

| Facility Information Summary | |
|-----------------------------------|--------------------------------|
| AER Reporting Year | 2017 |
| Licence Register Number | W0146-02 |
| Name of site | Knockharley Landfill |
| Site Location | Knockharley , Navan, Co, Meath |
| NACE Code | 3821 |
| Class/Classes of Activity | 11.1, 11.5 |
| National Grid Reference (6E, 6 N) | 297532E, 267363N |

A description of the activities/processes at the site for the reporting year. This should include information such as production increases or decreases on site, any infrastructural changes, environmental performance which was measured during the reporting year **and an overview of compliance with your licence listing all exceedances of licence limits (where applicable) and what they relate to e.g. air, water, noise.**

Knockharley Landfill is an operational landfill facility. It has seen a decrease in waste acceptance from 2016 to 2017. A section 56 was issued in November 2017 in relation to the remediation of an unauthorised landfill in Timoole. There was on account of this 884.3 tonnes (S56) accepted for disposal and 19,864 tonnes of daily cover/ engineering materials accepted (S56) and stockpiled to manage this material. When calculating tonnages against planning/licence conditions these tonnages should not be considered against the facilities planning/licence conditions as they are authorised separately under the S56.

Air stack emissions are compliant with the licence limits. There are no discharges of process effluent to water or sewer. There was one incident which related to an exceedance of the surface water ELV for suspended solids due to a sampling error.

Declaration:

All the data and information presented in this report has been checked and certified as being accurate. The quality of the information is assured to meet licence requirements.

| | |
|---|-------------------|
| <u>Thomas Finegan</u> | <u>23-03-2018</u> |
| Signature | Date |
| Group/Facility manager | |
| (or nominated, suitably qualified and experienced deputy) | |

AIR-summary template

Lic No:

W0146-02

Year

2017

Answer all questions and complete all tables where relevant

Additional information

- 1 Does your site have licensed air emissions? If yes please complete table A1 and A2 below for the current reporting year and answer further questions. If **you do not have** licenced emissions and **do not complete a solvent management plan** (table A4 and A5) you do not need to complete the tables

| | |
|-----|--|
| Yes | |
|-----|--|

Periodic/Non-Continuous Monitoring

- 2 Are there any results in breach of licence requirements? If yes please provide brief details in the comment section of TableA1 below

| | |
|-----|--|
| No | |
| Yes | |

- 3 Was all monitoring carried out in accordance with EPA guidance note AG2 and using the basic [air monitoring checklist](#) [AGN2](#)

Table A1: Licensed Mass Emissions/Ambient data-periodic monitoring (non-continuous)

| Emission reference no: | Parameter/ Substance | Frequency of Monitoring | ELV in licence or any revision thereof | Licence Compliance criteria | Measured value | Unit of measurement | Compliant with licence limit | Method of analysis | Annual mass load (kg) | Comments -reason for change in % mass load from previous year if applicable |
|------------------------|---|-------------------------|--|----------------------------------|----------------|---------------------|------------------------------|-----------------------|-----------------------|---|
| Flare 1 | Carbon monoxide (CO) | annual | 50 | No 30min mean can exceed the ELV | <1.7 | mg/m3 | yes | NCIR by Horiba PG-250 | <2.09508 | |
| Flare 1 | Nitrogen Oxides (Nox/NO2) | annual | 150 | SELECT | 52.29 | mg/m3 | yes | Chemiluminescence | 64.442196 | |
| Flare 1 | Volatile organic compounds (as TOC) | annual | 10 | SELECT | 4.07 | mg/m3 | yes | FID | 5.015868 | |
| Flare 1 | Chlorine and inorganic compounds (as HCl) | annual | 50 | SELECT | 0.53 | mg/m3 | yes | Ion chromatopography | 0.653172 | |
| Flare 1 | Fluorine and inorganic compounds (s HF) | annual | 5 | SELECT | <0.44 | mg/m3 | yes | Ion chromatopography | <0.542256 | |
| Flare 1 | Sulphur oxides (Sox/SO2) | annual | | SELECT | 1584 | mg/m3 | | NDIR Adsorption | 1,952.12 | |
| Flare 2 | Carbon monoxide (CO) | annual | 50 | SELECT | <1.7 | mg/m3 | yes | NCIR by Horiba PG-250 | <4.00554 | |
| Flare 2 | Nitrogen Oxides (Nox/NO2) | annual | 150 | SELECT | 51.57 | mg/m3 | yes | Chemiluminescence | 121.509234 | |
| Flare 2 | Volatile organic compounds (as TOC) | annual | 10 | SELECT | 5.49 | mg/m3 | yes | FID | 12.935538 | |
| Flare 2 | Chlorine and inorganic compounds (as HCl) | annual | 50 | SELECT | <0.43 | mg/m3 | yes | Ion chromatopography | <1.013166 | |
| Flare 2 | Fluorine and inorganic compounds (s HF) | annual | 5 | SELECT | 4.19 | mg/m3 | yes | Ion chromatopography | 9.87248 | |
| Flare 2 | Sulphur oxides (Sox/SO2) | annual | | SELECT | 6264 | mg/m3 | | NDIR Adsorption | 14,759.23680 | |
| KHO1 Engine | Total Particulates | annual | 130 | SELECT | 3.31 | mg/m3 | yes | Gravimetric | 22.13662 | |
| KHO1 Engine | Carbon monoxide (CO) | annual | 1400 | SELECT | 1088 | mg/m3 | yes | NCIR by Horiba PG-250 | 7,276.33 | |
| KHO1 Engine | Nitrogen Oxides (Nox/NO2) | annual | 500 | SELECT | 300 | mg/m3 | yes | Chemiluminescence | 2,006.34 | |
| KHO1 Engine | Chlorine and inorganic compounds (as HCl) | annual | 50 | at mass flows >0.05kg/h | 0.33 | mg/m3 | yes | Ion chromatopography | 2.21 | |
| KHO1 Engine | Fluorine and inorganic compounds (s HF) | annual | 5 | at mass flows >0.3kg/h | 4.67 | mg/m3 | yes | Ion chromatopography | 31.23 | |
| KHO1 Engine | TA Luft orgaicn substances class 1 | annual | 20 | at mass flows >0.1kg/h | 0.21 | mg/m3 | yes | Thermal desorption | 1.40 | |
| KHO1 Engine | Sulphur oxides (Sox/SO2) | annual | | SELECT | 1290 | mg/m3 | | NDIR Adsorption | 8,627.26 | |
| KHO1 Engine | Volumetric flow | annual | 3000 | SELECT | 2702 | mg/m3 | yes | Pitot | 6,687,800.00 | |
| KHO2 Engine | Total Particulates | annual | 130 | SELECT | 2.77 | mg/m3 | yes | Gravimetric | 2.882462 | |
| KHO2 Engine | Carbon monoxide (CO) | annual | 1400 | SELECT | 1045 | mg/m3 | yes | NCIR by Horiba PG-250 | 1087.427 | |
| KHO2 Engine | Nitrogen Oxides (Nox/NO2) | annual | 500 | SELECT | 258 | mg/m3 | yes | Chemiluminescence | 268.4748 | |
| KHO2 Engine | Chlorine and inorganic compounds (as HCl) | annual | 50 | at mass flows >0.05kg/h | <0.31 | mg/m3 | yes | Ion chromatopography | <0.322586 | |
| KHO2 Engine | Fluorine and inorganic compounds (s HF) | annual | 5 | at mass flows >0.3kg/h | <0.29 | mg/m3 | yes | Ion chromatopography | <0.301774 | |
| KHO2 Engine | TA Luft orgaicn substances class 1 | annual | 20 | at mass flows >0.1kg/h | <0.07 | mg/m3 | yes | Thermal desorption | <0.072842 | |
| KHO2 Engine | Sulphur oxides (Sox/SO2) | annual | | SELECT | 1353 | mg/m3 | | NDIR Adsorption | 1407.9318 | |
| KHO2 Engine | volumetric flow | annual | 3000 | SELECT | 2466 | mg/m3 | yes | Pitot | 1040600 | |

| AIR-summary template | | | | Lic No: | W0146-02 | Year | 2017 | | |
|----------------------|---|--------|------|-------------------------|----------|-------|------|-----------------------|------------|
| KHO3 Engine | Total Particulates | annual | 130 | SELECT | 1.38 | mg/m3 | yes | Gravimetric | 2.4305664 |
| KHO3 Engine | Carbon monoxide (CO) | annual | 1400 | SELECT | 1038 | mg/m3 | yes | NCIR by Horiba PG-250 | 1828.20864 |
| KHO3 Engine | Nitrogen Oxides (Nox/NO2) | annual | 500 | SELECT | 239 | mg/m3 | yes | Chemiluminescence | 420.94592 |
| KHO3 Engine | Chlorine and inorganic compounds (as HCl) | annual | 50 | at mass flows >0.05kg/h | <0.32 | mg/m3 | yes | Ion chromatopography | <0.5636096 |
| KHO3 Engine | Fluorine and inorganic compounds (s HF) | annual | 5 | at mass flows >0.3kg/h | 3.04 | mg/m3 | yes | Ion chromatopography | 5.3542912 |
| KHO3 Engine | TA Luft orgaic substances class 1 | annual | 20 | at mass flows >0.1kg/h | <0.07 | mg/m3 | yes | Thermal desorption | <0.1232896 |
| KHO3 Engine | Sulphur oxides (Sox/SO2) | annual | 1400 | SELECT | 1332 | mg/m3 | yes | NDIR Adsorption | 2346.02496 |
| KHO3 Engine | volumetric flow | annual | 3000 | SELECT | 2606 | mg/m3 | yes | Pitot | 1761280 |
| KHO4 Engine | Total Particulates | annual | 130 | SELECT | 2.3 | mg/m3 | yes | Gravimetric | 14.115054 |
| KHO4 Engine | Carbon monoxide (CO) | annual | 1400 | SELECT | 1033 | mg/m3 | yes | NCIR by Horiba PG-250 | 6339.50034 |
| KHO4 Engine | Nitrogen Oxides (Nox/NO2) | annual | 500 | SELECT | 221 | mg/m3 | yes | Chemiluminescence | 1356.27258 |
| KHO4 Engine | Chlorine and inorganic compounds (as HCl) | annual | 50 | at mass flows >0.05kg/h | <0.31 | mg/m3 | yes | Ion chromatopography | <1.9024638 |
| KHO4 Engine | Fluorine and inorganic compounds (s HF) | annual | 5 | at mass flows >0.3kg/h | 2.32 | mg/m3 | yes | Ion chromatopography | 14.2377936 |
| KHO4 Engine | TA Luft orgaic substances class 1 | annual | 20 | at mass flows >0.1kg/h | <0.06 | mg/m3 | yes | Thermal desorption | <0.3682188 |
| KHO4 Engine | Sulphur oxides (Sox/SO2) | annual | 1400 | SELECT | 1312 | mg/m3 | yes | NDIR Adsorption | 8051.71776 |
| KHO4 Engine | volumetric flow | annual | 3000 | SELECT | 2606 | mg/m3 | yes | Pitot | 6136980 |

5

6 Note 1: Volumetric flow shall be included as a reportable parameter

7

| Continuous Monitoring | |
|---|-----|
| Does your site carry out continuous air emissions monitoring? | Yes |
| If yes please review your continuous monitoring data and report the required fields below in Table A2 and compare it to its relevant Emission Limit Value | |
| Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below | No |
| Do you have a proactive service agreement for each piece of continuous monitoring equipment? | Yes |
| Did your site experience any abatement system bypasses? If yes please detail them in table A3 below | No |

Table A2: Summary of average emissions -continuous monitoring

| Emission reference no: | Parameter/ Substance | ELV in licence or any revision therof | Averaging Period | Compliance Criteria | Units of measurement | Annual Emission | Annual maximum | Monitoring Equipment downtime (hours) | Number of ELV exceedences in current reporting year | Comments |
|------------------------|----------------------|---------------------------------------|------------------|-----------------------------------|----------------------|-----------------|----------------|---------------------------------------|---|----------|
| Flare 1 | Carbon monoxide (CO) | 500 | Annual | All 30-minutes averages < 2 x ELV | mg/m3 | <1.7 | | | | |
| Flare 2 | Carbon monoxide (CO) | 1400 | Annual | No 30min mean can exceed the ELV | mg/m3 | <1.7 | | | | |
| KH01 | Carbon monoxide (CO) | 1400 | Annual | No 30min mean can exceed the ELV | mg/m3 | 1,088 | | | | |
| KH02 | Carbon monoxide (CO) | 1400 | Annual | No 30min mean can exceed the ELV | mg/m3 | 1,045 | | | | |
| KH03 | Carbon monoxide (CO) | 1400 | Annual | No 30min mean can exceed the ELV | mg/m4 | 1,038 | | | | |
| KH04 | Carbon monoxide (CO) | 1400 | Annual | No 30min mean can exceed the ELV | mg/m3 | 1,033 | | | | |

note 1: Volumetric flow shall be included as a reportable parameter.

Table A3: Abatement system bypass reporting table [Bypass protocol](#)

| Date* | Duration** (hours) | Location | Reason for bypass | Impact magnitude | Corrective action |
|-------|--------------------|----------|-------------------|------------------|-------------------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

* this should include all dates that an abatement system bypass occurred

** an accurate record of time bypass beginning and end should be logged on site and maintained for future Agency inspections please refer to bypass protocol link

Solvent use and management on site

Do you have a total Emission Limit Value of direct and fugitive emissions on site? if yes please fill out tables A4 and A5

| | |
|--------|--|
| SELECT | |
|--------|--|

Table A4: Solvent Management Plan Summary Total VOC Emission limit value [Solvent regulations](#) Please refer to linked solvent regulations to complete table 5 and 6

| Reporting year | Total solvent input on site (kg) | Total VOC emissions to Air from entire site (direct and fugitive) | Total VOC emissions as %of solvent input | Total Emission Limit Value (ELV) in licence or any revision thereof | Compliance |
|----------------|----------------------------------|---|--|---|------------|
| | | | | | SELECT |
| | | | | | SELECT |

Table A5: Solvent Mass Balance summary

| Solvent | (I) Inputs (kg) | | | (O) Outputs (kg) | | | | Total emission of Solvent to air (kg) |
|---------|-----------------|---|-----------------------------|------------------------------|-------------------------------|--|---|---------------------------------------|
| | (I) Inputs (kg) | Organic solvent emission in waste gases(kg) | Solvents lost in water (kg) | Collected waste solvent (kg) | Fugitive Organic Solvent (kg) | Solvent released in other ways e.g. by-passes (kg) | Solvents destroyed onsite through physical reaction e.g. incineration(kg) | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | Total |

Does your site have licensed emissions direct to surface water or direct to sewer? If yes please complete table W2 and W3 below for the current reporting year and answer further questions.
 1 If you do not have licensed emissions you only need to complete table W1 and or W2 for storm water analysis and visual inspections
 Was it a requirement of your licence to carry out visual inspections on any surface water discharges or watercourses on or near your site? If yes please complete table W2 below summarising only any evidence of contamination noted during visual inspections

| Additional information | |
|------------------------|---|
| No | There are eight surface water monitoring points at the facility. All of the data for monitoring of the downstream locations is hidden in the rows of Table W.1. It is assumed that only data for SW-9, the outlet from the storm water pond is required here. |
| Yes | Weekly visual inspections are required at each of the nine surface water monitoring points as per the licence. There was no visual evidence of contamination to any of the surface water courses throughout 2016. |

Table W1 Storm water monitoring

| Location reference | Location relative to site activities | PRTR Parameter | Licensed Parameter | Monitoring date | ELV or trigger level in licence or any revision thereof* | Licence Compliance criteria | Measured value | Unit of measurement | Compliant with licence | Comments Baseline Data / Reg Limits as appropriate listed below |
|--------------------|--------------------------------------|----------------|----------------------|-----------------|--|-----------------------------|----------------|---------------------|------------------------|---|
| SW-9 | onsite | SELECT | Temperature | 21/02/2017 | No | N/A | 10.4 | degrees C | | |
| SW-9 | onsite | SELECT | pH (Field) | 21/02/2017 | No | N/A | 8.94 | pH units | | |
| SW-9 | onsite | SELECT | pH (Lab) | 21/02/2017 | No | N/A | 7.69 | pH units | | |
| SW-9 | onsite | SELECT | Conductivity (Field) | 21/02/2017 | No | N/A | 1,044 | µS/cm@25oC | | |
| SW-9 | onsite | SELECT | Conductivity (Lab) | 21/02/2017 | No | N/A | 1111 | µS/cm@25oC | | |
| SW-9 | onsite | SELECT | Ammonia (as N) | 21/02/2017 | No | N/A | 0.07 | mg/L | | |
| SW-9 | onsite | SELECT | Dissolved Oxygen | 21/02/2017 | No | N/A | 6 | mg/L | | |
| SW-9 | onsite | SELECT | Chloride | 21/02/2017 | No | N/A | 21.1 | mg/L | | |
| SW-9 | onsite | SELECT | Suspended Solids | 21/02/2017 | 35 | All values < ELV | 13 | mg/L | yes | |
| SW-9 | onsite | SELECT | BOD | 21/02/2017 | No | N/A | <1 | mg/L | | |
| SW-9 | onsite | SELECT | COD | 21/02/2017 | No | N/A | 16 | mg/L | | |
| SW-9 | onsite | SELECT | Temperature | 24/05/2017 | No | N/A | 17.9 | degrees C | | |
| SW-9 | onsite | SELECT | pH (Field) | 24/05/2017 | No | N/A | 7.47 | pH units | | |
| SW-9 | onsite | SELECT | pH (Lab) | 24/05/2017 | No | N/A | 7.58 | pH units | | |
| SW-9 | onsite | SELECT | Conductivity (Field) | 24/05/2017 | No | N/A | 880 | µS/cm@25oC | | |
| SW-9 | onsite | SELECT | Conductivity (Lab) | 24/05/2017 | No | N/A | 837 | µS/cm@25oC | | |
| SW-9 | onsite | SELECT | Ammonia (as N) | 24/05/2017 | No | N/A | 0.12 | mg/L | | |
| SW-9 | onsite | SELECT | Dissolved Oxygen | 24/05/2017 | No | N/A | 7 | mg/L | | |
| SW-9 | onsite | SELECT | Chloride | 24/05/2017 | No | N/A | 14 | mg/L | | |
| SW-9 | onsite | SELECT | Suspended Solids | 24/05/2017 | 35 | All values < ELV | 54 | mg/L | no | ELV breached due to disturbed sediment when taking the sample. Refer to Incident INCI012251 |
| SW-9 | onsite | SELECT | BOD | 24/05/2017 | No | N/A | 4 | mg/L | | |
| SW-9 | onsite | SELECT | COD | 24/05/2017 | No | N/A | 15 | mg/L | | |
| SW-9 | onsite | SELECT | Temperature | 24/08/2017 | No | N/A | 16.5 | degrees C | | |
| SW-9 | onsite | SELECT | pH (Field) | 24/08/2017 | No | N/A | 8.88 | pH units | | |
| SW-9 | onsite | SELECT | pH (Lab) | 24/08/2017 | No | N/A | 7.23 | pH units | | |
| SW-9 | onsite | SELECT | Conductivity (Field) | 24/08/2017 | No | N/A | 793 | µS/cm@25oC | | |
| SW-9 | onsite | SELECT | Conductivity (Lab) | 24/08/2017 | No | N/A | 657 | µS/cm@25oC | | |
| SW-9 | onsite | SELECT | Ammonia (as N) | 24/08/2017 | No | N/A | 0.12 | mg/L | | |
| SW-9 | onsite | SELECT | Dissolved Oxygen | 24/08/2017 | No | N/A | 6 | mg/L | | |
| SW-9 | onsite | SELECT | Chloride | 24/08/2017 | No | N/A | 13 | mg/L | | |
| SW-9 | onsite | SELECT | Suspended Solids | 24/08/2017 | 35 | All values < ELV | <10 | mg/L | yes | |
| SW-9 | onsite | SELECT | BOD | 24/08/2017 | No | N/A | 2 | mg/L | | |
| SW-9 | onsite | SELECT | COD | 24/08/2017 | No | N/A | 15 | mg/L | | |
| SW-9 | onsite | SELECT | Temperature | 16/11/2017 | No | N/A | 7.6 | degrees C | | |
| SW-9 | onsite | SELECT | pH (Field) | 16/11/2017 | No | N/A | 8.46 | pH units | | |
| SW-9 | onsite | SELECT | pH (Lab) | 16/11/2017 | No | N/A | 7.3 | pH units | | |
| SW-9 | onsite | SELECT | Conductivity (Field) | 16/11/2017 | No | N/A | 905 | µS/cm@25oC | | |
| SW-9 | onsite | SELECT | Conductivity (Lab) | 16/11/2017 | No | N/A | 1008 | µS/cm@25oC | | |
| SW-9 | onsite | SELECT | Ammonia (as N) | 16/11/2017 | No | N/A | 0.02 | mg/L | | |
| SW-9 | onsite | SELECT | Dissolved Oxygen | 16/11/2017 | No | N/A | 4 | mg/L | | |
| SW-9 | onsite | SELECT | Chloride | 16/11/2017 | No | N/A | 15.2 | mg/L | | |
| SW-9 | onsite | SELECT | Suspended Solids | 16/11/2017 | 35 | All values < ELV | <10 | mg/L | yes | |
| SW-9 | onsite | SELECT | BOD | 16/11/2017 | No | N/A | <1 | mg/L | | |
| SW-9 | onsite | SELECT | COD | 16/11/2017 | No | N/A | <7 | mg/L | | |
| SW-9 | onsite | SELECT | Total Alkalinity | 16/11/2017 | No | N/A | 178 | mg/L | | |
| SW-9 | onsite | SELECT | Sulphate | 16/11/2017 | No | N/A | 363.1 | mg/L | | |
| SW-9 | onsite | SELECT | Total Phosphorus | 16/11/2017 | No | N/A | 134 | µg/L | | |
| SW-9 | onsite | SELECT | Cadmium | 16/11/2017 | No | N/A | <0.5 | µg/L | | |
| SW-9 | onsite | SELECT | Calcium | 16/11/2017 | No | N/A | 177 | mg/L | | |
| SW-9 | onsite | SELECT | Total Chromium | 16/11/2017 | No | N/A | <1.5 | µg/L | | |
| SW-9 | onsite | SELECT | Copper | 16/11/2017 | No | N/A | <7 | µg/L | | |
| SW-9 | onsite | SELECT | Iron | 16/11/2017 | No | N/A | <20 | µg/L | | |
| SW-9 | onsite | SELECT | Lead | 16/11/2017 | No | N/A | <5 | µg/L | | |
| SW-9 | onsite | SELECT | Magnesium | 16/11/2017 | No | N/A | 24.6 | mg/L | | |
| SW-9 | onsite | SELECT | Manganese | 16/11/2017 | No | N/A | 41 | µg/L | | |
| SW-9 | onsite | SELECT | Mercury | 16/11/2017 | No | N/A | <1 | µg/L | | |
| SW-9 | onsite | SELECT | Potassium | 16/11/2017 | No | N/A | 3.6 | mg/L | | |
| SW-9 | onsite | SELECT | Sodium | 16/11/2017 | No | N/A | 12.8 | mg/L | | |
| SW-9 | onsite | SELECT | Zinc | 16/11/2017 | No | N/A | <3 | µg/L | | |

| AER Monitoring returns summary template-WATER/WASTEWATER(SEWER) | | | | | | Lic No: | W0146-02 | Year | 2017 |
|---|--------|--------|--------------|---------|-----------|--|----------|------------|------|
| SW Pond Inlet | onsite | SELECT | pH | Q1 2017 | 9.5 - 6.5 | No flow value shall exceed the specific limit. | 8.29 | pH units | |
| SW Pond Inlet | onsite | SELECT | TOC | Q1 2017 | 20 | No flow value shall exceed the specific limit. | 1.04 | mg/L | Yes |
| SW Pond Inlet | onsite | SELECT | Conductivity | Q1 2017 | 2100 | No flow value shall exceed the specific limit. | 1,431 | µS/cm@25oC | |
| SW Pond Inlet | onsite | SELECT | pH | Q2 2017 | 9.5 - 6.5 | No flow value shall exceed the specific limit. | 8.56 | pH units | |
| SW Pond Inlet | onsite | SELECT | TOC | Q2 2017 | 20 | No flow value shall exceed the specific limit. | 0.26 | mg/L | Yes |
| SW Pond Inlet | onsite | SELECT | Conductivity | Q2 2018 | 2100 | No flow value shall exceed the specific limit. | 1,129 | µS/cm@25oC | |
| SW Pond Inlet | onsite | SELECT | pH | Q3 2017 | 9.5 - 6.5 | No flow value shall exceed the specific limit. | 8.74 | pH units | |
| SW Pond Inlet | onsite | SELECT | TOC | Q3 2017 | 20 | No flow value shall exceed the specific limit. | 1.03 | mg/L | Yes |
| SW Pond Inlet | onsite | SELECT | Conductivity | Q3 2017 | 2100 | No flow value shall exceed the specific limit. | 1,209 | µS/cm@25oC | |
| SW Pond Inlet | onsite | SELECT | pH | Q4 2017 | 9.5 - 6.5 | No flow value shall exceed the specific limit. | 8.44 | pH units | |
| SW Pond Inlet | onsite | SELECT | TOC | Q4 2017 | 20 | No flow value shall exceed the specific limit. | 0 | mg/L | Yes |
| SW Pond Inlet | onsite | SELECT | Conductivity | Q4 2017 | 2100 | No flow value shall exceed the specific limit. | 1,488 | µS/cm@25oC | |

*trigger values may be agreed by the Agency outside of licence conditions

Table W2 Visual inspections-Please only enter details where contamination was observed.

| Location Reference | Date of inspection | Description of contamination | Source of contamination | Corrective action | Comments |
|--------------------|--------------------|---|-------------------------|-------------------|----------|
| SW-9 | Weekly | No Contamination Identified throughout 2017 | SELECT | | |
| | | | SELECT | | |

Licensed Emissions to water and/or wastewater(sewer)-periodic monitoring (non-continuous)

3 Was there any result in breach of licence requirements? If yes please provide brief details in the comment section of Table W3 below

| | |
|-----|------------------------|
| Yes | Additional information |
| Yes | |

Was all monitoring carried out in accordance with EPA guidance and checklists for Quality of Aqueous Monitoring Data Reported to the EPA? If no please detail what areas require improvement in additional information box

[External/Internal Lab. Quality checklist](#) [Assessment of results checklist](#)

Table W3: Licensed Emissions to water and/or wastewater (sewer)-periodic monitoring (non-continuous)

| Emission reference no: | Emission released to | Parameter/ SubstanceNote 1 | Type of sample | Frequency of monitoring | Averaging period | ELV or trigger values in licence or any revision thereo ^{Note 2} | Licence Compliance criteria | Measured value | Unit of measurement | Compliant with licence | Method of analysis | Procedural reference source | Procedural reference standard number | Annual mass load (kg) | Comments |
|------------------------|----------------------|----------------------------|----------------|-------------------------|------------------|---|-----------------------------|----------------|---------------------|---|--------------------|-----------------------------|--------------------------------------|-----------------------|------------------------------------|
| SW-9 | Water | Suspended Solids | discrete | Quarterly | SELECT | 35 | All values < ELV | 54 | mg/L | no (if no please enter details in comments box) | SELECT | SELECT | | | Sediment disturbed during sampling |

Note 1: Volumetric flow shall be included as a reportable parameter

Note 2: Where Emission Limit Values (ELV) do not apply to your licence please compare results against EQS for Surface water or relevant receptor quality standards

Continuous monitoring

5 Does your site carry out continuous emissions to water/sewer monitoring? Additional Information

| | |
|----|--|
| No | |
|----|--|

If yes please summarise your continuous monitoring data below in Table W4 and compare it to its relevant Emission Limit Value (ELV)

6 Did continuous monitoring equipment experience downtime? If yes please record downtime in table W4 below

| | |
|--|--|
| | |
|--|--|

7 Do you have a proactive service contract for each piece of continuous monitoring equipment on site?

| | |
|--|--|
| | |
|--|--|

8 Did abatement system bypass occur during the reporting year? If yes please complete table W5 below

| | |
|--|--|
| | |
|--|--|

Table W4: Summary of average emissions -continuous monitoring

| Emission reference no: | Emission released to | Parameter/ Substance | ELV or trigger values in licence or any revision thereof | Averaging Period | Compliance Criteria | Units of measurement | Annual Emission for current reporting year (kg) | % change +/- from previous reporting year | Monitoring Equipment downtime (hours) | Number of ELV exceedences in reporting year | Comments |
|------------------------|----------------------|----------------------|--|------------------|---------------------|----------------------|---|---|---------------------------------------|---|----------|
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

note 1: Volumetric flow shall be included as a reportable parameter.

Table W5: Abatement system bypass reporting table

| Date | Duration (hours) | Location | Resultant emissions | Reason for bypass | Corrective action* | Was a report submitted to the EPA? | When was this report submitted? |
|------|------------------|----------|---------------------|-------------------|--------------------|------------------------------------|---------------------------------|
| | | | | | | SELECT | |
| | | | | | | | |
| | | | | | | | |

*Measures taken or proposed to reduce or limit bypass frequency

Bund testing dropdown menu click to see options

Are you required by your licence to undertake integrity testing on bunds and containment structures? If yes please fill out table B1 below listing all new bunds and containment structures on site, in addition to all bunds which failed the integrity test - all bunding structures which failed including mobile bunds must be listed in the table below, please include all bunds outside the licenced testing period (mobile bunds and chemstore included)

- 1 Please provide integrity testing frequency period
- 2 Does the site maintain a register of bunds, underground pipelines (including stormwater and foul), Tanks, sumps and containers? (containers refers to "Chemstore" type units and mobile bunds)
- 3 How many bunds are on site?
- 4 How many of these bunds have been tested within the required test schedule?
- 5 How many mobile bunds are on site?
- 6 Are the mobile bunds included in the bund test schedule?
- 7 How many of these mobile bunds have been tested within the required test schedule?
- 8 How many sumps on site are included in the integrity test schedule?
- 9 How many of these sumps are integrity tested within the test schedule?

Please list any sump integrity failures in table B1

- 10 Do all sumps and chambers have high level liquid alarms?
- 11 If yes to Q11 are these failsafe systems included in a maintenance and testing programme?
- 12 Is the Fire Water Retention Pond included in your integrity test programme?

| Additional information | |
|------------------------|--|
| Yes | |
| 3 years | |
| Yes | |
| 10 | |
| 10 | |
| 8 | |
| Yes | |
| 4 | |
| 0 | |
| n/a | |
| N/A | |
| SELECT | |
| SELECT | |

Table B1: Summary details of bund /containment structure integrity test

| Bund/Containment structure ID | Type | Specify Other type | Product containment | Actual capacity | Capacity required* | Type of integrity test | Other test type | Test date | Integrity reports maintained on site? | Results of test | Integrity test failure explanation <50 words | Corrective action taken | Scheduled date for retest | Results of retest(if in current reporting year) |
|--|------------------------|---|---------------------|-----------------|--------------------|------------------------|--|----------------|---------------------------------------|-----------------|--|-------------------------|---------------------------|---|
| Diesel Bund 1: Diesel Storage Compound | reinforced concrete | | diesel | 6m3 | 6.6m3 | Hydraulic test | Visual Assessment & partial hydrostatic test | 8 & 9 /3/2017 | Yes | Pass | | SELECT | | |
| Bund B2: Mobile Bund | prefabricated | | oil | 1m3 | 1.1m3 | Hydraulic test | Visual Assessment & partial hydrostatic test | 24 & 25/2/2017 | Yes | Pass | | SELECT | | |
| Bund B3: Mobile Bund | prefabricated | | oil | 1m3 | 1.14m3 | Hydraulic test | Visual Assessment & partial hydrostatic test | 24 & 25/2/2017 | Yes | Pass | | SELECT | | |
| Bund B4: Mobile Bund | prefabricated | | | 0.22m3 | 0.25m3 | Hydraulic test | Visual Assessment & partial hydrostatic test | 24 & 25/2/2017 | Yes | Pass | | SELECT | | |
| Bund B5: Mobile Bund | prefabricated | | oil | 0.22m3 | 0.25m3 | Hydraulic test | Visual Assessment & partial hydrostatic test | 24 & 25/2/2017 | Yes | Pass | | SELECT | | |
| Bunded Storage Container (B6) | other (please specify) | Steel constructed bund with a storage container in the base | hydraulic oils | 1.6m3 | 1.8m3 | Hydraulic test | Visual Assessment & partial hydrostatic test | 24 & 25/2/2017 | Yes | Pass | | SELECT | | |
| Bund B7: Mobile Bund | prefabricated | | | 0.04m3 | 0.05m3 | Hydraulic test | Visual Assessment & partial hydrostatic test | 24 & 25/2/2017 | Yes | Pass | | SELECT | | |
| Bund B8: Mobile Bund | prefabricated | | | 0.22m3 | 0.25m3 | Hydraulic test | Visual Assessment & partial hydrostatic test | 24 & 25/2/2017 | Yes | Pass | | SELECT | | |
| Bund B9: Mobile Bund | prefabricated | | | 0.22m3 | 0.25m3 | Hydraulic test | Visual Assessment & partial hydrostatic test | 24 & 25/2/2017 | Yes | Pass | | SELECT | | |
| Bund B10: Mobile Bund | prefabricated | | oil | 0.22m3 | 0.25m3 | Hydraulic test | Visual Assessment & partial hydrostatic test | 24 & 25/2/2017 | Yes | Pass | | SELECT | | |

* Capacity required should comply with 25% or 110% containment rule as detailed in your licence

Has integrity testing been

15 carried out in accordance

[bundling and storage guidelines](#)

| | |
|--------|--|
| Yes | |
| SELECT | |
| SELECT | |

16 Are channels/transfer systems to remote containment systems tested?

17 Are channels/transfer systems compliant in both integrity and available volume?

Pipeline/underground structure testing

Are you required by your

licence to undertake

1 integrity testing* on

2 Please provide integrity testing frequency period

*please note integrity testing means water tightness testing for process and foul pipelines (as required under your licence)

| | |
|--------|--|
| No | |
| SELECT | |

Summary details of pipeline/underground structures integrity test

| Structure ID | Type system | Material of construction: | Does this structure have Secondary containment? | Type of secondary containment | Type integrity testing | Integrity reports maintained on site? | Results of test | Integrity test failure explanation <50 words | Corrective action taken | Scheduled date for retest | Results of retest(if in current reporting year) |
|--------------|-------------|---------------------------|---|-------------------------------|------------------------|---------------------------------------|-----------------|--|-------------------------|---------------------------|---|
| | SELECT | SELECT | SELECT | SELECT | SELECT | SELECT | SELECT | | | | SELECT |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

Please use commentary for additional details not answered by tables/ questions above

| | | | | |
|---|---------|----------|------|------|
| Groundwater/Soil monitoring template | Lic No: | W0146-02 | Year | 2017 |
|---|---------|----------|------|------|

| | | | Comments |
|----|---|-----|--|
| 1 | Are you required to carry out groundwater monitoring as part of your licence requirements? | yes | Please provide an interpretation of groundwater monitoring data in the interpretation box below or if you require additional space please include a groundwater/contaminated land monitoring results interpretaion as an additional section in this AER Groundwater monitoring at Knockharley is compared to Groundwater Trigger Levels approved by the Agency in December 2011. None of the results exceed the IGV / GTVs and any of the upward trends are very slight, generally caused by one or two peaks and one or two results of zero or less than the limit of detection and therefore a groundwater risk assessment is not deemed to be required at this time. |
| 2 | Are you required to carry out soil monitoring as part of your licence requirements? | no | |
| 3 | Do you extract groundwater for use on site? If yes please specify use in comment section | no | |
| 4 | Do monitoring results show that groundwater generic assessment criteria such as GTVs or IGVs are exceeded or is there an upward trend in results for a substance? If yes, please complete the Groundwater Monitoring Guideline Groundwater Monitoring Template Report (link in cell G8) and submit separately through ALDER as a licensee return AND answer questions 5-12 below. | no | |
| 5 | Is the contamination related to operations at the facility (either current and/or historic) | N/A | |
| 6 | Have actions been taken to address contamination issues?If yes please summarise remediation strategies proposed/undertaken for the site | N/A | |
| 7 | Please specify the proposed time frame for the remediation strategy | N/A | |
| 8 | Is there a licence condition to carry out/update ELRA for the site? | yes | |
| 9 | Has any type of risk assesment been carried out for the site? | yes | |
| 10 | Has a Conceptual Site Model been developed for the site? | yes | |
| 11 | Have potential receptors been identified on and off site? | yes | |
| 12 | Is there evidence that contamination is migrating offsite? | no | |

Table 1: Upgradient Groundwater monitoring results

| Date of sampling | Sample location reference | Parameter/ Substance | Methodology | Monitoring frequency | Maximum Concentration++ | Average Concentration+ | unit | GTV's* | SELECT** | Upward trend in pollutant concentration over last 5 years of monitoring data |
|------------------|---------------------------|---------------------------------|----------------------------------|----------------------|-------------------------|------------------------|------------|-----------|----------|--|
| 2017 | MW1D | pH (Field) | Field Probe | Quarterly | 7.88 | 7.76 | pH Units | 6.5 - 9.5 | IGV | No |
| 2017 | MW1D | Electrical Conductivity (Field) | Field Probe | Quarterly | 680 | 668 | µS/cm | 1000 | IGV | Yes |
| 2017 | MW1D | Temperature | Field Probe | Quarterly | 10.6 | 10.275 | °C | 25 | site GTL | No |
| 2017 | MW1D | Ammoniacal Nitrogen as N | Kone Spectrophotometric Analyser | Quarterly | 0.336 | 0.221 | mg/l | 1.96 | site GTL | No |
| 2017 | MW1D | Dissolved Oxygen | | Quarterly | 6.78 | 4.6525 | mg/l | NAC | IGV | Yes |
| 2017 | MW1D | Chloride | Kone Spectrophotometric Analyser | Quarterly | 24.1 | 23.95 | mg/l | 31.28 | site GTL | No |
| 2017 | MW1D | Iron | ICP-OES | Quarterly | 0.0745 | 0.0329 | mg/l | 0.2 | IGV | No |
| 2017 | MW1D | Potassium | ICP-OES | Quarterly | 3.64 | 3.54 | mg/l | 6.25 | site GTL | No |
| 2017 | MW1D | Sodium | ICP-OES | Quarterly | 41.4 | 40.1 | mg/l | 112.3 | site GTL | Yes |
| 2017 | MW1D | Total Oxidised Nitrogen | Kone Spectrophotometric Analyser | Quarterly | 0.183 | 0.168 | mg/l | NAC | site GTL | No |
| 2017 | MW1D | Total Organic Carbon | Colorimetry | Quarterly | 0 | <3 | mg/l | 12.99 | site GTL | No |
| 2017 | MW1D | Phenols | HPLC | Quarterly | 0 | <0.025 | mg/l | 0.02 | site GTL | No |
| 2017 | MW1D | Faecal Coliforms | Membrane Filtration | Quarterly | 14 | 10 | cfu/100mls | 0 | IGV | Yes |
| 2017 | MW1D | Total Coliforms | Collert System | Quarterly | 291 | 98 | cfu/100mls | 0 | IGV | Yes |

.+ where average indicates arithmetic mean

.++ maximum concentration indicates the maximum measured concentration from all monitoring results produced during the reporting year

Table 2: Downgradient Groundwater monitoring results

| Date of sampling | Sample location reference | Parameter/ Substance | Methodology | Monitoring frequency | Maximum Concentration | Average Concentration | unit | GTV's* | SELECT** | Upward trend in yearly average pollutant concentration over last 5 years of monitoring data |
|------------------|---------------------------|---------------------------------|----------------------------------|----------------------|-----------------------|-----------------------|------------|-----------|----------|---|
| 2017 | MW6D | pH (Field) | Field Probe | Quarterly | 8.06 | 7.74 | pH Units | 6.5 - 9.5 | IGV | Yes |
| 2017 | MW6D | Electrical Conductivity (Field) | Field Probe | Quarterly | 625 | 618 | µS/cm | 1000 | IGV | Yes |
| 2017 | MW6D | Temperature | Field Probe | Quarterly | 11.1 | 10.58 | °C | 25 | site GTL | No |
| 2017 | MW6D | Ammoniacal Nitrogen as N | Kone Spectrophotometric Analyser | Quarterly | 0.77 | 0.51 | mg/l | 1.96 | site GTL | No |
| 2017 | MW6D | Dissolved Oxygen | | Quarterly | 9.3 | 7.63 | mg/l | NAC | IGV | Yes |
| 2017 | MW6D | Chloride | Kone Spectrophotometric Analyser | Quarterly | 18 | 17.53 | mg/l | 31.28 | site GTL | No |
| 2017 | MW6D | Iron | ICP-OES | Quarterly | <0.019 | <0.019 | mg/l | 0.2 | IGV | No |
| 2017 | MW6D | Potassium | ICP-OES | Quarterly | 2.78 | 2.61 | mg/l | 6.25 | site GTL | No |
| 2017 | MW6D | Sodium | ICP-OES | Quarterly | 24.3 | 23.45 | mg/l | 112.3 | site GTL | Yes |
| 2017 | MW6D | Total Oxidised Nitrogen | Kone Spectrophotometric Analyser | Quarterly | 0.403 | 0.255 | mg/l | NAC | site GTL | Yes |
| 2017 | MW6D | Total Organic Carbon | Colorimetry | Quarterly | <3 | <3 | mg/l | 12.99 | site GTL | No |
| 2017 | MW6D | Phenols | HPLC | Quarterly | <0.025 | <0.025 | mg/l | 0.02 | site GTL | No |
| 2017 | MW6D | Faecal Coliforms | Membrane Filtration | Quarterly | 660 | 428 | cfu/100mls | 0 | IGV | Yes |
| 2017 | MW6D | Total Coliforms | Colilert System | Quarterly | 600 | 398 | cfu/100mls | 0 | IGV | No |

*please note exceedance of generic assessment criteria (GAC) such as a Groundwater Threshold Value (GTV) or an Interim Guideline Value (IGV) or an upward trend in results for a substance indicates that further interpretation of monitoring results is required. In addition to completing the above table, please complete the Groundwater Monitoring Guideline Template Report at the link provided and submit separately through ALDER as a licensee return or as otherwise instructed by the EPA. [Groundwater monitoring template](#)

More information on the use of soil and groundwater standards/ generic assessment criteria (GAC) and risk assessment tools is available in the EPA published guidance (see the link in G31). [Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites \(EPA 2013\).](#)

**Depending on location of the site and proximity to other sensitive receptors alternative Receptor based Water Quality standards should be used in addition to the GTV e.g. if the site is close to surface water compare to Surface Water Environmental Quality Standards (SWEQS), if the site is close to a drinking water supply compare results to the Drinking Water Standards (DWS). [Groundwater regulations](#), [Drinking water \(private supply\) standards](#), [Drinking water \(public supply\) standards](#), [Interim Guideline Values \(IGV\)](#)

Table 3: Soil results

| Date of sampling | Sample location reference | Parameter/ Substance | Methodology | Monitoring frequency | Maximum Concentration | Average Concentration | unit |
|------------------|---------------------------|----------------------|-------------|----------------------|-----------------------|-----------------------|--------|
| | | | | | | | SELECT |
| | | | | | | | SELECT |

Where additional detail is required please enter it here in 200 words or less

Environmental Liabilities template

Lic No:

W0146-02

Year

2017

[Click here to access EPA guidance on Environmental Liabilities and Financial provision](#)

| | | Commentary | |
|----|---|----------------------------|---|
| 1 | ELRA initial agreement status | Required but not submitted | To be forwarded to the Agency in due course |
| 2 | ELRA review status | SELECT | |
| 3 | Amount of Financial Provision cover required as determined by the latest ELRA | Specify | |
| 4 | Financial Provision for ELRA status | SELECT | |
| 5 | Financial Provision for ELRA - amount of cover | Specify | |
| 6 | Financial Provision for ELRA - type | SELECT | |
| 7 | Financial provision for ELRA expiry date | Enter expiry date | |
| 8 | Closure plan initial agreement status | SELECT | |
| 9 | Closure plan review status | SELECT | |
| 10 | Financial Provision for Closure status | SELECT | |
| 11 | Financial Provision for Closure - amount of cover | Specify | |
| 12 | Financial Provision for Closure - type | SELECT | |
| 13 | Financial provision for Closure expiry date | Enter expiry date | |

| | | | | | |
|---|--|---------|----------|------|------|
| Environmental Management Programme/Continuous Improvement Programme template | | Lic No: | W0146-02 | Year | 2017 |
|---|--|---------|----------|------|------|

| Highlighted cells contain dropdown menu click to view | | Additional Information | |
|---|---|------------------------|--|
| 1 | Do you maintain an Environmental Mangement System (EMS) for the site. If yes, please detail in additional information | Yes | |
| 2 | Does the EMS reference the most significant environmental aspects and associated impacts on-site | Yes | |
| 3 | Does the EMS maintain an Environmental Management Programme (EMP) as required in accordance with the licence requirements | Yes | |
| 4 | Do you maintain an environmental documentation/communication system to inform the public on environmental performance of the facility, as required by the licence | Yes | |

Environmental Management Programme (EMP) report

| Objective Category | Target | Status (% completed) | How target was progressed | Responsibility | Intermediate outcomes |
|-------------------------------|--|----------------------|--|----------------|--|
| Reduction of emissions to Air | Hold bi-annual gas management meetings to review existing infrastructure, discuss maintenance and upgrades as required | Ongoing | Meetings held and documented | Section Head | Increased compliance with licence conditions |
| Reduction of emissions to Air | In accordance with Condition 6.10.5 of the IED Licence , the site will aim to reduce the number of fugitive VOC emissions from the landfill at each survey. Records are kept showing the survey results. | Ongoing | Progressive final and intermediate capping, continuous gas extraction. | Individual | Reduced emissions |
| Reduction of emissions to Air | All waste filled to final levels during 2015 to have final cap within 24 months | Ongoing | Structured capping program due for completion in 2017 | Section Head | Reduced emissions |
| Reduction of emissions to Air | Maintain O2 level at 2.5% or below for optimal running and output of generators. | Ongoing | Regular landfill infrastructure checks and field balancing | Individual | Reduced emissions |
| Reduction of emissions to Air | Continue with placement of Geo Hess temporary capping along the outer flanks of the landfill | Ongoing | Placement of geohess on outer flank of landfill | Section Head | Reduced emissions |
| Reduction of emissions to Air | Increase use of double lifts and horizontal wells along exposed outer flanks of landfill | Ongoing | As per Target | Section Head | Increased compliance with licence conditions |

| Environmental Management Programme/Continuous Improvement Programme template | | | | Lic No: | W0146-02 | Year | 2017 |
|--|--|--------------------|---|--------------|----------|--|------|
| Reduction of emissions to Wastewater | Continue to monitor and control leachate through quarterly leachate quality monitoring and weekly leachate level checks | Ongoing | Weekly and quarterly checks completed | Section Head | | Increased compliance with licence conditions | |
| Reduction of emissions to Wastewater | Implement recirculation of leachate at the landfill | Ongoing | Approved by the Agency. Now implemented in Cells 3 and 4. | Section Head | | Reduced emissions | |
| Reduction of emissions to Wastewater | Continually assess and upgrade infrastructure as necessary. Cells are filled on an individual basis, which decreases leachate volume. | Ongoing | Cells filled on individual basis, on site checks are completed during cell construction | Section Head | | Reduced emissions | |
| Reduction of emissions to Water | Construct leachate processing plant on site. Investigations under way to source new WWTP's within 100kms of the landfill which has the capacity to accept leachate in tankers from the site. | Plans on hold | Plans on hold | | | Reduced emissions | |
| Reduction of emissions to Wastewater | Install permanent capping to all finished areas of landfill and extra clay capping on intermediate areas. Geo Hess flanks of Cell 11. | Ongoing | Start geo hess placement in 2016 | Individual | | Reduced emissions | |
| Additional improvements | Maintain and continue to improve all on site landscaping and the wetland area. | Ongoing (seasonal) | Carried out in-house | Section Head | | Improved Environmental Management Practices | |
| Additional improvements | Employ a landscape contractor to assess plantations, replace failed trees/plants and improve the overall general appearance of the landfill site. | Ongoing (seasonal) | Carried out in-house | Individual | | Improved Environmental Management Practices | |
| Additional improvements | Implement planting of fruit and nut trees as part of landscaping in planning application. | Plans on hold | Planning application withdrawn | Section Head | | Improved Environmental Management Practices | |

| Environmental Management Programme/Continuous Improvement Programme template | | | Lic No: | W0146-02 | Year | 2017 |
|--|--|----------|---|--------------|--|------|
| Additional improvements | Review relationships with neighbours and interested parties on a continual basis and review communications programme annually. | Ongoing | Assess communications programme annually. | Section Head | Improved Environmental Management Practices | |
| Additional improvements | Review the number and composition of complaints to determine any trends. | 100% | Monthly assessment of complaints. | Section Head | Less complaints | |
| Additional improvements | Extend litter picking to include inner boundary road as illegal dumping appears to occur here occasionally. | Ongoing | As per Target | Individual | Increased compliance with licence conditions | |
| Additional improvements | Continue to hold regular meetings with local residents. | Ongoing | Meetings held and documented | Section Head | Improved Environmental Management Practices | |
| Additional improvements | Finish cell 11 and go into cell 14 where visual aspect can be minimised. When Cell 14 is full, filling of Cell 13 will commence. | Ongoing | As per development of Landfill | Individual | Increased compliance with licence conditions | |
| Additional improvements | Continue with litter patrols and litter picking | Ongoing | Done weekly | Individual | Increased compliance with licence conditions | |
| Additional improvements | Actively encourage site visits from interested parties i.e. local community groups, schools, clubs, etc. | Ongoing | Ongoing | Section Head | Improved Environmental Management Practices | |
| Additional improvements | Continue distribution of newsletter to local people at regular intervals. | On Hold | | Section Head | Improved Environmental Management Practices | |
| Additional improvements | Continue to provide sponsorship of interested local parties, clubs, etc. | Ongoing | Ongoing | Section Head | Improved Environmental Management Practices | |
| Additional improvements | Keep Public Information Room updated and current. | Ongoing | Ongoing in 2016 | Section Head | Less complaints | |
| Additional improvements | Review Communications Programme | Complete | Jan-16 | Section Head | Less complaints | |
| Energy Efficiency/Utility conservation | Continual monitoring of annual usage, reported in AER | Ongoing | Ongoing | Section Head | Reduced emissions | |

| Environmental Management Programme/Continuous Improvement Programme template | | Lic No: | W0146-02 | Year | 2017 |
|--|---|----------|----------------------------|--------------|--|
| Reduction of emissions to Air | Cap in progressive, small sections to reduce of potential fugitive emissions. Coordinate with the contractor on this and include nuisance issues in regular construction meetings | Ongoing | As per target | Individual | Reduced emissions |
| Materials Handling/Storage/Bunding | Construction of an extension to the concrete plinth of the diesel storage area, to include a berm on the bund. | Complete | Apr-16 | Individual | Increased compliance with licence conditions |
| Additional improvements | Development of a new 'evaluation of legal compliance' tool. Implementation of Pegasus (Register of Legislation) | Complete | Apr-16 | Section Head | Increased compliance with licence conditions |
| Additional improvements | Develop and implement environmental training for all staff | 100% | Ongoing on an annual basis | Section Head | Improved Environmental Management Practices |

Noise monitoring summary report Lic No: W0146-02 Year 2017

- 1 Was noise monitoring a licence requirement for the AER period?
If yes please fill in table N1 noise summary below
- 2 Was noise monitoring carried out using the EPA Guidance note, including completion of the "Checklist for noise measurement report" included in the guidance note as table 6? [Noise Guidance note NG4](#)
- 3 Does your site have a noise reduction plan
- 4 When was the noise reduction plan last updated?
- 5 Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey?

Table N1: Noise monitoring summary

| Date of monitoring | Time period | Noise location (on site) | Noise sensitive location -NSL (if applicable) | LA _{eq} | LA ₉₀ | LA ₁₀ | LA _{max} | Tonal or impulsive noise* (Y/N) | If tonal /impulsive noise was identified was 5dB penalty applied? | Comments (ex. main noise sources on site, & extraneous noise ex. road traffic) | Is site compliant with noise limits (day/evening/night)? |
|--------------------|-------------|--------------------------|---|------------------|------------------|------------------|-------------------|---------------------------------|---|--|--|
| 02/11/2017 | Daytime | N1 | | 51 | 38 | 49 | | No | | Passing traffic dominant when present. N2 traffic quite audible. Dog barking at nearby dwelling clearly audible. Tractor audible at low level throughout | Yes |
| 02/11/2017 | Daytime | N2 | | 55 | 36 | 45 | | No | | Passing traffic dominant when present. Distant N2 traffic quite audible. Birdsong/aircraft/cockerel crowing clearly audible. Distant dog barking. | Yes |
| 02/11/2017 | Daytime | N3 | | 48 | 45 | 50 | | No | | N2 traffic clearly audible. Birdsong / aircraft / dog barking. Excavator operating to N occasionally audible. | Yes |
| 02/11/2017 | Daytime | N4 | | 48 | 32 | 43 | | No | | Passing traffic audible when present. N2 traffic quite audible. Dog barking, voices and car movements at local dwelling clearly audible. Birdsong / Aircraft / Localised Car | Yes |

*Please ensure that a tonal analysis has been carried out as per guidance note NG4. These records must be maintained onsite for future inspection

If noise limits exceeded as a result of noise attributed to site activities, please choose the corrective action from the following options?

| |
|--|
| ** please explain the reason for not taking action/resolution of noise issues? |
| Any additional comments? (less than 200 words) |

Resource Usage/Energy efficiency summary

Lic No:

W0146-02

Year

2017

Additional information

1 When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below

| | |
|--------|----------------|
| Sep-10 | |
| No | |
| SELECT | Not Applicable |

2 Is the site a member of any accredited programmes for reducing energy usage/water conservation such as the SEAI programme linked to the right? If yes please list them in additional information

[SEAI - Large Industry Energy Network \(LIEN\)](#)

3 Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

| Table R1 Energy usage on site | | | | |
|--|---------------|--------------|--|--|
| Energy Use | Previous year | Current year | Production +/- % compared to previous reporting year** | Energy Consumption +/- % vs overall site production* |
| Total Energy Used (MWHrs) | | | | |
| Total Energy Generated (MWHrs) | | | | |
| Total Renewable Energy Generated (MWHrs) | | | | |
| Electricity Consumption (MWHrs) | 176.298 | 169.7 | 96.26% | |
| Fossil Fuels Consumption: | | | | |
| Heavy Fuel Oil (m3) | | | | |
| Light Fuel Oil (m3) | 305.887 | 426.426 | 139.41% | |
| Natural gas (m3) | | | | |
| Coal/Solid fuel (metric tonnes) | | | | |
| Peat (metric tonnes) | | | | |
| Renewable Biomass | | | | |
| Renewable energy generated on site | | | | |

* where consumption of energy can be compared to overall site production please enter this information as percentage increase or decrease compared to the previous reporting year.

** where site production information is available please enter percentage increase or decrease compared to previous year

| Table R2 Water usage on site | | | | | Water Emissions | Water Consumption | |
|------------------------------|--------------------------------------|-------------------------------------|--|--|--|--|------------------------|
| Water use | Water extracted Previous year m3/yr. | Water extracted Current year m3/yr. | Production +/- % compared to previous reporting year** | Energy Consumption +/- % vs overall site production* | Volume Discharged back to environment(m ³ /yr): | Volume used i.e not discharged to environment e.g. released as steam m3/yr | Unaccounted for Water: |
| Groundwater | | | | | | | |
| Surface water | | | | | | | |
| Public supply | 5314 | 4180 | 78.66% | | | | |
| Recycled water | | | | | | | |
| Total | | | | | | | |

* where consumption of water can be compared to overall site production please enter this information as percentage increase or decrease compared to the previous reporting year.

** where site production information is available please enter percentage increase or decrease compared to previous year

| | | | |
|---|------------------|------|------|
| Resource Usage/Energy efficiency summary | Lic No: W0146-02 | Year | 2017 |
|---|------------------|------|------|

| Table R3 Waste Stream Summary | | | | | |
|-------------------------------|-------|----------|--------------|----------|-------|
| | Total | Landfill | Incineration | Recycled | Other |
| Hazardous (Tonnes) | | | | | |
| Non-Hazardous (Tonnes) | | | | | |

| Table R4: Energy Audit finding recommendations | | | | | | | | |
|--|-----------------|----------------------------------|--------------------|----------------------------|---------------------|----------------|-----------------|---------------------|
| Date of audit | Recommendations | Description of Measures proposed | Origin of measures | Predicted energy savings % | Implementation date | Responsibility | Completion date | Status and comments |
| Sep-10 | | | SELECT | | | | | |
| | | | SELECT | | | | | |
| | | | SELECT | | | | | |

Table R5: Power Generation: Where power is generated onsite (e.g. power generation facilities/food and drink industry) please complete the following information

| | Unit ID | Unit ID | Unit ID | Unit ID | Station Total |
|---|---------|---------|---------|---------|---------------|
| Technology | | | | | |
| Primary Fuel | | | | | |
| Thermal Efficiency | | | | | |
| Unit Date of Commission | | | | | |
| Total Starts for year | | | | | |
| Total Running Time | | | | | |
| Total Electricity Generated (GWH) | | | | | |
| House Load (GWH) | | | | | |
| KWH per Litre of Process Water | | | | | |
| KWH per Litre of Total Water used on Site | | | | | |

| | | |
|--|------------------|------------|
| Complaints and Incidents summary template | Lic No: W0146-02 | Year: 2017 |
|--|------------------|------------|

Complaints

Additional information

Have you received any environmental complaints in the current reporting year? If yes please complete summary details of complaints received on site in table 1 below

Yes

| Table 1 Complaints summary | | | | | | | |
|---|--------------------------|-----------------------------|---|-----------------------------|-------------------|-----------------|---------------------|
| Date | Category | Other type (please specify) | Brief description of complaint (Free txt <20 words) / EPA Complaint Ref | Corrective action< 20 words | Resolution status | Resolution date | Further information |
| 05/01/2017 | Odour | | | | Complete | 05/01/2017 | |
| 24/01/2017 | Odour (21-22nd Jan 2017) | | COM005730 | | Complete | 24/01/2017 | |
| 27/01/2017 | Odour | | COM005745 | | Complete | 27/01/2017 | |
| 30/01/2017 | Odour | | COM005746 | | Complete | 30/01/2017 | |
| 31/01/2017 | Odour | | COM005754 | | Complete | 31/01/2017 | |
| 01/02/2017 | Vibration | | COM005763 | | Complete | 07/02/2017 | |
| 03/02/2017 | Vibration | | COM005767 | | Complete | 07/02/2017 | |
| 08/02/2017 | Vibration | | COM005791 | | Complete | 08/02/2017 | |
| 08/02/2017 | Odour | | COM005792 | | Complete | 08/02/2017 | |
| 23/02/2017 | Vibration/noise | | COM005848 | | Complete | 23/02/2017 | |
| 03/03/2017 | Noise | | COM005869 | | Complete | 03/03/2017 | |
| 07/03/2017 | Odour | | | | Complete | 07/03/2017 | |
| 08/03/2017 | Noise | | | | Complete | 08/03/2017 | |
| 16/03/2017 | Noise/vibration | | | | Complete | 16/03/2017 | |
| 20/03/2017 | Odour | | COM005918 | | Complete | 20/03/2017 | |
| 03/04/2017 | Noise/vibration | | | | Complete | 03/04/2017 | |
| 03/04/2017 | Noise/vibration | | | | Complete | 03/04/2017 | |
| 23/05/2017 | Noise (Hum) | | | | Complete | 23/05/2017 | |
| 12/06/2017 | Odour | | | | Complete | 12/06/2017 | |
| 23/06/2017 | Odour | | | | Complete | 23/06/2017 | |
| 07/07/2017 | Noise(HUM) | | COM006429 | | Complete | 07/07/2017 | |
| 30/08/2017 | Noise (Hum) | | | | Complete | 30/08/2017 | |
| 29/09/2017 | Odour | | | | Complete | 29/09/2017 | |
| 18/10/2017 | Odour | | | | Complete | 18/10/2017 | |
| 23/10/2017 | Odour | | COM006816 | | Complete | 23/10/2017 | |
| 27/10/2017 | Odour | | COM006831 | | Complete | 27/10/2017 | |
| 30/10/2017 | Odour | | | | Complete | 30/10/2017 | |
| 01/11/2017 | Odour/Hum | | | | Complete | 01/11/2017 | |
| 17/11/2017 | Odour | | | | Complete | 17/11/2017 | |
| 18/11/2017 | Odour | | | | Complete | 18/11/2017 | |
| 26/11/2017 | Odour | | | | Complete | 26/11/2017 | |
| 05/12/2017 | Odour | | | | Complete | 05/12/2017 | |
| 27/12/2017 | Noise | | | | Complete | 27/12/2017 | |
| 30/12/2017 | Odour | | | | Complete | 30/12/2017 | |
| Total complaints open at start of reporting year | | 0 | | | | | |
| Total new complaints received during reporting year | | 34 | | | | | |
| Total complaints closed during reporting year | | 34 | | | | | |
| Balance of complaints end of reporting year | | 0 | | | | | |

| WASTE SUMMARY | | Lic No: | W0146-02 | Year | 2017 |
|--|--|---------|-------------------------------------|------------------------------------|------|
| SECTION A-PRTR ON SITE WASTE TREATMENT AND WASTE TRANSFERS TAB- TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES | | | PRTR facility login | dropdown list click to see options | |

SECTION B- WASTE ACCEPTED ONTO SITE-TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES

Additional Information

Were any wastes accepted onto your site for recovery or disposal or treatment prior to recovery or disposal within the boundaries of your facility?; (waste generated within your boundaries is to be captured through PRTR reporting)

If yes please enter details in table 1 below

| | |
|-----|--|
| Yes | |
|-----|--|

2 Did your site have any rejected consignments of waste in the current reporting year? If yes please give a brief explanation in the additional information

| | |
|----|--|
| No | |
|----|--|

3 Was waste accepted onto your site that was generated outside the Republic of Ireland? If yes please state the quantity in tonnes in additional information

| | |
|----|--|
| No | |
|----|--|

Table 1 Details of waste accepted onto your site for recovery, disposal or treatment (do not include wastes generated at your site, as these will have been reported in your PRTR workbook)

| Licensed annual tonnage limit for your site (total tonnes/annum) | EWC code | Source of waste accepted | Description of waste accepted Please enter an accurate and detailed description which applies to relevant EWC code | Quantity of waste accepted in current reporting year (tonnes) | Quantity of waste accepted in previous reporting year (tonnes) | Reduction/ Increase over previous year +/- % | Reason for reduction/ increase from previous reporting year | Packaging Content (%) - only applies if the waste has a packaging component | Disposal/Recovery or treatment operation carried out at your site and the description of this operation | Quantity of waste remaining on site at the end of reporting year (tonnes) | Comments - |
|--|--|---|--|---|--|--|---|---|---|---|------------|
| | European Waste Catalogue EWC codes | | European Waste Catalogue EWC codes | | | | | | | | |
| | EWC 08 01 14 | 08- WASTES FORM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS,) ADHESIVES, SEALANTS AND PRINTING INKS | Sludges from Paint or Varnish other than those mentioned in 08 01 13 | 0 | 28.6 | -100% | | | D5- Specially engineered landfill | | |
| | EWC 08 03 15 | 08- WASTES FORM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS,) ADHESIVES, SEALANTS AND PRINTING INKS | Ink sludges other than those mentioned in 08 03 14 | 54.1 | 63.04 | -15% | Market Forces | | D5- Specially engineered landfill | | |
| | EWC 08 03 18 | 08- WASTES FORM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS,) ADHESIVES, SEALANTS AND PRINTING INKS | waste printing toner other than tonse mentioned in 08 03 17 | 196.46 | 22.62 | 769% | Market Forces | | D5- Specially engineered landfill | | |
| | EWC 17 06 04 | 17- CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES) | Insulation Materials | 22.26 | | 100% | Market Forces | | | | |
| | EWC 19 05 01 (Disposal Levy Exempt) | | Non composted Fraction of municipal and similar wastes | 420.96 | 453.62 | -7% | | | D5- Specially engineered landfill | | |
| | EWC 19 05 99 (Disposal Levy Exempt) | | Stabilised Waste - Residual Fraction | 0 | 3296.24 | -100% | | | D5- Specially engineered landfill | | |

| WASTE SUMMARY | | Lic No: W0146-02 | | Year: 2017 | | | | | |
|--------------------------------|---|---|----------|------------|-------|---------------|-----------------------------------|--|--|
| EWC 19 08 01 | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | Screenings from waste water treatment plants | 740.74 | 576.62 | 28% | Market Forces | D5- Specially engineered landfill | | |
| EWC 19 08 02 | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | Waste from desanding | 146.08 | 113.66 | 29% | | D5- Specially engineered landfill | | |
| EWC 19 12 04 | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | PVC | 829.2 | 941.84 | -12% | Market Forces | D5- Specially engineered landfill | | |
| EWC 19 12 12(Disposal Exempt) | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | Fines C&D | 13175.08 | 703.56 | 1773% | Market Forces | D5- Specially engineered landfill | | |
| EWC 19 12 12 | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | C&I Dry Mixed (residual municipal and commercial waste) | 9053.88 | 13008.2 | -30% | Market Forces | D5- Specially engineered landfill | | |
| EWC 19 12 12 | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | Residual municipal and commercial waste | 0 | 108.98 | -100% | | D5- Specially engineered landfill | | |
| EWC 19 12 12 (Disposal Exempt) | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | C&I Fines | 0 | 22333 | -100% | | D5- Specially engineered landfill | | |
| EWC 19 12 12 (Disposal Exempt) | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | Mechanically treated Fines | 1462.82 | 6045 | -76% | | D5- Specially engineered landfill | | |

| WASTE SUMMARY | | | Lic No: | W0146-02 | Year | 2017 | | | | |
|---------------|--------------------------------|---|---|----------|-----------|-------|---------------|--|--|------------------------|
| | EWC 19 12 12 | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | C&D Mixed | 1258 | 449.24 | 180% | | | D5- Specially engineered landfill | |
| | EWC 20 01 38 | | Wood other than those mentioned in 20 01 37 | | 11.1 | -100% | | | D5- Specially engineered landfill | |
| | EWC 20 01 39 | | Plastics | | 78.28 | -100% | | | D5- Specially engineered landfill | |
| | EWC 20 03 01 (Disposal Exempt) | 20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS | Mixed Municipal Waste | 1087.2 | | 100% | | | D5- Specially engineered landfill | |
| | EWC 20 03 01 (Licence Exempt) | 20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS | Mixed Municipal Waste | 884.3 | | 100% | | | D5- Specially engineered landfill | S56 Disposal(Timoole) |
| | EWC 20 03 01 | 20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS | Mixed Municipal Waste | 51464.55 | 111931.42 | -54% | Market Forces | | D5- Specially engineered landfill | |
| | EWC 20 03 03 | 20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS | Street cleaning waste | 1155.06 | 11053.98 | -90% | Market Forces | | D5- Specially engineered landfill | |
| | EWC 20 03 07 | 20- MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS | Municipal Bulky Waste | 2261.58 | 4914.76 | -54% | Market Forces | | D5- Specially engineered landfill | |
| | EWC 17 05 04 | 17- CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES) | Soil and Stone | 17937.6 | 14206.80 | 26% | Market Forces | | R5-Recycling/reclamation or other inorganic materials which includes soil celaning resulting in recovery of the soil and recycling of inorganic construction materials | |
| | EWC 19 01 12 | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | Incinerator Bottom Ash | 13197.94 | 15198.98 | -13% | Market Forces | | R5-Recycling/reclamation or other inorganic materials which includes soil celaning resulting in recovery of the soil and recycling of inorganic construction materials | |
| | EWC 19 01 12 (Licence Exempt) | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | Incinerator Bottom Ash | 1192.8 | 0.00 | 100% | Market Forces | | R5-Recycling/reclamation or other inorganic materials which includes soil celaning resulting in recovery of the soil and recycling of inorganic construction materials | S56 Recovery (Timoole) |

| WASTE SUMMARY | | | Lic No: | W0146-02 | Year | 2017 | | | | | |
|---------------|-------------------------------|---|--|----------|----------|-------|---------------|--|--|--|------------------------|
| | EWC 10 01 01 | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | Bottom Ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04) | 0 | 138.70 | -100% | | | R5-Recycling/reclamation or other inorganic materials which includes soil celaning resulting in recovery of the soil and recycling of inorganic construction materials | | |
| | EWC 19 05 99 | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | Residual fraction from Aerobic Treatment (CLO) | 9562.14 | 12096.58 | -21% | Market Forces | | R3-Recycling/reclamation or organic substances which are not used as solvents(including composting asanother biological transformation processes)which includes gasification and pyrolysis | | |
| | EWC 19 09 02 | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | Sludges from water clarification | 0 | 1455.24 | -100% | Market Forces | | R11-Use of waste obtained from any of the operations numbered R1 to R10 | | |
| | EWC 19 12 07 | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | Woodchip | 1917.78 | 5265.52 | -64% | Market Forces | | R3-Recycling/reclamation or organic substances which are not used as solvents(including composting asanother biological transformation processes)which includes gasification and pyrolysis | | |
| | EWC 19 12 07 (Licence Exempt) | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | Woodchip | 232.36 | 0.00 | 100% | Market Forces | | R3-Recycling/reclamation or organic substances which are not used as solvents(including composting asanother biological transformation processes)which includes gasification and pyrolysis | | S56 Recovery (Timoole) |
| | EWC 19 12 09 | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | Minerals (including mineral fines) | 0 | 1921.42 | -100% | Market Forces | | R5-Recycling/reclamation or other inorganic materials which includes soil celaning resulting in recovery of the soil and recycling of inorganic construction materials | | |
| | EWC 19 12 12 | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | C&D Fines | 25000 | 37123.08 | -33% | Market Forces | | R5-Recycling/reclamation or other inorganic materials which includes soil celaning resulting in recovery of the soil and recycling of inorganic construction materials | | |
| | EWC 19 12 12 (Licence Exempt) | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | C&D Fines | 4939.02 | 0.00 | 100% | Market Forces | | R5-Recycling/reclamation or other inorganic materials which includes soil celaning resulting in recovery of the soil and recycling of inorganic construction materials | | S56 Recovery (Timoole) |

| WASTE SUMMARY | | Lic No: | | W0146-02 | | Year | | 2017 | | |
|---------------|-------------------------------|---|-----------|----------|---------|------|---------------|------|--|------------------------|
| | EWC 19 12 12 | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | C&I Fines | 33315.32 | 0.00 | 100% | Market Forces | | R5-Recycling/reclamation or other inorganic materials which includes soil celaning resulting in recovery of the soil and recycling of inorganic construction materials | |
| | EWC 19 12 12 (Licence Exempt) | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | C&I Fines | 4354.22 | 0.00 | 100% | Market Forces | | R5-Recycling/reclamation or other inorganic materials which includes soil celaning resulting in recovery of the soil and recycling of inorganic construction materials | S56 Recovery (Timoole) |
| | EWC 19 12 12 | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | Stone | 13173.5 | 9561.38 | 38% | Market Forces | | R5-Recycling/reclamation or other inorganic materials which includes soil celaning resulting in recovery of the soil and recycling of inorganic construction materials | |
| | EWC 19 12 12 (Licence Exempt) | 19- WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE | Stone | 9146.44 | 0.00 | 100% | Market Forces | | R5-Recycling/reclamation or other inorganic materials which includes soil celaning resulting in recovery of the soil and recycling of inorganic construction materials | S56 Recovery (Timoole) |

SECTION C-TO BE COMPLETED BY ALL WASTE FACILITIES (waste transfer stations, Composters, Material recovery facilities etc) EXCEPT LANDFILL SITES

4 Is all waste processing infrastructure as required by your licence and approved by the Agency in place? If no please list waste processing infrastructure required onsite

| | |
|-----|--|
| N/A | |
| | |
| N/A | |

5 Is all waste storage infrastructure as required by your licence and approved by the Agency in place? If no please list waste storage infrastructure required on site

| | |
|-----|--|
| Yes | |
| Yes | |
| N/A | |

6 Does your facility have relevant nuisance controls in place?

7 Do you have an odour management system in place for your facility? If no why?

8 Do you maintain a sludge register on site?

SECTION D-TO BE COMPLETED BY LANDFILL SITES ONLY

Table 2 Waste type and tonnage-landfill only

| Waste types permitted for disposal | Authorised/licenced annual intake for disposal (tpa) | Actual intake for disposal in reporting year (tpa) | Remaining licensed capacity at end of reporting year (m3) | Comments |
|------------------------------------|--|--|---|--|
| Municipal Solid Waste | 88,000 / 175,000 | 83,328 | 1,297,022 | 88,000 tonnes as per planning Permission, 175,000t as per licence. Additional 884.3t waste disposed of via Section 56. |
| | | | | |
| | | | | |

| | | |
|----------------------|------------------|------------|
| WASTE SUMMARY | Lic No: W0146-02 | Year: 2017 |
|----------------------|------------------|------------|

Table 3 General information-Landfill only

| Area ID | Date landfilling commenced | Date landfilling ceased | Currently landfilling | Private or Public Operated | Inert or non-hazardous | Predicted date to cease landfilling | Licence permits asbestos | Is there a separate cell for asbestos? | Accepted asbestos in reporting year | Total disposal area occupied by waste | Lined disposal area occupied by waste | Unlined area | Comments on liner type |
|--------------|----------------------------|-------------------------|-----------------------|----------------------------|------------------------|-------------------------------------|--------------------------|--|-------------------------------------|---------------------------------------|---------------------------------------|--------------|-------------------------------|
| | | | | | | | | | | m2 | m2 | SELECT UNIT | |
| Cells 1 - 16 | 2004 | Ongoing | Yes | Private | Non Hazardous | 2031 | No | No | No | 94500 | 94500 | 0 | 0.5m BES and HDPE Geomembrane |

Table 4 Environmental monitoring-landfill only [Landfill Manual-Monitoring Standards](#)

| Was meteorological monitoring in compliance with Landfill Directive (LD) standard in reporting year + | Was leachate monitored in compliance with LD standard in reporting year | Was Landfill Gas monitored in compliance with LD standard in reporting year | Was SW monitored in compliance with LD standard in reporting year | Have GW trigger levels been established | Were emission limit values agreed with the Agency (ELVs) | Was topography of the site surveyed in reporting year | Has the statement under S53(A)(5) of WMA been submitted in reporting year | Comments |
|---|---|---|---|---|--|---|---|----------|
| Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | |

+ please refer to Landfill Manual linked above for relevant Landfill Directive monitoring standards

Table 5 Capping-Landfill only

| Area uncapped* | Area with temporary cap | Area with final cap to LD Standard m2 ha, a | Area capped other | Area with waste that should be permanently capped to date under licence | What materials are used in the cap | Comments |
|----------------|-------------------------|---|-------------------|---|---|----------|
| m2 | m2 | | | | | |
| 14,880 | 29,120 | 96000 | 0 | 96000 | Final cap to LDstd: gas collection layer, 1mm fully welded LLDPE liner, sub-surface drainage layer, subsoil layer and topsoil layer. Soil thickness of 1m. Other cap: temporary cover and intermediate cap. | |

*please note this includes daily cover area

Table 6 Leachate-Landfill only

9 Is leachate from your site treated in a Waste Water Treatment Plant?

Yes offsite

10 Is leachate released to surface water? If yes please complete leachate mass load information below

No

| Volume of leachate in reporting year(m3) | Leachate (BOD) mass load (kg/annum) | Leachate (COD) mass load (kg/annum) | Leachate (NH4) mass load (kg/annum) | Leachate (Chloride) mass load kg/annum | Leachate treatment on-site | Specify type of leachate treatment | Comments |
|--|-------------------------------------|-------------------------------------|-------------------------------------|--|----------------------------|------------------------------------|----------|
| 16752.66 | | | | | | offsite WWTP | |

Please ensure that all information reported in the landfill gas section is consistent with the Landfill Gas Survey submitted in conjunction with PRTR returns

Table 7 Landfill Gas-Landfill only

| Gas Captured&Treated by LFG System m3 | Power generated (MW / KWh) | Used on-site or to national grid | Was surface emissions monitoring performed during the reporting year? | Comments |
|---------------------------------------|----------------------------|----------------------------------|---|----------|
| 19,215,260 | 18,872 | National Grid | Yes | |



| PRTR# : W0146 | Facility Name : Knockharley Landfill | Filename : W0146_2017.xls |
Return Year : 2017 |

[Guidance to completing the PRTR workbook](#)

PRTR Returns Workbook

Version 1.1.19

| | |
|-----------------------|------|
| REFERENCE YEAR | 2017 |
|-----------------------|------|

1. FACILITY IDENTIFICATION

| | |
|----------------------------|------------------------------|
| Parent Company Name | Knockharley Landfill Limited |
| Facility Name | Knockharley Landfill |
| PRTR Identification Number | W0146 |
| Licence Number | W0146-02 |

Classes of Activity

| No. | class name |
|-----|--------------------------------------|
| - | Refer to PRTR class activities below |

| | |
|--|--|
| Address 1 | Knockharley |
| Address 2 | Navan |
| Address 3 | (Includes Townlands of Tuiteath & Flemingstown) |
| Address 4 | |
| | Meath |
| Country | Ireland |
| Coordinates of Location | -6.57373 52.3511 |
| River Basin District | IEEA |
| NACE Code | 3821 |
| Main Economic Activity | Treatment and disposal of non-hazardous waste |
| AER Returns Contact Name | Tom Finnegan |
| AER Returns Contact Email Address | tom.finnegan@landfills.ie |
| AER Returns Contact Position | Landfill Manager |
| AER Returns Contact Telephone Number | 041 9821650 |
| AER Returns Contact Mobile Phone Number | 086 8076237 |
| AER Returns Contact Fax Number | |
| Production Volume | 0.0 |
| Production Volume Units | |
| Number of Installations | 0 |
| Number of Operating Hours in Year | 0 |
| Number of Employees | 9 |
| User Feedback/Comments | The net methane emission in 'Releases to Air' is a negative value as additional waste was sent to the landfill in 2016 and 2017 generating additional methane not accounted for in the current GasSim Model. |
| Web Address | |

2. PRTR CLASS ACTIVITIES

| Activity Number | Activity Name |
|-----------------|---|
| 5(d) | Landfills |
| 5(c) | Installations for the disposal of non-hazardous waste |
| 5(d) | Landfills |
| 50.1 | General |

3. SOLVENTS REGULATIONS (S.I. No. 543 of 2002)

| | |
|---|--|
| Is it applicable? | |
| Have you been granted an exemption ? | |
| If applicable which activity class applies (as per Schedule 2 of the regulations) ? | |
| Is the reduction scheme compliance route being used ? | |

4. WASTE IMPORTED/ACCEPTED ONTO SITE

[Guidance on waste imported/accepted onto site](#)

| | |
|--|-----|
| Do you import/accept waste onto your site for on-site treatment (either recovery or disposal activities) ? | Yes |
|--|-----|

4.1 RELEASES TO AIR

[Link to previous years emissions data](#)

[PRTR# : W0146 | Facility Name : Knockharley Landfill | Filename : W0146_2017.xls | Return Year : 2017]

16/03/2018 16:44

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

| RELEASES TO AIR | | | | Please enter all quantities in this section in KGs | | | | | | | | QUANTITY | | |
|-----------------|--|-------|---------------|--|-----------|------------|-----------|-----------|------------|------------|------------------|-------------------|------------------------|----------------------|
| No. Annex II | POLLUTANT Name | M/C/E | METHOD | | Flare 1 | Flare 2 | Engine 1 | Engine 2 | Engine 3 | Engine 4 | Emission Point 7 | T (Total) KG/Year | A (Accidental) KG/Year | F (Fugitive) KG/Year |
| | | | Method Code | Designation or Description | | | | | | | | | | |
| 02 | Carbon monoxide (CO) | M | EN 15058:2004 | HICR by Horiba PG-250 | 2.09508 | 4.00554 | 7276.3264 | 1087.427 | 1828.20864 | 6339.50034 | 0.0 | 16537.563 | 0.0 | 0.0 |
| 06 | Nitrogen oxides (NOx/NO2) | M | EN 14792:2005 | Chemiluminescence | 64.442196 | 121.509234 | 2006.34 | 268.4748 | 420.94592 | 1356.27258 | 0.0 | 4237.99473 | 0.0 | 0.0 |
| 11 | Sulphur oxides (SOx/SO2) | M | OTH | NDIR Adsorption | 1952.1216 | 14759.2368 | 8627.262 | 1407.9318 | 2346.02496 | 8051.71776 | 0.0 | 37144.29492 | 0.0 | 0.0 |
| 01 | Methane (CH4) | E | OTH | Calculation | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -741384.0 | 0.0 | -741384.0 |
| 07 | Non-methane volatile organic compounds (NMVOC) | M | ALT | FID | 5.015868 | 12.9355 | 0.0 | 0.072842 | 0.1232896 | 0.3682188 | 0.0 | 18.5157184 | 0.0 | 0.0 |

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING PRTR POLLUTANTS

| RELEASES TO AIR | | | | Please enter all quantities in this section in KGs | | | | | | | | QUANTITY | | |
|-----------------|---|-------|-------------|--|----------|----------|-----------|----------|-----------|------------|------------------|-------------------|------------------------|----------------------|
| No. Annex II | POLLUTANT Name | M/C/E | METHOD | | Flare 1 | Flare 2 | Engine 1 | Engine 2 | Engine 3 | Engine 4 | Emission Point 6 | T (Total) KG/Year | A (Accidental) KG/Year | F (Fugitive) KG/Year |
| | | | Method Code | Designation or Description | | | | | | | | | | |
| 80 | Chlorine and inorganic compounds (as HCl) | M | ALT | Ion Chromatography | 0.653172 | 1.013166 | 2.206974 | 0.322586 | 0.5636096 | 1.9024638 | 6.6619714 | 0.0 | 0.0 | |
| 84 | Fluorine and inorganic compounds (as HF) | M | ALT | Ion Chromatography | 0.542256 | 9.8725 | 31.232026 | 0.301774 | 5.3542912 | 14.2377936 | 61.5406408 | 0.0 | 0.0 | |

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION C : REMAINING POLLUTANT EMISSIONS (As required in your Licence)

| RELEASES TO AIR | | | | Please enter all quantities in this section in KGs | | | | QUANTITY | | | |
|-----------------|---|-------|-------------|--|-----------|----------|-----------|-----------|-------------------|------------------------|----------------------|
| Pollutant No. | POLLUTANT Name | M/C/E | METHOD | | Engine 1 | Engine 2 | Engine 3 | Engine 4 | T (Total) KG/Year | A (Accidental) KG/Year | F (Fugitive) KG/Year |
| | | | Method Code | Designation or Description | | | | | | | |
| 224 | TA Luft carcinogenic substances Class 1 | M | ALT | Thermal Desorption | 1.404438 | 0.072842 | 0.1232896 | 0.3682188 | 1.9687884 | 0.0 | 0.0 |
| 244 | Total Particulates | M | ALT | Gravimetric | 22.136618 | 2.882462 | 2.4305664 | 14.115054 | 41.5647004 | 0.0 | 0.0 |

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

Additional Data Requested from Landfill operators

For the purposes of the National Inventory on Greenhouse Gases, landfill operators are requested to provide summary data on landfill gas (Methane) flared or utilised on their facilities to accompany the figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under T(total) KG/yr for Section A: Sector specific PRTR pollutants above. Please complete the table below:

| Landfill: | Knockharley Landfill | | | | |
|--|----------------------|-------|-------------|----------------------------|-------------------------------------|
| | T (Total) kg/Year | M/C/E | Method Code | Designation or Description | Facility Total Capacity m3 per hour |
| Total estimated methane generation (as per site model) | 3744810.0 | E | OTH | Gassim 2.5 | N/A |
| Methane flared | 757639.0 | M | OTH | Measured at Flares | 4000.0 (Total Flaring Capacity) |
| Methane utilised in engine/s | 3728555.0 | M | OTH | Measured at Engines | 3680.0 (Total Utilising Capacity) |
| Net methane emission (as reported in Section A above) | -741384.0 | C | OTH | Calculation | N/A |

4.2 RELEASES TO WATERS

[Link to previous years emissions data](#)

| PRTR# : W0146 | Facility Name : Knockharley Landfill | Filename : W0146_2017.xls | Return Year : 2017 |

16/03/2018 16:44

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this only concerns Releases from your facility

| POLLUTANT | | RELEASERS TO WATERS | | | Please enter all quantities in this section in KGs | | | |
|--------------|------|---------------------|-------------|----------------------------|--|-------------------|------------------------|----------------------|
| No. Annex II | Name | M/C/E | Method Used | | Emission Point 1 | QUANTITY | | |
| | | | Method Code | Designation or Description | | T (Total) KG/Year | A (Accidental) KG/Year | F (Fugitive) KG/Year |
| | | | | | 0.0 | 0.0 | 0.0 | 0.0 |

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING PRTR POLLUTANTS

| POLLUTANT | | RELEASERS TO WATERS | | | Please enter all quantities in this section in KGs | | | |
|--------------|------|---------------------|-------------|----------------------------|--|-------------------|------------------------|----------------------|
| No. Annex II | Name | M/C/E | Method Used | | Emission Point 1 | QUANTITY | | |
| | | | Method Code | Designation or Description | | T (Total) KG/Year | A (Accidental) KG/Year | F (Fugitive) KG/Year |
| | | | | | 0.0 | 0.0 | 0.0 | 0.0 |

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION C : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

| POLLUTANT | | RELEASERS TO WATERS | | | Please enter all quantities in this section in KGs | | | |
|---------------|------|---------------------|-------------|----------------------------|--|-------------------|------------------------|----------------------|
| Pollutant No. | Name | M/C/E | Method Used | | Emission Point 1 | QUANTITY | | |
| | | | Method Code | Designation or Description | | T (Total) KG/Year | A (Accidental) KG/Year | F (Fugitive) KG/Year |
| | | | | | 0.0 | 0.0 | 0.0 | 0.0 |

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

4.3 RELEASES TO WASTEWATER OR SEWER

[Link to previous years emissions data](#)

| PRTR# : W0146 | Facility Name : Knockharley Landfill | Filename : W0146_2017.xls | Return Year

16/03/2018 16:44

SECTION A : PRTR POLLUTANTS

| OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER | | | | | Please enter all quantities in this section in KGs | | | |
|--|------|--------|-------------|----------------------------|--|-------------------|------------------------|----------------------|
| POLLUTANT | | METHOD | | | QUANTITY | | | |
| No. Annex II | Name | M/C/E | Method Used | | Emission Point 1 | T (Total) KG/Year | A (Accidental) KG/Year | F (Fugitive) KG/Year |
| | | | Method Code | Designation or Description | | | | |
| | | | | | 0.0 | 0.0 | 0.0 | 0.0 |

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

| OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER | | | | | Please enter all quantities in this section in KGs | | | |
|--|------|--------|-------------|----------------------------|--|-------------------|------------------------|----------------------|
| POLLUTANT | | METHOD | | | QUANTITY | | | |
| Pollutant No. | Name | M/C/E | Method Used | | Emission Point 1 | T (Total) KG/Year | A (Accidental) KG/Year | F (Fugitive) KG/Year |
| | | | Method Code | Designation or Description | | | | |
| | | | | | 0.0 | 0.0 | 0.0 | 0.0 |

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

4.4 RELEASES TO LAND

[Link to previous years emissions data](#)

| PRTR# : W0146 | Facility Name : Knockharley Landfill | Filename : W0146_2017.xls | Return Year : 2017 |

16/03/2018 16:44

SECTION A : PRTR POLLUTANTS

| POLLUTANT | | RELEASES TO LAND | | | Please enter all quantities in this section in KGs | | |
|--------------|------|------------------|-------------|----------------------------|--|-------------------|------------------------|
| POLLUTANT | | METHOD | | | QUANTITY | | |
| No. Annex II | Name | M/C/E | Method Code | Designation or Description | Emission Point 1 | T (Total) KG/Year | A (Accidental) KG/Year |
| | | | | | 0.0 | 0.0 | 0.0 |

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

| POLLUTANT | | RELEASES TO LAND | | | Please enter all quantities in this section in KGs | | |
|---------------|------|------------------|-------------|----------------------------|--|-------------------|------------------------|
| POLLUTANT | | METHOD | | | QUANTITY | | |
| Pollutant No. | Name | M/C/E | Method Code | Designation or Description | Emission Point 1 | T (Total) KG/Year | A (Accidental) KG/Year |
| | | | | | 0.0 | 0.0 | 0.0 |

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

| PRTR# : W0146 | Facility Name : Knockharley Landfill | Filename : W0146_2017.xls | Return Year : 2017 |

16/03/2018 16:44

Please enter all quantities on this sheet in Tonnes

5

| Transfer Destination | European Waste Code | Hazardous | Quantity (Tonnes per Year) | Description of Waste | Waste Treatment Operation | Method Used | | Location of Treatment | Haz Waste : Name and Licence/Permit No of Next Destination Facility | Haz Waste : Name and Licence/Permit No of Recover/Disposer | Haz Waste : Address of Next Destination Facility | Non Haz Waste: Address of Recover/Disposer | Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY) | Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY) |
|----------------------|---------------------|-----------|----------------------------|--|---------------------------|-------------|-------------|-----------------------|--|--|---|--|--|--|
| | | | | | | M/C/E | Method Used | | Non | Non Haz Waste: Address of Recover/Disposer | | | | |
| Within the Country | 19 07 03 | No | 16752.66 | landfill leachate other than those mentioned in 19 07 02 | D9 | M | Weighed | Offsite in Ireland | Rilta Environmental Ltd. Hazardous Waste Treatment Facility,W0192-03 | | Block 402,Grant's Drive,Greenogue Business Park,Rathcoole Co Dublin,Ireland | | | |

* Select a row by double-clicking the Description of Waste then click the delete button

[Link to previous years waste data](#)

[Link to previous years waste summary data & percentage change](#)

[Link to Waste Guidance](#)