

Permit Number: EPR/PP3993VS

Operator: Atlantic Recycling

Facility: Atlantic Recycling

Form Number: Surfacewater1

### Reporting of surface water monitoring for the period of September 2016

| Monitoring Point | Substance / Parameter    | Trigger level                                                                                       | Reference Period | Result <sup>(1)</sup> | Test Method <sup>(2)</sup> | Sample Date and Times <sup>(3)</sup> | Uncertainty <sup>(4)</sup>                                                            |
|------------------|--------------------------|-----------------------------------------------------------------------------------------------------|------------------|-----------------------|----------------------------|--------------------------------------|---------------------------------------------------------------------------------------|
| Outfall          | Suspended Solids, Total  | >250 mg/l (1 occasion)<br>>100 mg/l (3 consecutive occasions)<br>>60 mg/l (4 consecutive occasions) | Monthly          | 17 mg/l               | TM022                      | 15/09/2016<br>08:00                  | Lab: Precision 1.4%, Bias -2.9%, Expanded Uncertainty 5.8%.<br>Sampling: Immeasurable |
| Outfall          | BOD, unfiltered          | >18 mg/l (1 occasion)<br>>10 mg/l (3 consecutive occasions)                                         | Monthly          | 3.52 mg/l             | TM045                      | 15/09/2016<br>08:00                  | Lab: Precision 8.8%, Bias 3.7%, Expanded Uncertainty 21.3%.<br>Sampling: Immeasurable |
| Outfall          | Ammoniacal Nitrogen as N | >1 mg/l (1 occasion)<br>>0.5 mg/l (4 consecutive occasions)                                         | Monthly          | 1.08 mg/l             | TM099                      | 15/09/2016<br>08:00                  | Lab: Precision 2.1%, Bias 1.7%, Expanded Uncertainty 5.9%.<br>Sampling: Immeasurable  |
| Outfall          | Conductivity             | >2000 µS/cm                                                                                         | Monthly          | 0.572 mS/cm           | TM120                      | 15/09/2016<br>08:00                  | Lab: Precision 1.3%, Bias 3.1%, Expanded Uncertainty 5.7%.<br>Sampling: Immeasurable  |

| Monitoring Point | Substance / Parameter   | Trigger level | Reference Period | Result <sup>(1)</sup> | Test Method <sup>(2)</sup> | Sample Date and Times <sup>(3)</sup> | Uncertainty <sup>(4)</sup>                                                              |
|------------------|-------------------------|---------------|------------------|-----------------------|----------------------------|--------------------------------------|-----------------------------------------------------------------------------------------|
| Outfall          | Lead (diss.filt)        | >0.25 mg/l    | Monthly          | 0.607 µg/l            | TM152                      | 15/09/2016<br>08:00                  | Lab: Precision 4.1%, Bias -1.6%, Expanded Uncertainty 9.8%.<br>Sampling: Immeasurable   |
| Outfall          | Nickel (diss.filt)      | >0.1 mg/l     | Monthly          | 1.82 µg/l             | TM152                      | 15/09/2016<br>08:00                  | Lab: Precision 4.6%, Bias 1.0%, Expanded Uncertainty 10.2%.<br>Sampling: Immeasurable   |
| Outfall          | EPH Range >C10-C40 (aq) | >2 mg/l       | Monthly          | 77.9 µg/l             | TM172                      | 15/09/2016<br>08:00                  | Lab: Precision 7.5%, Bias -11.3%, Expanded Uncertainty 26.2%.<br>Sampling: Immeasurable |
| Outfall          | EPH Range >C10-C20 (aq) | >2 mg/l       | Monthly          | 23.7 µg/l             | TM172                      | 15/09/2016<br>08:00                  | Lab: Precision 7.5%, Bias -11.3%, Expanded Uncertainty 26.2%.<br>Sampling: Immeasurable |
| Outfall          | EPH Range >C20-C30 (aq) | >2 mg/l       | Monthly          | 34.9 µg/l             | TM172                      | 15/09/2016<br>08:00                  | Lab: Precision 7.5%, Bias -11.3%, Expanded Uncertainty 26.2%.<br>Sampling: Immeasurable |
| Outfall          | EPH Range >C30-C40 (aq) | >2 mg/l       | Monthly          | 19.3 µg/l             | TM172                      | 15/09/2016<br>08:00                  | Lab: Precision 7.5%, Bias -11.3%, Expanded Uncertainty 26.2%.<br>Sampling: Immeasurable |

| Monitoring Point | Substance / Parameter        | Trigger level | Reference Period | Result <sup>(1)</sup> | Test Method <sup>(2)</sup> | Sample Date and Times <sup>(3)</sup> | Uncertainty <sup>(4)</sup>                                                           |
|------------------|------------------------------|---------------|------------------|-----------------------|----------------------------|--------------------------------------|--------------------------------------------------------------------------------------|
| Outfall          | Sulphate                     | >300 mg/l     | Monthly          | 71.8 mg/l             | TM184                      | 15/09/2016<br>08:00                  | Lab: Precision 2.8%, Bias 2.3%, Expanded Uncertainty 7.9%.<br>Sampling: Immeasurable |
| Outfall          | Chloride                     | >300 mg/l     | Monthly          | 36 mg/l               | TM184                      | 15/09/2016<br>08:00                  | Lab: Precision 2.8%, Bias 2.4%, Expanded Uncertainty 8.0%.<br>Sampling: Immeasurable |
| Outfall          | Nitrite as N                 | >1 mg/l       | Monthly          | 0.0216 mg/l           | TM184                      | 15/09/2016<br>08:00                  | Lab: Precision 2.2%, Bias 0.4%, Expanded Uncertainty 4.9%.<br>Sampling: Immeasurable |
| Outfall          | Phosphate (ortho) as PO4     | >1 mg/l       | Monthly          | 0.279 mg/l            | TM184                      | 15/09/2016<br>08:00                  | Lab: Precision 1.7%, Bias 2.6%, Expanded Uncertainty 6.0%.<br>Sampling: Immeasurable |
| Outfall          | Nitrate as N                 | >1 mg/l       | Monthly          | <0.0677 mg/l          | TM184                      | 15/09/2016<br>08:00                  | Lab: Precision 2.2%, Bias 0.4%, Expanded Uncertainty 4.9%.<br>Sampling: Immeasurable |
| Outfall          | Total Oxidised Nitrogen as N | >2 mg/l       | Monthly          | <0.1 mg/l             | TM184                      | 15/09/2016<br>08:00                  | Lab: Precision 3.2%, Bias 3.0%, Expanded Uncertainty 9.4%.<br>Sampling: Immeasurable |

| Monitoring Point | Substance / Parameter | Trigger level                                             | Reference Period | Result <sup>(1)</sup> | Test Method <sup>(2)</sup> | Sample Date and Times <sup>(3)</sup> | Uncertainty <sup>(4)</sup>                                                          |
|------------------|-----------------------|-----------------------------------------------------------|------------------|-----------------------|----------------------------|--------------------------------------|-------------------------------------------------------------------------------------|
| Outfall          | Oxygen, dissolved     | <2 mg/l (1 occasion)<br><5 mg/l (3 consecutive occasions) | Monthly          | 1.58 mg/l             | TM187                      | 15/09/2016<br>08:00                  | Lab: Unknown. Sampling: Immeasurable                                                |
| Outfall          | Cadmium (tot.unfilt)  | >0.005 mg/l                                               | Monthly          | <0.5 µg/l             | TM191                      | 15/09/2016<br>08:00                  | Lab: Precision 5.4%, Bias -2.8%, Expanded Uncertainty 13.7%. Sampling: Immeasurable |
| Outfall          | Zinc (tot.unfilt)     | >1 mg/l                                                   | Monthly          | 63.5 µg/l             | TM191                      | 15/09/2016<br>08:00                  | Lab: Precision 5.8%, Bias -1.5%, Expanded Uncertainty 13.1%. Sampling: Immeasurable |
| Outfall          | Calcium (tot.unfilt)  | >300 mg/l                                                 | Monthly          | 77.8 mg/l             | TM228                      | 15/09/2016<br>08:00                  | Lab: Precision 5.2%, Bias -2.0%, Expanded Uncertainty 12.5%. Sampling: Immeasurable |
| Outfall          | pH                    | 6.8 ñ 8.5                                                 | Monthly          | 7.66                  | TM256                      | 15/09/2016<br>08:00                  | Lab: Precision 0.4%, Bias 0.8%, Expanded Uncertainty 1.7%. Sampling: Immeasurable   |
| Outfall          | GRO>C5-12             | >2 mg/l                                                   | Monthly          | <50                   | TM245                      | 15/09/2016<br>08:00                  | Lab: Precision 7.7%, Bias -6.7%, Expanded Uncertainty 22.1%. Sampling: Immeasurable |

| Monitoring Point | Substance / Parameter | Trigger level | Reference Period | Result <sup>(1)</sup> | Test Method <sup>(2)</sup> | Sample Date and Times <sup>(3)</sup> | Uncertainty <sup>(4)</sup>                                                             |
|------------------|-----------------------|---------------|------------------|-----------------------|----------------------------|--------------------------------------|----------------------------------------------------------------------------------------|
| Outfall          | GRO >C7-C8            | >2 mg/l       | Monthly          | <10 µg/l              | TM245                      | 15/09/2016<br>08:00                  | Lab: Precision 7.7%, Bias -6.7%, Expanded Uncertainty 22.1%.<br>Sampling: Immeasurable |
| Outfall          | GRO >C5-C6            | >2 mg/l       | Monthly          | <10 µg/l              | TM245                      | 15/09/2016<br>08:00                  | Lab: Precision 7.7%, Bias -6.7%, Expanded Uncertainty 22.1%.<br>Sampling: Immeasurable |
| Outfall          | GRO >C6-C7            | >2 mg/l       | Monthly          | <10 µg/l              | TM245                      | 15/09/2016<br>08:00                  | Lab: Precision 7.7%, Bias -6.7%, Expanded Uncertainty 22.1%.<br>Sampling: Immeasurable |
| Outfall          | GRO >C8-C10           | >2 mg/l       | Monthly          | <10 µg/l              | TM245                      | 15/09/2016<br>08:00                  | Lab: Precision 7.7%, Bias -6.7%, Expanded Uncertainty 22.1%.<br>Sampling: Immeasurable |
| Outfall          | GRO >C10-C12          | >2 mg/l       | Monthly          | <10 µg/l              | TM245                      | 15/09/2016<br>08:00                  | Lab: Precision 7.7%, Bias -6.7%, Expanded Uncertainty 22.1%.<br>Sampling: Immeasurable |
| Outfall          | GRO >C5-C10           | >2 mg/l       | Monthly          | <10 µg/l              | TM245                      | 15/09/2016<br>08:00                  | Lab: Precision 7.7%, Bias -6.7%, Expanded Uncertainty 22.1%.<br>Sampling: Immeasurable |

| Monitoring Point | Substance / Parameter    | Trigger level                                                                                       | Reference Period | Result <sup>(1)</sup> | Test Method <sup>(2)</sup> | Sample Date and Times <sup>(3)</sup> | Uncertainty <sup>(4)</sup>                                                            |
|------------------|--------------------------|-----------------------------------------------------------------------------------------------------|------------------|-----------------------|----------------------------|--------------------------------------|---------------------------------------------------------------------------------------|
| SW 9             | Suspended Solids, Total  | >250 mg/l (1 occasion)<br>>100 mg/l (3 consecutive occasions)<br>>60 mg/l (4 consecutive occasions) | Monthly          | 3 mg/l                | TM022                      | 15/09/2016<br>08:20                  | Lab: Precision 1.4%, Bias -2.9%, Expanded Uncertainty 5.8%.<br>Sampling: Immeasurable |
| SW 9             | BOD, unfiltered          | >18 mg/l (1 occasion)<br>>10 mg/l (3 consecutive occasions)                                         | Monthly          | 2.95 mg/l             | TM045                      | 15/09/2016<br>08:20                  | Lab: Precision 8.8%, Bias 3.7%, Expanded Uncertainty 21.3%.<br>Sampling: Immeasurable |
| SW 9             | Ammoniacal Nitrogen as N | >1 mg/l (1 occasion)<br>>0.5 mg/l (4 consecutive occasions)                                         | Monthly          | 0.231 mg/l            | TM099                      | 15/09/2016<br>08:20                  | Lab: Precision 2.1%, Bias 1.7%, Expanded Uncertainty 5.9%.<br>Sampling: Immeasurable  |
| SW 9             | Conductivity             | >2000 µS/cm                                                                                         | Monthly          | 0.462 mS/cm           | TM120                      | 15/09/2016<br>08:20                  | Lab: Precision 1.3%, Bias 3.1%, Expanded Uncertainty 5.7%.<br>Sampling: Immeasurable  |
| SW 9             | Lead (diss.filt)         | >0.25 mg/l                                                                                          | Monthly          | 0.104 µg/l            | TM152                      | 15/09/2016<br>08:20                  | Lab: Precision 4.1%, Bias -1.6%, Expanded Uncertainty 9.8%.<br>Sampling: Immeasurable |
| SW 9             | Nickel (diss.filt)       | >0.1 mg/l                                                                                           | Monthly          | 0.775 µg/l            | TM152                      | 15/09/2016<br>08:20                  | Lab: Precision 4.6%, Bias 1.0%, Expanded Uncertainty 10.2%.<br>Sampling: Immeasurable |

| Monitoring Point | Substance / Parameter   | Trigger level | Reference Period | Result <sup>(1)</sup> | Test Method <sup>(2)</sup> | Sample Date and Times <sup>(3)</sup> | Uncertainty <sup>(4)</sup>                                                              |
|------------------|-------------------------|---------------|------------------|-----------------------|----------------------------|--------------------------------------|-----------------------------------------------------------------------------------------|
| SW 9             | EPH Range >C10-C40 (aq) | >2 mg/l       | Monthly          | <46 µg/l              | TM172                      | 15/09/2016<br>08:20                  | Lab: Precision 7.5%, Bias -11.3%, Expanded Uncertainty 26.2%.<br>Sampling: Immeasurable |
| SW 9             | EPH Range >C10-C20 (aq) | >2 mg/l       | Monthly          | <10 µg/l              | TM172                      | 15/09/2016<br>08:20                  | Lab: Precision 7.5%, Bias -11.3%, Expanded Uncertainty 26.2%.<br>Sampling: Immeasurable |
| SW 9             | EPH Range >C20-C30 (aq) | >2 mg/l       | Monthly          | <10 µg/l              | TM172                      | 15/09/2016<br>08:20                  | Lab: Precision 7.5%, Bias -11.3%, Expanded Uncertainty 26.2%.<br>Sampling: Immeasurable |
| SW 9             | EPH Range >C30-C40 (aq) | >2 mg/l       | Monthly          | <10 µg/l              | TM172                      | 15/09/2016<br>08:20                  | Lab: Precision 7.5%, Bias -11.3%, Expanded Uncertainty 26.2%.<br>Sampling: Immeasurable |
| SW 9             | Sulphate                | >300 mg/l     | Monthly          | 33.1 mg/l             | TM184                      | 15/09/2016<br>08:20                  | Lab: Precision 2.8%, Bias 2.3%, Expanded Uncertainty 7.9%.<br>Sampling: Immeasurable    |
| SW 9             | Chloride                | >300 mg/l     | Monthly          | 27.9 mg/l             | TM184                      | 15/09/2016<br>08:20                  | Lab: Precision 2.8%, Bias 2.4%, Expanded Uncertainty 8.0%.<br>Sampling: Immeasurable    |

| Monitoring Point | Substance / Parameter        | Trigger level                                             | Reference Period | Result <sup>(1)</sup> | Test Method <sup>(2)</sup> | Sample Date and Times <sup>(3)</sup> | Uncertainty <sup>(4)</sup>                                                             |
|------------------|------------------------------|-----------------------------------------------------------|------------------|-----------------------|----------------------------|--------------------------------------|----------------------------------------------------------------------------------------|
| SW 9             | Nitrite as N                 | >1 mg/l                                                   | Monthly          | <0.0152 mg/l          | TM184                      | 15/09/2016<br>08:20                  | Lab: Precision 2.2%, Bias 0.4%, Expanded Uncertainty 4.9%.<br>Sampling: Immeasurable   |
| SW 9             | Phosphate (ortho) as PO4     | >1 mg/l                                                   | Monthly          | 0.346 mg/l            | TM184                      | 15/09/2016<br>08:20                  | Lab: Precision 1.7%, Bias 2.6%, Expanded Uncertainty 6.0%.<br>Sampling: Immeasurable   |
| SW 9             | Nitrate as N                 | >1 mg/l                                                   | Monthly          | <0.0677 mg/l          | TM184                      | 15/09/2016<br>08:20                  | Lab: Precision 2.2%, Bias 0.4%, Expanded Uncertainty 4.9%.<br>Sampling: Immeasurable   |
| SW 9             | Total Oxidised Nitrogen as N | >2 mg/l                                                   | Monthly          | <0.1 mg/l             | TM184                      | 15/09/2016<br>08:20                  | Lab: Precision 3.2%, Bias 3.0%, Expanded Uncertainty 9.4%.<br>Sampling: Immeasurable   |
| SW 9             | Oxygen, dissolved            | <2 mg/l (1 occasion)<br><5 mg/l (3 consecutive occasions) | Monthly          | 1.77 mg/l             | TM187                      | 15/09/2016<br>08:20                  | Lab: Unknown. Sampling: Immeasurable                                                   |
| SW 9             | Cadmium (tot.unfilt)         | >0.005 mg/l                                               | Monthly          | <0.5 µg/l             | TM191                      | 15/09/2016<br>08:20                  | Lab: Precision 5.4%, Bias -2.8%, Expanded Uncertainty 13.7%.<br>Sampling: Immeasurable |

| Monitoring Point | Substance / Parameter | Trigger level | Reference Period | Result <sup>(1)</sup> | Test Method <sup>(2)</sup> | Sample Date and Times <sup>(3)</sup> | Uncertainty <sup>(4)</sup>                                                             |
|------------------|-----------------------|---------------|------------------|-----------------------|----------------------------|--------------------------------------|----------------------------------------------------------------------------------------|
| SW 9             | Zinc (tot.unfilt)     | >1 mg/l       | Monthly          | <3 µg/l               | TM191                      | 15/09/2016<br>08:20                  | Lab: Precision 5.8%, Bias -1.5%, Expanded Uncertainty 13.1%.<br>Sampling: Immeasurable |
| SW 9             | Calcium (tot.unfilt)  | >300 mg/l     | Monthly          | 63.6 mg/l             | TM228                      | 15/09/2016<br>08:20                  | Lab: Precision 5.2%, Bias -2.0%, Expanded Uncertainty 12.5%.<br>Sampling: Immeasurable |
| SW 9             | pH                    | 6.8 ñ 8.5     | Monthly          | 7.5                   | TM256                      | 15/09/2016<br>08:20                  | Lab: Precision 0.4%, Bias 0.8%, Expanded Uncertainty 1.7%.<br>Sampling: Immeasurable   |
| SW 9             | GRO>C5-12             | >2 mg/l       | Monthly          | <50 µg/l              | TM245                      | 15/09/2016<br>08:20                  | Lab: Precision 7.7%, Bias -6.7%, Expanded Uncertainty 22.1%.<br>Sampling: Immeasurable |
| SW 9             | GRO >C7-C8            | >2 mg/l       | Monthly          | <10 µg/l              | TM245                      | 15/09/2016<br>08:20                  | Lab: Precision 7.7%, Bias -6.7%, Expanded Uncertainty 22.1%.<br>Sampling: Immeasurable |
| SW 9             | GRO >C5-C6            | >2 mg/l       | Monthly          | <10 µg/l              | TM245                      | 15/09/2016<br>08:20                  | Lab: Precision 7.7%, Bias -6.7%, Expanded Uncertainty 22.1%.<br>Sampling: Immeasurable |

| Monitoring Point | Substance / Parameter | Trigger level | Reference Period | Result <sup>(1)</sup> | Test Method <sup>(2)</sup> | Sample Date and Times <sup>(3)</sup> | Uncertainty <sup>(4)</sup>                                                             |
|------------------|-----------------------|---------------|------------------|-----------------------|----------------------------|--------------------------------------|----------------------------------------------------------------------------------------|
| SW 9             | GRO >C6-C7            | >2 mg/l       | Monthly          | <10 µg/l              | TM245                      | 15/09/2016<br>08:20                  | Lab: Precision 7.7%, Bias -6.7%, Expanded Uncertainty 22.1%.<br>Sampling: Immeasurable |
| SW 9             | GRO >C8-C10           | >2 mg/l       | Monthly          | <10 µg/l              | TM245                      | 15/09/2016<br>08:20                  | Lab: Precision 7.7%, Bias -6.7%, Expanded Uncertainty 22.1%.<br>Sampling: Immeasurable |
| SW 9             | GRO >C10-C12          | >2 mg/l       | Monthly          | <10 µg/l              | TM245                      | 15/09/2016<br>08:20                  | Lab: Precision 7.7%, Bias -6.7%, Expanded Uncertainty 22.1%.<br>Sampling: Immeasurable |
| SW 9             | GRO >C5-C10           | >2 mg/l       | Monthly          | <10 µg/l              | TM245                      | 15/09/2016<br>08:20                  | Lab: Precision 7.7%, Bias -6.7%, Expanded Uncertainty 22.1%.<br>Sampling: Immeasurable |

- [1] The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum - maximum' measured values.
- [2] Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Environment Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, for example gas chromatography.
- [3] For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
- [4] The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated.



Signed

Date: October 2016

(Authorised to sign as representative of Operator)

Ahlim Hashm on behalf of Atlantic Recycling  
Permit Number: EPR/PP3993VS