

Operator: CWM Environmental Ltd  
Permit: CP3735PB

Installation: Nantycaws Landfill Site  
Form: Surface waters Q4 2021

## Reporting of surface water monitoring for the period 01-Oct-2021 to 31-Dec-2021

| Monitoring location | Substance / parameter <sup>(6)</sup>       | Test method <sup>(2)</sup> | Date <sup>(3)</sup> | Compliance limit <sup>(7)</sup> | Result <sup>(1) (4)</sup> | Unit <sup>(5)</sup> |
|---------------------|--------------------------------------------|----------------------------|---------------------|---------------------------------|---------------------------|---------------------|
| SW201               | Ionic balance                              | Calulation                 | 05-Oct-2021         |                                 | 5.74                      | %                   |
|                     | Electrical conductivity (field)            | Field                      | 18-Oct-2021         |                                 | 596                       | µS/cm               |
|                     |                                            |                            | 09-Nov-2021         |                                 | 329                       | µS/cm               |
|                     |                                            |                            | 03-Dec-2021         |                                 | 365                       | µS/cm               |
|                     | Groundwater level/dip                      |                            | 18-Oct-2021         |                                 | 56                        | mm                  |
|                     |                                            |                            | 09-Nov-2021         |                                 | 33                        | mm                  |
|                     |                                            |                            | 03-Dec-2021         |                                 | 56                        | mm                  |
|                     | Water temperature                          |                            | 18-Oct-2021         |                                 | 12.6                      | °C                  |
|                     |                                            |                            | 09-Nov-2021         |                                 | 14.1                      | °C                  |
|                     |                                            |                            | 03-Dec-2021         |                                 | 12.4                      | °C                  |
|                     | Total Suspended solids                     | TM022                      | 05-Oct-2021         |                                 | <2                        | mg/l                |
|                     |                                            |                            | 09-Nov-2021         |                                 | 2.35                      | mg/l                |
|                     |                                            |                            | 03-Dec-2021         |                                 | 5.65                      | mg/l                |
|                     | Bicarbonate alkalinity as CaCO3 (filtered) | TM043                      | 05-Oct-2021         |                                 | 130                       | mg/l                |
|                     | Total Alkalinity as CaCO3                  |                            | 05-Oct-2021         |                                 | 127                       | mg/l                |
|                     | Total alkalinity as CaCO3 (filtered)       |                            | 05-Oct-2021         |                                 | 130                       | mg/l                |
|                     | Total organic carbon                       | TM090                      | 05-Oct-2021         |                                 | 14.9                      | mg/l                |
|                     | Ammoniacal Nitrogen as N                   | TM099                      | 05-Oct-2021         |                                 | 1.48                      | mg/l                |
|                     |                                            |                            | 09-Nov-2021         |                                 | 1.17                      | mg/l                |
|                     |                                            |                            | 03-Dec-2021         |                                 | 0.231                     | mg/l                |

| Monitoring location | Substance / parameter <sup>(6)</sup> | Test method <sup>(2)</sup> | Date <sup>(3)</sup> | Compliance limit <sup>(7)</sup> | Result <sup>(1)</sup> <sup>(4)</sup> | Unit <sup>(5)</sup> |
|---------------------|--------------------------------------|----------------------------|---------------------|---------------------------------|--------------------------------------|---------------------|
| SW201               | Electrical conductivity @20°C (lab)  | TM120                      | 05-Oct-2021         |                                 | 385                                  | µS/cm               |
|                     |                                      |                            | 09-Nov-2021         |                                 | 290                                  | µS/cm               |
|                     |                                      |                            | 03-Dec-2021         |                                 | 375                                  | µS/cm               |
|                     | Cadmium (filtered)                   | TM152                      | 05-Oct-2021         |                                 | <0.00008                             | mg/l                |
|                     | Calcium (filtered)                   |                            | 05-Oct-2021         |                                 | 61.1                                 | mg/l                |
|                     | Chromium (filtered)                  |                            | 05-Oct-2021         |                                 | <0.001                               | mg/l                |
|                     | Iron (filtered)                      |                            | 05-Oct-2021         |                                 | 0.132                                | mg/l                |
|                     | Lead (filtered)                      |                            | 05-Oct-2021         |                                 | 0.000571                             | mg/l                |
|                     | Magnesium (filtered)                 |                            | 05-Oct-2021         |                                 | 5.67                                 | mg/l                |
|                     | Manganese (filtered)                 |                            | 05-Oct-2021         |                                 | 0.0258                               | mg/l                |
|                     | Nickel (filtered)                    |                            | 05-Oct-2021         |                                 | 0.00226                              | mg/l                |
|                     | Potassium (filtered)                 |                            | 05-Oct-2021         |                                 | 28.9                                 | mg/l                |
|                     | Sodium (filtered)                    |                            | 05-Oct-2021         |                                 | 15.1                                 | mg/l                |
|                     | Zinc (filtered)                      |                            | 05-Oct-2021         |                                 | 0.0074                               | mg/l                |
|                     | 4-Methylphenol                       | TM176                      | 05-Oct-2021         |                                 | <0.001                               | mg/l                |
|                     | Diethyl phthalate                    |                            | 05-Oct-2021         |                                 | <0.001                               | mg/l                |
|                     | Chloride                             | TM184                      | 05-Oct-2021         |                                 | 33.7                                 | mg/l                |
|                     |                                      |                            | 09-Nov-2021         |                                 | 32.7                                 | mg/l                |
|                     |                                      |                            | 03-Dec-2021         |                                 | 36.7                                 | mg/l                |
|                     | Nitrate as NO3                       |                            | 05-Oct-2021         |                                 | 8.35                                 | mg/l                |
|                     | Nitrite as NO2                       |                            | 05-Oct-2021         |                                 | 0.69                                 | mg/l                |
|                     | Sulphate                             |                            | 05-Oct-2021         |                                 | 37.8                                 | mg/l                |
|                     | Total Oxidised Nitrogen as N         |                            | 05-Oct-2021         |                                 | 2.1                                  | mg/l                |
|                     | Dichloromethane                      | TM208                      | 05-Oct-2021         |                                 | <0.003                               | mg/l                |
|                     | pH (lab)                             | TM256                      | 05-Oct-2021         |                                 | 7.99                                 | pH units            |
|                     |                                      |                            | 09-Nov-2021         |                                 | 7.89                                 | pH units            |
|                     |                                      |                            | 03-Dec-2021         |                                 | 7.74                                 | pH units            |

| Monitoring location | Substance / parameter <sup>(6)</sup>       | Test method <sup>(2)</sup> | Date <sup>(3)</sup> | Compliance limit <sup>(7)</sup> | Result <sup>(1)</sup> <sup>(4)</sup> | Unit <sup>(5)</sup> |
|---------------------|--------------------------------------------|----------------------------|---------------------|---------------------------------|--------------------------------------|---------------------|
| SW201               | Mecoprop                                   | TM411                      | 05-Oct-2021         |                                 | <0.00004                             | mg/l                |
| SW202               | Ionic balance                              | Calulation                 | 05-Oct-2021         |                                 | 2.56                                 | %                   |
|                     | Electrical conductivity (field)            | Field                      | 18-Oct-2021         |                                 | 519                                  | µS/cm               |
|                     |                                            |                            | 09-Nov-2021         |                                 | 279                                  | µS/cm               |
|                     |                                            |                            | 03-Dec-2021         |                                 | 247                                  | µS/cm               |
|                     | Groundwater level/dip                      |                            | 18-Oct-2021         |                                 | 63                                   | mm                  |
|                     |                                            |                            | 09-Nov-2021         |                                 | 30                                   | mm                  |
|                     |                                            |                            | 03-Dec-2021         |                                 | 43                                   | mm                  |
|                     | Water temperature                          |                            | 18-Oct-2021         |                                 | 14                                   | °C                  |
|                     |                                            |                            | 09-Nov-2021         |                                 | 13.4                                 | °C                  |
|                     |                                            |                            | 03-Dec-2021         |                                 | 8.2                                  | °C                  |
|                     | Total Suspended solids                     | TM022                      | 05-Oct-2021         |                                 | <2                                   | mg/l                |
|                     |                                            |                            | 09-Nov-2021         |                                 | <4                                   | mg/l                |
|                     |                                            |                            | 03-Dec-2021         |                                 | 2.95                                 | mg/l                |
|                     | Bicarbonate alkalinity as CaCO3 (filtered) | TM043                      | 05-Oct-2021         |                                 | 125                                  | mg/l                |
|                     | Total Alkalinity as CaCO3                  |                            | 05-Oct-2021         |                                 | 127                                  | mg/l                |
|                     | Total alkalinity as CaCO3 (filtered)       |                            | 05-Oct-2021         |                                 | 125                                  | mg/l                |
|                     | Total organic carbon                       | TM090                      | 05-Oct-2021         |                                 | 12.7                                 | mg/l                |
|                     | Ammoniacal Nitrogen as N                   | TM099                      | 05-Oct-2021         |                                 | 1.24                                 | mg/l                |
|                     |                                            |                            | 09-Nov-2021         |                                 | 0.795                                | mg/l                |
|                     |                                            |                            | 03-Dec-2021         |                                 | <0.2                                 | mg/l                |
|                     | Electrical conductivity @20°C (lab)        | TM120                      | 05-Oct-2021         |                                 | 349                                  | µS/cm               |
|                     |                                            |                            | 09-Nov-2021         |                                 | 285                                  | µS/cm               |
|                     |                                            |                            | 03-Dec-2021         |                                 | 271                                  | µS/cm               |
|                     | Cadmium (filtered)                         | TM152                      | 05-Oct-2021         |                                 | <0.00008                             | mg/l                |
|                     | Calcium (filtered)                         |                            | 05-Oct-2021         |                                 | 54.5                                 | mg/l                |
|                     | Chromium (filtered)                        |                            | 05-Oct-2021         |                                 | <0.001                               | mg/l                |

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|---------------------|--------------------------------------|----------------------------|---------------------|---------------------------------|--------------------------------------|---------------------|
| SW202               | Iron (filtered)                      | TM152                      | 05-Oct-2021         |                                 | 0.0984                               | mg/l                |
|                     | Lead (filtered)                      |                            | 05-Oct-2021         |                                 | 0.000317                             | mg/l                |
|                     | Magnesium (filtered)                 |                            | 05-Oct-2021         |                                 | 5.06                                 | mg/l                |
|                     | Manganese (filtered)                 |                            | 05-Oct-2021         |                                 | 0.0194                               | mg/l                |
|                     | Nickel (filtered)                    |                            | 05-Oct-2021         |                                 | 0.00165                              | mg/l                |
|                     | Potassium (filtered)                 |                            | 05-Oct-2021         |                                 | 21.9                                 | mg/l                |
|                     | Sodium (filtered)                    |                            | 05-Oct-2021         |                                 | 13                                   | mg/l                |
|                     | Zinc (filtered)                      |                            | 05-Oct-2021         |                                 | 0.00605                              | mg/l                |
|                     | 4-Methylphenol                       | TM176                      | 05-Oct-2021         |                                 | <0.001                               | mg/l                |
|                     | Diethyl phthalate                    |                            | 05-Oct-2021         |                                 | <0.001                               | mg/l                |
|                     | Chloride                             | TM184                      | 05-Oct-2021         |                                 | 29                                   | mg/l                |
|                     |                                      |                            | 09-Nov-2021         |                                 | 32.5                                 | mg/l                |
|                     |                                      |                            | 03-Dec-2021         |                                 | 30.1                                 | mg/l                |
|                     | Nitrate as NO3                       |                            | 05-Oct-2021         |                                 | 7.56                                 | mg/l                |
|                     | Nitrite as NO2                       |                            | 05-Oct-2021         |                                 | 0.507                                | mg/l                |
|                     | Sulphate                             |                            | 05-Oct-2021         |                                 | 33.3                                 | mg/l                |
|                     | Total Oxidised Nitrogen as N         |                            | 05-Oct-2021         |                                 | 1.86                                 | mg/l                |
|                     | Dichloromethane                      | TM208                      | 05-Oct-2021         |                                 | <0.003                               | mg/l                |
|                     | pH (lab)                             | TM256                      | 05-Oct-2021         |                                 | 7.94                                 | pH units            |
|                     |                                      |                            | 09-Nov-2021         |                                 | 7.84                                 | pH units            |
|                     |                                      |                            | 03-Dec-2021         |                                 | 7.73                                 | pH units            |
|                     | Mecoprop                             | TM411                      | 05-Oct-2021         |                                 | <0.00004                             | mg/l                |
| SW203               | Electrical conductivity (field)      | Field                      | 18-Oct-2021         |                                 | 195                                  | µS/cm               |
|                     |                                      |                            | 09-Nov-2021         |                                 | 536                                  | µS/cm               |
|                     |                                      |                            | 03-Dec-2021         |                                 | 365                                  | µS/cm               |
|                     | Groundwater level/dip                |                            | 18-Oct-2021         |                                 | 46                                   | mm                  |
|                     |                                      |                            | 09-Nov-2021         |                                 | 38                                   | mm                  |

| Monitoring location | Substance / parameter <sup>(6)</sup> | Test method <sup>(2)</sup> | Date <sup>(3)</sup> | Compliance limit <sup>(7)</sup> | Result <sup>(1)</sup> <sup>(4)</sup> | Unit <sup>(5)</sup> |
|---------------------|--------------------------------------|----------------------------|---------------------|---------------------------------|--------------------------------------|---------------------|
| SW203               | Groundwater level/dip                | Field                      | 03-Dec-2021         |                                 | 31                                   | mm                  |
|                     | Water temperature                    |                            | 18-Oct-2021         |                                 | 15.4                                 | °C                  |
|                     |                                      |                            | 09-Nov-2021         |                                 | 12.7                                 | °C                  |
|                     |                                      |                            | 03-Dec-2021         |                                 | 9                                    | °C                  |
|                     | Total Suspended solids               | TM022                      | 05-Oct-2021         |                                 | 4.95                                 | mg/l                |
|                     |                                      |                            | 09-Nov-2021         |                                 | 5.82                                 | mg/l                |
|                     |                                      |                            | 03-Dec-2021         |                                 | 4.26                                 | mg/l                |
|                     | Ammoniacal Nitrogen as N             | TM099                      | 05-Oct-2021         |                                 | <0.2                                 | mg/l                |
|                     |                                      |                            | 09-Nov-2021         |                                 | 9.23                                 | mg/l                |
|                     |                                      |                            | 03-Dec-2021         |                                 | 1.88                                 | mg/l                |
|                     | Electrical conductivity @20°C (lab)  | TM120                      | 05-Oct-2021         |                                 | 222                                  | µS/cm               |
|                     |                                      |                            | 09-Nov-2021         |                                 | 558                                  | µS/cm               |
|                     |                                      |                            | 03-Dec-2021         |                                 | 357                                  | µS/cm               |
|                     | Cadmium (filtered)                   | TM152                      | 05-Oct-2021         |                                 | <0.00008                             | mg/l                |
|                     | 4-Methylphenol                       | TM176                      | 05-Oct-2021         |                                 | <0.001                               | mg/l                |
|                     | Diethyl phthalate                    |                            | 05-Oct-2021         |                                 | <0.001                               | mg/l                |
|                     | Chloride                             | TM184                      | 05-Oct-2021         |                                 | 17.9                                 | mg/l                |
|                     |                                      |                            | 09-Nov-2021         |                                 | 65.7                                 | mg/l                |
|                     |                                      |                            | 03-Dec-2021         |                                 | 37.7                                 | mg/l                |
|                     | Dichloromethane                      | TM208                      | 05-Oct-2021         |                                 | <0.003                               | mg/l                |
|                     | pH (lab)                             | TM256                      | 05-Oct-2021         |                                 | 7.65                                 | pH units            |
|                     |                                      |                            | 09-Nov-2021         |                                 | 7.66                                 | pH units            |
|                     |                                      |                            | 03-Dec-2021         |                                 | 7.83                                 | pH units            |
| SW204               | Mecoprop                             | TM411                      | 05-Oct-2021         |                                 | <0.00004                             | mg/l                |
|                     | Ionic balance                        | Calulation                 | 05-Oct-2021         |                                 | -3.41                                | %                   |
|                     | Electrical conductivity (field)      | Field                      | 18-Oct-2021         |                                 | 256                                  | µS/cm               |
|                     |                                      |                            | 09-Nov-2021         |                                 | 384                                  | µS/cm               |

| Monitoring location | Substance / parameter <sup>(6)</sup>       | Test method <sup>(2)</sup> | Date <sup>(3)</sup> | Compliance limit <sup>(7)</sup> | Result <sup>(1)</sup> <sup>(4)</sup> | Unit <sup>(5)</sup> |
|---------------------|--------------------------------------------|----------------------------|---------------------|---------------------------------|--------------------------------------|---------------------|
| SW204               | Electrical conductivity (field)            | Field                      | 03-Dec-2021         |                                 | 485                                  | µS/cm               |
|                     | Groundwater level/dip                      |                            | 18-Oct-2021         |                                 | 23                                   | mm                  |
|                     |                                            |                            | 09-Nov-2021         |                                 | 27                                   | mm                  |
|                     |                                            |                            | 03-Dec-2021         |                                 | 30                                   | mm                  |
|                     | Water temperature                          |                            | 18-Oct-2021         |                                 | 13.7                                 | °C                  |
|                     |                                            |                            | 09-Nov-2021         |                                 | 13.9                                 | °C                  |
|                     |                                            |                            | 03-Dec-2021         |                                 | 8.3                                  | °C                  |
|                     | Total Suspended solids                     | TM022                      | 05-Oct-2021         |                                 | <2                                   | mg/l                |
|                     |                                            |                            | 09-Nov-2021         |                                 | <4                                   | mg/l                |
|                     |                                            |                            | 03-Dec-2021         |                                 | 4.9                                  | mg/l                |
|                     | Bicarbonate alkalinity as CaCO3 (filtered) | TM043                      | 05-Oct-2021         |                                 | 160                                  | mg/l                |
|                     | Total Alkalinity as CaCO3                  |                            | 05-Oct-2021         |                                 | 158                                  | mg/l                |
|                     | Total alkalinity as CaCO3 (filtered)       |                            | 05-Oct-2021         |                                 | 160                                  | mg/l                |
|                     | Total organic carbon                       | TM090                      | 05-Oct-2021         |                                 | 14.6                                 | mg/l                |
|                     | Ammoniacal Nitrogen as N                   | TM099                      | 05-Oct-2021         |                                 | <0.2                                 | mg/l                |
|                     |                                            |                            | 09-Nov-2021         |                                 | <0.2                                 | mg/l                |
|                     |                                            |                            | 03-Dec-2021         |                                 | <0.2                                 | mg/l                |
|                     | Electrical conductivity @20°C (lab)        | TM120                      | 05-Oct-2021         |                                 | 490                                  | µS/cm               |
|                     |                                            |                            | 09-Nov-2021         |                                 | 444                                  | µS/cm               |
|                     |                                            |                            | 03-Dec-2021         |                                 | 534                                  | µS/cm               |
|                     | Cadmium (filtered)                         | TM152                      | 05-Oct-2021         |                                 | <0.00008                             | mg/l                |
|                     | Calcium (filtered)                         |                            | 05-Oct-2021         |                                 | 79.9                                 | mg/l                |
|                     | Chromium (filtered)                        |                            | 05-Oct-2021         |                                 | <0.001                               | mg/l                |
|                     | Iron (filtered)                            |                            | 05-Oct-2021         |                                 | 0.134                                | mg/l                |
|                     | Lead (filtered)                            |                            | 05-Oct-2021         |                                 | <0.0002                              | mg/l                |
|                     | Magnesium (filtered)                       |                            | 05-Oct-2021         |                                 | 5.57                                 | mg/l                |
|                     | Manganese (filtered)                       |                            | 05-Oct-2021         |                                 | 0.0422                               | mg/l                |

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|---------------------|--------------------------------------|----------------------------|---------------------|---------------------------------|--------------------------------------|---------------------|
| SW204               | Nickel (filtered)                    | TM152                      | 05-Oct-2021         |                                 | 0.00186                              | mg/l                |
|                     | Potassium (filtered)                 |                            | 05-Oct-2021         |                                 | 19.9                                 | mg/l                |
|                     | Sodium (filtered)                    |                            | 05-Oct-2021         |                                 | 11.3                                 | mg/l                |
|                     | Zinc (filtered)                      |                            | 05-Oct-2021         |                                 | 0.00295                              | mg/l                |
|                     | 4-Methylphenol                       | TM176                      | 05-Oct-2021         |                                 | <0.001                               | mg/l                |
|                     | Diethyl phthalate                    |                            | 05-Oct-2021         |                                 | <0.001                               | mg/l                |
|                     | Chloride                             | TM184                      | 05-Oct-2021         |                                 | 36.7                                 | mg/l                |
|                     |                                      |                            | 09-Nov-2021         |                                 | 25.4                                 | mg/l                |
|                     |                                      |                            | 03-Dec-2021         |                                 | 55.7                                 | mg/l                |
|                     | Nitrate as NO3                       |                            | 05-Oct-2021         |                                 | 5.24                                 | mg/l                |
|                     | Nitrite as NO2                       |                            | 05-Oct-2021         |                                 | <0.05                                | mg/l                |
|                     | Sulphate                             |                            | 05-Oct-2021         |                                 | 72.6                                 | mg/l                |
|                     | Total Oxidised Nitrogen as N         |                            | 05-Oct-2021         |                                 | 1.19                                 | mg/l                |
|                     | Dichloromethane                      | TM208                      | 05-Oct-2021         |                                 | <0.003                               | mg/l                |
|                     | pH (lab)                             | TM256                      | 05-Oct-2021         |                                 | 7.89                                 | pH units            |
|                     |                                      |                            | 09-Nov-2021         |                                 | 8                                    | pH units            |
|                     |                                      |                            | 03-Dec-2021         |                                 | 7.84                                 | pH units            |
|                     | Mecoprop                             | TM411                      | 05-Oct-2021         |                                 | <0.00004                             | mg/l                |
| SW205a              | Ionic balance                        | Calulation                 | 05-Oct-2021         |                                 | -3.56                                | %                   |
|                     | Electrical conductivity (field)      | Field                      | 18-Oct-2021         |                                 | 489                                  | µS/cm               |
|                     |                                      |                            | 09-Nov-2021         |                                 | 419                                  | µS/cm               |
|                     |                                      |                            | 03-Dec-2021         |                                 | 293                                  | µS/cm               |
|                     | Groundwater level/dip                |                            | 18-Oct-2021         |                                 | 76                                   | mm                  |
|                     |                                      |                            | 09-Nov-2021         |                                 | 65                                   | mm                  |
|                     |                                      |                            | 03-Dec-2021         |                                 | 75                                   | mm                  |
|                     | Water temperature                    |                            | 18-Oct-2021         |                                 | 13.9                                 | °C                  |
|                     |                                      |                            | 09-Nov-2021         |                                 | 12.5                                 | °C                  |

| Monitoring location | Substance / parameter <sup>(6)</sup>       | Test method <sup>(2)</sup> | Date <sup>(3)</sup> | Compliance limit <sup>(7)</sup> | Result <sup>(1)</sup> <sup>(4)</sup> | Unit <sup>(5)</sup> |
|---------------------|--------------------------------------------|----------------------------|---------------------|---------------------------------|--------------------------------------|---------------------|
| SW205a              | Water temperature                          | Field                      | 03-Dec-2021         |                                 | 7.2                                  | °C                  |
|                     | Total Suspended solids                     | TM022                      | 05-Oct-2021         | <70 mg/l                        | <2                                   | mg/l                |
|                     |                                            |                            | 09-Nov-2021         | <70 mg/l                        | <4                                   | mg/l                |
|                     |                                            |                            | 03-Dec-2021         | <70 mg/l                        | 6.58                                 | mg/l                |
|                     | Bicarbonate alkalinity as CaCO3 (filtered) | TM043                      | 05-Oct-2021         |                                 | 135                                  | mg/l                |
|                     | Total Alkalinity as CaCO3                  |                            | 05-Oct-2021         |                                 | 134                                  | mg/l                |
|                     | Total alkalinity as CaCO3 (filtered)       |                            | 05-Oct-2021         |                                 | 135                                  | mg/l                |
|                     | Total organic carbon                       | TM090                      | 05-Oct-2021         |                                 | 10.7                                 | mg/l                |
|                     | Ammoniacal Nitrogen as N                   | TM099                      | 05-Oct-2021         | <1.0 mg/l                       | <0.2                                 | mg/l                |
|                     |                                            |                            | 09-Nov-2021         | <1.0 mg/l                       | 0.548                                | mg/l                |
|                     |                                            |                            | 03-Dec-2021         | <1.0 mg/l                       | <0.2                                 | mg/l                |
|                     | Electrical conductivity @20°C (lab)        | TM120                      | 05-Oct-2021         |                                 | 415                                  | µS/cm               |
|                     |                                            |                            | 09-Nov-2021         |                                 | 429                                  | µS/cm               |
|                     |                                            |                            | 03-Dec-2021         |                                 | 312                                  | µS/cm               |
|                     | Cadmium (filtered)                         | TM152                      | 05-Oct-2021         | <0.0001 mg/l                    | <0.00008                             | mg/l                |
|                     | Calcium (filtered)                         |                            | 05-Oct-2021         |                                 | 64.2                                 | mg/l                |
|                     | Chromium (filtered)                        |                            | 05-Oct-2021         |                                 | <0.001                               | mg/l                |
|                     | Iron (filtered)                            |                            | 05-Oct-2021         |                                 | 0.124                                | mg/l                |
|                     | Lead (filtered)                            |                            | 05-Oct-2021         |                                 | 0.00025                              | mg/l                |
|                     | Magnesium (filtered)                       |                            | 05-Oct-2021         |                                 | 4.82                                 | mg/l                |
|                     | Manganese (filtered)                       |                            | 05-Oct-2021         |                                 | 0.0379                               | mg/l                |
|                     | Nickel (filtered)                          |                            | 05-Oct-2021         |                                 | 0.00139                              | mg/l                |
|                     | Potassium (filtered)                       |                            | 05-Oct-2021         |                                 | 17.1                                 | mg/l                |
|                     | Sodium (filtered)                          |                            | 05-Oct-2021         |                                 | 10.4                                 | mg/l                |
|                     | Zinc (filtered)                            |                            | 05-Oct-2021         |                                 | 0.00686                              | mg/l                |
|                     | 4-Methylphenol                             | TM176                      | 05-Oct-2021         | <0.001 mg/l                     | <0.001                               | mg/l                |
|                     | Diethyl phthalate                          |                            | 05-Oct-2021         | <0.003 mg/l                     | <0.001                               | mg/l                |

| Monitoring location                        | Substance / parameter <sup>(6)</sup> | Test method <sup>(2)</sup> | Date <sup>(3)</sup> | Compliance limit <sup>(7)</sup> | Result <sup>(1)</sup> <sup>(4)</sup> | Unit <sup>(5)</sup> |
|--------------------------------------------|--------------------------------------|----------------------------|---------------------|---------------------------------|--------------------------------------|---------------------|
| SW205a                                     | Chloride                             | TM184                      | 05-Oct-2021         | <150 mg/l                       | 31.1                                 | mg/l                |
|                                            |                                      |                            | 09-Nov-2021         | <150 mg/l                       | 38.1                                 | mg/l                |
|                                            |                                      |                            | 03-Dec-2021         | <150 mg/l                       | 31.9                                 | mg/l                |
|                                            | Nitrate as NO3                       |                            | 05-Oct-2021         |                                 | 4.89                                 | mg/l                |
|                                            | Nitrite as NO2                       |                            | 05-Oct-2021         |                                 | 0.052                                | mg/l                |
|                                            | Sulphate                             |                            | 05-Oct-2021         |                                 | 56                                   | mg/l                |
|                                            | Total Oxidised Nitrogen as N         |                            | 05-Oct-2021         |                                 | 1.12                                 | mg/l                |
|                                            | Dichloromethane                      | TM208                      | 05-Oct-2021         | <0.002 mg/l                     | <0.003                               | mg/l                |
|                                            | pH (lab)                             | TM256                      | 05-Oct-2021         | 6 to 9 pH units                 | 7.87                                 | pH units            |
|                                            |                                      |                            | 09-Nov-2021         | 6 to 9 pH units                 | 7.91                                 | pH units            |
| 03-Dec-2021                                |                                      |                            | 6 to 9 pH units     | 7.65                            | pH units                             |                     |
| Mecoprop                                   | TM411                                | 05-Oct-2021                | <0.000055 mg/l      | <0.00004                        | mg/l                                 |                     |
| SW206                                      | Ionic balance                        | Calulation                 | 05-Oct-2021         |                                 | -4.1                                 | %                   |
|                                            | Electrical conductivity (field)      | Field                      | 18-Oct-2021         |                                 | 235                                  | µS/cm               |
|                                            |                                      |                            | 09-Nov-2021         |                                 | 287                                  | µS/cm               |
|                                            |                                      |                            | 03-Dec-2021         |                                 | 380                                  | µS/cm               |
|                                            | Groundwater level/dip                |                            | 18-Oct-2021         |                                 | 82                                   | mm                  |
|                                            |                                      |                            | 09-Nov-2021         |                                 | 80                                   | mm                  |
|                                            |                                      |                            | 03-Dec-2021         |                                 | 70                                   | mm                  |
|                                            | Water temperature                    |                            | 18-Oct-2021         |                                 | 14.7                                 | °C                  |
|                                            |                                      |                            | 09-Nov-2021         |                                 | 12.1                                 | °C                  |
|                                            |                                      |                            | 03-Dec-2021         |                                 | 8.6                                  | °C                  |
| Total Suspended solids                     | TM022                                | 05-Oct-2021                | <50 mg/l            | <2                              | mg/l                                 |                     |
|                                            |                                      | 09-Nov-2021                | <50 mg/l            | <2                              | mg/l                                 |                     |
|                                            |                                      | 03-Dec-2021                | <50 mg/l            | 6.02                            | mg/l                                 |                     |
| Bicarbonate alkalinity as CaCO3 (filtered) | TM043                                | 05-Oct-2021                |                     | 100                             | mg/l                                 |                     |
| Total Alkalinity as CaCO3                  |                                      | 05-Oct-2021                |                     | 101                             | mg/l                                 |                     |

| Monitoring location | Substance / parameter <sup>(6)</sup> | Test method <sup>(2)</sup> | Date <sup>(3)</sup> | Compliance limit <sup>(7)</sup> | Result <sup>(1)</sup> <sup>(4)</sup> | Unit <sup>(5)</sup> |
|---------------------|--------------------------------------|----------------------------|---------------------|---------------------------------|--------------------------------------|---------------------|
| SW206               | Total alkalinity as CaCO3 (filtered) | TM043                      | 05-Oct-2021         |                                 | 100                                  | mg/l                |
|                     | Total organic carbon                 | TM090                      | 05-Oct-2021         |                                 | 7.4                                  | mg/l                |
|                     | Ammoniacal Nitrogen as N             | TM099                      | 05-Oct-2021         | <1.0 mg/l                       | <0.2                                 | mg/l                |
|                     |                                      |                            | 09-Nov-2021         | <1.0 mg/l                       | <0.2                                 | mg/l                |
|                     |                                      |                            | 03-Dec-2021         | <1.0 mg/l                       | <0.2                                 | mg/l                |
|                     | Electrical conductivity @20°C (lab)  | TM120                      | 05-Oct-2021         |                                 | 240                                  | µS/cm               |
|                     |                                      |                            | 09-Nov-2021         |                                 | 295                                  | µS/cm               |
|                     |                                      |                            | 03-Dec-2021         |                                 | 417                                  | µS/cm               |
|                     | Cadmium (filtered)                   | TM152                      | 05-Oct-2021         | <0.0001 mg/l                    | <0.00008                             | mg/l                |
|                     | Calcium (filtered)                   |                            | 05-Oct-2021         |                                 | 40.3                                 | mg/l                |
|                     | Chromium (filtered)                  |                            | 05-Oct-2021         |                                 | <0.001                               | mg/l                |
|                     | Iron (filtered)                      |                            | 05-Oct-2021         |                                 | 0.151                                | mg/l                |
|                     | Lead (filtered)                      |                            | 05-Oct-2021         |                                 | 0.00035                              | mg/l                |
|                     | Magnesium (filtered)                 |                            | 05-Oct-2021         |                                 | 2.88                                 | mg/l                |
|                     | Manganese (filtered)                 |                            | 05-Oct-2021         |                                 | 0.0141                               | mg/l                |
|                     | Nickel (filtered)                    |                            | 05-Oct-2021         |                                 | 0.000842                             | mg/l                |
|                     | Potassium (filtered)                 |                            | 05-Oct-2021         |                                 | 2.71                                 | mg/l                |
|                     | Sodium (filtered)                    |                            | 05-Oct-2021         |                                 | 7.23                                 | mg/l                |
|                     | Zinc (filtered)                      |                            | 05-Oct-2021         |                                 | 0.00555                              | mg/l                |
|                     | 4-Methylphenol                       | TM176                      | 05-Oct-2021         | <0.001 mg/l                     | <0.001                               | mg/l                |
|                     | Diethyl phthalate                    |                            | 05-Oct-2021         | <0.003 mg/l                     | <0.001                               | mg/l                |
|                     | Chloride                             | TM184                      | 05-Oct-2021         | <150 mg/l                       | 14.2                                 | mg/l                |
|                     |                                      |                            | 09-Nov-2021         | <150 mg/l                       | 12.9                                 | mg/l                |
|                     |                                      |                            | 03-Dec-2021         | <150 mg/l                       | 50.8                                 | mg/l                |
|                     | Nitrate as NO3                       |                            | 05-Oct-2021         |                                 | 7.71                                 | mg/l                |
|                     | Nitrite as NO2                       |                            | 05-Oct-2021         |                                 | <0.05                                | mg/l                |
|                     | Sulphate                             |                            | 05-Oct-2021         |                                 | 16                                   | mg/l                |

| Monitoring location | Substance / parameter <sup>(6)</sup>       | Test method <sup>(2)</sup> | Date <sup>(3)</sup> | Compliance limit <sup>(7)</sup> | Result <sup>(1)</sup> <sup>(4)</sup> | Unit <sup>(5)</sup> |
|---------------------|--------------------------------------------|----------------------------|---------------------|---------------------------------|--------------------------------------|---------------------|
| SW206               | Total Oxidised Nitrogen as N               | TM184                      | 05-Oct-2021         |                                 | 1.75                                 | mg/l                |
|                     | Dichloromethane                            | TM208                      | 05-Oct-2021         | <0.002 mg/l                     | <0.003                               | mg/l                |
|                     | pH (lab)                                   | TM256                      | 05-Oct-2021         | 6 to 9 pH units                 | 7.84                                 | pH units            |
|                     |                                            |                            | 09-Nov-2021         | 6 to 9 pH units                 | 8.12                                 | pH units            |
|                     |                                            |                            | 03-Dec-2021         | 6 to 9 pH units                 | 7.66                                 | pH units            |
|                     | Mecoprop                                   | TM411                      | 05-Oct-2021         | <0.000055 mg/l                  | <0.00004                             | mg/l                |
| SW207               | Ionic balance                              | Calulation                 | 05-Oct-2021         |                                 | -5.75                                | %                   |
|                     | Electrical conductivity (field)            | Field                      | 18-Oct-2021         |                                 | 340                                  | µS/cm               |
|                     |                                            |                            | 09-Nov-2021         |                                 | 347                                  | µS/cm               |
|                     |                                            |                            | 03-Dec-2021         |                                 | 329                                  | µS/cm               |
|                     | Groundwater level/dip                      |                            | 18-Oct-2021         |                                 | 110                                  | mm                  |
|                     |                                            |                            | 09-Nov-2021         |                                 | 73                                   | mm                  |
|                     |                                            |                            | 03-Dec-2021         |                                 | 120                                  | mm                  |
|                     | Water temperature                          |                            | 18-Oct-2021         |                                 | 13.9                                 | °C                  |
|                     |                                            |                            | 09-Nov-2021         |                                 | 12                                   | °C                  |
|                     |                                            |                            | 03-Dec-2021         |                                 | 7.9                                  | °C                  |
|                     | Total Suspended solids                     | TM022                      | 05-Oct-2021         |                                 | 2                                    | mg/l                |
|                     |                                            |                            | 09-Nov-2021         |                                 | <4                                   | mg/l                |
|                     |                                            |                            | 03-Dec-2021         |                                 | 6.02                                 | mg/l                |
|                     | Bicarbonate alkalinity as CaCO3 (filtered) | TM043                      | 05-Oct-2021         |                                 | 115                                  | mg/l                |
|                     | Total Alkalinity as CaCO3                  |                            | 05-Oct-2021         |                                 | 113                                  | mg/l                |
|                     | Total alkalinity as CaCO3 (filtered)       |                            | 05-Oct-2021         |                                 | 115                                  | mg/l                |
|                     | Total organic carbon                       | TM090                      | 05-Oct-2021         |                                 | 13.7                                 | mg/l                |
|                     | Ammoniacal Nitrogen as N                   | TM099                      | 05-Oct-2021         |                                 | 0.82                                 | mg/l                |
|                     |                                            |                            | 09-Nov-2021         |                                 | <0.2                                 | mg/l                |
|                     |                                            |                            | 03-Dec-2021         |                                 | 0.275                                | mg/l                |
|                     | Electrical conductivity @20°C (lab)        | TM120                      | 05-Oct-2021         |                                 | 358                                  | µS/cm               |

| Monitoring location | Substance / parameter <sup>(6)</sup> | Test method <sup>(2)</sup> | Date <sup>(3)</sup> | Compliance limit <sup>(7)</sup> | Result <sup>(1)</sup> <sup>(4)</sup> | Unit <sup>(5)</sup> |
|---------------------|--------------------------------------|----------------------------|---------------------|---------------------------------|--------------------------------------|---------------------|
| SW207               | Electrical conductivity @20°C (lab)  | TM120                      | 09-Nov-2021         |                                 | 396                                  | µS/cm               |
|                     |                                      |                            | 03-Dec-2021         |                                 | 376                                  | µS/cm               |
|                     |                                      |                            | 05-Oct-2021         |                                 | <0.00008                             | mg/l                |
|                     | Cadmium (filtered)                   | TM152                      | 05-Oct-2021         |                                 | 46.2                                 | mg/l                |
|                     | Calcium (filtered)                   |                            | 05-Oct-2021         |                                 | <0.001                               | mg/l                |
|                     | Chromium (filtered)                  |                            | 05-Oct-2021         |                                 | 0.231                                | mg/l                |
|                     | Iron (filtered)                      |                            | 05-Oct-2021         |                                 | 0.000686                             | mg/l                |
|                     | Lead (filtered)                      |                            | 05-Oct-2021         |                                 | 4.03                                 | mg/l                |
|                     | Magnesium (filtered)                 |                            | 05-Oct-2021         |                                 | 0.0247                               | mg/l                |
|                     | Manganese (filtered)                 |                            | 05-Oct-2021         |                                 | 0.00187                              | mg/l                |
|                     | Nickel (filtered)                    |                            | 05-Oct-2021         |                                 | 16.2                                 | mg/l                |
|                     | Potassium (filtered)                 |                            | 05-Oct-2021         |                                 | 11.2                                 | mg/l                |
|                     | Sodium (filtered)                    |                            | 05-Oct-2021         |                                 | 0.00901                              | mg/l                |
|                     | Zinc (filtered)                      |                            | 05-Oct-2021         |                                 | <0.001                               | mg/l                |
|                     | 4-Methylphenol                       |                            | 05-Oct-2021         |                                 | <0.001                               | mg/l                |
|                     | Diethyl phthalate                    | TM184                      | 05-Oct-2021         |                                 | 30                                   | mg/l                |
|                     | Chloride                             |                            | 05-Oct-2021         |                                 | 25.7                                 | mg/l                |
|                     |                                      |                            | 09-Nov-2021         |                                 | 36                                   | mg/l                |
|                     |                                      |                            | 03-Dec-2021         |                                 | 12.1                                 | mg/l                |
|                     | Nitrate as NO3                       |                            | 05-Oct-2021         |                                 | 0.373                                | mg/l                |
|                     | Nitrite as NO2                       |                            | 05-Oct-2021         |                                 | 33.3                                 | mg/l                |
|                     | Sulphate                             |                            | 05-Oct-2021         |                                 | 2.86                                 | mg/l                |
|                     | Total Oxidised Nitrogen as N         |                            | 05-Oct-2021         |                                 | <0.003                               | mg/l                |
|                     | Dichloromethane                      |                            | 05-Oct-2021         |                                 | 7.87                                 | pH units            |
|                     | pH (lab)                             | TM256                      | 05-Oct-2021         |                                 | 7.98                                 | pH units            |
|                     |                                      |                            | 09-Nov-2021         |                                 | 7.79                                 | pH units            |
|                     |                                      |                            | 03-Dec-2021         |                                 | <0.00004                             | mg/l                |
|                     | Mecoprop                             | TM411                      | 05-Oct-2021         |                                 |                                      |                     |

| Monitoring location | Substance / parameter <sup>(6)</sup> | Test method <sup>(2)</sup> | Date <sup>(3)</sup> | Compliance limit <sup>(7)</sup> | Result <sup>(1)</sup> <sup>(4)</sup> | Unit <sup>(5)</sup> |
|---------------------|--------------------------------------|----------------------------|---------------------|---------------------------------|--------------------------------------|---------------------|
|---------------------|--------------------------------------|----------------------------|---------------------|---------------------------------|--------------------------------------|---------------------|

(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 Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. 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; refer to laboratory data sheets for specific uncertainty.

(5) Depths reported as metres (m) are metres above base of ditch / stream.

(6) For details of the sampling method, frequency and parameters measured / analysed for, refer to the site Environmental Monitoring Management Plan (EMMP).

(7) Where blank, there is no defined compliance limit specified for the monitoring location / parameter.

Signature:.....

Date: 14 December 2021

(Authorised to sign as representative of  
Operator)