

Operator: CWM Environmental Ltd  
Permit: CP3735PB

Installation: Nantycaws Landfill Site  
Form: Leachate Q4 2021

## Reporting of leachate monitoring for the period from 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> |
|--------------------------------------------|---------------------------------------|----------------------------|---------------------|---------------------------------|---------------------------|---------------------|
| Cell 1/2 Sump                              | Base of well/borehole/sump            | Field                      | 18/10/2021          |                                 | 14.7                      | m                   |
|                                            |                                       |                            | 09/11/2021          |                                 | 14.7                      | m                   |
|                                            |                                       |                            | 03/12/2021          |                                 | 14.7                      | m                   |
| Groundwater level/dip                      |                                       |                            | 18/10/2021          |                                 | 14.33                     | m                   |
|                                            |                                       |                            | 09/11/2021          |                                 | 14.28                     | m                   |
|                                            |                                       |                            | 03/12/2021          |                                 | 14.42                     | m                   |
| Leachate level above base of sump/pit base |                                       |                            | 18/10/2021          | 3m above base                   | 0.37                      | m                   |
|                                            |                                       |                            | 09/11/2021          | 3m above base                   | 0.42                      | m                   |
|                                            |                                       |                            | 03/12/2021          | 3m above base                   | 0.28                      | m                   |
|                                            | Total Alkalinity as CaCO <sub>3</sub> | TM043                      | 05/10/2021          |                                 | 9320                      | mg/l                |
|                                            | Biological oxygen demand              | TM045                      | 05/10/2021          |                                 | >198                      | mg/l                |
|                                            | Total organic carbon                  | TM090                      | 05/10/2021          |                                 | 861                       | mg/l                |
| Ammoniacal Nitrogen as N                   |                                       |                            | 05/10/2021          | <3,640 mg/l                     | 2410                      | mg/l                |
|                                            |                                       |                            | 09/11/2021          | <3,640 mg/l                     | 2350                      | mg/l                |
|                                            |                                       |                            | 03/12/2021          | <3,640 mg/l                     | 2040                      | mg/l                |
|                                            | Chemical oxygen demand (unfiltered)   | TM107                      | 05/10/2021          |                                 | 3280                      | mg/l                |
| Electrical conductivity @20°C (lab)        |                                       |                            | 05/10/2021          |                                 | 38500                     | µS/cm               |
|                                            |                                       |                            | 09/11/2021          |                                 | 39100                     | µS/cm               |
|                                            |                                       |                            | 03/12/2021          |                                 | 38900                     | µS/cm               |
|                                            | Cadmium (filtered)                    | TM152                      | 05/10/2021          | <0.105 mg/l                     | 0.000522                  | 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) (4)</sup> | Unit <sup>(5)</sup> |
|---------------------|--------------------------------------------|----------------------------|---------------------|---------------------------------|---------------------------|---------------------|
| Cell 1/2 Sump       | Calcium (filtered)                         | TM152                      | 05/10/2021          |                                 | 33.9                      | mg/l                |
|                     | Chromium (filtered)                        |                            | 05/10/2021          |                                 | 0.164                     | mg/l                |
|                     | Copper (filtered)                          |                            | 05/10/2021          |                                 | 0.0219                    | mg/l                |
|                     | Iron (filtered)                            |                            | 05/10/2021          |                                 | 5.5                       | mg/l                |
|                     | Lead (filtered)                            |                            | 05/10/2021          |                                 | 0.0126                    | mg/l                |
|                     | Magnesium (filtered)                       |                            | 05/10/2021          |                                 | 62.3                      | mg/l                |
|                     | Manganese (filtered)                       |                            | 05/10/2021          |                                 | 0.112                     | mg/l                |
|                     | Nickel (filtered)                          |                            | 05/10/2021          |                                 | 0.302                     | mg/l                |
|                     | Potassium (filtered)                       |                            | 05/10/2021          |                                 | 3180                      | mg/l                |
|                     | Sodium (filtered)                          |                            | 05/10/2021          |                                 | 4900                      | mg/l                |
|                     | Zinc (filtered)                            |                            | 05/10/2021          |                                 | 0.102                     | mg/l                |
|                     | 4-Methylphenol                             | TM176                      | 05/10/2021          | <1.6 mg/l                       | 0.0111                    | mg/l                |
|                     | Diethyl phthalate                          |                            | 05/10/2021          | <0.44 mg/l                      | <0.01                     | mg/l                |
|                     | Chloride                                   | TM184                      | 05/10/2021          | <19,000 mg/l                    | 11900                     | mg/l                |
|                     |                                            |                            | 09/11/2021          | <19,000 mg/l                    | 11900                     | mg/l                |
|                     |                                            |                            | 03/12/2021          | <19,000 mg/l                    | 11600                     | mg/l                |
|                     | Sulphate                                   |                            | 05/10/2021          |                                 | <20                       | mg/l                |
|                     | Total Oxidised Nitrogen as N               |                            | 05/10/2021          |                                 | <2                        | mg/l                |
| Cell 3/4 Sump       | Dichloromethane                            | TM208                      | 05/10/2021          | <0.033 mg/l                     | <0.003                    | mg/l                |
|                     | Mecoprop                                   | TM411                      | 05/10/2021          | <0.071 mg/l                     | 0.0993                    | mg/l                |
|                     | Base of well/borehole/sump                 | Field                      | 18/10/2021          |                                 | 11.1                      | m                   |
|                     |                                            |                            | 09/11/2021          |                                 | 11.1                      | m                   |
|                     |                                            |                            | 03/12/2021          |                                 | 11.1                      | m                   |
|                     | Groundwater level/dip                      |                            | 18/10/2021          |                                 | 10.87                     | m                   |
|                     |                                            |                            | 09/11/2021          |                                 | 10.7                      | m                   |
|                     |                                            |                            | 03/12/2021          |                                 | 10.73                     | m                   |
|                     | Leachate level above base of sump/pit base |                            | 18/10/2021          | 2.8m above base                 | 0.23                      | m                   |

| 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> |
|---------------------|--------------------------------------------|----------------------------|---------------------|---------------------------------|---------------------------|---------------------|
| Cell 3/4 Sump       | Leachate level above base of sump/pit base | Field                      | 09/11/2021          | 2.8m above base                 | 0.4                       | m                   |
|                     |                                            |                            | 03/12/2021          | 2.8m above base                 | 0.37                      | m                   |
|                     |                                            |                            | 05/10/2021          |                                 | 4080                      | mg/l                |
|                     | Total Alkalinity as CaCO3                  | TM043                      | 05/10/2021          |                                 | 49.4                      | mg/l                |
|                     | Biological oxygen demand                   | TM045                      | 05/10/2021          |                                 | 376                       | mg/l                |
|                     | Total organic carbon                       | TM090                      | 05/10/2021          |                                 | 897                       | mg/l                |
|                     | Ammoniacal Nitrogen as N                   | TM099                      | 05/10/2021          | <3,640 mg/l                     | 362                       | mg/l                |
|                     |                                            |                            | 09/11/2021          | <3,640 mg/l                     | 886                       | mg/l                |
|                     |                                            |                            | 03/12/2021          | <3,640 mg/l                     | 1440                      | mg/l                |
|                     | Chemical oxygen demand (unfiltered)        | TM107                      | 05/10/2021          |                                 | 17400                     | µS/cm               |
|                     | Electrical conductivity @20°C (lab)        | TM120                      | 05/10/2021          |                                 | 5440                      | µS/cm               |
|                     |                                            |                            | 09/11/2021          |                                 | 18200                     | µS/cm               |
|                     |                                            |                            | 03/12/2021          |                                 | 0.000225                  | mg/l                |
|                     | Cadmium (filtered)                         | TM152                      | 05/10/2021          | <0.105 mg/l                     | 120                       | mg/l                |
|                     | Calcium (filtered)                         |                            | 05/10/2021          |                                 | 0.0655                    | mg/l                |
|                     | Chromium (filtered)                        |                            | 05/10/2021          |                                 | 0.0139                    | mg/l                |
|                     | Copper (filtered)                          |                            | 05/10/2021          |                                 | 12.4                      | mg/l                |
|                     | Iron (filtered)                            |                            | 05/10/2021          |                                 | 0.00281                   | mg/l                |
|                     | Lead (filtered)                            |                            | 05/10/2021          |                                 | 78.2                      | mg/l                |
|                     | Magnesium (filtered)                       |                            | 05/10/2021          |                                 | 1.3                       | mg/l                |
|                     | Manganese (filtered)                       |                            | 05/10/2021          |                                 | 0.116                     | mg/l                |
|                     | Nickel (filtered)                          |                            | 05/10/2021          |                                 | 1460                      | mg/l                |
|                     | Potassium (filtered)                       |                            | 05/10/2021          |                                 | 2120                      | mg/l                |
|                     | Sodium (filtered)                          |                            | 05/10/2021          |                                 | 0.0844                    | mg/l                |
|                     | Zinc (filtered)                            |                            | 05/10/2021          |                                 | <0.01                     | mg/l                |
|                     | 4-Methylphenol                             | TM176                      | 05/10/2021          | <1.6 mg/l                       | <0.01                     | mg/l                |
|                     | Diethyl phthalate                          |                            | 05/10/2021          | <0.44 mg/l                      | <0.01                     | mg/l                |
|                     | Chloride                                   | TM184                      | 05/10/2021          | <19,000 mg/l                    | 4580                      | mg/l                |

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|---------------------|--------------------------------------------|----------------------------|---------------------|---------------------------------|--------------------------------------|---------------------|
| Cell 3/4 Sump       | Chloride                                   | TM184                      | 09/11/2021          | <19,000 mg/l                    | 701                                  | mg/l                |
|                     |                                            |                            | 03/12/2021          | <19,000 mg/l                    | 4280                                 | mg/l                |
|                     | Sulphate                                   |                            | 05/10/2021          |                                 | 53.7                                 | mg/l                |
|                     | Total Oxidised Nitrogen as N               |                            | 05/10/2021          |                                 | 9.91                                 | mg/l                |
|                     | Dichloromethane                            | TM208                      | 05/10/2021          | <0.033 mg/l                     | <0.003                               | mg/l                |
|                     | Mecoprop                                   | TM411                      | 05/10/2021          | <0.071 mg/l                     | 0.0162                               | mg/l                |
| Cell 5 Sump         | Base of well/borehole/sump                 | Field                      | 18/10/2021          |                                 | 5.8                                  | m                   |
|                     |                                            |                            | 09/11/2021          |                                 | 5.8                                  | m                   |
|                     |                                            |                            | 03/12/2021          |                                 | 5.8                                  | m                   |
|                     | Groundwater level/dip                      |                            | 18/10/2021          |                                 | 5.55                                 | m                   |
|                     |                                            |                            | 09/11/2021          |                                 | 5.5                                  | m                   |
|                     |                                            |                            | 03/12/2021          |                                 | 5.5                                  | m                   |
|                     | Leachate level above base of sump/pit base |                            | 18/10/2021          | 2m above base                   | 0.25                                 | m                   |
|                     |                                            |                            | 09/11/2021          | 2m above base                   | 0.3                                  | m                   |
|                     |                                            |                            | 03/12/2021          | 2m above base                   | 0.3                                  | m                   |
|                     | Total Alkalinity as CaCO3                  | TM043                      | 05/10/2021          |                                 | 4030                                 | mg/l                |
|                     | Biological oxygen demand                   | TM045                      | 05/10/2021          |                                 | 58.3                                 | mg/l                |
|                     | Total organic carbon                       | TM090                      | 05/10/2021          |                                 | 382                                  | mg/l                |
|                     | Ammoniacal Nitrogen as N                   | TM099                      | 05/10/2021          | <3,640 mg/l                     | 907                                  | mg/l                |
|                     |                                            |                            | 09/11/2021          | <3,640 mg/l                     | 1140                                 | mg/l                |
|                     |                                            |                            | 03/12/2021          | <3,640 mg/l                     | 1080                                 | mg/l                |
|                     | Chemical oxygen demand (unfiltered)        | TM107                      | 05/10/2021          |                                 | 1390                                 | mg/l                |
|                     | Electrical conductivity @20°C (lab)        | TM120                      | 05/10/2021          |                                 | 17000                                | µS/cm               |
|                     |                                            |                            | 09/11/2021          |                                 | 20800                                | µS/cm               |
|                     |                                            |                            | 03/12/2021          |                                 | 19300                                | µS/cm               |
|                     | Cadmium (filtered)                         | TM152                      | 05/10/2021          | <0.105 mg/l                     | 0.000339                             | mg/l                |
|                     | Calcium (filtered)                         |                            | 05/10/2021          |                                 | 111                                  | mg/l                |

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|---------------------|--------------------------------------------|----------------------------|---------------------|---------------------------------|---------------------------|---------------------|
| Cell 5 Sump         | Chromium (filtered)                        | TM152                      | 05/10/2021          |                                 | 0.0748                    | mg/l                |
|                     | Copper (filtered)                          |                            | 05/10/2021          |                                 | 0.0215                    | mg/l                |
|                     | Iron (filtered)                            |                            | 05/10/2021          |                                 | 10                        | mg/l                |
|                     | Lead (filtered)                            |                            | 05/10/2021          |                                 | 0.00924                   | mg/l                |
|                     | Magnesium (filtered)                       |                            | 05/10/2021          |                                 | 80.8                      | mg/l                |
|                     | Manganese (filtered)                       |                            | 05/10/2021          |                                 | 0.886                     | mg/l                |
|                     | Nickel (filtered)                          |                            | 05/10/2021          |                                 | 0.125                     | mg/l                |
|                     | Potassium (filtered)                       |                            | 05/10/2021          |                                 | 1290                      | mg/l                |
|                     | Sodium (filtered)                          |                            | 05/10/2021          |                                 | 1950                      | mg/l                |
|                     | Zinc (filtered)                            |                            | 05/10/2021          |                                 | 0.127                     | mg/l                |
|                     | 4-Methylphenol                             | TM176                      | 05/10/2021          | <0.126 mg/l                     | <0.01                     | mg/l                |
|                     | Diethyl phthalate                          |                            | 05/10/2021          | <0.36 mg/l                      | <0.01                     | mg/l                |
|                     | Chloride                                   | TM184                      | 05/10/2021          | <19,000 mg/l                    | 4480                      | mg/l                |
|                     |                                            |                            | 09/11/2021          | <19,000 mg/l                    | 5490                      | mg/l                |
|                     |                                            |                            | 03/12/2021          | <19,000 mg/l                    | 4600                      | mg/l                |
|                     | Sulphate                                   |                            | 05/10/2021          |                                 | 78.9                      | mg/l                |
|                     | Total Oxidised Nitrogen as N               |                            | 05/10/2021          |                                 | 9.1                       | mg/l                |
|                     | Dichloromethane                            | TM208                      | 05/10/2021          | <0.066 mg/l                     | <0.003                    | mg/l                |
|                     | Mecoprop                                   | TM411                      | 05/10/2021          | <0.14 mg/l                      | 0.0177                    | mg/l                |
| Cell 6 Sump         | Base of well/borehole/sump                 | Field                      | 18/10/2021          |                                 | 24.6                      | m                   |
|                     |                                            |                            | 09/11/2021          |                                 | 24.6                      | m                   |
|                     |                                            |                            | 03/12/2021          |                                 | 24.6                      | m                   |
|                     | Groundwater level/dip                      |                            | 18/10/2021          |                                 | 24.21                     | m                   |
|                     |                                            |                            | 09/11/2021          |                                 | 24.15                     | m                   |
|                     |                                            |                            | 03/12/2021          |                                 | 24.23                     | m                   |
|                     | Leachate level above base of sump/pit base |                            | 18/10/2021          | 1.5m above base                 | 0.39                      | m                   |
|                     |                                            |                            | 09/11/2021          | 1.5m above base                 | 0.45                      | m                   |

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|---------------------|--------------------------------------------|----------------------------|---------------------|---------------------------------|---------------------------|---------------------|
| Cell 6 Sump         | Leachate level above base of sump/pit base | Field                      | 03/12/2021          | 1.5m above base                 | 0.37                      | m                   |
|                     | Total Alkalinity as CaCO3                  | TM043                      | 05/10/2021          |                                 | 2170                      | mg/l                |
|                     | Biological oxygen demand                   | TM045                      | 05/10/2021          |                                 | 34.5                      | mg/l                |
|                     | Total organic carbon                       | TM090                      | 05/10/2021          |                                 | 203                       | mg/l                |
|                     | Ammoniacal Nitrogen as N                   | TM099                      | 05/10/2021          | <3,640 mg/l                     | 395                       | mg/l                |
|                     |                                            |                            | 09/11/2021          | <3,640 mg/l                     | 535                       | mg/l                |
|                     |                                            |                            | 03/12/2021          | <3,640 mg/l                     | 445                       | mg/l                |
|                     | Chemical oxygen demand (unfiltered)        | TM107                      | 05/10/2021          |                                 | 738                       | mg/l                |
|                     | Electrical conductivity @20°C (lab)        | TM120                      | 05/10/2021          |                                 | 4690                      | µS/cm               |
|                     |                                            |                            | 09/11/2021          |                                 | 6400                      | µS/cm               |
|                     |                                            |                            | 03/12/2021          |                                 | 7170                      | µS/cm               |
|                     | Cadmium (filtered)                         | TM152                      | 05/10/2021          | <0.105 mg/l                     | <0.00008                  | mg/l                |
|                     | Calcium (filtered)                         |                            | 05/10/2021          |                                 | 77.2                      | mg/l                |
|                     | Chromium (filtered)                        |                            | 05/10/2021          |                                 | 0.0559                    | mg/l                |
|                     | Copper (filtered)                          |                            | 05/10/2021          |                                 | 0.00295                   | mg/l                |
|                     | Iron (filtered)                            |                            | 05/10/2021          |                                 | 2.08                      | mg/l                |
|                     | Lead (filtered)                            |                            | 05/10/2021          |                                 | 0.00165                   | mg/l                |
|                     | Magnesium (filtered)                       |                            | 05/10/2021          |                                 | 21.6                      | mg/l                |
|                     | Manganese (filtered)                       |                            | 05/10/2021          |                                 | 0.564                     | mg/l                |
|                     | Nickel (filtered)                          |                            | 05/10/2021          |                                 | 0.0436                    | mg/l                |
|                     | Potassium (filtered)                       |                            | 05/10/2021          |                                 | 194                       | mg/l                |
|                     | Sodium (filtered)                          |                            | 05/10/2021          |                                 | 401                       | mg/l                |
|                     | Zinc (filtered)                            |                            | 05/10/2021          |                                 | 0.0323                    | mg/l                |
|                     | 4-Methylphenol                             | TM176                      | 05/10/2021          | <0.126 mg/l                     | <0.01                     | mg/l                |
|                     | Diethyl phthalate                          |                            | 05/10/2021          | <0.36 mg/l                      | <0.01                     | mg/l                |
|                     | Chloride                                   | TM184                      | 05/10/2021          | <19,000 mg/l                    | 511                       | mg/l                |
|                     |                                            |                            | 09/11/2021          | <19,000 mg/l                    | 716                       | mg/l                |

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|---------------------|--------------------------------------------|----------------------------|---------------------|---------------------------------|---------------------------|---------------------|
| Cell 6 Sump         | Chloride                                   | TM184                      | 03/12/2021          | <19,000 mg/l                    | 734                       | mg/l                |
|                     | Sulphate                                   |                            | 05/10/2021          |                                 | 38.4                      | mg/l                |
|                     | Total Oxidised Nitrogen as N               |                            | 05/10/2021          |                                 | 2.1                       | mg/l                |
|                     | Dichloromethane                            | TM208                      | 05/10/2021          | <0.066 mg/l                     | <0.003                    | mg/l                |
|                     | Mecoprop                                   | TM411                      | 05/10/2021          | <0.14 mg/l                      | <0.004                    | mg/l                |
| Cell 7 Sump         | Base of well/borehole/sump                 | Field                      | 18/10/2021          |                                 | 23                        | m                   |
|                     |                                            |                            | 09/11/2021          |                                 | 23                        | m                   |
|                     |                                            |                            | 03/12/2021          |                                 | 23                        | m                   |
|                     |                                            |                            | 18/10/2021          |                                 | 22.64                     | m                   |
|                     |                                            |                            | 09/11/2021          |                                 | 22.56                     | m                   |
|                     | Groundwater level/dip                      |                            | 03/12/2021          |                                 | 22.91                     | m                   |
|                     |                                            |                            | 18/10/2021          | 1.5m above base                 | 0.36                      | m                   |
|                     |                                            |                            | 09/11/2021          | 1.5m above base                 | 0.44                      | m                   |
|                     | Leachate level above base of sump/pit base |                            | 03/12/2021          | 1.5m above base                 | 0.09                      | m                   |
|                     |                                            |                            | 18/10/2021          |                                 |                           |                     |
|                     |                                            |                            | 09/11/2021          |                                 |                           |                     |
|                     | Total Alkalinity as CaCO3                  | TM043                      | 05/10/2021          |                                 | 3340                      | mg/l                |
|                     | Biological oxygen demand                   | TM045                      | 05/10/2021          |                                 | 55.6                      | mg/l                |
|                     | Total organic carbon                       | TM090                      | 05/10/2021          |                                 | 341                       | mg/l                |
|                     | Ammoniacal Nitrogen as N                   | TM099                      | 05/10/2021          | <3,640 mg/l                     | 612                       | mg/l                |
|                     |                                            |                            | 09/11/2021          | <3,640 mg/l                     | 1000                      | mg/l                |
|                     |                                            |                            | 03/12/2021          | <3,640 mg/l                     | 794                       | mg/l                |
|                     | Chemical oxygen demand (unfiltered)        | TM107                      | 05/10/2021          |                                 | 1070                      | mg/l                |
|                     | Electrical conductivity @20°C (lab)        | TM120                      | 05/10/2021          |                                 | 7140                      | µS/cm               |
|                     |                                            |                            | 09/11/2021          |                                 | 11100                     | µS/cm               |
|                     |                                            |                            | 03/12/2021          |                                 | 10300                     | µS/cm               |
|                     | Cadmium (filtered)                         | TM152                      | 05/10/2021          | <0.105 mg/l                     | <0.00008                  | mg/l                |
|                     | Calcium (filtered)                         |                            | 05/10/2021          |                                 | 101                       | mg/l                |
|                     | Chromium (filtered)                        |                            | 05/10/2021          |                                 | 0.0823                    | 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> |
|-------------------------|--------------------------------------|----------------------------|---------------------|---------------------------------|--------------------------------------|---------------------|
| Cell 7 Sump             | Copper (filtered)                    | TM152                      | 05/10/2021          |                                 | 0.00226                              | mg/l                |
|                         | Iron (filtered)                      |                            | 05/10/2021          |                                 | 3.15                                 | mg/l                |
|                         | Lead (filtered)                      |                            | 05/10/2021          |                                 | 0.00197                              | mg/l                |
|                         | Magnesium (filtered)                 |                            | 05/10/2021          |                                 | 32.5                                 | mg/l                |
|                         | Manganese (filtered)                 |                            | 05/10/2021          |                                 | 0.875                                | mg/l                |
|                         | Nickel (filtered)                    |                            | 05/10/2021          |                                 | 0.0664                               | mg/l                |
|                         | Potassium (filtered)                 |                            | 05/10/2021          |                                 | 306                                  | mg/l                |
|                         | Sodium (filtered)                    |                            | 05/10/2021          |                                 | 636                                  | mg/l                |
|                         | Zinc (filtered)                      |                            | 05/10/2021          |                                 | 0.0389                               | mg/l                |
|                         | 4-Methylphenol                       | TM176                      | 05/10/2021          | <0.126 mg/l                     | <0.01                                | mg/l                |
|                         | Diethyl phthalate                    |                            | 05/10/2021          | <0.36 mg/l                      | <0.01                                | mg/l                |
|                         | Chloride                             | TM184                      | 05/10/2021          | <19,000 mg/l                    | 814                                  | mg/l                |
|                         |                                      |                            | 09/11/2021          | <19,000 mg/l                    | 1330                                 | mg/l                |
|                         |                                      |                            | 03/12/2021          | <19,000 mg/l                    | 1100                                 | mg/l                |
|                         | Sulphate                             |                            | 05/10/2021          |                                 | 42.8                                 | mg/l                |
|                         | Total Oxidised Nitrogen as N         |                            | 05/10/2021          |                                 | 2.15                                 | mg/l                |
|                         | Dichloromethane                      | TM208                      | 05/10/2021          | <0.066 mg/l                     | <0.003                               | mg/l                |
|                         | Mecoprop                             | TM411                      | 05/10/2021          | <0.14 mg/l                      | <0.004                               | mg/l                |
| Leachate Holding Lagoor | Base of well/borehole/sump           | Field                      | 18/10/2021          |                                 | 8.5                                  | m                   |
|                         |                                      |                            | 09/11/2021          |                                 | 8.5                                  | m                   |
|                         |                                      |                            | 03/12/2021          |                                 | 8.5                                  | m                   |
|                         | Groundwater level/dip                |                            | 18/10/2021          |                                 | 2.4                                  | m                   |
|                         |                                      |                            | 09/11/2021          |                                 | 2.9                                  | m                   |
|                         |                                      |                            | 03/12/2021          |                                 | 5.3                                  | m                   |
|                         | Total Alkalinity as CaCO3            | TM043                      | 05/10/2021          |                                 | 5280                                 | mg/l                |
|                         | Biological oxygen demand             | TM045                      | 05/10/2021          |                                 | 74                                   | mg/l                |
|                         | Total organic carbon                 | TM090                      | 05/10/2021          |                                 | 539                                  | 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> |
|-------------------------|--------------------------------------|----------------------------|---------------------|---------------------------------|--------------------------------------|---------------------|
| Leachate Holding Lagoor | Ammoniacal Nitrogen as N             | TM099                      | 05/10/2021          | <3,640 mg/l                     | 1200                                 | mg/l                |
|                         |                                      |                            | 09/11/2021          | <3,640 mg/l                     | 1190                                 | mg/l                |
|                         |                                      |                            | 03/12/2021          | <3,640 mg/l                     | 1160                                 | mg/l                |
|                         | Chemical oxygen demand (unfiltered)  | TM107                      | 05/10/2021          |                                 | 1720                                 | mg/l                |
|                         | Electrical conductivity @20°C (lab)  | TM120                      | 05/10/2021          |                                 | 19300                                | µS/cm               |
|                         |                                      |                            | 09/11/2021          |                                 | 20300                                | µS/cm               |
|                         |                                      |                            | 03/12/2021          |                                 | 20600                                | µS/cm               |
|                         | Cadmium (filtered)                   | TM152                      | 05/10/2021          |                                 | 0.000237                             | mg/l                |
|                         | Calcium (filtered)                   |                            | 05/10/2021          |                                 | 110                                  | mg/l                |
|                         | Chromium (filtered)                  |                            | 05/10/2021          |                                 | 0.11                                 | mg/l                |
|                         | Copper (filtered)                    |                            | 05/10/2021          |                                 | 0.00817                              | mg/l                |
|                         | Iron (filtered)                      |                            | 05/10/2021          |                                 | 3.21                                 | mg/l                |
|                         | Lead (filtered)                      |                            | 05/10/2021          |                                 | 0.00526                              | mg/l                |
|                         | Magnesium (filtered)                 |                            | 05/10/2021          |                                 | 82.6                                 | mg/l                |
|                         | Manganese (filtered)                 |                            | 05/10/2021          |                                 | 0.976                                | mg/l                |
|                         | Nickel (filtered)                    |                            | 05/10/2021          |                                 | 0.142                                | mg/l                |
|                         | Potassium (filtered)                 |                            | 05/10/2021          |                                 | 1430                                 | mg/l                |
|                         | Sodium (filtered)                    |                            | 05/10/2021          |                                 | 2220                                 | mg/l                |
|                         | Zinc (filtered)                      |                            | 05/10/2021          |                                 | 0.0799                               | mg/l                |
|                         | 4-Methylphenol                       |                            | 05/10/2021          |                                 | <0.01                                | mg/l                |
|                         | Diethyl phthalate                    |                            | 05/10/2021          |                                 | <0.01                                | mg/l                |
|                         | Chloride                             | TM184                      | 09/11/2021          | <19,000 mg/l                    | 5060                                 | mg/l                |
|                         |                                      |                            | 03/12/2021          | <19,000 mg/l                    | 4820                                 | mg/l                |
|                         | Dichloromethane                      | TM208                      | 05/10/2021          |                                 | <0.003                               | mg/l                |
|                         | Chloride                             | TM226                      | 05/10/2021          | <19,000 mg/l                    | 4550                                 | mg/l                |
|                         | Sulphate                             |                            | 05/10/2021          |                                 | 17.7                                 | mg/l                |
|                         | Total Oxidised Nitrogen as N         |                            | 05/10/2021          |                                 | 0.191                                | 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) (4)</sup> | Unit <sup>(5)</sup> |
|-------------------------|--------------------------------------------|----------------------------|---------------------|---------------------------------|---------------------------|---------------------|
| Leachate Holding Lagoon | Mecoprop                                   | TM411                      | 05/10/2021          |                                 | 0.0197                    | mg/l                |
| LMP5a                   | Base of well/borehole/sump                 | Field                      | 18/10/2021          |                                 | 8.5                       | m                   |
|                         |                                            |                            | 09/11/2021          |                                 | 8.5                       | m                   |
|                         |                                            |                            | 03/12/2021          |                                 | 8.5                       | m                   |
|                         | Groundwater level/dip                      |                            | 18/10/2021          |                                 | DRY                       | m                   |
|                         |                                            |                            | 09/11/2021          |                                 | DRY                       | m                   |
|                         |                                            |                            | 03/12/2021          |                                 | DRY                       | m                   |
| LMP5b                   | Base of well/borehole/sump                 |                            | 18/10/2021          |                                 | 6.8                       | m                   |
|                         |                                            |                            | 09/11/2021          |                                 | 6.8                       | m                   |
|                         |                                            |                            | 03/12/2021          |                                 | 6.8                       | m                   |
|                         | Groundwater level/dip                      |                            | 18/10/2021          |                                 | DRY                       | m                   |
|                         |                                            |                            | 09/11/2021          |                                 | DRY                       | m                   |
|                         |                                            |                            | 03/12/2021          |                                 | DRY                       | m                   |
| LMP6a                   | Base of well/borehole/sump                 |                            | 18/10/2021          |                                 | 11.4                      | m                   |
|                         |                                            |                            | 09/11/2021          |                                 | 11.4                      | m                   |
|                         |                                            |                            | 03/12/2021          |                                 | 10.98                     | m                   |
|                         | Groundwater level/dip                      |                            | 18/10/2021          |                                 | DRY                       | m                   |
|                         |                                            |                            | 09/11/2021          |                                 | DRY                       | m                   |
|                         |                                            |                            | 03/12/2021          |                                 | 10.97                     | m                   |
|                         | Leachate level above base of sump/pit base |                            | 03/12/2021          | 1.5m above base                 | 0.01                      | m                   |
| LMP7a                   | Base of well/borehole/sump                 |                            | 18/10/2021          |                                 | 10.48                     | m                   |
|                         |                                            |                            | 09/11/2021          |                                 | 10.48                     | m                   |
|                         |                                            |                            | 03/12/2021          |                                 | 10.48                     | m                   |
|                         | Groundwater level/dip                      |                            | 18/10/2021          |                                 | 10.46                     | m                   |
|                         |                                            |                            | 09/11/2021          |                                 | 10.45                     | m                   |
|                         |                                            |                            | 03/12/2021          |                                 | 10.4                      | m                   |
|                         | Leachate level above base of sump/pit base |                            | 18/10/2021          | 1.5m above base                 | 0.02                      | m                   |

| 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> |
|---------------------|--------------------------------------------|----------------------------|---------------------|---------------------------------|---------------------------|---------------------|
| LMP7a               | Leachate level above base of sump/pit base | Field                      | 09/11/2021          | 1.5m above base                 | 0.03                      | m                   |
|                     |                                            |                            | 03/12/2021          | 1.5m above base                 | 0.08                      | m                   |
| LMP7b               | Base of well/borehole/sump                 |                            | 18/10/2021          |                                 | 4                         | m                   |
|                     |                                            |                            | 09/11/2021          |                                 | 4                         | m                   |
|                     |                                            |                            | 03/12/2021          |                                 | 4                         | m                   |
|                     |                                            |                            | 18/10/2021          |                                 | 3.95                      | m                   |
|                     |                                            |                            | 09/11/2021          |                                 | 3.91                      | m                   |
|                     |                                            |                            | 03/12/2021          |                                 | 3.95                      | m                   |
| M1A                 | Leachate level above base of sump/pit base |                            | 18/10/2021          | 1.5m above base                 | 0.05                      | m                   |
|                     |                                            |                            | 09/11/2021          | 1.5m above base                 | 0.09                      | m                   |
|                     |                                            |                            | 03/12/2021          | 1.5m above base                 | 0.05                      | m                   |
|                     | Base of well/borehole/sump                 |                            | 18/10/2021          |                                 | 16.4                      | m                   |
|                     |                                            |                            | 09/11/2021          |                                 | 16.4                      | m                   |
|                     |                                            |                            | 03/12/2021          |                                 | 16.4                      | m                   |
|                     | Groundwater level/dip                      |                            | 18/10/2021          |                                 | 15.91                     | m                   |
|                     |                                            |                            | 09/11/2021          |                                 | 15.96                     | m                   |
|                     |                                            |                            | 03/12/2021          |                                 | 15.87                     | m                   |
|                     | Leachate level above base of sump/pit base |                            | 18/10/2021          | 2m above base                   | 0.49                      | m                   |
|                     |                                            |                            | 09/11/2021          | 2m above base                   | 0.44                      | m                   |
|                     |                                            |                            | 03/12/2021          | 2m above base                   | 0.53                      | m                   |
| M1B                 | Base of well/borehole/sump                 |                            | 18/10/2021          |                                 | 10.5                      | m                   |
|                     |                                            |                            | 09/11/2021          |                                 | 10.61                     | m                   |
|                     |                                            |                            | 03/12/2021          |                                 | 10.61                     | m                   |
|                     | Groundwater level/dip                      |                            | 18/10/2021          |                                 | 10.3                      | m                   |
|                     |                                            |                            | 09/11/2021          |                                 | 10.53                     | m                   |
|                     |                                            |                            | 03/12/2021          |                                 | 10.5                      | m                   |
|                     | Leachate level above base of sump/pit base |                            | 18/10/2021          | 2m above base                   | 0.2                       | m                   |

| 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> |  |
|-----------------------|--------------------------------------------|----------------------------|---------------------|---------------------------------|--------------------------------------|---------------------|--|
| M1B                   | Leachate level above base of sump/pit base | Field                      | 09/11/2021          | 2m above base                   | 0.08                                 | m                   |  |
| M2A                   | Base of well/borehole/sump                 |                            | 03/12/2021          | 2m above base                   | 0.11                                 | m                   |  |
|                       |                                            |                            | 18/10/2021          |                                 | 21                                   | m                   |  |
|                       |                                            |                            | 09/11/2021          |                                 | 21                                   | m                   |  |
|                       | 03/12/2021                                 |                            |                     | 21                              | m                                    |                     |  |
|                       | Groundwater level/dip                      |                            | 18/10/2021          |                                 | 20.65                                | m                   |  |
|                       |                                            |                            | 09/11/2021          |                                 | 20.59                                | m                   |  |
|                       |                                            |                            | 03/12/2021          |                                 | 20.43                                | m                   |  |
| M2B                   | Leachate level above base of sump/pit base | 18/10/2021                 | 2m above base       | 0.35                            | m                                    |                     |  |
|                       |                                            | 09/11/2021                 | 2m above base       | 0.41                            | m                                    |                     |  |
|                       |                                            | 03/12/2021                 | 2m above base       | 0.57                            | m                                    |                     |  |
|                       | Base of well/borehole/sump                 | 18/10/2021                 |                     | 19.8                            | m                                    |                     |  |
|                       |                                            | 09/11/2021                 |                     | 19.8                            | m                                    |                     |  |
|                       |                                            | 03/12/2021                 |                     | 19.8                            | m                                    |                     |  |
|                       | Groundwater level/dip                      |                            | 18/10/2021          |                                 | 19.47                                | m                   |  |
|                       |                                            |                            | 09/11/2021          |                                 | 19.43                                | m                   |  |
|                       |                                            |                            | 03/12/2021          |                                 | 19.56                                | m                   |  |
|                       | Leachate level above base of sump/pit base | 18/10/2021                 | 2m above base       | 0.33                            | m                                    |                     |  |
|                       |                                            | 09/11/2021                 | 2m above base       | 0.37                            | m                                    |                     |  |
|                       |                                            | 03/12/2021                 | 2m above base       | 0.24                            | m                                    |                     |  |
|                       | M3A                                        | Base of well/borehole/sump | 18/10/2021          |                                 | 21.5                                 | m                   |  |
|                       |                                            |                            | 09/11/2021          |                                 | 25.28                                | m                   |  |
| 03/12/2021            |                                            |                            |                     | 21.5                            | m                                    |                     |  |
| Groundwater level/dip |                                            | 18/10/2021                 |                     | 21.33                           | m                                    |                     |  |
|                       |                                            | 09/11/2021                 |                     | 21.5                            | m                                    |                     |  |
|                       |                                            | 03/12/2021                 |                     | 21.2                            | m                                    |                     |  |
|                       | Leachate level above base of sump/pit base | 18/10/2021                 | 1.8m above base     | 0.17                            | m                                    |                     |  |

| 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> |
|---------------------|--------------------------------------------|----------------------------|---------------------|---------------------------------|---------------------------|---------------------|
| M3A                 | Leachate level above base of sump/pit base | Field                      | 09/11/2021          | 1.8m above base                 | 3.78                      | m                   |
|                     |                                            |                            | 03/12/2021          | 1.8m above base                 | 0.3                       | m                   |
| M3B                 | Base of well/borehole/sump                 |                            | 18/10/2021          |                                 | 15.54                     | m                   |
|                     |                                            |                            | 09/11/2021          |                                 | 15.53                     | m                   |
|                     |                                            |                            | 03/12/2021          |                                 | 15.53                     | m                   |
|                     |                                            |                            | 18/10/2021          |                                 | 15.5                      | m                   |
|                     |                                            |                            | 09/11/2021          |                                 | 15.2                      | m                   |
|                     |                                            |                            | 03/12/2021          |                                 | 15.32                     | m                   |
| M4A                 | Leachate level above base of sump/pit base |                            | 18/10/2021          | 1.8m above base                 | 0.04                      | m                   |
|                     |                                            |                            | 09/11/2021          | 1.8m above base                 | 0.33                      | m                   |
|                     |                                            |                            | 03/12/2021          | 1.8m above base                 | 0.21                      | m                   |
|                     | Base of well/borehole/sump                 |                            | 18/10/2021          |                                 | 18.9                      | m                   |
|                     |                                            |                            | 09/11/2021          |                                 | 18.9                      | m                   |
|                     |                                            |                            | 03/12/2021          |                                 | 18.61                     | m                   |
|                     | Groundwater level/dip                      |                            | 18/10/2021          |                                 | 18.76                     | m                   |
|                     |                                            |                            | 09/11/2021          |                                 | 18.61                     | m                   |
|                     |                                            |                            | 03/12/2021          |                                 | 18.38                     | m                   |
|                     | Leachate level above base of sump/pit base |                            | 18/10/2021          | 1.8m above base                 | 0.14                      | m                   |
|                     |                                            |                            | 09/11/2021          | 1.8m above base                 | 0.29                      | m                   |
|                     |                                            |                            | 03/12/2021          | 1.8m above base                 | 0.23                      | m                   |
| M4B                 | Base of well/borehole/sump                 |                            | 18/10/2021          |                                 | 17                        | m                   |
|                     |                                            |                            | 09/11/2021          |                                 | 17                        | m                   |
|                     |                                            |                            | 03/12/2021          |                                 | 17                        | m                   |
|                     | Groundwater level/dip                      |                            | 18/10/2021          |                                 | 16.82                     | m                   |
|                     |                                            |                            | 09/11/2021          |                                 | 16.8                      | m                   |
|                     |                                            |                            | 03/12/2021          |                                 | 16.82                     | m                   |
|                     | Leachate level above base of sump/pit base |                            | 18/10/2021          | 1.8m above base                 | 0.18                      | m                   |

| 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> |
|---------------------|--------------------------------------------|----------------------------|---------------------|---------------------------------|--------------------------------------|---------------------|
| M4B                 | Leachate level above base of sump/pit base | Field                      | 09/11/2021          | 1.8m above base                 | 0.2                                  | m                   |
|                     |                                            |                            | 03/12/2021          | 1.8m above base                 | 0.18                                 | m                   |

(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 below ground level unless are labelled as leachate head above base of sump.

(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: 15 December 2021

(Authorised to sign as representative of  
Operator)