

Facility Information Summary	
AER Reporting Year	2018
Licence Register Number	P0007-03
Name of site	Astellas Ireland Co., Ltd.
Site Location	Damastown Industrial Park, Damastown Road, Mulhuddart, Dublin
NACE Code	2110
Class/Classes of Activity	5.16, 11.1, 11.2(e), 11.6
National Grid Reference (6E, 6 N)	304900E, 241400N

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.

Note: PRTR data was submitted on EDEN via the new EPR template.

**Production:** Astellas Ireland Co., Ltd. manufacture bulk API. Overall site output in 2018 was slightly lower than 2017 (campaign related).

**AIR:** The incinerator, solvent recovery unit and P1 scrubbers remained off-line in 2018, following cessation of manufacturing in P1 in 2016. Hence, no emissions from EP-IN-001, EP-P1-001 or EP-P1-002 in 2018 (excluded in AER).

**Boilers:** due to varying firing conditions and operating hours, there was a slight increase in CO, NO<sub>x</sub> and particulate emissions with a decrease in SO<sub>x</sub>. **Scrubbers:** An increase in total VOC mass emission was noted due to inclusion of <LOD values for extra VOCs as per revised AG2 requirements (solvents not used on-site). Total scrubber particulates decreased.

**Wastewater:** Total volumetric emissions to municipal sewer decreased by 1% in 2018 in line with less production activity. Mass emissions of BOD, COD, TSS and Chlorides decreased significantly in 2018 with continuing lower organic loading to WWTP.

There was no Licence limit exceedances or environmental complaints in 2018. 1 minor fgas release from chiller.

**Resource usage:** Total energy consumed was 5.5% lower (Electricity -14.7%, Natural gas +0.22%). Extra gas usage due to unusually long cold spring period. All electricity supplied is from renewable resources. There was a 3% reduction in water usage.

**Waste:** There was a 4% reduction in the total quantity generated. A 17% increase in hazardous wastes was due mainly to higher aqueous waste associated with production campaigns. The majority was treated at a facility within Ireland (R1). There was a 51% decrease in non hazardous waste, as there was a higher than normal quantity of project related waste generated in 2017. No wastes were landfilled. ☒

#### 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.

<i>Catherine James</i>	30/04/2019
Signature	Date
Group/Facility manager	
(or nominated, suitably qualified and experienced deputy)	

<b>AIR-summary template</b>	Lic No: P0007-03	Year: 2018
-----------------------------	------------------	------------

Answer all questions and complete all tables where relevant

- 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** licensed emissions and **do not complete a solvent management plan** (table A4 and A5) you **do not** need to complete the tables

Additional information	
Yes	As per Facility Information Summary, there are no longer emissions from EP-IN-001, EP-P1-001 or EP-P1-002 . Variations in solvent usage in 2018 vs 2017 are due to an SL campaign in 2018. Unaccounted for emissions for 2018 are 0.3%.

### 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
- 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](#)

No	
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 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
EP-UT-001	volumetric flow	Annually	6500	All 1-hour averages < ELV	1990	Nm3/hour	yes	OTH	n/a	Slight decrease from 2017 - boiler operates duty standby basis, can vary based on site demand and weather.
EP-UT-001	Particulates	Annually	5	No 30min mean can exceed the ELV	0.78	mg/Nm3	yes	Based on EN3284-1:2002	3	Slight increase on result for 2017 - boiler can be on low or high fire during monitoring depending on site requirements and run hours vary as above.
EP-UT-001	Carbon monoxide (CO)	Annually	100	No 30min mean can exceed the ELV	2.8	mg/Nm3	yes	EN 15058:2006	12	Decrease in mass emission for 2018 - lower run hours
EP-UT-001	Nitrogen oxides (NOx/NO2)	Annually	200	No 30min mean can exceed the ELV	154.3	mg/Nm3	yes	EN 14792:2006	662.9	as above
EP-UT-001	Sulphur oxides (SOx/SO2)	Annually	35	No 30min mean can exceed the ELV	2.7	mg/Nm3	yes	EN 14971:2005	11.6	as above
EP-UT-002	volumetric flow	Annually	6500	All 1-hour averages < ELV	2256	Nm3/hour	yes	OTH	n/a	Increase on result for 2017 - boiler operation varies as above.
EP-UT-002	Particulates	Annually	5	No 30min mean can exceed the ELV	0.95	mg/Nm3	yes	Based on EN3284-1:2002	5.4	Slight increase on result for 2017.
EP-UT-002	Carbon monoxide (CO)	Annually	100	No 30min mean can exceed the ELV	7	mg/Nm3	yes	EN 15058:2006	42.5	as above
EP-UT-002	Nitrogen oxides (NOx/NO2)	Annually	200	No 30min mean can exceed the ELV	156.7	mg/Nm3	yes	EN 14792:2006	952.4	as above
EP-UT-002	Sulphur oxides (SOx/SO2)	Annually	35	No 30min mean can exceed the ELV	2.6	mg/Nm3	yes	Based on EN3284-1:2002	15.8	Lower result in 2018
EP-P2-001	volumetric flow	Monthly	10000	All 1-hour averages < ELV	3892	Nm3/hour	yes	OTH	N/A	Decrease on average for 2017
EP-P2-001	TA Luft organic substances class 1	Monthly	20	No 30min mean can exceed the ELV	3.3	mg/Nm3	yes	EN 13649:2001	59.7	With the exception of 1 month during cleaning, all monthly results in 2018 for TA Luft Class 1 are below the limit of detection (LOD). Run hours decreased in 2018, hence slightly lower annual kg.

AIR-summary template										
					Lic No:	P0007-03		Year	2018	
EP-P2-001	TA Luft organic substances class 2	Monthly	100	No 30min mean can exceed the ELV	5.9	mg/Nm3	yes	EN 13649:2001	106.8	With the exception of 1 month, all monthly results in 2018 for TA Luft Class II are < LOD. Run hours decreased in 2018, however overall concentration and mass emission reported increased due to the revised AG2 requirements. Full suite of VOCs were analysed (including solvents not used on-site). Sum of positive and < LOD values were reported.
EP-P2-001	TA Luft organic substances class 3	Monthly	150	No 30min mean can exceed the ELV	8.8	mg/Nm3	yes	EN 13649:2001	119	With the exception of 2 months, all monthly results in 2018 for TA Luft Class III are <LOD. Run hours decreased in 2018, however overall concentration & kg reported increased as detailed above.
EP-P2-001	Total Particulates	Monthly	1	No 30min mean can exceed the ELV	0.22	mg/Nm3	yes	OTH	4	Slight decrease on result for 2017
EP-P2-001	Hydrogen Chloride	Monthly	30	No 30min mean can exceed the ELV	0.25	mg/Nm3	yes	EN 1911-1 to 3:2003	4.7	Slight decrease on mass emission for 2017
EP-P3-001	volumetric flow	Monthly	7000	All 1-hour averages < ELV	2299	Nm3/hour	yes	OTH	N/A	Slight decrease on average 2017
EP-P3-001	TA Luft organic substances class 1	Monthly	20	No 30min mean can exceed the ELV	<3.7	mg/Nm3	yes	EN 13649:2001	<52.3	All monthly results in 2018 for TA Luft Class I are < LOD. Run hours decreased slightly, however overall concentration and mass emission reported increased due to the revised AG2 requirements as above.
EP-P3-001	TA Luft organic substances class 2	Monthly	100	No 30min mean can exceed the ELV	8.2	mg/Nm3	yes	EN 13649:2001	141.1	With the exception of 3 months where low Toluene was noted, all monthly results in 2018 for TA Luft Class II are < LOD. Increase in reported values due to the revised AG2 requirements as above.
EP-P3-001	TA Luft organic substances class 3	Monthly	150	No 30min mean can exceed the ELV	23.7	mg/Nm3	yes	EN 13649:2001	396.3	With the exception of 3 months where within limit Ethanol was noted, all monthly results in 2018 for TA Luft Class III are < LOD. Lower overall average concentration and mass emission vs 2017.
EP-P3-001	Total Particulates	Monthly	1	No 30min mean can exceed the ELV	0.16	mg/Nm3	yes	OTH	2.9	Decrease on result for 2017.
EP-P3-001	Hydrogen Chloride	Monthly	30	No 30min mean can exceed the ELV	0.25	mg/Nm3	yes	EN 1911-1 to 3:2003	4.3	Slight decrease on 2017.

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

<b>AIR-summary template</b>	Lic No: P0007-03	Year: 2018
<b>Continuous Monitoring</b>		

4	Does your site carry out continuous air emissions monitoring? 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 (ELV)	No	See additional information in point 1 above. Incinerator was off-line in 2018, hence no continuous monitoring data from EP-IN-001.
5	Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below	No	n/a
6	Do you have a proactive service agreement for each piece of continuous monitoring equipment?	No	n/a
7	Did your site experience any abatement system bypasses? If yes please detail them in table A3 below	No	n/a

**Table A2: Summary of average emissions -continuous monitoring**

Emission reference no:	Parameter/ Substance	ELV in licence or any revision thereof	Averaging Period	Compliance Criteria	Units of measurement	Annual Emission (kg)	Annual maximum (mg/Nm <sup>3</sup> )	Monitoring Equipment downtime (hours)	Number of ELV exceedances in current reporting year	Comments
------------------------	----------------------	--	------------------	---------------------	----------------------	----------------------	--------------------------------------	---------------------------------------	---	----------

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

For inspection purposes only. Consent of copyright owner required for any other use.

Solvent use and management on site

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

No

Table A4: Solvent Management Plan Summary		Solvent regulations		Please refer to linked solvent regulations to complete table 5 and 6	
Total VOC Emission limit value					
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								
	(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)
Toluene	41,614	40	0	0	278	0	271	318
Other NMVOCs	280,418	466	1	0	673	0	10,403	1,139
Total NMVOCs	322,032	506	1	0	951	0	10,974	1,457

For inspection purposes only  
Consent of copyright owner required for any other use

**AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)** Lic No: P0007-03 Year 2018

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

Yes  
The incinerator was off-line in 2018, hence no associated wastewater from EP-WW-002.

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  
All surface water is visually inspected before discharge to river Tolka - no contaminated noted.

**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
EP-SW-001	onsite	SELECT	COD	Weekly	30	N/A	15.2	mg/L	yes	Minor increase on 2017 figure of 14.4 mg/l
EP-SW-001	onsite	SELECT	pH	Weekly	6 to 9	N/A	7	pH units	yes	No change

\*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
			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

No  
None in 2018

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/ Substance Note 1	Type of sample	Frequency of monitoring	Averaging period	ELV or trigger values in licence or any revision thereof <sup>Note 2</sup>	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
EP-WW-001	Wastewater/ Sewer	Ammonia (as N)	composite	Quarterly	Annual	See comments	N/A	0.43	mg/L	yes	Digestion + Spectrophotometry	B.S. (British Standard)	BS 2690: Part 7:1969 / BS 6068 Part 2:11:1984	16.5	Higher values in 2018. Action level of 40 mg/l agreed with Dublin City Council.
EP-WW-001	Wastewater/ Sewer	BOD	composite	Monthly	Annual	300 mg/l	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	9.56	mg/L	yes	Dissolved Oxygen Meter (Electrode)	MEWAM BOD5 2nd Ed. Method 5210B	Standard 5-day test	366	Average concentration & mass emission lower in 2018 - less organic loading input to WWTP
EP-WW-001	Wastewater/ Sewer	COD	composite	Weekly	Annual	1000 mg/l	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	141.5	mg/L	yes	Digestion + Spectrophotometry	ISO	6060-1989	5416	Average concentration & mass emission lower in 2018 - less organic loading input to WWTP
EP-WW-001	Wastewater/ Sewer	Sulphate	composite	Fortnightly	Annual	800 mg/l	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	74.1	mg/L	yes	Spectrophotometry (Colorimetry)	US EPA	325.1 & 325.2	2836	Higher in 2018
EP-WW-001	Wastewater/ Sewer	Suspended Solids	composite	Weekly	Annual	400 mg/l	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	91.4	mg/L	yes	Gravimetric analysis	APHA / AWWA "Standard Methods"	Method 2540D	3495	Average concentration & mass emission lower in 2018
EP-WW-001	Wastewater/ Sewer	Chlorides (as Cl)	composite	Fortnightly	Annual	2000 mg/l	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	357.1	mg/L	yes	Spectrophotometry (Colorimetry)	US EPA	325.1 & 325.2	13668	Significantly lower in 2018 - less process input
EP-WW-001	Wastewater/ Sewer	Phosphate (as P)	composite	Monthly	Annual	10 mg/l	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	<0.02	mg/L	yes	Spectrophotometry (Colorimetry)	US EPA	325.1 & 325.2	0.77	No significant change in 2018

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)					Lic No:	P0007-03	Year	2018							
EP-WW-001	Wastewater/ Sewer	Nitrate (as N)	composite	Annual	Annual	N/A	N/A	0.29	mg/L	N/A	Spectrophotometry (Colorimetry)	US EPA	325.1 & 325.2	11	No significant change in 2018
EP-WW-001	Wastewater/ Sewer	Phenols	composite	Annual	Annual	N/A	N/A	<0.016	mg/L	N/A	LC (Liquid Chromatography)	Other (please specify)	HPLC	<1.61	No significant change in 2018
EP-WW-001	Wastewater/ Sewer	Arsenic and compounds (as As)	composite	Annual	Annual	N/A	N/A	<0.5	µg/L	N/A	ICP / ICPMS (Inductively Coupled Plasma - Mass Spectrometry)	APHA / AWWA "Standard Methods"	Method 3125B	0.02	No significant change in 2018
EP-WW-001	Wastewater/ Sewer	Cadmium and compounds (as Cd)	composite	Annual	Annual	N/A	N/A	<0.1	µg/L	N/A	ICP / ICPMS (Inductively Coupled Plasma - Mass Spectrometry)	APHA / AWWA "Standard Methods"	Method 3125B	<0.01	No change
EP-WW-001	Wastewater/ Sewer	Chromium and compounds (as Cr)	composite	Annual	Annual	N/A	N/A	<1.0	µg/L	N/A	ICP / ICPMS (Inductively Coupled Plasma - Mass Spectrometry)	APHA / AWWA "Standard Methods"	Method 3125B	0.04	No significant change in 2018
EP-WW-001	Wastewater/ Sewer	Copper and compounds (as Cu)	composite	Annual	Annual	N/A	N/A	0.33	µg/L	N/A	ICP / ICPMS (Inductively Coupled Plasma - Mass Spectrometry)	APHA / AWWA "Standard Methods"	Method 3125B	0.01	Lower concentration recorded in 2018 annual sample. More in line with previous years than 2017 sample
EP-WW-001	Wastewater/ Sewer	Mercury and compounds (as Hg)	composite	Annual	Annual	N/A	N/A	<0.01	µg/L	N/A	ICP / ICPMS (Inductively Coupled Plasma - Mass Spectrometry)	APHA / AWWA "Standard Methods"	Method 3125B	<0.001	No significant change in 2018
EP-WW-001	Wastewater/ Sewer	Nickel and compounds (as Ni)	composite	Annual	Annual	N/A	N/A	1.3	µg/L	N/A	ICP / ICPMS (Inductively Coupled Plasma - Mass Spectrometry)	APHA / AWWA "Standard Methods"	Method 3125B	0.05	No significant change in 2018
EP-WW-001	Wastewater/ Sewer	Lead and compounds (as Pb)	composite	Annual	Annual	N/A	N/A	1.2	µg/L	N/A	ICP / ICPMS (Inductively Coupled Plasma - Mass Spectrometry)	APHA / AWWA "Standard Methods"	Method 3125B	<0.01	No significant change in 2018
EP-WW-001	Wastewater/ Sewer	Zinc and compounds (as Zn)	composite	Annual	Annual	N/A	N/A	38.2	µg/L	N/A	ICP / ICPMS (Inductively Coupled Plasma - Mass Spectrometry)	APHA / AWWA "Standard Methods"	Method 3125B	1.5	Lower concentration recorded in 2018 annual sample.
EP-WW-001	Wastewater/ Sewer	Non-methane volatile organic compounds (NMVOC)	composite	n/a	Annual	N/A	N/A	n/a	N/A	N/A	Other (please describe)	Other (please specify)	Solvent Mass Balance calculation	0.8	In line with 2017.
EP-WW-001	Wastewater/ Sewer	Toluene	composite	n/a	Annual	N/A	N/A	n/a	N/A	N/A	Other (please describe)	Other (please specify)	Solvent Mass Balance calculation	0	In line with 2017.

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?  Yes  No Additional Information

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  No  Yes

7 Do you have a proactive service contract for each piece of continuous monitoring equipment on site?  Yes  No

8 Did abatement system bypass occur during the reporting year? If yes please complete table W5 below  No  Yes

**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 exceedances in reporting year	Comments
EP-WW-001	Wastewater/ Sewer	volumetric flow	800	24 hour	No flow value shall exceed the .specific limit	m <sup>3</sup> /day	102.88m <sup>3</sup> /day	-1%	0	0	Total volumetric emissions to sewer decreased by 1% in 2018 (37,551 vs 37,920m3) due to less production activity.
EP-WW-001	Wastewater/ Sewer	volumetric flow	125	1 hour	No flow value shall exceed the .specific limit	m <sup>3</sup> /hour	95.9 m <sup>3</sup> /hour	9%	0	0	Minor flow rate increase from 2017 .
EP-WW-001	Wastewater/ Sewer	Temperature	42		No temperature value shall exceed the limit .value	degrees C	12.1°C	-12%	0	0	Minor decrease in effluent temperature in 2018 - not process related.
EP-WW-001	Wastewater/ Sewer	pH	>6 <10		No pH value shall deviate from the specified range.	pH units	7.5		0	0	Minor decrease in average pH in 2018.

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

For inspection purposes only. Consent of copyright owner required for any other use.

Bund testing dropdown menu click to see options

Additional information

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  
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)
  - 2 How many bunds are on site?
  - 3 How many of these bunds have been tested within the required test schedule?
  - 4 How many mobile bunds are on site?
  - 5 Are the mobile bunds included in the bund test schedule?
  - 6 How many of these mobile bunds have been tested within the required test schedule?
  - 7 How many sumps on site are included in the integrity test schedule?
  - 8 How many of these sumps are integrity tested within the test schedule?
- Please list any sump integrity failures in table B1**
- 11 Do all sumps and chambers have high level liquid alarms?
  - 12 If yes to Q11 are these failsafe systems included in a maintenance and testing programme?
  - 13 Is the Fire Water Retention Pond included in your integrity test programme?

Yes	
3 years	
Yes	
19	
19	
15	
Yes	
15	
Yes	
Yes	
Yes	

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)
WP0520 WWB Tank	reinforced concrete		Feed for WWTP	N/A	N/A	Hydraulic test		10/03/2016	Yes	Pass		N/A	2019	
WP0530 pH Adjusting tank	reinforced concrete		Process water	N/A	N/A	Hydraulic test		19/04/2016	Yes	Pass		N/A	2019	
WP0793 Stormwater tank	reinforced concrete		Stormwater	300 m <sup>3</sup>	N/A	Hydraulic test		29/03/2016	Yes	Pass		N/A	2019	
WP0792 Stormwater tank	reinforced concrete		Stormwater	300 m <sup>3</sup>	N/A	Hydraulic test		24/03/2016	Yes	Pass		N/A	2019	
WP0791 Stormwater tank	reinforced concrete		Stormwater	300 m <sup>3</sup>	N/A	Hydraulic test		14/03/2016	Yes	Pass		N/A	2019	
WP0570 Final water tank	reinforced concrete		Treated process water	500 m <sup>3</sup>	N/A	Hydraulic test		23/05/2016	Yes	Pass		N/A	2019	
WP0580 Dump tank	reinforced concrete		Normally empty	400 m <sup>3</sup>	N/A	Hydraulic test		21/03/2016	Yes	Pass		N/A	2019	
Drum Stores sump	reinforced concrete		Stormwater - any potential spill	N/A	N/A	Hydraulic test		30/03/2016	Yes	Pass		N/A	2019	
Firewater Retention Pond	other (please specify)	Butyl liner	Empty	3000 m <sup>3</sup>		Hydraulic test		13/04/2016	Yes	Pass		N/A	2019	

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

Has integrity testing been carried out in accordance with licence requirements and are all structures tested in line with BS8007/EPA Guidance?

- 16 Are channels/transfer systems to remote containment systems tested?
- 17 Are channels/transfer systems compliant in both integrity and available volume?

Yes	
3 years	
Yes	
Yes	
Yes	

Commentary

Pipeline/underground structure testing

Are you required by your licence to undertake integrity testing\* on underground structures e.g. pipelines or sumps etc? If yes please fill out table 2 below listing all

- 1 underground structures and pipelines on site which failed the integrity test and all which have not been tested within the integrity test period as specified
  - 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)

Yes	
3 years	

Table B2: 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)
Process water pipework system	Process	polypropylene	Yes	N/A	Pressure tested.	Yes	All lines tested and passed as per scheduled.	n/a	n/a	2021	N/A
WWC1 tank	Process	polypropylene	Yes	Double lined tank	Visual	Yes	Pass			Monthly	
WWC2 tank	Process	polypropylene	Yes	Double lined tank	Visual	Yes	Pass			Monthly	
WWC3 tank	Process	polypropylene	Yes	Double lined tank	Visual	Yes	Pass			Monthly	

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

For inspection purposes only. Consent of copyright owner required for any other use.

<b>Groundwater/Soil monitoring template</b>	Lic No: P0007-03	Year 2018
---	------------------	-----------

			Comments
1	Are you required to carry out groundwater monitoring as part of your licence requirements?	yes	
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	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 interpretation as an additional section in this AER
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.	SELECT	Detailed groundwater monitoring report for 2018 is available on-site. - With the exception of the parameters mentioned below (not related to site sources), measured values for all groundwater samples taken in October 2018 are within the relevant GW regulation limit values and generally in line with previous years: - Slightly higher levels for ammonical nitrogen were noted in all locations. In line with previous event, levels in the downgradient locations YMW3, YMW4 and upgradient locations YMW 6 and YMW8 are in exceedence of the GW regulations value, with upward trends (except YMW4) and suggests non site related sources. - Chloride exceedence at up gradient location YMW8 suggests off-site localised source. - Total aluminium and iron levels were higher at all locations in 2018, not indicating site related issue. - Minor exceedence of Potassium at up gradient YMW1. - Manganese concentrations elevated in all locations except YMW1 and 9, not indicating site related issue. Downward trends. - TPH - used GC-FID method to meet new GTV (2016 ) of 7.5ug/l. All locations were detected at <2ug/l except YMW9 where EPH (DRO) was detected. - VOCs and SVOCs suites (& site specific solvents). Method LOD were sourced in 2018 to within 2016 GTVs limit. - All levels of PAH6 were below the LODs and GTV limit, with the exception of Levels PAH 6 and benzo (a) pyrene in YMW9 (shallow well in contractors yard) all levels were below the LODs. Levels of PAH6, benzo (a) pyrene and TPH at YMW9 are likely related to localised historical minor fuel from vehicles and not related to contamination issues. These parameters are not used on-site. ☐
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?	no	
11	Have potential receptors been identified on and off site?	no	
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
18/10/2018	YMW1	Conductivity	Conductivity meter	Annual	752		µS/cm	1875		No
18/10/2018	YMW2	Conductivity	Conductivity meter	Annual	800		µS/cm	1875		No
18/10/2018	YMW5	Conductivity	Conductivity meter	Annual	963		µS/cm	1875		yes
18/10/2018	YMW6	Conductivity	Conductivity meter	Annual	948		µS/cm	1875		No
18/10/2018	YMW8	Conductivity	Conductivity meter	Annual	1350		µS/cm	1875		yes
18/10/2018	YMW1	pH	pH meter	Annual	7.7		pH units	N/A	IGV 6.5-9.5	No
18/10/2018	YMW2	pH	pH meter	Annual	7.23		pH units	N/A	IGV 6.5-9.5	No
18/10/2018	YMW5	pH	pH meter	Annual	8.03		pH units	N/A	IGV 6.5-9.5	No
18/10/2018	YMW6	pH	pH meter	Annual	7.39		pH units	N/A	IGV 6.5-9.5	No
18/10/2018	YMW8	pH	pH meter	Annual	7.35		pH units	N/A	IGV 6.5-9.5	No

Groundwater/Soil monitoring template				Lic No:	P0007-03	Year	2018		
18/10/2018	YMW1	Alkalinity-total	Method 2320B, AWWA /APHA	Annual	282	mg/l	N/A	IGV No abnormal change	no
18/10/2018	YMW2	Alkalinity-total	as above	Annual	430	mg/l	N/A	as above	No
18/10/2018	YMW5	Alkalinity-total	as above	Annual	205	mg/l	N/A	as above	no
18/10/2018	YMW6	Alkalinity-total	as above	Annual	305	mg/l	N/A	as above	no
18/10/2018	YMW8	Alkalinity-total	as above	Annual	375	mg/l	N/A	as above	no
18/10/2018	YMW1	Ammoniacal nitrogen	BS 2690:Part 7:1968 / BS 6068:Part2.11:1984	Annual	0.33	mg/l	0.175		no
18/10/2018	YMW2	Ammoniacal nitrogen	as above	Annual	0.47	mg/l	0.175		no
18/10/2018	YMW5	Ammoniacal nitrogen	as above	Annual	0.48	mg/l	0.175		no
18/10/2018	YMW6	Ammoniacal nitrogen	as above	Annual	0.74	mg/l	0.175		yes
18/10/2018	YMW8	Ammoniacal nitrogen	as above	Annual	0.66	mg/l	0.175		yes
18/10/2018	YMW1	Chlorides	EPA Methods 325.1 & 325.2	Annual	62	mg/l	187.5		no
18/10/2018	YMW2	Chlorides	EPA Methods 325.1 & 325.2	Annual	21	mg/l	187.5		no
18/10/2018	YMW5	Chlorides	EPA Methods 325.1 & 325.2	Annual	160	mg/l	187.5		yes
18/10/2018	YMW6	Chlorides	EPA Methods 325.1 & 325.2	Annual	98	mg/l	187.5		no
18/10/2018	YMW8	Chlorides	EPA Methods 325.1 & 325.2	Annual	230	mg/l	187.5		yes
18/10/2018	YMW1	Nitrate as NO <sub>3</sub>	EPA method 325.1 & 325.2	Annual	<0.5	mg/l	37.5	IGV 25	no
18/10/2018	YMW2	Nitrate as NO <sub>3</sub>	EPA method 325.1 & 325.2	Annual	1	mg/l	37.5	IGV 25	no
18/10/2018	YMW5	Nitrate as NO <sub>3</sub>	EPA method 325.1 & 325.2	Annual	1.8	mg/l	37.5	IGV 25	yes
18/10/2018	YMW6	Nitrate as NO <sub>3</sub>	EPA method 325.1 & 325.2	Annual	<0.5	mg/l	37.5	IGV 25	no
18/10/2018	YMW8	Nitrate as NO <sub>3</sub>	EPA method 325.1 & 325.2	Annual	<0.5	mg/l	37.5	IGV 25	no
18/10/2018	YMW1	Nitrite as NO <sub>2</sub>	EPA method 325.1 & 325.2	Annual	<0.02	mg/l	0.375	IGV 0.10	no
18/10/2018	YMW2	Nitrite as NO <sub>2</sub>	EPA method 325.1 & 325.2	Annual	<0.02	mg/l	0.375	IGV 0.10	no
18/10/2018	YMW5	Nitrite as NO <sub>2</sub>	EPA method 325.1 & 325.2	Annual	0.14	mg/l	0.375	IGV 0.10	no
18/10/2018	YMW6	Nitrite as NO <sub>2</sub>	EPA method 325.1 & 325.2	Annual	<0.02	mg/l	0.375	IGV 0.10	no
18/10/2018	YMW8	Nitrite as NO <sub>2</sub>	EPA method 325.1 & 325.2	Annual	<0.02	mg/l	0.375	IGV 0.10	no
18/10/2018	YMW1	SVOC	EPA 8270D	Annual	<0.1 to <5.0	ug/l	Various		no
18/10/2018	YMW2	SVOC	EPA 8270D	Annual	<0.1 to <5.0	ug/l	Various		no

Groundwater/Soil monitoring template				Lic No:	P0007-03	Year	2018	
18/10/2018	YMW5	SVOC	EPA 8270D	Annual	<0.1 to <5.0	ug/l	Various	no
18/10/2018	YMW6	SVOC	EPA 8270D	Annual	<0.1 to <5.0	ug/l	Various	no
18/10/2018	YMW8	SVOC	EPA 8270D	Annual	<0.1 to <5.0	ug/l	Various	no
18/10/2018	YMW1	Phosphate (ortho) as PO <sub>4</sub>	EPA method 325.1 & 325.2	Annual	<0.153	mg/l	35	no
18/10/2018	YMW2	Phosphate (ortho) as PO <sub>4</sub>	EPA method 325.1 & 325.2	Annual	<0.153	mg/l	35	no
18/10/2018	YMW5	Phosphate (ortho) as PO <sub>4</sub>	EPA method 325.1 & 325.2	Annual	<0.153	mg/l	35	no
18/10/2018	YMW6	Phosphate (ortho) as PO <sub>4</sub>	EPA method 325.1 & 325.2	Annual	<0.153	mg/l	35	no
18/10/2018	YMW8	Phosphate (ortho) as PO <sub>4</sub>	EPA method 325.1 & 325.2	Annual	<0.153	mg/l	35	no
18/10/2018	YMW1	Sulphate	EPA method 325.1 & 325.2	Annual	77	mg/l	187.5	no
18/10/2018	YMW2	Sulphate	EPA method 325.1 & 325.2	Annual	50	mg/l	187.5	no
18/10/2018	YMW5	Sulphate	EPA method 325.1 & 325.2	Annual	94	mg/l	187.5	no
18/10/2018	YMW6	Sulphate	EPA method 325.1 & 325.2	Annual	120	mg/l	187.5	no
18/10/2018	YMW8	Sulphate	EPA method 325.1 & 325.2	Annual	140	mg/l	187.5	yes
18/10/2018	YMW1	TPH /Oils & Greases	GC-FID Texas Method 1006/TPH CWG	Annual	<2	ug/l	7.5	no
18/10/2018	YMW2	TPH /Oils & Greases	GC-FID Texas Method 1006/TPH CWG	Annual	<2	ug/l	7.5	no
18/10/2018	YMW5	TPH /Oils & Greases	GC-FID Texas Method 1006/TPH CWG	Annual	<2	ug/l	7.5	no
18/10/2018	YMW6	TPH /Oils & Greases	GC-FID Texas Method 1006/TPH CWG	Annual	<2	ug/l	7.5	no
18/10/2018	YMW8	TPH /Oils & Greases	GC-FID Texas Method 1006/TPH CWG	Annual	<2	ug/l	7.5	no
18/10/2018	YMW1	VOCs	US EPA 8260b& 624	Annual	<0.1 to <5.0	ug/l	Various	no
18/10/2018	YMW2	VOCs	US EPA 8260b& 624	Annual	<0.1 to <5.0	ug/l	Various	no
18/10/2018	YMW5	VOCs	US EPA 8260b& 624	Annual	<0.1 to <5.0	ug/l	Various	no
18/10/2018	YMW6	VOCs	US EPA 8260b& 624	Annual	<0.1 to <5.0	ug/l	Various	no
18/10/2018	YMW8	VOCs	US EPA 8260b& 624	Annual	<0.1 to <5.0	ug/l	Various	no
18/10/2018	YMW1	Calcium	US EPA 6010B	Annual	80	mg/l	N/A	IGV 200 mg/l
18/10/2018	YMW2	Calcium	US EPA 6010B	Annual	140	mg/l	N/A	IGV 200 mg/l
18/10/2018	YMW5	Calcium	US EPA 6010B	Annual	120	mg/l	N/A	IGV 200 mg/l
18/10/2018	YMW6	Calcium	US EPA 6010B	Annual	130	mg/l	N/A	IGV 200 mg/l
18/10/2018	YMW8	Calcium	US EPA 6010B	Annual	150	mg/l	N/A	IGV 200 mg/l

For inspection purposes only. Consent of copyright owner required for any other use.

Groundwater/Soil monitoring template				Lic No:	P0007-03	Year	2018		
18/10/2018	YMW1	Potassium	US EPA 6010B	Annual	5.9	mg/l	N/A	IGV 5 mg/l	no
18/10/2018	YMW2	Potassium	US EPA 6010B	Annual	2.9	mg/l	N/A	IGV 5 mg/l	no
18/10/2018	YMW5	Potassium	US EPA 6010B	Annual	3.1	mg/l	N/A	IGV 5 mg/l	no
18/10/2018	YMW6	Potassium	US EPA 6010B	Annual	3	mg/l	N/A	IGV 5 mg/l	no
18/10/2018	YMW8	Potassium	US EPA 6010B	Annual	3.1	mg/l	N/A	IGV 5 mg/l	no
18/10/2018	YMW1	Sodium	US EPA 6010B	Annual	48	mg/l	150		no
18/10/2018	YMW2	Sodium	US EPA 6010B	Annual	10	mg/l	150		no
18/10/2018	YMW5	Sodium	US EPA 6010B	Annual	120	mg/l	150		no
18/10/2018	YMW6	Sodium	US EPA 6010B	Annual	36	mg/l	150		no
18/10/2018	YMW8	Sodium	US EPA 6010B	Annual	120	mg/l	150		yes
18/10/2018	YMW1	Aluminium	ICP-MS	Annual	240	ug/l	N/A	IGV 200 ug/l	no
18/10/2018	YMW2	Aluminium	ICP-MS	Annual	580	ug/l	N/A	IGV 200 ug/l	no
18/10/2018	YMW5	Aluminium	ICP-MS	Annual	600	ug/l	N/A	IGV 200 ug/l	no
18/10/2018	YMW6	Aluminium	ICP-MS	Annual	<10	ug/l	N/A	IGV 200 ug/l	no
18/10/2018	YMW8	Aluminium	ICP-MS	Annual	480	ug/l	N/A	IGV 200 ug/l	no
18/10/2018	YMW1	Manganese	ICP-MS	Annual	0.0085	mg/l	N/A	IGV 0.05 mg/l	no
18/10/2018	YMW2	Manganese	ICP-MS	Annual	0.16	ug/l	N/A	IGV 0.05 mg/l	no
18/10/2018	YMW5	Manganese	ICP-MS	Annual	0.14	ug/l	N/A	IGV 0.05 mg/l	no
18/10/2018	YMW6	Manganese	ICP-MS	Annual	0.65	ug/l	N/A	IGV 0.05 mg/l	no
18/10/2018	YMW8	Manganese	ICP-MS	Annual	1.2	ug/l	N/A	IGV 0.05 mg/l	no
18/10/2018	YMW1	PAH6	US EPA 8100	Annual	0.0268	ug/l	0.075		no
18/10/2018	YMW2	PAH6	US EPA 8100	Annual	<0.0175	ug/l	0.075		no
18/10/2018	YMW5	PAH6	US EPA 8100	Annual	<0.0175	ug/l	0.075		no
18/10/2018	YMW6	PAH6	US EPA 8100	Annual	<0.0175	ug/l	0.075		no
18/10/2018	YMW8	PAH6	US EPA 8100	Annual	<0.0175	ug/l	0.075		no
18/10/2018	YMW1	Benzo (a) pyrene	US EPA 8100	Annual	<0.002	ug/l	0.0075		
18/10/2018	YMW2	Benzo (a) pyrene	US EPA 8100	Annual	<0.002	ug/l	0.0075		
18/10/2018	YMW5	Benzo (a) pyrene	US EPA 8100	Annual	<0.002	ug/l	0.0075		
18/10/2018	YMW6	Benzo (a) pyrene	US EPA 8100	Annual	<0.002	ug/l	0.0075		
18/10/2018	YMW8	Benzo (a) pyrene	US EPA 8100	Annual	<0.002	ug/l	0.0075		
18/10/2018	YMW1	Iron	ICP-MS	Annual	0.26	mg/l	N/A	IGV 0.20 mg/l	
18/10/2018	YMW2	Iron	ICP-MS	Annual	0.3	mg/l	N/A	IGV 0.20 mg/l	
18/10/2018	YMW5	Iron	ICP-MS	Annual	0.2	mg/l	N/A	IGV 0.20 mg/l	
18/10/2018	YMW6	Iron	ICP-MS	Annual	0.53	mg/l	N/A	IGV 0.20 mg/l	
18/10/2018	YMW8	Iron	ICP-MS	Annual	0.38	mg/l	N/A	IGV 0.20 mg/l	

**Table 2: Downgradient Groundwater monitoring results**

18/10/2018	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
18/10/2018	YMW3	Conductivity	Conductivity meter	Annual	857		µS/cm	1875		no
18/10/2018	YMW4	Conductivity	Conductivity meter	Annual	741		µS/cm	1875		no

Groundwater/Soil monitoring template				Lic No:	P0007-03	Year	2018		
18/10/2018	YMW7	Conductivity	Conductivity meter	Annual	672		µS/cm	1875	no
18/10/2018	YMW9	Conductivity	Conductivity meter	Annual	326		µS/cm	1875	no
18/10/2018	YMW3	pH	pH meter	Annual	7.42		pH units	N/A	IGV 6.5-9.5
18/10/2018	YMW4	pH	pH meter	Annual	7.51		pH units	N/A	IGV 6.5-9.5
18/10/2018	YMW7	pH	pH meter	Annual	7.49		pH units	N/A	IGV 6.5-9.5
18/10/2018	YMW9	pH	pH meter	Annual	7.66		pH units	N/A	IGV 6.5-9.5
18/10/2018	YMW3	Alkalinity-total	Method 2320B, AWWA/APHA	Annual	325		mg/l	N/A	IGV No abnormal change
18/10/2018	YMW4	Alkalinity-total	Method 2320B, AWWA/APHA	Annual	310		mg/l	N/A	IGV No abnormal change
18/10/2018	YMW7	Alkalinity-total	Method 2320B, AWWA/APHA	Annual	334		mg/l	N/A	IGV No abnormal change
18/10/2018	YMW9	Alkalinity-total	Method 2320B, AWWA/APHA	Annual	270		mg/l	N/A	IGV No abnormal change
18/10/2018	YMW3	Ammoniacal nitrogen	BS 2690:Part 7:1968 / BS 6068: Part2.11:1984	Annual	0.54		mg/l	0.175	yes
18/10/2018	YMW4	Ammoniacal nitrogen	as above	Annual	0.66		mg/l	0.175	no
18/10/2018	YMW7	Ammoniacal nitrogen	as above	Annual	0.36		mg/l	0.175	no
18/10/2018	YMW9	Ammoniacal nitrogen	as above	Annual	0.35		mg/l	0.175	no
18/10/2018	YMW3	Chlorides	EPA Methods 325.1 & 325.2	Annual	51		mg/l	187.5	no
18/10/2018	YMW4	Chlorides	EPA Methods 325.1 & 325.2	Annual	30		mg/l	187.5	no
18/10/2018	YMW7	Chlorides	EPA Methods 325.1 & 325.2	Annual	33		mg/l	187.5	no
18/10/2018	YMW9	Chlorides	EPA Methods 325.1 & 325.2	Annual	4.2		mg/l	187.5	no
18/10/2018	YMW3	Nitrate as NO <sub>3</sub>	EPA method 325.1 & 325.2	Annual	<0.5		mg/l	37.5	IGV 25
18/10/2018	YMW4	Nitrate as NO <sub>3</sub>	EPA method 325.1 & 325.2	Annual	<0.5		mg/l	37.5	IGV 25
18/10/2018	YMW7	Nitrate as NO <sub>3</sub>	EPA method 325.1 & 325.2	Annual	<0.5		mg/l	37.5	IGV 25
18/10/2018	YMW9	Nitrate as NO <sub>3</sub>	EPA method 325.1 & 325.2	Annual	3		mg/l	37.5	IGV 25
18/10/2018	YMW3	Nitrite as NO <sub>2</sub>	EPA method 325.1 & 325.2	Annual	<0.02		mg/l	0.375	IGV 0.10
18/10/2018	YMW4	Nitrite as NO <sub>2</sub>	EPA method 325.1 & 325.2	Annual	<0.02		mg/l	0.375	IGV 0.10
18/10/2018	YMW7	Nitrite as NO <sub>2</sub>	EPA method 325.1 & 325.2	Annual	<0.02		mg/l	0.375	IGV 0.10
18/10/2018	YMW9	Nitrite as NO <sub>2</sub>	EPA method 325.1 & 325.2	Annual	<0.02		mg/l	0.375	IGV 0.10
18/10/2018	YMW3	SVOC	EPA 8270D	Annual	<0.1 to <5.0		ug/l	Various	no
18/10/2018	YMW4	SVOC	EPA 8270D	Annual	<0.1 to <5.0		ug/l	Various	no

Groundwater/Soil monitoring template				Lic No:	P0007-03	Year	2018		
18/10/2018	YMW7	SVOC	EPA 8270D	Annual	<0.1 to <5.0		ug/l	Various	no
18/10/2018	YMW9	SVOC	EPA 8270D	Annual	<0.1 to <5.0		ug/l	Various	no
18/10/2018	YMW3	Phosphate (ortho) as PO <sub>4</sub>	EPA method 325.1 & 325.2	Annual	<0.153		mg/l	35	no
18/10/2018	YMW4	Phosphate (ortho) as PO <sub>4</sub>	EPA method 325.1 & 325.2	Annual	<0.153		mg/l	35	no
18/10/2018	YMW7	Phosphate (ortho) as PO <sub>4</sub>	EPA method 325.1 & 325.2	Annual	<0.153		mg/l	35	no
18/10/2018	YMW9	Phosphate (ortho) as PO <sub>4</sub>	EPA method 325.1 & 325.2	Annual	<0.153		mg/l	35	no
18/10/2018	YMW3	Sulphate	EPA method 325.1 & 325.2	Annual	130		mg/l	187.5	no
18/10/2018	YMW4	Sulphate	EPA method 325.1 & 325.2	Annual	110		mg/l	187.5	yes
18/10/2018	YMW7	Sulphate	EPA method 325.1 & 325.2	Annual	40		mg/l	187.5	no
18/10/2018	YMW9	Sulphate	EPA method 325.1 & 325.2	Annual	62		mg/l	187.5	no
18/10/2018	YMW3	TPH /Oils & Greases	GC-FID Texas Method 1006/TPH CWG	Annual	<2		ug/l	7.5	no
18/10/2018	YMW4	TPH /Oils & Greases	GC-FID Texas Method 1006/TPH CWG	Annual	<2		ug/l	7.5	no
18/10/2018	YMW7	TPH /Oils & Greases	GC-FID Texas Method 1006/TPH CWG	Annual	<2		ug/l	7.5	no
18/10/2018	YMW9	TPH /Oils & Greases	GC-FID Texas Method 1006/TPH CWG	Annual	281		ug/l	7.5	no
18/10/2018	YMW3	VOCs	US EPA 8260b& 624	Annual	<0.1 to <5.0		ug/l	Various	no
18/10/2018	YMW4	VOCs	US EPA 8260b& 624	Annual	<0.1 to <5.0		ug/l	Various	no
18/10/2018	YMW7	VOCs	US EPA 8260b& 624	Annual	<0.1 to <5.0		ug/l	Various	no
18/10/2018	YMW9	VOCs	US EPA 8260b& 624	Annual	<0.1 to <5.0		ug/l	Various	no
18/10/2018	YMW3	Calcium	US EPA 6010B	Annual	130		mg/l	N/A	IGV 200 mg/l
18/10/2018	YMW4	Calcium	US EPA 6010B	Annual	140		mg/l	N/A	IGV 200 mg/l
18/10/2018	YMW7	Calcium	US EPA 6010B	Annual	90		mg/l	N/A	IGV 200 mg/l
18/10/2018	YMW9	Calcium	US EPA 6010B	Annual	97		mg/l	N/A	IGV 200 mg/l
18/10/2018	YMW3	Potassium	US EPA 6010B	Annual	2.7		mg/l	N/A	IGV 5 mg/l
18/10/2018	YMW4	Potassium	US EPA 6010B	Annual	2.8		mg/l	N/A	IGV 5 mg/l
18/10/2018	YMW7	Potassium	US EPA 6010B	Annual	2.8		mg/l	N/A	IGV 5 mg/l
18/10/2018	YMW9	Potassium	US EPA 6010B	Annual	2.9		mg/l	N/A	IGV 5 mg/l
18/10/2018	YMW3	Sodium	US EPA 6010B	Annual	35		mg/l	150	no
18/10/2018	YMW4	Sodium	US EPA 6010B	Annual	27		mg/l	150	no
18/10/2018	YMW7	Sodium	US EPA 6010B	Annual	42		mg/l	150	no
18/10/2018	YMW9	Sodium	US EPA 6010B	Annual	5		mg/l	150	no
18/10/2018	YMW3	Aluminium	ICP-MS	Annual	530		ug/l	N/A	IGV 200 ug/l
18/10/2018	YMW4	Aluminium	ICP-MS	Annual	670		mg/l	N/A	IGV 200 ug/l
18/10/2018	YMW7	Aluminium	ICP-MS	Annual	230		mg/l	N/A	IGV 200 ug/l

Groundwater/Soil monitoring template					Lic No:	P0007-03	Year	2018	
18/10/2018	YMW9	Aluminium	ICP-MS	Annual	190	mg/l	N/A	IGV 200 ug/l	no
18/10/2018	YMW3	Manganese	ICP-MS	Annual	1.2	mg/l	N/A	IGV 0.05 mg/l	no
18/10/2018	YMW4	Manganese	ICP-MS	Annual	1.1	mg/l	N/A	N/A	no
18/10/2018	YMW7	Manganese	ICP-MS	Annual	0.09	mg/l	N/A	N/A	no
18/10/2018	YMW9	Manganese	ICP-MS	Annual	0.035	mg/l	N/A	N/A	no
18/10/2018	YMW3	PAH6	US EPA 8100	Annual	<0.0175	ug/l	0.075		no
18/10/2018	YMW4	PAH6	US EPA 8100	Annual	<0.0175	ug/l	0.075		no
18/10/2018	YMW7	PAH6	US EPA 8100	Annual	<0.0175	ug/l	0.075		no
18/10/2018	YMW9	PAH6	US EPA 8100	Annual	0.217	ug/l	0.075		no
18/10/2018	YMW3	Benzo (a) pyrene	US EPA 8100	Annual	<0.002	ug/l	0.0075		
18/10/2018	YMW4	Benzo (a) pyrene	US EPA 8100	Annual	<0.002	ug/l	0.0075		
18/10/2018	YMW7	Benzo (a) pyrene	US EPA 8100	Annual	<0.002	ug/l	0.0075		
18/10/2018	YMW9	Benzo (a) pyrene	US EPA 8100	Annual	0.0424	ug/l	0.0075		
18/10/2018	YMW3	Iron	ICP-MS	Annual	0.36	mg/l	N/A	IGV 0.20 mg/l	
18/10/2018	YMW4	Iron	ICP-MS	Annual	0.89	mg/l	N/A	IGV 0.20 mg/l	
18/10/2018	YMW7	Iron	ICP-MS	Annual	0.19	mg/l	N/A	IGV 0.20 mg/l	
18/10/2018	YMW9	Iron	ICP-MS	Annual	0.56	mg/l	N/A	IGV 0.20 mg/l	
*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.							<a href="#">Groundwater monitoring template</a>		
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)					<a href="#">Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites (EPA 2013)</a>				
**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)							<a href="#">Groundwater regulations</a> <a href="#">Drinking water (private supply) standards</a>		
							<a href="#">Surface water EQS</a> <a href="#">GTV's</a> <a href="#">Drinking water (public supply) standards</a>		

**Table 3: Soil results**

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

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

Environmental Liabilities template		Lic No:	P0007-03	Year	2018
------------------------------------	--	---------	----------	------	------

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

		Commentary	
1	ELRA initial agreement status	Submitted and not agreed by EPA;	ELRA submitted to the EPA in September 2017 (Licensee Return LR030886). Costings in line with new EPA Guidelines
2	ELRA review status	Review required and completed	Reviewed in 2018. No change in risks. Costings to be revised in 2019.
3	Amount of Financial Provision cover required as determined by the latest ELRA	Specify	See report (Licensee Return LR030886)
4	Financial Provision for ELRA status	Submitted and not agreed by EPA;	
5	Financial Provision for ELRA - amount of cover	Specify	See report (Licensee Return LR030886)
6	Financial Provision for ELRA - type	Environmental Impairment Liability insurance	Pollution Legal Liability Insurance in place
7	Financial provision for ELRA expiry date	Annual - due end March.	
8	Closure plan initial agreement status	Closure plan submitted and not agreed by EPA	Closure plan (CRAMP) submitted to the EPA in September 2017 (Licensee Return LR030887). Costings in line with new EPA Guidelines
9	Closure plan review status	Review required and completed	Completed 2017. Consultants recommend 3 yearly review. Costings to be revised in FY 2019.
10	Financial Provision for Closure status	Submitted and not agreed by EPA;	
11	Financial Provision for Closure - amount of cover	Specify	See report (Licensee Return LR030887)
12	Financial Provision for Closure - type	Other please specify	pending report approval
13	Financial provision for Closure expiry date	Enter expiry date	None

For inspection purposes only. Consent of copyright owner required for any reuse.

Environmental Management Programme/Continuous Improvement Programme template		Lic No: P0007-03	Year 2018
Highlighted cells contain dropdown menu click to view		Additional Information	
1	Do you maintain an Environmental Management System (EMS) for the site. If yes, please detail in additional information	Yes	Environmental Management System meets requirements of ISO 14001 and is audited against the standard. The site successfully transitioned to the revised standard ISO14001:2015 in 2018.
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	Full EMP report with details on environmental Objectives & Plans is available on-site. Summary presented below. Routine Licence requirements such as 3 yearly bund and drain testing are captured separately.
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
Energy Efficiency/Utility conservation	EM3. 2017/2018 - Replace HVAC centrifugal pumps with high efficiency plug fans (more energy efficient than existing fans).	20	Ongoing. Subsequent review in 2017 proposed full unit replacement, with more efficient fans which is a substantial project. Scoping took place in FY18 for P2 AHUs (x3) as planned. URS now in place for Design for tender, which will be completed in FY19 with replacement in FY20. Scoping for P3 units will take place under a separate new objective EM22.	Individual - Energy	Installation of infrastructure
Energy Efficiency/Utility conservation	EM4. 2017 - Replace pumps on cooling tower water system - includes Installation of VSD	100	Completed. Installed March - April 2019	Individual - Energy	Installation of infrastructure
Energy Efficiency/Utility conservation	EM5. 2017-2019 - Update Building Management System to allow for better energy M&T (Energy audit recommendation)	100	Completed. Data trending available from March 2019	Individual - Energy	Installation of infrastructure
Energy Efficiency/Utility conservation	EM9. 2017 - Replace calorifiers (hot water systems) in Admin and Warehouse if feasible	0	Previously closed - reopened. Was related to the district heating system project (EM8) which was being progressed based on insufficient ROI. However noted in 2018 ROI may be now be viable based on issue of 2030 GHG targets (specific for fossil fuel use). It will be dependent on outcome of solar panel study for these buildings. Feasibility study to be commenced in FY19.	Individual - Energy	
Energy Efficiency/Utility conservation	EM10. 2019-2020 - Review optimisation of the WWTP aerators - energy savings possible based on WWTP operation review.	10	In progress. Preliminary review with external consultants indicates that due to low organic loading since 2017 use of only 1 lagoon may be viable. Further review and impact assessment to take place in FY19, with change to be implemented in FY20 if feasible.	Individual - EHS	
Energy Efficiency/Utility conservation	EM15. 2018 - Install VSD pumps on IW water distribution system	60	In progress. 1 pump installed. Pending installation on second pump in May 2019	Individual - Energy	Installation of infrastructure
Energy Efficiency/Utility conservation	EM16. 2019 - Investigate renewables for electricity generation on-site (such as solar / photovoltaic panels e.g. Warehouse roof)	0	In progress - study being commissioned in FY19.	Individual - Energy	
Energy Efficiency/Utility conservation	EM17. 2018. Continue replacement of fluorescent lighting with LED. Phase 4 - Admin & Annex	0	Project on-hold. ROI currently insufficient due to high install costs for low number of remaining lights. Can be re-assessed in future.	Individual - Energy	
Energy Efficiency/Utility conservation	EM18. 2018-2019: Feasibility study to Reduce P2/P3 plant air change rates.	0	Closed. Project reviewed and deemed not feasible for P2 based on ATEX requirements. Will review feasibility for P3 within P3 AHU project.	Individual - Energy	
Energy Efficiency/Utility conservation	EM19. 2018-2019. Feasibility study to optimise Chillers unit control strategy.	0	Project on hold. FY19 focus on reviewing current operation of system and re-focus on energy savings aspects in FY20.	Individual - Energy	
Energy Efficiency/Utility conservation	EM20. 2018-2019: Feasibility study on Chillers ethylene glycol distribution pumps - review suitability, efficiency, operational control.	20	Ongoing. Scope being developed.	Individual - Energy	
Energy Efficiency/Utility conservation	EM21. New in 2018. Assess reducing HVAC air changes in some P2 rooms.	100	Completed. Adjusted in April 2018 in 2 rooms from 27/hr. to 22/hr. Expected annual savings of 40800KWh mix of both thermal and electrical savings.	Individual - Energy	
Energy Efficiency/Utility conservation	EM22. New in 2019. FY2020. Investigate feasibility of replacing P3 AHU units with more energy efficiency units (split from EM3). Carry out conceptual study.	0		Individual - Energy	Installation of infrastructure

Environmental Management Programme/Continuous Improvement Programme template		Lic No: P0007-03	Year 2018		
Energy Efficiency/Utility conservation	EM 23. New in 2019. FY2019. Review replacement of site Water boilers with more efficient electrical/plate heat exchanges units in line with 2013 Scope 1 GHG target. (MTC & P3)	0		Individual - Energy	Installation of infrastructure
Energy Efficiency/Utility conservation	EM24. New in 2019. FY2019. Review Temperature control in P2 dryer suite	0		Individual - Energy	
Waste reduction/Raw material usage efficiency	WM5. 2017-2019. Assess options of treating MB waste water in the on-site WWTP	30	Closed. Not progressing. Studies carried out with DCU and APC. Deemed no longer viable while progressing overall WWTP options given low organic loading through plant.	Individual - Energy	Improved Environmental Management Practices
Waste reduction/Raw material usage efficiency	WM13. 2018. Switch to compostable disposable cups and reduce overall usage of disposal cups by 50% (based on 2017 levels)	100	Compostable cups and lids and extra glassware introduced in Q1 2018. Other measures introduced in 2018 including extra communications, improved signage, extra glasses.	Individual - EHS	Reduced emissions
Waste reduction/Raw material usage efficiency	WM14. 2018. Raise site awareness of Waste Plastics in the Environment.	100	Communications presentation on Earth Day in April 2018.	Individual - EHS	
Additional improvements - ecology/biodiversity	EB10. 2018. Improve biodiversity. Seed berm with native grassland mix to provide food source for nearby bees hives.	100	<b>Completed.</b>	Individual - EHS	
Additional improvements - ecology/biodiversity	EB11. Arrange with bee-keeper to give talk with interested staff on bee-keeping & biodiversity benefits	100	<b>Completed.</b> 2 sessions held on-site with 30 in attendance. Great feedback.	Individual - EHS	
Groundwater protection	LL5. 2017 – Perform pressure re-testing on storm water system	100	<b>Completed</b> as schedule. Tracked going forward as BAU.	Individual - EHS	
Groundwater protection	LL6. 2017-2018 – Continue repair on storm water drain system (phase 2)	95	95% of scheduled high priority lines completed.	Individual - Engineering	
Groundwater protection	LL9. 2016 – Perform pressure testing on process drain system	100	95% completed in 2016. Access to some areas required civil works, completed in 2017. Lines tested. All except 2 passed. Repairs tracked (LL10) and completed (Feb 18).	Individual	Increased compliance with licence conditions
Additional improvements	LL11. FY2019. installation of TOC meter into pH adjusting tank for improved monitoring of loading to WWTP.	10	Funding approved. Design and tender completed.	Individual - Environmental Operations	
Additional improvements	LL16. 2018-2019. Assess BAT Conclusions 2016/902 for site compliance by 2020. Develop action plan.	30	Ongoing engagement with consultants. Waste water ELVs not applicable to site. No air emission ELVs - pending BAT-C. Awaiting clarity on how BAT requirements will be licensed for all Licencees.	Individual - EHS	Improved Environmental Management Practices
Additional improvements	LL17. 2018-2019. Confirm characteristics of scrubber inputs as per BAT-C. Engage external monitoring specialists, or develop on-site capabilities (e.g. validate the Voyager unit, develop SOP).	50	Ongoing. Sampling programme commenced in P2 on inlet and outlet. P3 sampling to follow.	Individual - EHS	Improved Environmental Management Practices
Additional improvements	LL19. New. FY2019. Decommission incinerator - develop decommissioning and residuals management plan.	10	Initial interaction with EPA April 2019.	Individual - EHS	
Additional improvements	LL20. New. FY2019. EHS to support site in Mirabegron 12/7 project.	20	Initial interaction with EPA April 2019 on additional batches and new shift pattern.	Individual - EHS	
Additional improvements	LL21. New 2019-2020. Fgas Regulation compliance for Chillers - gas phase down requirements - develop plan.			Individual - Engineering	
Waste reduction/Raw material usage efficiency	RM1. 2017 - Installation of N <sub>2</sub> flowmeters in P2 and P3 plants and trend usage on BMS to review for leak detection and sustain low usage	80	Partially completed, flowmeters installed. Trending available for P3 via BMS. P2 connection to BMS dependent on BMS upgrade (see EM5), which was completed Q1 2019. Currently gathering data.	Individual - Engineering	Installation of infrastructure
Waste reduction/Raw material usage efficiency	RM3. 2018. Establish N <sub>2</sub> baselines in P2 during no activity.	100	<b>Completed</b> during summer shutdown.	Individual - Engineering	
Waste reduction/Raw material usage efficiency	RM4. 2018-2019. Improve ongoing visibility of N <sub>2</sub> usage site wide - establish procedure to monitor usage from flow trends	10	Ongoing. Dependent on BMS upgrade (see EM5), which was completed Q1 2019. Currently gathering data.	Individual - Engineering	
Additional improvements - EMS / Communications	EMS2: 2018. Transition to ISO 14001:2015	100	<b>Completed.</b> Successful audit July 2018.	Individual - EHS	
Corporate Objective- GHG (CO <sub>2</sub> ) emissions reduction	CSR2: 2020. GHG emissions targets for Dublin site - 45% reduction from 2005 levels by 2020.	100	On target to achieve	Individual - EHS	
Corporate Objective- GHG (CO <sub>2</sub> ) emissions reduction	CSR3: 2030. New GHG emissions targets for Dublin site - 10% reduction from 2015 levels by 2030.	0	More focus on Scope 1 fossil fuel reduction. Plans being developed through Energy Road Map review.	Individual - EHS	
Corporate Objective- GHG (CO <sub>2</sub> ) emissions reduction	CSR4: New. FY19. Install an Electric car charging facility	20	Benefit: Reduction in indirect emissions from fueled vehicles depending on uptake. Scoping and costing completed.	Individual - Engineering	

**Noise monitoring summary report**      Lic No: P0007-03      Year: 2018

- 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 <sub>eq</sub>	LA <sub>90</sub>	LA <sub>10</sub>	LA <sub>max</sub>	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)?
22-23 Oct 2018	15 minutes	N/A	NSL1	26				No	na	This is a predicted result as there is a lot of road traffic to the south and west of the facility. Decrease from 2017 result of 31 LAeq. Dominant noise is road traffic assessing the industrial park. There is also noise with aircraft, as the facility is in the flight path for final approach into landing at dublin airport.	Yes
22-23 Oct 2018	15 minutes	N/A	NSL2	34				No	na	As above. Dominant noise is road traffic from M3 and R156. Slight decrease from 2017 result of 37 Laeq. Not attributed to site.	Yes
22-23 Oct 2018	15 minutes	N/A	NSL3	32				No	na	As above. Dominant noise is road traffic from M3. Slight decrease from 2017 result of 34 Laeq. Not attributed to site.	Yes
22-Oct-18	1 minute at each location	Locations B01 to B07	N/A	<54					na	Distant road traffic and plant noise dominant. Background noise levels in range 48-51 dB L <sub>A90</sub> .	na
22-Oct-18	1 minute at each location	Locations B08 to B12	N/A	<56					na	Distant road traffic and plant noise dominant. Background noise levels in range 48-55 dB L <sub>A90</sub> .	na
22-Oct-18	1 minute at each location	Locations B13 to B19	N/A	<61					na	Distant road traffic and plant noise dominant. Background noise levels in range 52-60 dB L <sub>A90</sub> .	na
22-Oct-18	1 minute at each location	Locations B20 to B24	N/A	<59					na	Distant road traffic and plant noise dominant. Background noise levels in range 54-59 dB L <sub>A90</sub> .	na

\*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)

Additional information

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

May-16	Regular small audits also carried out throughout year. The dedicated Energy Group meet fortnightly and implement energy saving projects on an ongoing basis via the EMP based on site energy roadmap. Repeat Efficiency audit due 2019.
--------	---

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

Yes	
-----	--

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	Gas usage
--------	-----------

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)	15,247	14,406	-1.34	-4.2
Total Energy Generated (MWHrs)				
Total Renewable Energy Generated (MWHrs)				
Electricity Consumption (MWHrs)	5,855	4,993		
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)				
Natural gas (m3)	878,123	875,411		
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 m <sup>3</sup> /yr.	Water extracted Current year m <sup>3</sup> /yr.	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*	Volume Discharged back to environment (m <sup>3</sup> /yr):	Volume used i.e. not discharged to environment e.g. released as steam m <sup>3</sup> /yr	Unaccounted for Water:
Groundwater							
Surface water	255	505					
Public supply	56,175	54,420					Note: Fingal Co. Co. water meter was offline in Q4 2018. Usage is estimated based on 2017 average.
Recycled water							
Total	56,430	54,925	-1.34		37,551		17,374 m <sup>3</sup> , which is water to foul sewer or released as steam that is not metered.

\* 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

For inspection purposes only. Copyright ©. All rights reserved. Required for any other use.

**Resource Usage/Energy efficiency summary** Lic No: P0007-03 Year 2018

Table R3 Waste Stream Summary					
	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)	784.3	0	69.68	714.62	0
Non-Hazardous (Tonnes)	146.87	0	0	133.53	13.34

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
May-16	all tracked via EMP		energy audit			Energy Engineer		See EMP for more detail

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					

For inspection purposes only.  
Consent of copyright owner required for any other use.

**Complaints and Incidents summary template** Lic No: P0007-03 Year 2018

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		No

Date	Category	Other type (please specify)	Brief description of complaint (Free txt <20 words)	Corrective action< 20 words	Resolution status	Resolution date	Further information
	SELECT				SELECT		
	SELECT				SELECT		
Total complaints open at start of reporting year		0					
Total new complaints received during reporting year		0					
Total complaints closed during reporting year		0					
Balance of complaints end of reporting year		0					

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](#)

Date of occurrence	Incident nature	Location of occurrence	Incident category* please refer to guidance	Receptor	Grade 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 recurrence
07/11/2018	Uncontrolled release	Other location (Chiller MA0420 - Fgas loss notified in INCI015519 & in online EPR	1. Minor	Air	Plant or equipment issues		Normal activities	EPA	New	Fgas loss points repaired/replaced - transducer, oil bung separator, oil pump & compressor shaft seals	Improvements to maintenance programme as per EIR-18-001 internal investigation.	Complete	11/01/2019	Low
														SELECT
Total number of incidents current year		1												
Total number of incidents previous year		0												
% reduction/ increase		100												

Consent of copy for inspection purposes only. Consent of copy for inspection purposes only. Consent of copy for inspection purposes only.

<b>WASTE SUMMARY</b>		Lic No:	P0007-03	Year	2018
<b>SECTION A-PRTR ON SITE WASTE TREATMENT AND WASTE TRANSFERS TAB- TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES</b>			PRTR facility logon	PRTR template has been replaced by new EPA online EPR reporting tool. Waste data for 2018 has also been migrated to the adjacent new Waste Management Record sheet.	

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

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)

1 If yes please enter details in table 1 below

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

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	Additional Information
SELECT	
SELECT	

**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 <b>Please enter an accurate and detailed description - which applies to relevant EWC code</b>	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 -
	<a href="#">European Waste Catalogue EWC codes</a>		<a href="#">European Waste Catalogue EWC codes</a>								

**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 on site

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

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?

SELECT	

**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

**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
										SELECT UNIT	SELECT UNIT	SELECT UNIT	
Cell 8													

**WASTE SUMMARY** Lic No: P0007-03 Year: 2018

**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

-> 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
SELECT UNIT	SELECT UNIT					

\*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?

SELECT  
SELECT

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

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

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
			SELECT	

For inspection purposes only.  
Consent of copyright owner required for any other use.

Waste Summary Continued

Please insert a copy of your Waste Management Record for waste transferred off site

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 : Address of Next Destination Facility	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)
						Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Non Haz Waste: Address of Recover/Disposer		M/C/E	Method Used		
Within the Country	16 06 01	Yes	0.467	lead batteries	R4	M	Weighted	Offsite in Ireland	KMK Metals Recycling Limited,W0113-04	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	KMK Metals Recycling Limited, W0113-04, Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland	Cappincur Industrial Estate, Daingean Road, Tullamore, Co Offaly, Ireland
Within the Country	16 06 04	No	0.025	alkaline batteries (except 16 06 03)	R4	M	Weighted	Offsite in Ireland	Rehab Recycle Tallagh, WFP-DP-10-0008-05	Roslyn Park, Sandymount, Dublin 15, Ireland		
Within the Country	20 03 01	No	3.875	mixed municipal waste	R3	M	Weighted	Offsite in Ireland	Nurendale Limited, W0261-02	Cappagh Road, Cappogue, Finglas Dublin 11, Ireland		
Within the Country	15 01 01	No	0.525	paper and cardboard packaging	R3	M	Weighted	Offsite in Ireland	IPODEC Ireland Limited W039-02	Ballymount Cross, Tallaght, Dublin 24, Ireland		
Within the Country	15 01 01	No	13.65	paper and cardboard packaging	R3	M	Weighted	Offsite in Ireland	Greenstar Limited, W0183-01	Millennium Buisness Park, Grange Ballycoolin, Dublin 11, Ireland		
Within the Country	15 01 04	No	0.03	metallic packaging	R4	M	Weighted	Offsite in Ireland	Rehab Glassco Limited, W0279-02	Unit 4, Oberstown Buisness Park, Curragh Road, Nass Co Kildare, Ireland		
Within the Country	15 01 10	Yes	0.654	packaging containing residues of or contaminated by dangerous substances	R4	M	Volume Calc	Offsite in Ireland	Rilita Environmental Ltd, W0192-03	Block 402 Grant Drive, Greenogue Buisness Park, Rathcoole, Co. Dublin, Ireland	Rilita Environmental Ltd, W0192-03, Block 402, Greenogue Buisness Park, Rathcoole, Co. Dublin, Ireland	Block 402, Greenogue Buisness Park, Rathcoole, Co. Dublin, Ireland
Within the Country	20 01 02	No	2.076	glass	R5	M	Weighted	Offsite in Ireland	Rehab Glassco Limited, W0279-02	Unit 4, Oberstown Buisness Park, Curragh Road, Nass Co Kildare, Ireland		
Within the Country	17 02 02	No	0.004	glass	R5	M	Weighted	Offsite in Ireland	Gannon Eco, WFP-WM-2014-05	Split Hill Quarry, Hazelwood, Kibbeggan, Co. Westmeath, Ireland		
Within the Country	20 01 21	Yes	0.029	fluorescent tubes and other mercury-containing waste	R4	M	Weighted	Offsite in Ireland	Irish Lamps Recycling, WFP-KE-14-0072-01	Woodcock Industrial Estate, Kilkenny Road, Athy, Co Kildare, Ireland	Irish Lamps Recycling Ltd, WFP-KE-14-0072-01, Woodstock Industrial Estate, Athy, Kildare, Co Kildare, Ireland	Woodstock Industrial Estate, Athy, Kildare, Co Kildare, Ireland
Within the Country	20 01 25	No	0.47	edible oil and fat	R9	E	Volume Calc	Offsite in Ireland	Frylite, WFP-FG-16-0004-01	ABP Meat Processing Plant, St Anne's Cloghran, Ballymun, Co. Dublin, Ireland		
Within the Country	13 01 13	Yes	0.85	other hydraulic oils	R9	M	Weighted	Offsite in Ireland	Enva Ireland Limited, W0184-02	Clonminam Industrial Estate, Portlaoise, County Laois, R32XD95, Ireland	Enva Ireland Ltd, W0184-02, Clonminam Industrial Estate, Portlaoise, Co. Laois, R32XD95, Ireland	Clonminam Industrial Estate, Portlaoise, Co. Laois, R32XD95, Ireland
Within the Country	20 01 01	No	22.2	paper and cardboard	R3	M	Weighted	Offsite in Ireland	Shred-it, WFP-DC-09-0011-02	5, Parkwest Industrial Estate, Dublin 12, Ireland		
Within the Country	17 05 04	No	20.46	soil and stones other than those mentioned in 17 05 03	R5	M	Weighted	Offsite in Ireland	Nurendale Limited, W0261-02	Cappagh Road, Cappogue, Finglas Dublin 11, Ireland		
Within the Country	17 09 04	No	21.3	mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03	R5	M	Weighted	Offsite in Ireland	Greenstar Limited, W0183-01	Millennium Buisness Park, Grange Ballycoolin, Dublin 11, Ireland		
Within the Country	17 03 02	No	2.46	bituminous mixtures containing other than those mentioned in 17 03 01	R5	M	Weighted	Offsite in Ireland	Greenstar Limited, W0183-01	Millennium Buisness Park, Grange Ballycoolin, Dublin 11, Ireland		

Actual Site (HAZARDOUS WASTE ONLY)

Consent of copyright owner required for any other use. For inspection purposes only.

Within the Country	20 01 40	No	9.4	metals	R4	M	Weighed	Offsite in Ireland	Haughey Metals Ltd,WL-LN 09 13	Darkley Road,Aughnagurran,Keady,Co Armagh. BT60 3BX,United Kingdom		
Within the Country	19 09 02	No	13.34	sludges from water clarification	D9	M	Weighed	Offsite in Ireland	Rilta Environmental Ltd,W0192-03	Block 402 Grant Drive,Greenogue Buisness Park,Rathcoole,Co. Dublin,Ireland		
Within the Country	20 03 01	No	0.1954	mixed municipal waste	R3	M	Weighed	Offsite in Ireland	Nurendale Limited,W0261-02	Cappagh Road,Cappogue,Finglas ,Dublin 11,Ireland		
Within the Country	20 03 01	No	11.0346	mixed municipal waste	R3	M	Weighed	Offsite in Ireland	Greenstar Limited,W0183-01	Millennium Buisness Park,Grange ,Ballycoolin,Dublin 11,Ireland		
Within the Country	20 03 07	No	4.3	bulky waste	R3	M	Weighed	Offsite in Ireland	Greenstar Limited,W0183-01	Millennium Buisness Park,Grange ,Ballycoolin,Dublin 11,Ireland		
Within the Country	20 01 10	No	2.019	clothes	R3	M	Weighed	Offsite in Ireland	Shred-it,WFP-DC-09-0011-02	5,Parkwest Industrial Estate,,Dublin 12,Ireland		
Within the Country	20 01 38	No	0.54	wood other than that mentioned in 20 01 37	R3	M	Weighed	Offsite in Ireland	Nurendale Limited,W0261-02	Cappagh Road,Cappogue,Finglas ,Dublin 11,Ireland		
Within the Country	20 01 38	No	6.562	wood other than that mentioned in 20 01 37	R3	M	Weighed	Offsite in Ireland	Greenstar Limited,W0183-01	Millennium Buisness Park,Grange ,Ballycoolin,Dublin 11,Ireland		
Within the Country	16 02 13	Yes	0.024	discarded equipment containing hazardous components (16) other than those mentioned in 16 02 09 to 16 02 12	R4	M	Weighed	Offsite in Ireland	KMK Metals Recycling Limited,W0113-04	Cappincur Industrial Estate,Daingean Road,Tullamore,Co Offaly,Ireland	KMK Metals Recycling Limited,W0113-04,Cappincur Industrial Estate,Daingean Road,Tullamore,Co Offaly,Ireland	Cappincur Industrial Estate,Daingean Road,Tullamore,Co Offaly,Ireland
Within the Country	16 02 13	Yes	1.322	discarded equipment containing hazardous components (16) other than those mentioned in 16 02 09 to 16 02 12	R4	M	Weighed	Offsite in Ireland	Rehab Recycle,WFP-DC-11-0025-02	The Rehab Building,Kylemore Road,Ballyfermot,Dublin 10,Ireland	Rehab Recycle,WFP-DS-10-0008-05,Unit 77,Broomhill road,Tallaght,Dublin 24,Ireland	Unit 77,Broomhill road,Tallaght,Dublin 24,Ireland
Within the Country	16 02 11	Yes	0.087	discarded equipment containing chlorofluorocarbons, HCFC, HFC	R4	M	Weighed	Offsite in Ireland	KMK Metals Recycling Limited,W0113-04	Cappincur Industrial Estate,Daingean Road,Tullamore,Co Offaly,Ireland	KMK Metals Recycling Limited,W0113-04,Cappincur Industrial Estate,Daingean Road,Tullamore,Co Offaly,Ireland	Cappincur Industrial Estate,Daingean Road,Tullamore,Co Offaly,Ireland
Within the Country	20 01 08	No	5.759	biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	Nurendale Limited,W0261-02	Cappagh Road,Cappogue,Finglas ,Dublin 11,Ireland		
Within the Country	20 01 08	No	4.746	biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	Greenstar Limited,W0183-01	Millennium Buisness Park,Grange ,Ballycoolin,Dublin 11,Ireland		
Within the Country	20 01 08	No	0.765	biodegradable kitchen and canteen waste	R3	M	Weighed	Offsite in Ireland	Key Waste Management Limited,W0045-01	Greenview Greenhills Road,Walkinstown,Dublin 12,,Ireland		
Within the Country	20 01 39	No	0.05	plastics	R5	M	Weighed	Offsite in Ireland	Greenstar Limited,W0183-01	Millennium Buisness Park,Grange ,Ballycoolin,Dublin 11,Ireland		
Within the Country	20 01 39	No	0.74	plastics	R5	M	Weighed	Offsite in Ireland	Rehab Recycle,WFP-DC-11-0025-02	The Rehab Building,Kylemore Road,Ballyfermot,Dublin 10,Ireland		
To Other Countries	06 02 04	Yes	0.099	sodium and potassium hydroxide	D10	M	Weighed	Abroad	Indaver Ireland,W0036-02	Dublin Port Waste Facility,Tolka Key Road,Dublin Port,Dublin 1,Ireland	Indaver NV,MLAV1/9800000485,Industriele Afvalverwerking,Poldervietweg,Antwerpen 3,B-2030,Belgium	Industriele Afvalverwerking,Polder vietweg,Antwerpen 3,B-2030,Belgium

To Other Countries	07 05 01	Yes	1.734	aqueous washing liquids and mother liquors	D10	M	Weighed	Abroad	Indaver Ireland,W0036-02	Dublin Port Waste Facility,Tolka Key Road,Dublin Port,Dublin 1,Ireland	Indaver NV,MLAV1/9800000485,Industriele Afvalverwerking,Poldervietweg,Antwerpen 3,B-2030,Belgium	Industriele Afvalverwerking,Poldervietweg,Antwerpen 3,B-2030,Belgium
To Other Countries	07 05 04	Yes	2.679	other organic solvents, washing liquids and mother liquors	D10	M	Weighed	Abroad	Indaver Ireland,W0036-02	Dublin Port Waste Facility,Tolka Quay Road,Dublin Port,Dublin 1,Ireland	Indaver NV,MLAV1/9800000485,Industriele Afvalverwerking,Poldervietweg,Antwerpen 3,B-2030,Belgium	Industriele Afvalverwerking,Poldervietweg,Antwerpen 3,B-2030,Belgium
To Other Countries	07 05 13	Yes	7.94	solid wastes containing dangerous substances	D10	M	Weighed	Abroad	Indaver Ireland,W0036-02	Dublin Port Waste Facility,Tolka Quay Road,Dublin Port,Dublin 1,Ireland	Indaver NV,MLAV1/9800000485,Industriele Afvalverwerking,Poldervietweg,Antwerpen 3,B-2030,Belgium	Industriele Afvalverwerking,Poldervietweg,Antwerpen 3,B-2030,Belgium
Within the Country	07 05 13	Yes	9.786	solid wastes containing dangerous substances	R1	M	Weighed	Offsite in Ireland	Indaver Ireland,W0167-03	Carranstown,Duleek,Co. Meath,A92 EP23,Ireland	Indaver Ireland,W0167-03,Carranstown,Duleek,Co. Meath,A92 EP23,Ireland	Carranstown,Duleek,Co. Meath,A92 EP23,Ireland
Within the Country	08 03 18	No	0.06	waste printing toner other than those mentioned in 08 03 17	R1	M	Weighed	Offsite in Ireland	Indaver Ireland,W0167-03	Carranstown,Duleek,Co. Meath,A92 EP23,Ireland		
To Other Countries	08 01 11	Yes	0.277	waste paint and varnish containing organic solvents or other dangerous substances	D10	M	Weighed	Abroad	Indaver Ireland,W0036-02	Dublin Port Waste Facility,Tolka Quay Road,Dublin Port,Dublin 1,Ireland	AVG,IB 2231 - 191/04,AVG Abfall-Verwertungs-Gesellschaft mbH,Boristrasse 2,Hamburg,22113,Germany	AVG Abfall-Verwertungs-Gesellschaft mbH,Boristrasse 2,Hamburg,22113,Germany
To Other Countries	15 01 10	Yes	0.445	packaging containing residues of or contaminated by dangerous substances	D10	M	Weighed	Abroad	Indaver Ireland,W0036-02	Dublin Port Waste Facility,Tolka Quay Road,Dublin Port,Dublin 1,Ireland	Indaver NV,MLAV1/9800000485,Industriele Afvalverwerking,Poldervietweg,Antwerpen 3,B-2030,Belgium	Industriele Afvalverwerking,Poldervietweg,Antwerpen 3,B-2030,Belgium
Within the Country	15 01 10	Yes	10.349	packaging containing residues of or contaminated by dangerous substances	R1	M	Weighed	Offsite in Ireland	Indaver Ireland,W0167-03	Carranstown,Duleek,Co. Meath,A92 EP23,Ireland	Indaver Ireland,W0167-03,Carranstown,Duleek,Co. Meath,A92 EP23,Ireland	Carranstown,Duleek,Co. Meath,A92 EP23,Ireland
Within the Country	15 01 10	Yes	0.57	packaging containing residues of or contaminated by dangerous substances	R4	M	Weighed	Offsite in Ireland	Rilta Environmental Ltd,W0192-03	Block 402 Grant Drive,Greenogue Buisness Park,Rathcoole,Co. Dublin,Ireland	Rilta Environmental Ltd,W0192-03,Block 402,Greenogue Buisness Park,Rathcoole,Co. Dublin,Ireland	Block 402,Greenogue Buisness Park,Rathcoole,Co. Dublin,Ireland
Within the Country	15 01 10	Yes	0.15	packaging containing residues of or contaminated by dangerous substances	R3	M	Weighed	Offsite in Ireland	Rilta Environmental Ltd,W0192-03	Block 402,Greenogue Buisness Park,Rathcoole,Co. Dublin,Ireland	Rilta Environmental Ltd,W0192-03,Block 402,Greenogue Buisness Park,Rathcoole,Co. Dublin,Ireland	Block 402,Greenogue Buisness Park,Rathcoole,Co. Dublin,Ireland
To Other Countries	15 02 02	Yes	0.237	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	D10	M	Weighed	Abroad	Indaver Ireland,W0036-02	Dublin Port Waste Facility,Tolka Quay Road,Dublin Port,Dublin 1,Ireland	AVG,IB 2231 - 191/04,AVG Abfall-Verwertungs-Gesellschaft mbH,Boristrasse 2,Hamburg,22113,Germany	AVG Abfall-Verwertungs-Gesellschaft mbH,Boristrasse 2,Hamburg,22113,Germany
To Other Countries	16 03 05	Yes	0.714	organic wastes containing dangerous substances	D10	M	Weighed	Abroad	Indaver Ireland,W0036-02	Dublin Port Waste Facility,Tolka Quay Road,Dublin Port,Dublin 1,Ireland	Indaver NV,MLAV1/9800000485,Industriele Afvalverwerking,Poldervietweg,Antwerpen 3,B-2030,Belgium	Industriele Afvalverwerking,Poldervietweg,Antwerpen 3,B-2030,Belgium
To Other Countries	16 05 04	Yes	0.308	gases in pressure containers (including halons) containing dangerous substances	D10	M	Weighed	Abroad	Indaver Ireland,W0036-02	Dublin Port Waste Facility,Tolka Quay Road,Dublin Port,Dublin 1,Ireland	Chemogas,D/PMVC/12G10/1 8788,Milleucoordinator,Westvaartdijk85,1850 Grimbergen,...Belgium	Milleucoordinator,Westvaartdijk85,1850 Grimbergen,...Belgium
To Other Countries	16 05 04	Yes	0.077	gases in pressure containers (including halons) containing dangerous substances	D10	M	Weighed	Abroad	Indaver Ireland,W0036-02	Dublin Port Waste Facility,Tolka Quay Road,Dublin Port,Dublin 1,Ireland	AVG,IB 2231 - 191/04,AVG Abfall-Verwertungs-Gesellschaft mbH,Boristrasse 2,Hamburg,22113,Germany	AVG Abfall-Verwertungs-Gesellschaft mbH,Boristrasse 2,Hamburg,22113,Germany

To Other Countries	16 05 04	Yes	0.323	gases in pressure containers (including halons) containing dangerous substances	D10	M	Weighted	Abroad	Indaver Ireland,W0036-02	Dublin Port Waste Facility,Tolka Quay Road,Dublin Port,Dublin 1,Ireland	Indaver NV,MLAV1/9800000485,Industriele Afvalverwerking,Poldervietweg,Antwerpen 3,B-2030,Belgium	Industriele Afvalverwerking,Poldervietweg,Antwerpen 3,B-2030,Belgium
Within the Country	16 02 13	Yes	0.07	discarded equipment containing hazardous components (16) other than those mentioned in 16 02 09 to 16 02 12	R4	E	Volume Calc	Offsite in Ireland	Rilta Environmental Ltd,W0192-03	Block 402 Grant Drive,Greenogue Buisness Park,Rathcoole,Co. Dublin,Ireland	Rilta Environmental Ltd,W0192-03,Block 402,Greenogue Buisness Park,Rathcoole,Co. Dublin,Ireland	Block 402,Greenogue Buisness Park,Rathcoole,Co. Dublin,Ireland
To Other Countries	16 11 05	Yes	0.035	linings and refractories from non-metallurgical processes containing dangerous substances	D10	M	Weighted	Abroad	Indaver Ireland,W0036-02	Dublin Port Waste Facility,Tolka Quay Road,Dublin Port,Dublin 1,Ireland	Indaver NV,MLAV1/9800000485,Industriele Afvalverwerking,Poldervietweg,Antwerpen 3,B-2030,Belgium	Industriele Afvalverwerking,Poldervietweg,Antwerpen 3,B-2030,Belgium
Within the Country	20 03 01	No	0.284	mixed municipal waste	R1	M	Weighted	Offsite in Ireland	Indaver Ireland,W0167-03	Carranstown,Duleek,Co. Meath,A92 EP23,Ireland		
To Other Countries	07 05 01	Yes	53.178	aqueous washing liquids and mother liquors	D10	M	Weighted	Abroad	Indaver Ireland,W0036-02	Dublin Port Waste Facility,Tolka Quay Road,Dublin Port,Dublin 1,Ireland	Indaver NV,MLAV1/9800000485,Industriele Afvalverwerking,Poldervietweg,Antwerpen 3,B-2030,Belgium	Industriele Afvalverwerking,Poldervietweg,Antwerpen 3,B-2030,Belgium
Within the Country	07 05 01	Yes	383.907	aqueous washing liquids and mother liquors	R1	M	Weighted	Offsite in Ireland	Indaver Ireland,W0167-03	Carranstown,Duleek,Co. Meath,A92 EP23,Ireland	Indaver Ireland,W0167-03,Carranstown,Duleek,Co. Meath,A92 EP23,Ireland	Carranstown,Duleek,Co. Meath,A92 EP23,Ireland
Within the Country	07 05 04	Yes	306.359	other organic solvents, washing liquids and mother liquors	R1	M	Weighted	Offsite in Ireland	Indaver Ireland,W0036-02	Dublin Port Waste Facility,Tolka Key Road,Dublin Port,Dublin 1,Ireland	Indaver Ireland Limited,W00036-02,Tolka Quay Road,Dublin Port,Dublin 1,Ireland	Indaver Ireland Limited,W00036-02,Dublin Port,Dublin 1,Ireland
To Other Countries	16 05 06	Yes	1.484	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals	D10	M	Weighted	Abroad	Indaver Ireland,W0036-02	Dublin Port Waste Facility,Tolka Quay Road,Dublin Port,Dublin 1,Ireland	Indaver NV,MLAV1/9800000485,Industriele Afvalverwerking,Poldervietweg,Antwerpen 3,B-2030,Belgium	Industriele Afvalverwerking,Poldervietweg,Antwerpen 3,B-2030,Belgium
To Other Countries	16 05 06	Yes	0.154	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals	D10	M	Weighted	Abroad	Indaver Ireland,W0036-02	Dublin Port Waste Facility,Tolka Quay Road,Dublin Port,Dublin 1,Ireland	AVG,IB 2231 - 191/04,AVG Abfall-Verwertungs-Gesellschaft mbH,Boristrasse 2,Hamburg,22113,Germany	AVG Abfall-Verwertungs-Gesellschaft mbH,Boristrasse 2,Hamburg,22113,Germany

For inspection purposes only. Consent of copyright owner is required for any other use.