353 (0) 52 617 8100



28/09/2023

16/10/2023

N/A

Report No: HYDR-836280923

Date Submitted

Date Reported

Order Number

Document No: EF0011

CERTIFICATE OF ANALYSIS

Client Hydro Environmental Services

22 Lower Main Street

Dungarvan Co. Waterford

•

For the Attention of: Hydro Environmental Services

Sample Reception 1 sample(s) received in good condition.

Comments N/A

Report Authorised by:

Thomas

Rosemary Thomas
Environmental Chemistry Manager

Conditions:

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Sample Type

ALS Life Sciences Ltd trading as ALS Carrigeen Business Park, Clonmel, Co. Tipperary

Telephone: +353 (0) 52 617 8100



HYDR-836280923 Report No:

Document No: EF0011

CERTIFICATE OF ANALYSIS

28/09/2023 **Date Submitted** 16/10/2023 **Date Reported** N/A **Order Number**

Water

Ballyquin SW2 Client ID 29/09/2023 **Date Tested** 5778191 **ALS ID**

Test	Result	Unit	Method
Suspended Solids	6	mg / I	P202
Phosphorus	0.10	mg/l P	P207
BOD 5 day Total	1	mg/l O2	P280
Orthophosphate	<0.02	mg/l P	P281
Ammonia	0.03	mg/l NH3-N	P281
Nitrite	<0.01	mg/l NO2N	P281
Nitrate	<1.0	mg/l NO3N	P281
Chloride	11.2	mg/l Cl	P281
Total Oxidised Nitrogen	<0.25	mg/L N	P281
Nitrogen (Total)	<1.0	mg/L N	P285

Report Authorised by:



Telephone: +353 (0) 52 617 8100



28/09/2023

16/10/2023

N/A

Report No: HYDR-839280923

Date Submitted

Date Reported

Order Number

Document No: EF0011

CERTIFICATE OF ANALYSIS

Client Hydro Environmental Services

22 Lower Main Street

Dungarvan Co. Waterford

Hydro Environmental Services

Sample Reception 1 sample(s) received in good condition.

Comments N/A

For the Attention of:

Report Authorised by:

Thomas Thomas

Rosemary Thomas
Environmental Chemistry Manager

Conditions:

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- 9. Dil next to a method reference indicates that a dilution of the water sample was undertaken during testing
- 10. Statement of conformity made against the result does not take into account the uncertainty of measurement associated with the method





Report No: HYDR-839280923

Document No: EF0011

CERTIFICATE OF ANALYSIS

 Date Submitted
 28/09/2023

 Date Reported
 16/10/2023

Order Number N/A

Sample Type Water

Client ID Borrisbeg SW3
Date Tested 29/09/2023
ALS ID 5778194

<u>Test</u>	<u>Result</u>	<u>Unit</u>	Method
Suspended Solids	<5	mg / I	P202
Phosphorus	0.10	mg/l P	P207
BOD 5 day Total	<1	mg/l O2	P280
Orthophosphate	<0.02	mg/l P	P281
Ammonia	0.04	mg/l NH3-N	P281
Nitrite	0.01	mg/l NO2N	P281
Nitrate	2.5	mg/l NO3N	P281
Chloride	15.4	mg/l Cl	P281
Total Oxidised Nitrogen	2.56	mg/L N	P281
Nitrogen (Total)	2.6	mg/L N	P285

Report Authorised by:

Bosemany Thomas



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28/09/2023

16/10/2023

N/A

Report No: HYDR-840280923

Document No: EF0011

CERTIFICATE OF ANALYSIS

Client **Hydro Environmental Services**

22 Lower Main Street

Dungarvan Co. Waterford

Order Number

Date Submitted

Date Reported

1 sample(s) received in good condition. Sample Reception

Hydro Environmental Services

N/A Comments

For the Attention of:

Report Authorised by:

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HYDR-840280923 Report No:

Document No: EF0011

CERTIFICATE OF ANALYSIS

28/09/2023 **Date Submitted** 16/10/2023 **Date Reported**

Order Number

N/A

Water Sample Type Borrisbeg SW4 Client ID 29/09/2023 **Date Tested**

5778195 **ALS ID**

<u>Test</u> Suspended Solids Phosphorus	<u>Result</u> 11 0.15	<u>Unit</u> mg / I mg/l P	Method P202 P207
BOD 5 day Total	2	mg/l O2	P280
Orthophosphate	< 0.02	mg/l P	P281
Ammonia	< 0.02	mg/l NH3-N	P281
Nitrite	<0.01	mg/I NO2N	P281
Nitrate	1.2	mg/l NO3N	P281
Chloride	11.6	mg/l Cl	P281
Total Oxidised Nitrogen	1.25	mg/L N	P281
Nitrogen (Total)	1.3	mg/L N	P285

Report Authorised by:



Telephone: +353 (0) 52 617 8100



28/09/2023

16/10/2023

N/A

Report No: HYDR-841280923

Date Submitted

Date Reported

Order Number

Document No: EF0011

CERTIFICATE OF ANALYSIS

Client **Hydro Environmental Services**

22 Lower Main Street

Dungarvan

Co. Waterford

For the Attention of: Hydro Environmental Services

1 sample(s) received in good condition. Sample Reception

N/A Comments

Report Authorised by:

Environmental Chemistry Manager

Rosemary Thomas

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HYDR-841280923 Report No:

Document No: EF0011

CERTIFICATE OF ANALYSIS

28/09/2023 **Date Submitted** 16/10/2023 **Date Reported Order Number**

N/A

Water Sample Type Borrisbeg SW5 Client ID 29/09/2023 **Date Tested** 5778196 **ALS ID**

<u>Test</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>
Suspended Solids	5	mg / I	P202
Phosphorus	0.19	mg/l P	P207
BOD 5 day Total	2	mg/l O2	P280
Orthophosphate	0.04	mg/l P	P281
Ammonia	0.03	mg/l NH3-N	P281
Nitrite	0.01	mg/I NO2N	P281
Nitrate	1.1	mg/I NO3N	P281
Chloride	12.1	mg/l Cl	P281
Total Oxidised Nitrogen	1.19	mg/L N	P281
Nitrogen (Total)	1.7	mg/L N	P285

Report Authorised by:



Telephone: +353 (0) 52 617 8100



Report No: HYDR-842280923

Document No: EF0011

CERTIFICATE OF ANALYSIS

Client **Hydro Environmental Services**

22 Lower Main Street

Dungarvan Co. Waterford

28/09/2023

Date Submitted Date Reported

16/10/2023

Order Number

N/A

For the Attention of: Hydro Environmental Services

1 sample(s) received in good condition. Sample Reception

N/A Comments

Report Authorised by:

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HYDR-842280923 Report No:

Document No: EF0011

CERTIFICATE OF ANALYSIS

28/09/2023 **Date Submitted** 16/10/2023 **Date Reported Order Number**

N/A

Water Sample Type Borrisbeg SW6 Client ID

29/09/2023 **Date Tested** 5778197 **ALS ID**

<u>Test</u>	<u>Result</u>	<u>Unit</u>	Method
Suspended Solids	9	mg / I	P202
Phosphorus	0.14	mg/l P	P207
BOD 5 day Total	2	mg/l O2	P280
Orthophosphate	0.02	mg/l P	P281
Ammonia	0.03	mg/l NH3-N	P281
Nitrite	0.01	mg/I NO2N	P281
Nitrate	1.3	mg/l NO3N	P281
Chloride	12.3	mg/l Cl	P281
Total Oxidised Nitrogen	1.27	mg/L N	P281
Nitrogen (Total)	1.9	mg/L N	P285

Report Authorised by: