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.

Thomas Finnegan	23-03-2018
Signature Group/Facility manager (or nominated, suitably qualified and experienced deputy)	Date

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	
3	Was all monitoring carried out in accordance with EPA guidance note AG2 and using the basic air monitoring checklist? Basic air monitoring checklist AGN2	Yes	

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 therof	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	Chemiluminesence	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	Chemiluminesence	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	Chemiluminesence	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 orgainc 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	
4	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	Chemiluminesence	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 orgainc 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	Chemiluminesence	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 orgainc 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		SELECT	1332	mg/m3		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	Chemiluminesence	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 orgainc 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		SELECT	1312	mg/m3		NDIR Adsorption	8051.71776	
KHO4 Engine	volumetric flow	annual	3000	SELECT	2606	mg/m3	yes	Pitot	6136980	

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

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.

AIR-summary template Lic No: W0146-02 Year 2017

Table A3: Abatement system bypass reporting table Bypass protocol

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

8

* 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 therof	Compliance
					SELECT
					SELECT

Table A5: Solvent Mass Balance summary

	(I) Inputs (kg)	(O) Outputs (kg)						
Solvent	(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 emission of Solvent to air (kg)
							Total	

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER) Lic No: W0146-02 Year 2017

		Additional information
1	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. If **you do not have** licenced emissions you only need to complete table W1 and or W2 for storm water analysis and visual inspections	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.
2	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	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	Licenced 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
4	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	Yes	

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 thereof[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

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER) Lic No: W0146-02 Year 2017

Continuous monitoring

			Additional Information
5	Does your site carry out continuous emissions to water/sewer monitoring?	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/Pipeline testing template Lic No: W0146-02 Year 2017

Bund testing — dropdown menu click to see options

			Additional information
1	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)	Yes	
2	Please provide integrity testing frequency period	3 years	
3	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)	Yes	
4	How many bunds are on site?	10	
5	How many of these bunds have been tested within the required test schedule?	10	
6	How many mobile bunds are on site?	8	
7	Are the mobile bunds included in the bund test schedule?	Yes	
8	How many of these mobile bunds have been tested within the required test schedule?	4	
9	How many sumps on site are included in the integrity test schedule?	0	
10	How many of these sumps are integrity tested within the test schedule?	n/a	
	Please list any sump integrity failures in table B1		
11	Do all sumps and chambers have high level liquid alarms?	N/A	
12	If yes to Q11 are these failsafe systems included in a maintenance and testing programme?	SELECT	
13	Is the Fire Water Retention Pond included in your integrity test programme?	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

			Commentary
15	Has integrity testing been carried out in accordance	bunding and storage guidelines	Yes	
16	Are channels/transfer systems to remote containment systems tested?		SELECT	
17	Are channels/transfer systems compliant in both integrity and available volume?		SELECT	

Pipeline/underground structure testing

1	Are you required by your licence to undertake integrity testing* on	No	
2	Please provide integrity testing frequency period	SELECT	

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

ary 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
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 Template Report (link in cell G8) and submit separately through ALDER as a licensee return AND answer questions 5-12 below. Groundwater monitoring template	no		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.
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	Colilert 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

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

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)

Surface water EQS | Groundwater regulations GTV's | 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 lechate 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 underay 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	Yes
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)	Yes
3	Does your site have a noise reduction plan	No
4	When was the noise reduction plan last updated?	Enter date
5	Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey?	No

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? SELECT

** 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	
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	No	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	SELECT	Not Applicable

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^3yr):	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

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

Incidents		Additional information
Have any incidents occurred on site in the current reporting year? Please list all incidents for current reporting year in Table 2 below	Yes	

*For information on how to report and what constitutes an incident	What is an incident

Table 2 Incidents summary

Date of occurrence	Incident nature	Location of occurrence	Incident category*please refer to guidance	Receptor	Cause of incident	Other cause(please specify)	Activity in progress at time of incident	Communication	Occurrence	Corrective action<20 words	Preventative action <20 words	Resolution status	Resolution date	Likelihood of reoccurence
10/01/2017	Breach of ELV	Four zones of surface emissions which exceeded trigger levels	1. Minor	Air	Operational controls		Normal activities	EPA	Recurring	Incident reported to EPA under INCI011418	Sloped flanks have a combination of soil and geosynthetic cover currently in place. Given improved ground conditions and suitable weather conditions it will also be deployed on the currently soiled outer flanks of Cell 11.	Ongoing	10/01/2017	Low
31/01/2017	Trigger level reached	Licenced discharge point (type in reference here)	1. Minor	Air	Operational controls		Normal activities	EPA	New	Incident reported to EPA under INCI011570		Ongoing		Low
12/06/2017	Breach of ELV	Licenced discharge point (SW-9)	1. Minor	Water	Not related to site activities		Normal activities	EPA	New	Incident reported to EPA under INCI012251	Sediment disturbed during sampling causing elevated TSS in sample.	Complete	12/06/2017	Low
14/07/2017	Trigger level reached	Licenced discharge point (LG-03)	1. Minor	Air	Operational controls		Normal activities	EPA	New	Incident reported to EPA under INCI012475		Complete	14/07/2017	Low
21/07/2017	Trigger level reached	One zone of surface emissions which exceeded trigger levels	1. Minor	Air	Operational controls		Normal activities	EPA	Recurring	Incident reported to EPA under INCI012543	Sloped flanks have a combination of soil and geosynthetic cover currently in place. Given improved ground conditions and suitable weather conditions it will also be deployed on the currently soiled outer flanks of Cell 11.	Complete	21/07/2017	Low
01/12/2017	Trigger level reached	Three zones of surface emissions which exceeded trigger levels	1. Minor	Air	Operational controls		Normal activities	EPA	Recurring	Incident reported to EPA under INCI013503	Sloped flanks have a combination of soil and geosynthetic cover currently in place. Given improved ground conditions and suitable weather conditions it will also be deployed on the currently soiled outer flanks of Cell 11.	Complete	01/12/2017	Low

Total number of incidents current year	6
Total number of incidents previous year	4
% reduction/ increase	150%

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 logon		dropdown list click to see options	

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

			Additional Information
1	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)

Licenced annual tonnage limit for your site (total tonnes/annum)	EWC code European Waste Catalogue EWC codes	Source of waste accepted	Description of waste accepted **Please enter an accurate and detailed description - which applies to relevant EWC code** European Waste Catalogue EWC codes	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 -
	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*		
	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*		

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

WASTE SUMMARY					Lic No:	W0146-02		Year	2017		
	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 resuling in recovery of the soil and recycling of inorganic construction materials*		
	EWC 17 05 04	*17- CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)*	Soil & Stone (TOPSOIL)	4,441.19	35041.04	-87%	*Market Forces*		*R5-Recycling/reclamation or other inorganic materials which includes soil celaning resuling in recovery of the soil and recycling of inorganic construction materials*		*Used for Restoration*
	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 resuling 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 resuling in recovery of the soil and recycling of inorganic construction materials*		*S56 Recovery (Timoole)*
	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 bolier dust mentioned in 10 01 04)	0	138.70	-100%			*R5-Recycling/reclamation or other inorganic materials which includes soil celaning resuling in recovery of the soil and recycling of inorganic construction materials*		

WASTE SUMMARY					Lic No:	W0146-02		Year	2017		
	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 asnother biological transformation processes)which includes gasification and pyrolisis*		
	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 asnother biological transformation processes)which includes gasification and pyrolisis*		
	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 asnother biological transformation processes)which includes gasification and pyrolisis*		*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 resuling 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 resuling in recovery of the soil and recycling of inorganic construction materials*		

WASTE SUMMARY					Lic No:	W0146-02		Year	2017		
	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 resuling 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*	C&I Fines	33315.32	0.00	100%	*Market Forces*		*R5-Recycling/reclamation or other inorganic materials which includes soil celaning resuling 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 resuling 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 resuling 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 resuling 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	
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	N/A	
6 Does your facility have relevant nuisance controls in place?	Yes	
7 Do you have an odour management system in place for your facility? If no why?	Yes	
8 Do you maintain a sludge register on site?	N/A	

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 meterological 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 Tuiterath & 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

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

RELEASES TO AIR					Please enter all quantities in this section in KGs									
POLLUTANT		METHOD										QUANTITY		
			Method Used		Flare 1	Flare 2	Engine 1	Engine 2	Engine 3	Engine 4				
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	Emission Point 3	Emission Point 4	Emission Point 5	Emission Point 6	Emission Point 7	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
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
08	Nitrogen oxides (NOx/NO2)	M	EN 14792:2005	Chemilumunesence	64.442196	121.509234	2006.34	268.4748	420.94592	1356.27258	0.0	4237.98473	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									
POLLUTANT		METHOD										QUANTITY		
			Method Used		Flare 1	Flare 2	Engine 1	Engine 2	Engine 3	Engine 4				
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	Emission Point 3	Emission Point 4	Emission Point 5	Emission Point 6	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	
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						
POLLUTANT		METHOD							QUANTITY		
			Method Used		Engine 1	Engine 2	Engine 3	Engine 4			
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	Emission Point 3	Emission Point 4	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
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

Please enter summary data on the quantities of methane flared and / or utilised	**T (Total) kg/Year**	**M/C/E**	**Method Used: Method Code**	**Method Used: 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

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

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT					QUANTITY			
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	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

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT					QUANTITY			
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	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)

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT					QUANTITY			
			Method Used					
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	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

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			
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	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 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			
			Method Used					
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	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

4.4 RELEASES TO LAND

Link to previous years emissions data

SECTION A : PRTR POLLUTANTS

RELEASES TO LAND					Please enter all quantities in this section in KGs		
POLLUTANT		METHOD			QUANTITY		
			Method Used				
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)

RELEASES TO LAND					Please enter all quantities in this section in KGs		
POLLUTANT		METHOD			QUANTITY		
			Method Used				
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

Please enter all quantities on this sheet in Tonnes

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 Non 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					
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