SELECT	cells that are highlighted blue contain a dropdown menu click to select one option from the list
guidance document link	cells that contain underlined text click to access relevant guidance documents for this section
Table heading *	table headings followed by a symbol have an associated footnote or instructions
Cells with red indicator in top right corner	cells that have a red indicator in the top right corner contain a comment box with further instructions or clarification

Please note an interpretation of results is still required. This should be entered in the additional information/comments boxes within the templates. Please size these boxes appropriately to fit your interpretation, if additional space is required please include an appendix to the AER template and merge it as part of the AER PDF document. The excel template should have all cells sized appropriately so that all text is readable before it is converted to PDF document.

Facility Information Summary	
AER Reporting Year	2016
Licence Register Number	W0089-02
Name of site	Derryconnell Landfill & Civic Amenity Site
Site Location	Derryconnell, Schull, Co. Cork
NACE Code	3821
Class/Classes of Activity	5(c), 5(d), & 50.1
National Grid Reference (6E, 6 N)	(49E, 53N)

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.

Description of Activities on Site during 2016:

The Facility at Derryconnell consists of a closed Landfill and a Civic Amenity Site. Deposition of waste at the landfill ceased in August 2010 and the final capping works were completed by Q2 2011. The main activities at the site during 2016 were the extraction of gas and leachate from the closed landfill (extracted gas is flared on-site and leachate is pumped to an on-site lagoon prior to being transported for treatment to Bandon WWTP) and the acceptance and storage of waste at the Civic Amenity Site for off-site treatment/disposal/recycling.

Exceedances of Licence Limits during 2016:

None.

Overview of Licence Compliance during 2016:

There was no non-compliance issued against the licence in 2016.

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.

Mairead Hales	
Signature	30/03/2017
Group/Facility manager	Date
(or nominated, suitably qualified and experienced deputy)	

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Answer all questions and complete all tables where relevant

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

Periodic/Non-Continuous Monitoring

2	Are there any results in breach of licence requirements? If yes please provide brief details in the comment section of TableA1 below		No	
3	Was all monitoring carried out in accordance with EPA guidance note AG2 and using the basic air monitoring checklist?	Basic air monitoring checklist	Yes	

AGN2

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

Emission reference no:	Parameter/ Substance	Frequency of Monitoring	ELV in licence or any revision therof	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence limit	Method of analysis	Annual mass load (kg)	Comments - reason for change in % mass load from previous year if applicable
A1-1 (Landfill Gas Flare)	Nitrogen oxides (NOx/NO2)	Biannually	150 mg/m^3	No 30min mean can exceed the ELV	92.45	mg/Nm3	yes	EN 14792:2005	10.03	
A1-1 (Landfill Gas Flare)	Nitrogen oxides (NOx/NO2)	Biannually	150 mg/m^3	No 30min mean can exceed the ELV	25.70	mg/Nm3	yes	EN 14792:2005		
A1-1 (Landfill Gas Flare)	Volumetric flow	Continuous	N/A	N/A	147.00	Nm3/hour	N/A	OTH		Average flow rate during flare runtime
	SELECT			SELECT		SELECT	SELECT	SELECT		

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

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Continuous Monitoring

4	Does your site carry out continuous air emissions monitoring?	Yes	Carbon Monoxide at Landfill Gas Flare
	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)		
5	Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below	No	
6	Do you have a proactive service agreement for each piece of continuous monitoring equipment?	Yes	Service & Maintenance contract in place
7	Did your site experience any abatement system bypasses? If yes please detail them in table A3 below	No	

Table A2: Summary of average emissions -continuous monitoring

Emission reference no:	Parameter/ Substance	ELV in licence or any revision therof	Averaging Period	Compliance Criteria	Units of measurement	Annual Emission	Annual maximum	Monitoring Equipment downtime (hours)	Number of ELV exceedences in current reporting year	Comments
A1-1 (Landfill Gas Flare)	Carbon monoxide (CO)	N/A	10 Mins	N/A	mg/Nm3	10.96	20.44	0	N/A	
A1-1 (Landfill Gas Flare)	Volumetric flow	N/A	10 Mins	N/A	Nm3/hour	147.00	159	0	N/A	
	SELECT				SELECT					
	SELECT				SELECT					
	SELECT				SELECT					

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

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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 Total VOC Emission limit value

Solvent regulations — Please refer to linked solvent regulations to complete table 5 and 6

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

Table A5: Solvent Mass Balance summary

	(I) Inputs (kg)	(O) Outputs (kg)						
Solvent	(I) Inputs (kg)	Organic solvent emission in waste	Solvents lost in water (kg)	Collected waste solvent (kg)	Fugitive Organic Solvent (kg)	Solvent released in other ways e.g.	Solvents destroyed onsite through	Total emission of Solvent to air (kg)
							Total	

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		Additional information
1 Does your site have licensed emissions direct to surface water or direct to sewer? If yes please complete table W2 and W3 below for the current reporting year and answer further questions. If **you do not have** licenced emissions you only need to complete table W1 and or W2 for storm water analysis and visual inspections	No	
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	SW 7 - Inspected Weekly SW1-SW9 - Inspected Monthly

Table W1 Storm water monitoring

Location reference	Location relative to site activities	PRTR Parameter	Licenced Parameter	Monitoring date	ELV or trigger level in licence or any revision thereof*	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Comments
SW1	downstream		Total Ammonia	28/01/2016	1	All results < 1.2 x ELV	0.35	mg/l NH3	yes	
SW1	downstream	Chlorides (as Cl)		28/01/2016	N/A	N/A	30.38	mg/l	yes	
SW1	downstream		Conductivity	28/01/2016	750	All results < 1.2 x ELV	124	µS/cm @20oC	yes	
SW1	downstream		Total Ammonia	21/04/2016	1	All results < 1.2 x ELV	2.27	mg/l NH3	yes	
SW1	downstream	Chlorides (as Cl)		21/04/2016	N/A	N/A	45.36	mg/l	yes	
SW1	downstream		Conductivity	21/04/2016	750	All results < 1.2 x ELV	237	µS/cm @20oC	yes	
SW1	downstream		Total Ammonia	21/07/2016	1	All results < 1.2 x ELV	4.42	mg/l NH3	yes	
SW1	downstream	Chlorides (as Cl)		21/07/2016	N/A	N/A	31.68	mg/l	yes	
SW1	downstream		Conductivity	21/07/2016	750	All results < 1.2 x ELV	204	µS/cm @20oC	yes	
SW1	downstream		Dissolved Oxygen	21/07/2016	N/A	N/A	4.99	mg/l O2	yes	
SW1	downstream		Boron	21/07/2016	N/A	N/A	0.06	mg/l	yes	
SW1	downstream	Cadmium and compounds (as Cd)		21/07/2016	N/A	N/A	<20.000	µg/l	yes	
SW1	downstream		Calcium	21/07/2016	N/A	N/A	23.9	mg/l	yes	
SW1	downstream	Chromium and compounds (as Cr)		21/07/2016	N/A	N/A	21	µg/l	yes	
SW1	downstream	Copper and compounds (as Cu)		21/07/2016	N/A	N/A	61	µg/l	yes	
SW1	downstream		Iron	21/07/2016	N/A	N/A	3.19	mg/l	yes	
SW1	downstream	Lead and compounds (as Pb)		21/07/2016	N/A	N/A	<20.000	µg/l	yes	
SW1	downstream		Magnesium	21/07/2016	N/A	N/A	6.12	mg/l	yes	
SW1	downstream		Manganese (as Mn)	21/07/2016	N/A	N/A	1080	µg/l	yes	
SW1	downstream	Nickel and compounds (as Ni)		21/07/2016	N/A	N/A	<20.000	µg/l	yes	
SW1	downstream		Potassium	21/07/2016	N/A	N/A	2.97	mg/l	yes	
SW1	downstream	Zinc and compounds (as Zn)		21/07/2016	N/A	N/A	128	µg/l	yes	
SW1	downstream	Mercury and compounds (as Hg)		21/07/2016	N/A	N/A	<10.000	µg/l	yes	
SW1	downstream		Sulphate	21/07/2016	N/A	N/A	<2.500	mg/l SO4	yes	
SW1	downstream	Total phosphorus		21/07/2016	N/A	N/A	3.72	mg/l P	yes	
SW1	downstream		Total Ammonia	25/11/2016	1	All results < 1.2 x ELV	1.53	mg/l NH3	yes	
SW1	downstream	Chlorides (as Cl)		25/11/2016	N/A	N/A	34.87	mg/l	yes	
SW1	downstream		Conductivity	25/11/2016	750	All results < 1.2 x ELV	189	µS/cm @20oC	yes	
SW2	upstream		Total Ammonia	28/01/2016	1	All results < 1.2 x ELV	0.06	mg/l NH3	yes	
SW2	upstream	Chlorides (as Cl)		28/01/2016	N/A	N/A	25.38	mg/l	yes	
SW2	upstream		Conductivity	28/01/2016	750	All results < 1.2 x ELV	96	µS/cm @20oC	yes	
SW2	upstream		Total Ammonia	21/04/2016	1	All results < 1.2 x ELV	1.98	mg/l NH3	yes	
SW2	upstream	Chlorides (as Cl)		21/04/2016	N/A	N/A	52.39	mg/l	yes	
SW2	upstream		Conductivity	21/04/2016	750	All results < 1.2 x ELV	166	µS/cm @20oC	yes	
SW2	upstream		Total Ammonia	21/07/2016	1	All results < 1.2 x ELV	0.5	mg/l NH3	yes	
SW2	upstream	Chlorides (as Cl)		21/07/2016	N/A	N/A	45.44	mg/l	yes	
SW2	upstream		Conductivity	21/07/2016	750	All results < 1.2 x ELV	198	µS/cm @20oC	yes	
SW2	upstream		Dissolved Oxygen	21/07/2016	N/A	N/A	5.11	mg/l O2	yes	
SW2	upstream		Boron	21/07/2016	N/A	N/A	0.04	mg/l	yes	
SW2	upstream	Cadmium and compounds (as Cd)		21/07/2016	N/A	N/A	<20.000	µg/l	yes	
SW2	upstream		Calcium	21/07/2016	N/A	N/A	14.9	mg/l	yes	
SW2	upstream	Chromium and compounds (as Cr)		21/07/2016	N/A	N/A	<20.000	µg/l	yes	
SW2	upstream	Copper and compounds (as Cu)		21/07/2016	N/A	N/A	<20.000	µg/l	yes	
SW2	upstream		Iron	21/07/2016	N/A	N/A	16.6	mg/l	yes	
SW2	upstream	Lead and compounds (as Pb)		21/07/2016	N/A	N/A	<20.000	µg/l	yes	
SW2	upstream		Magnesium	21/07/2016	N/A	N/A	5.63	mg/l	yes	
SW2	upstream		Manganese (as Mn)	21/07/2016	N/A	N/A	11500	µg/l	yes	
SW2	upstream	Nickel and compounds (as Ni)		21/07/2016	N/A	N/A	<20.000	µg/l	yes	
SW2	upstream		Potassium	21/07/2016	N/A	N/A	3.17	mg/l	yes	
SW2	upstream	Zinc and compounds (as Zn)		21/07/2016	N/A	N/A	62	µg/l	yes	
SW2	upstream	Mercury and compounds (as Hg)		21/07/2016	N/A	N/A	<10.000	µg/l	yes	
SW2	upstream		Sulphate	21/07/2016	N/A	N/A	<2.500	mg/l SO4	yes	
SW2	upstream	Total phosphorus		21/07/2016	N/A	N/A	4.24	mg/l P	yes	
SW2	upstream		Total Ammonia	25/11/2016	1	All results < 1.2 x ELV	0.07	mg/l NH3	yes	
SW2	upstream	Chlorides (as Cl)		25/11/2016	N/A	N/A	40.95	mg/l	yes	
SW2	upstream		Conductivity	25/11/2016	750	All results < 1.2 x ELV	156	µS/cm @20oC	yes	
SW3	downstream		Total Ammonia	28/01/2016	1	All results < 1.2 x ELV	0.13	mg/l NH3	yes	
SW3	downstream	Chlorides (as Cl)		28/01/2016	N/A	N/A	31.57	mg/l	yes	
SW3	downstream		Conductivity	28/01/2016	750	All results < 1.2 x ELV	131	µS/cm @20oC	yes	
SW3	downstream		Total Ammonia	21/04/2016	1	All results < 1.2 x ELV	0.76	mg/l NH3	yes	
SW3	downstream	Chlorides (as Cl)		21/04/2016	N/A	N/A	44.02	mg/l	yes	
SW3	downstream		Conductivity	21/04/2016	750	All results < 1.2 x ELV	170	µS/cm @20oC	yes	
SW3	downstream		Total Ammonia	21/07/2016	1	All results < 1.2 x ELV	0.39	mg/l NH3	yes	
SW3	downstream	Chlorides (as Cl)		21/07/2016	N/A	N/A	36.03	mg/l	yes	

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SW3	downstream		Conductivity	21/07/2016	750	All results < 1.2 x ELV	191	µS/cm @20oC	yes	
SW3	downstream		Total Ammonia	25/11/2016	1	All results < 1.2 x ELV	0.56	mg/l NH3	yes	
SW3	downstream	Chlorides (as Cl)		25/11/2016	N/A	N/A	35.72	mg/l	yes	
SW3	downstream		Conductivity	25/11/2016	750	All results < 1.2 x ELV	166	µS/cm @20oC	yes	
SW3	downstream		Boron	25/11/2016	N/A	N/A	0.02	mg/l	yes	
SW3	downstream	Cadmium and compounds (as Cd)		25/11/2016	N/A	N/A	<20.000	µg/l	yes	
SW3	downstream		Calcium	25/11/2016	N/A	N/A	8.02	mg/l	yes	
SW3	downstream	Chromium and compounds (as Cr)		25/11/2016	N/A	N/A	<20.000	µg/l	yes	
SW3	downstream	Copper and compounds (as Cu)		25/11/2016	N/A	N/A	<20.000	µg/l	yes	
SW3	downstream		Iron	25/11/2016	N/A	N/A	840	µg/l	yes	
SW3	downstream	Lead and compounds (as Pb)		25/11/2016	N/A	N/A	<20.000	µg/l	yes	
SW3	downstream		Magnesium	25/11/2016	N/A	N/A	2.63	mg/l	yes	
SW3	downstream		Manganese (as Mn)	25/11/2016	N/A	N/A	259	µg/l	yes	
SW3	downstream	Nickel and compounds (as Ni)		25/11/2016	N/A	N/A	<20.000	µg/l	yes	
SW3	downstream		Potassium	25/11/2016	N/A	N/A	8.02	mg/l	yes	
SW3	downstream	Zinc and compounds (as Zn)		25/11/2016	N/A	N/A	46	µg/l	yes	
SW3	downstream	Mercury and compounds (as Hg)		25/11/2016	N/A	N/A	<10.000	µg/l	yes	
SW3	downstream		Sulphate	25/11/2016	N/A	N/A	7.55	mg/l SO4	yes	
SW3	downstream	Total phosphorus		25/11/2016	N/A	N/A	0.01	mg/l P	yes	
SW4	downstream		Total Ammonia	28/01/2016	1	All results < 1.2 x ELV	0.03	mg/l NH3	yes	
SW4	downstream	Chlorides (as Cl)		28/01/2016	N/A	N/A	28.2	mg/l	yes	
SW4	downstream		Conductivity	28/01/2016	750	All results < 1.2 x ELV	129	µS/cm @20oC	yes	
SW4	downstream		Total Ammonia	21/04/2016	1	All results < 1.2 x ELV	1.56	mg/l NH3	yes	
SW4	downstream	Chlorides (as Cl)		21/04/2016	N/A	N/A	42.02	mg/l	yes	
SW4	downstream		Conductivity	21/04/2016	750	All results < 1.2 x ELV	176	µS/cm @20oC	yes	
SW4	downstream		Total Ammonia	21/07/2016	1	All results < 1.2 x ELV	1.43	mg/l NH3	yes	
SW4	downstream	Chlorides (as Cl)		21/07/2016	N/A	N/A	31.96	mg/l	yes	
SW4	downstream		Conductivity	21/07/2016	750	All results < 1.2 x ELV	195	µS/cm @20oC	yes	
SW4	downstream		Total Ammonia	25/11/2016	1	All results < 1.2 x ELV	1.198	mg/l NH3	yes	
SW4	downstream	Chlorides (as Cl)		25/11/2016	N/A	N/A	52.4	mg/l	yes	
SW4	downstream		Conductivity	25/11/2016	750	All results < 1.2 x ELV	450	µS/cm @20oC	yes	
SW4	downstream		Boron	25/11/2016	N/A	N/A	0.06	mg/l	yes	
SW4	downstream	Cadmium and compounds (as Cd)		25/11/2016	N/A	N/A	<20.000	µg/l	yes	
SW4	downstream		Calcium	25/11/2016	N/A	N/A	34.2	mg/l	yes	
SW4	downstream	Chromium and compounds (as Cr)		25/11/2016	N/A	N/A	<20.000	µg/l	yes	
SW4	downstream	Copper and compounds (as Cu)		25/11/2016	N/A	N/A	<20.000	µg/l	yes	
SW4	downstream		Iron	25/11/2016	N/A	N/A	1086	µg/l	yes	
SW4	downstream	Lead and compounds (as Pb)		25/11/2016	N/A	N/A	<20.00	µg/l	yes	
SW4	downstream		Magnesium	25/11/2016	N/A	N/A	6.19	mg/l	yes	
SW4	downstream		Manganese (as Mn)	25/11/2016	N/A	N/A	1338	µg/l	yes	
SW4	downstream	Nickel and compounds (as Ni)		25/11/2016	N/A	N/A	<20.000	µg/l	yes	
SW4	downstream		Potassium	25/11/2016	N/A	N/A	34.2	mg/l	yes	
SW4	downstream	Zinc and compounds (as Zn)		25/11/2016	N/A	N/A	36	µg/l	yes	
SW4	downstream	Mercury and compounds (as Hg)		25/11/2016	N/A	N/A	<10.000	µg/l	yes	
SW4	downstream		Sulphate	25/11/2016	N/A	N/A	9.97	mg/l SO4	yes	
SW4	downstream	Total phosphorus		25/11/2016	N/A	N/A	0.01	mg/l P	yes	
SW5	downstream		Total Ammonia	28/01/2016	1	All results < 1.2 x ELV	0.03	mg/l NH3	yes	
SW5	downstream	Chlorides (as Cl)		28/01/2016	N/A	N/A	31.12	mg/l	yes	
SW5	downstream		Conductivity	28/01/2016	750	All results < 1.2 x ELV	128	µS/cm @20oC	yes	
SW5	downstream		Total Ammonia	21/04/2016	1	All results < 1.2 x ELV	0.05	mg/l NH3	yes	
SW5	downstream	Chlorides (as Cl)		21/04/2016	N/A	N/A	46.17	mg/l	yes	
SW5	downstream		Conductivity	21/04/2016	750	All results < 1.2 x ELV	165	µS/cm @20oC	yes	
SW5	downstream		Total Ammonia	21/07/2016	1	All results < 1.2 x ELV	0.12	mg/l NH3	yes	
SW5	downstream	Chlorides (as Cl)		21/07/2016	N/A	N/A	37.03	mg/l	yes	
SW5	downstream		Conductivity	21/07/2016	750	All results < 1.2 x ELV	183	µS/cm @20oC	yes	
SW5	downstream		Dissolved Oxygen	21/07/2016	N/A	N/A	4.93	mg/l O2	yes	
SW5	downstream		Boron	21/07/2016	N/A	N/A	0.04	mg/l	yes	
SW5	downstream	Cadmium and compounds (as Cd)		21/07/2016	N/A	N/A	<20.000	µg/l	yes	
SW5	downstream		Calcium	21/07/2016	N/A	N/A	17	mg/l	yes	
SW5	downstream	Chromium and compounds (as Cr)		21/07/2016	N/A	N/A	<20.000	µg/l	yes	
SW5	downstream	Copper and compounds (as Cu)		21/07/2016	N/A	N/A	<20.000	µg/l	yes	
SW5	downstream		Iron	21/07/2016	N/A	N/A	3.39	mg/l	yes	
SW5	downstream	Lead and compounds (as Pb)		21/07/2016	N/A	N/A	<20.000	µg/l	yes	
SW5	downstream		Magnesium	21/07/2016	N/A	N/A	5.51	mg/l	yes	
SW5	downstream		Manganese (as Mn)	21/07/2016	N/A	N/A	1160	µg/l	yes	
SW5	downstream	Nickel and compounds (as Ni)		21/07/2016	N/A	N/A	<20.000	µg/l	yes	
SW5	downstream		Potassium	21/07/2016	N/A	N/A	1.31	mg/l	yes	
SW5	downstream	Zinc and compounds (as Zn)		21/07/2016	N/A	N/A	52	µg/l	yes	
SW5	downstream	Mercury and compounds (as Hg)		21/07/2016	N/A	N/A	<10.000	µg/l	yes	
SW5	downstream		Sulphate	21/07/2016	N/A	N/A	<2.500	mg/l SO4	yes	
SW5	downstream	Total phosphorus		21/07/2016	N/A	N/A	3.65	mg/l P	yes	
SW5	downstream		Total Ammonia	25/11/2016	1	All results < 1.2 x ELV	0.09	mg/l NH3	yes	
SW5	downstream	Chlorides (as Cl)		25/11/2016	N/A	N/A	33.35	mg/l	yes	
SW5	downstream		Conductivity	25/11/2016	750	All results < 1.2 x ELV	154	µS/cm @20oC	yes	
SW6	downstream		Total Ammonia	28/01/2016	1	All results < 1.2 x ELV	1.53	mg/l NH3	yes	
SW6	downstream	Chlorides (as Cl)		28/01/2016	N/A	N/A	29.97	mg/l	yes	
SW6	downstream		Conductivity	28/01/2016	750	All results < 1.2 x ELV	168	µS/cm @20oC	yes	
SW6	downstream		Total Ammonia	21/04/2016	1	All results < 1.2 x ELV	0.01	mg/l NH3	yes	
SW6	downstream	Chlorides (as Cl)		21/04/2016	N/A	N/A	49.4	mg/l	yes	
SW6	downstream		Conductivity	21/04/2016	750	All results < 1.2 x ELV	269	µS/cm @20oC	yes	
SW6	downstream		Total Ammonia	21/07/2016	1	All results < 1.2 x ELV	Dry	mg/l NH3	yes	

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SW6	downstream	Chlorides (as Cl)		21/07/2016	N/A	N/A	Dry	mg/l	yes	
SW6	downstream		Conductivity	21/07/2016	750	All results < 1.2 x ELV	Dry	µS/cm @20oC	yes	
SW6	downstream		Total Ammonia	25/11/2016	1	All results < 1.2 x ELV	0.83	mg/l NH3	yes	
SW6	downstream	Chlorides (as Cl)		25/11/2016	N/A	N/A	40.78	mg/l	yes	
SW6	downstream		Conductivity	25/11/2016	750	All results < 1.2 x ELV	358	µS/cm @20oC	yes	
SW6	downstream		Boron	25/11/2016	N/A	N/A	0.05	mg/l	yes	
SW6	downstream	Cadmium and compounds (as Cd)		25/11/2016	N/A	N/A	<20.000	µg/l	yes	
SW6	downstream		Calcium	25/11/2016	N/A	N/A	30.7	mg/l	yes	
SW6	downstream	Chromium and compounds (as Cr)		25/11/2016	N/A	N/A	<20.000	µg/l	yes	
SW6	downstream	Copper and compounds (as Cu)		25/11/2016	N/A	N/A	<20.000	µg/l	yes	
SW6	downstream		Iron	25/11/2016	N/A	N/A	9.93	mg/l	yes	
SW6	downstream	Lead and compounds (as Pb)		25/11/2016	N/A	N/A	<20.000	µg/l	yes	
SW6	downstream		Magnesium	25/11/2016	N/A	N/A	5.7	mg/l	yes	
SW6	downstream		Manganese (as Mn)	25/11/2016	N/A	N/A	807	µg/l	yes	
SW6	downstream	Nickel and compounds (as Ni)		25/11/2016	N/A	N/A	<20.000	µg/l	yes	
SW6	downstream		Potassium	25/11/2016	N/A	N/A	30.7	mg/l	yes	
SW6	downstream	Zinc and compounds (as Zn)		25/11/2016	N/A	N/A	48	µg/l	yes	
SW6	downstream	Mercury and compounds (as Hg)		25/11/2016	N/A	N/A	<10.000	µg/l	yes	
SW6	downstream		Sulphate	25/11/2016	N/A	N/A	5.42	mg/l SO4	yes	
SW6	downstream	Total phosphorus		25/11/2016	N/A	N/A	0.05	mg/l P	yes	
SW7	downstream		pH	28/01/2016	6-9	All values < ELV	6.30	pH units	yes	
SW7	downstream		Total Ammonia	28/01/2016	1	All results < 1.2 x ELV	0.60	mg/L	yes	
SW7	downstream		Conductivity	28/01/2016	750	All results < 1.2 x ELV	133.00	µS/cm @20oC	yes	
SW7	downstream		Suspended Solids	28/01/2016	N/A	N/A	4.00	mg/L	yes	
SW7	downstream		COD	28/01/2016	N/A	N/A	39.00	mg/L	yes	
SW7	downstream	Chlorides (as Cl)		28/01/2016	N/A	N/A	30.78	mg/L	yes	
SW7	downstream		pH	25/02/2016	6-9	All values < ELV	6.30	pH units	yes	
SW7	downstream		Total Ammonia	25/02/2016	1	All results < 1.2 x ELV	0.53	mg/L	yes	
SW7	downstream		Conductivity	25/02/2016	750	All results < 1.2 x ELV	202.00	µS/cm @20oC	yes	
SW7	downstream		Suspended Solids	25/02/2016	N/A	N/A	6.00	mg/L	yes	
SW7	downstream		COD	25/02/2016	N/A	N/A	29.00	mg/L	yes	
SW7	downstream	Chlorides (as Cl)		25/02/2016	N/A	N/A	57.83	mg/L	yes	
SW7	downstream		pH	31/03/2016	6-9	All values < ELV	7.30	pH units	yes	
SW7	downstream		Total Ammonia	31/03/2016	1	All results < 1.2 x ELV	1.09	mg/L	yes	
SW7	downstream		Conductivity	31/03/2016	750	All results < 1.2 x ELV	447.00	µS/cm @20oC	yes	
SW7	downstream		Suspended Solids	31/03/2016	N/A	N/A	18.00	mg/L	yes	
SW7	downstream		COD	31/03/2016	N/A	N/A	13.00	mg/L	yes	
SW7	downstream	Chlorides (as Cl)		31/03/2016	N/A	N/A	39.26	mg/L	yes	
SW7	downstream		pH	21/04/2016	6-9	All values < ELV	6.90	pH units	yes	
SW7	downstream		Total Ammonia	21/04/2016	1	All results < 1.2 x ELV	1.84	mg/L	yes	
SW7	downstream		Conductivity	21/04/2016	750	All results < 1.2 x ELV	200.00	µS/cm @20oC	yes	
SW7	downstream		Suspended Solids	21/04/2016	N/A	N/A	33.00	mg/L	yes	
SW7	downstream		COD	21/04/2016	N/A	N/A	14.00	mg/L	yes	
SW7	downstream	Chlorides (as Cl)		21/04/2016	N/A	N/A	40.57	mg/L	yes	
SW7	downstream		pH	25/05/2016	6-9	All values < ELV	6.60	pH units	yes	
SW7	downstream		Total Ammonia	25/05/2016	1	All results < 1.2 x ELV	1.26	mg/L	yes	
SW7	downstream		Conductivity	25/05/2016	750	All results < 1.2 x ELV	178.00	µS/cm @20oC	yes	
SW7	downstream		Suspended Solids	25/05/2016	N/A	N/A	3.00	mg/L	yes	
SW7	downstream		COD	25/05/2016	N/A	N/A	27.00	mg/L	yes	
SW7	downstream	Chlorides (as Cl)		25/05/2016	N/A	N/A	33.86	mg/L	yes	
SW7	downstream		pH	29/06/2016	6-9	All values < ELV	6.70	pH units	yes	
SW7	downstream		Total Ammonia	29/06/2016	1	All results < 1.2 x ELV	2.62	mg/L	yes	
SW7	downstream		Conductivity	29/06/2016	750	All results < 1.2 x ELV	244.00	µS/cm @20oC	yes	
SW7	downstream		Suspended Solids	29/06/2016	N/A	N/A	15.00	mg/L	yes	
SW7	downstream		COD	29/06/2016	N/A	N/A	18.00	mg/L	yes	
SW7	downstream	Chlorides (as Cl)		29/06/2016	N/A	N/A	34.58	mg/L	yes	
SW7	downstream		pH	21/07/2016	6-9	All values < ELV	6.70	pH units	yes	
SW7	downstream		Total Ammonia	21/07/2016	1	All results < 1.2 x ELV	1.56	mg/L	yes	
SW7	downstream		Conductivity	21/07/2016	750	All results < 1.2 x ELV	203.00	µS/cm @20oC	yes	
SW7	downstream		Suspended Solids	21/07/2016	N/A	N/A	10.00	mg/L	yes	
SW7	downstream		COD	21/07/2016	N/A	N/A	40.00	mg/L	yes	
SW7	downstream	Chlorides (as Cl)		21/07/2016	N/A	N/A	32.31	mg/L	yes	
SW7	downstream		pH	24/08/2016	6-9	All values < ELV	6.20	pH units	yes	
SW7	downstream		Total Ammonia	24/08/2016	1	All results < 1.2 x ELV	0.50	mg/L	yes	
SW7	downstream		Conductivity	24/08/2016	750	All results < 1.2 x ELV	164.00	µS/cm @20oC	yes	
SW7	downstream		Suspended Solids	24/08/2016	N/A	N/A	4.00	mg/L	yes	
SW7	downstream		COD	24/08/2016	N/A	N/A	35.00	mg/L	yes	
SW7	downstream	Chlorides (as Cl)		24/08/2016	N/A	N/A	33.21	mg/L	yes	
SW7	downstream		pH	19/09/2016	6-9	All values < ELV	6.40	pH units	yes	
SW7	downstream		Total Ammonia	19/09/2016	1	All results < 1.2 x ELV	0.60	mg/L	yes	
SW7	downstream		Conductivity	19/09/2016	750	All results < 1.2 x ELV	169.00	µS/cm @20oC	yes	
SW7	downstream		Suspended Solids	19/09/2016	N/A	N/A	4.00	mg/L	yes	
SW7	downstream		COD	19/09/2016	N/A	N/A	39.00	mg/L	yes	
SW7	downstream	Chlorides (as Cl)		19/09/2016	N/A	N/A	33.71	mg/L	yes	
SW7	downstream		pH	04/11/2016	6-9	All values < ELV	6.60	pH units	yes	
SW7	downstream		Total Ammonia	04/11/2016	1	All results < 1.2 x ELV	1.27	mg/L	yes	
SW7	downstream		Conductivity	04/11/2016	750	All results < 1.2 x ELV	178.00	µS/cm @20oC	yes	
SW7	downstream		Suspended Solids	04/11/2016	N/A	N/A	3.00	mg/L	yes	
SW7	downstream		COD	04/11/2016	N/A	N/A	31.00	mg/L	yes	
SW7	downstream	Chlorides (as Cl)		04/11/2016	N/A	N/A	29.36	mg/L	yes	
SW7	downstream		Boron	25/11/2016	N/A	N/A	0.02	mg/l	yes	

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SW7	downstream	Cadmium and compounds (as Cd)		25/11/2016	N/A	N/A	<20.000	µg/l	yes	
SW7	downstream		Calcium	25/11/2016	N/A	N/A	26.5	mg/l	yes	
SW7	downstream	Chromium and compounds (as Cr)		25/11/2016	N/A	N/A	<20.000	µg/l	yes	
SW7	downstream	Copper and compounds (as Cu)		25/11/2016	N/A	N/A	<20.000	µg/l	yes	
SW7	downstream		Iron	25/11/2016	N/A	N/A	983	mg/l	yes	
SW7	downstream	Lead and compounds (as Pb)		25/11/2016	N/A	N/A	<20.000	µg/l	yes	
SW7	downstream		Magnesium	25/11/2016	N/A	N/A	3.85	mg/l	yes	
SW7	downstream		Manganese (as Mn)	25/11/2016	N/A	N/A	815	µg/l	yes	
SW7	downstream	Nickel and compounds (as Ni)		25/11/2016	N/A	N/A	<20.000	µg/l	yes	
SW7	downstream		Potassium	25/11/2016	N/A	N/A	26.5	mg/l	yes	
SW7	downstream	Zinc and compounds (as Zn)		25/11/2016	N/A	N/A	31	µg/l	yes	
SW7	downstream	Mercury and compounds (as Hg)		25/11/2016	N/A	N/A	<10.000	µg/l	yes	
SW7	downstream		Sulphate	25/11/2016	N/A	N/A	12.4	mg/l SO4	yes	
SW7	downstream	Total phosphorus		25/11/2016	N/A	N/A	0.01	mg/l P	yes	
SW8	upstream		Total Ammonia	28/01/2016	1	All results < 1.2 x ELV	0.07	mg/l NH3	yes	
SW8	upstream	Chlorides (as Cl)		28/01/2016	N/A	N/A	24.96	mg/l	yes	
SW8	upstream		Conductivity	28/01/2016	750	All results < 1.2 x ELV	98	µS/cm @20oC	yes	
SW8	upstream		Total Ammonia	21/04/2016	1	All results < 1.2 x ELV	0.02	mg/l NH3	yes	
SW8	upstream	Chlorides (as Cl)		21/04/2016	N/A	N/A	40.01	mg/l	yes	
SW8	upstream		Conductivity	21/04/2016	750	All results < 1.2 x ELV	137	µS/cm @20oC	yes	
SW8	upstream		Total Ammonia	21/07/2016	1	All results < 1.2 x ELV	0.06	mg/l NH3	yes	
SW8	upstream	Chlorides (as Cl)		21/07/2016	N/A	N/A	24.74	mg/l	yes	
SW8	upstream		Conductivity	21/07/2016	750	All results < 1.2 x ELV	188	µS/cm @20oC	yes	
SW8	upstream		Dissolved Oxygen	21/07/2016	N/A	N/A	5.18	mg/l O2	yes	
SW8	upstream		Boron	21/07/2016	N/A	N/A	2.06	mg/l	yes	
SW8	upstream	Cadmium and compounds (as Cd)		21/07/2016	N/A	N/A	<20.000	µg/l	yes	
SW8	upstream		Calcium	21/07/2016	N/A	N/A	15.8	mg/l	yes	
SW8	upstream	Chromium and compounds (as Cr)		21/07/2016	N/A	N/A	<20.000	µg/l	yes	
SW8	upstream	Copper and compounds (as Cu)		21/07/2016	N/A	N/A	<20.000	µg/l	yes	
SW8	upstream		Iron	21/07/2016	N/A	N/A	67.7	mg/l	yes	
SW8	upstream	Lead and compounds (as Pb)		21/07/2016	N/A	N/A	<20.000	µg/l	yes	
SW8	upstream		Magnesium	21/07/2016	N/A	N/A	5.9	mg/l	yes	
SW8	upstream		Manganese (as Mn)	21/07/2016	N/A	N/A	19100	µg/l	yes	
SW8	upstream	Nickel and compounds (as Ni)		21/07/2016	N/A	N/A	<20.000	µg/l	yes	
SW8	upstream		Potassium	21/07/2016	N/A	N/A	4.15	mg/l	yes	
SW8	upstream	Zinc and compounds (as Zn)		21/07/2016	N/A	N/A	153	µg/l	yes	
SW8	upstream	Mercury and compounds (as Hg)		21/07/2016	N/A	N/A	<10.000	µg/l	yes	
SW8	upstream		Sulphate	21/07/2016	N/A	N/A	<2.500	mg/l SO4	yes	
SW8	upstream	Total phosphorus		21/07/2016	N/A	N/A	4.49	mg/l P	yes	
SW8	upstream		Total Ammonia	25/11/2016	1	All results < 1.2 x ELV	0.13	mg/l NH3	yes	
SW8	upstream	Chlorides (as Cl)		25/11/2016	N/A	N/A	28.6	mg/l	yes	
SW8	upstream		Conductivity	25/11/2016	750	All results < 1.2 x ELV	121	µS/cm @20oC	yes	
SW9	upstream		Total Ammonia	28/01/2016	1	All results < 1.2 x ELV	0.06	mg/l NH3	yes	
SW9	upstream	Chlorides (as Cl)		28/01/2016	N/A	N/A	39.37	mg/l	yes	
SW9	upstream		Conductivity	28/01/2016	750	All results < 1.2 x ELV	149	µS/cm @20oC	yes	
SW9	upstream		Total Ammonia	21/04/2016	1	All results < 1.2 x ELV	0.09	mg/l NH3	yes	
SW9	upstream	Chlorides (as Cl)		21/04/2016	N/A	N/A	69.56	mg/l	yes	
SW9	upstream		Conductivity	21/04/2016	750	All results < 1.2 x ELV	235	µS/cm @20oC	yes	
SW9	upstream		Total Ammonia	21/07/2016	1	All results < 1.2 x ELV	0.16	mg/l NH3	yes	
SW9	upstream	Chlorides (as Cl)		21/07/2016	N/A	N/A	52.55	mg/l	yes	
SW9	upstream		Conductivity	21/07/2016	750	All results < 1.2 x ELV	191	µS/cm @20oC	yes	
SW9	upstream		Dissolved Oxygen	21/07/2016	N/A	N/A	5.07	mg/l O2	yes	
SW9	upstream		Boron	21/07/2016	N/A	N/A	0.09	mg/l	yes	
SW9	upstream	Cadmium and compounds (as Cd)		21/07/2016	N/A	N/A	<20.000	µg/l	yes	
SW9	upstream		Calcium	21/07/2016	N/A	N/A	12.7	mg/l	yes	
SW9	upstream	Chromium and compounds (as Cr)		21/07/2016	N/A	N/A	23	µg/l	yes	
SW9	upstream	Copper and compounds (as Cu)		21/07/2016	N/A	N/A	32	µg/l	yes	
SW9	upstream		Iron	21/07/2016	N/A	N/A	34.5	mg/l	yes	
SW9	upstream	Lead and compounds (as Pb)		21/07/2016	N/A	N/A	<20.000	µg/l	yes	
SW9	upstream		Magnesium	21/07/2016	N/A	N/A	5.28	mg/l	yes	
SW9	upstream		Manganese (as Mn)	21/07/2016	N/A	N/A	830	µg/l	yes	
SW9	upstream	Nickel and compounds (as Ni)		21/07/2016	N/A	N/A	<20.000	µg/l	yes	
SW9	upstream		Potassium	21/07/2016	N/A	N/A	1.63	mg/l	yes	
SW9	upstream	Zinc and compounds (as Zn)		21/07/2016	N/A	N/A	132	µg/l	yes	
SW9	upstream	Mercury and compounds (as Hg)		21/07/2016	N/A	N/A	<10.000	µg/l	yes	
SW9	upstream		Sulphate	21/07/2016	N/A	N/A	5.11	mg/l SO4	yes	
SW9	upstream	Total phosphorus		21/07/2016	N/A	N/A	10.2	mg/l P	yes	
SW9	upstream		Total Ammonia	25/11/2016	1	All results < 1.2 x ELV	0.09	mg/l NH3	yes	
SW9	upstream	Chlorides (as Cl)		25/11/2016	N/A	N/A	49.04	mg/l	yes	
SW9	upstream		Conductivity	25/11/2016	750	All results < 1.2 x ELV	175	µS/cm @20oC	yes	

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

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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

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

4	Was there any result in breach of licence requirements? If yes please provide brief details in the comment section of Table W3 below		SELECT	Additional information
	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	External /Internal Lab Quality checklist / Assessment of results checklist	SELECT	

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

Emission reference no:	Emission released to	Parameter/ SubstanceNote 1	Type of sample	Frequency of monitoring	Averaging period	licence or any revision thereof[Note 2]	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Method of analysis	Procedural reference source	reference standard number	Annual mass load (kg)	Comments
	SELECT	SELECT	SELECT		SELECT		SELECT		SELECT	SELECT	SELECT	SELECT			

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

5 **Continuous monitoring**

		Additional Information
Does your site carry out continuous emissions to water/sewer monitoring?	Yes	SW7
6 **If yes please summarise your continuous monitoring data below in Table W4 and compare it to its relevant Emission Limit Value (ELV)**		
7 Did continuous monitoring equipment experience downtime? **If yes please record downtime in table W4 below**	No	
8 Do you have a proactive service contract for each piece of continuous monitoring equipment on site?	Yes	Service & Maintenance contract in place
Did abatement system bypass occur during the reporting year? **If yes please complete table W5 below**	No	

Table W4: Summary of average emissions -continuous monitoring

Emission reference no:	Emission released to	Parameter/ Substance	ELV or trigger values in licence or any revision thereof	Averaging Period	Compliance Criteria	Units of measurement	Annual Emission for current reporting year (kg)	% change +/- from previous reporting year	Monitoring Equipment downtime (hours)	Number of ELV exceedences in reporting year	Comments
SW7	Water	volumetric flow	N/A	1 hour	N/A	l/s	N/A	N/A	0	0	Volumes not required to be recorded/calculated
SW7	Water	pH	6-9	1 hour	All values < ELV	pH units	N/A	N/A	0	0	
SW7	Water	Temperature	N/A	1 hour	N/A	degrees C	N/A	N/A	0	0	
SW7	Water	Conductivity	750	1 hour	All values < ELV	µS/cm @20oC	N/A	N/A	0	0	
SW7	Water	Ammonia (as N)	1	1 hour	All values < ELV	mg/L	N/A	N/A	0	0	Volumes not required to be recorded/calculated
SW7	Water	Total organic carbon (TOC) (as total C or COD/3)	60	1 hour	All values < ELV	ppm	N/A	N/A	0	0	Volumes not required to be recorded/calculated

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

Table W5: Abatement system bypass reporting table

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

*Measures taken or proposed to reduce or limit bypass frequency

Bund/Pipeline testing template

Lic No: W0089-02 Year 2016

Bund testing

dropdown menu click to see options

			Additional information
1	Are you required by your licence to undertake integrity testing on bunds and containment structures ? if yes please fill out table B1 below listing all **new bunds and containment structures** on site, in addition to **all bunds which failed** the integrity test- **all bunding structures which failed including mobile bunds must be listed in the table below, please include all bunds outside the licenced testing period**(mobile bunds and chemstore included)	Yes	
2	Please provide integrity testing frequency period	3 years	
3	Does the site maintain a register of bunds, underground pipelines (including stormwater and foul), Tanks, sumps and containers? (containers refers to "Chemstore" type units and mobile bunds)	Yes	
4	How many bunds are on site?	1	
5	How many of these bunds have been tested within the required test schedule?	1	
6	How many mobile bunds are on site?	0	
7	Are the mobile bunds included in the bund test schedule?	N/A	
8	How many of these mobile bunds have been tested within the required test schedule?	N/A	
9	How many sumps on site are included in the integrity test schedule?	N/A	
10	How many of these sumps are integrity tested within the test schedule?	N/A	
	Please list any sump integrity failures in table B1		
11	Do all sumps and chambers have high level liquid alarms?	Yes	
12	If yes to Q11 are these failsafe systems included in a maintenance and testing programme?	Yes	
13	Is the Fire Water Retention Pond included in your integrity test programme?	N/A	

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)
	SELECT					SELECT			SELECT	SELECT		SELECT		
	SELECT					SELECT			SELECT	SELECT		SELECT		

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

			Commentary
15	Has integrity testing been carried out in accordance with licence requirements and are all structures tested in line with BS8007/EPA Guidance? bunding and storage guidelines	Yes	
16	Are channels/transfer systems to remote containment systems tested?	Yes	
17	Are channels/transfer systems compliant in both integrity and available volume?	Yes	

Pipeline/underground structure testing

1	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 underground structures and pipelines on site **which failed the integrity test and all which have not been tested withing the integrity test period as specified**	Yes	
2	Please provide integrity testing frequency period	3 years	

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

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)
	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT	SELECT				SELECT

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

Groundwater/Soil monitoring template	Lic No:	W0089-02	Year	2016

			Comments	
1	Are you required to carry out groundwater monitoring as part of your licence requirements?	yes		Please provide an interpretation of groundwater monitoring data in the interpretation box below or if you require additional space please include a groundwater/contaminated land monitoring results interpretaion as an additional section in this AER
2	Are you required to carry out soil monitoring as part of your licence requirements?	no		
3	Do you extract groundwater for use on site? If yes please specify use in comment section	no		
4	Do monitoring results show that groundwater generic assessment criteria such as GTVs or IGVs are exceeded or is there an upward trend in results for a substance? If yes, please complete the Groundwater Monitoring Guideline Template Report (link in cell G8) and submit separately through ALDER as a licensee return AND answer questions 5-12 below. Groundwater monitoring template	yes		
5	Is the contamination related to operations at the facility (either current and/or historic)	yes		
6	Have actions been taken to address contamination issues?If yes please summarise remediation strategies proposed/undertaken for the site	yes		
7	Please specify the proposed time frame for the remediation strategy	N/A		Groundwater contamination is evident at monitoring locations on the western boundary of the site. Investigation and assessment of the contamination was updated in October 2015. Ongoing monitoring will ensure that any further deterioration and/or off site impacts will be detected. Reports, including a groundwater risk assessment, are uploaded to EDEN. Extent of contamination seems to have stabilised during 2016.
8	Is there a licence condition to carry out/update ELRA for the site?	yes		
9	Has any type of risk assesment been carried out for the site?	yes		
10	Has a Conceptual Site Model been developed for the site?	yes		
11	Have potential receptors been identified on and off site?	yes		
12	Is there evidence that contamination is migrating offsite?	no		

Table 1: Upgradient Groundwater monitoring results

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration+ +	Average Concentration+	unit	GTV's*	SW EQS	Upward trend in pollutant concentration over last 5 years of monitoring data
28/01/2016	GW4	Total ammonia	Konelab Aquakem	Quarterly	0.99	0.1	mg/l NH3	0.065-0.175	<0.014	no
28/01/2016	GW4	Conductivity	Electrometry	Quarterly	333	316	µS/cm @20oC	800-1875	N/A	no
21/04/2016	GW4	Total ammonia	Konelab Aquakem	Quarterly		0.07	mg/l NH3	0.065-0.175	<0.014	no
21/04/2016	GW4	Conductivity	Electrometry	Quarterly		309	µS/cm @20oC	800-1875	N/A	no
21/07/2016	GW4	Total ammonia	Konelab Aquakem	Quarterly		0.07	mg/l NH3	0.065-0.175	<0.014	no
21/07/2016	GW4	Conductivity	Electrometry	Quarterly		333	µS/cm @20oC	800-1875	N/A	no
21/07/2016	GW4	Chloride	Konelab Aquakem	Annual		31.35	mg/l	24-187.5	250	no
21/07/2016	GW4	Boron	ICP-MS	Annual		0.01	mg/l	0.75	N/A	no
21/07/2016	GW4	Cadmium	ICP-MS	Annual		<20.000	µg/l	3.75	N/A	no
21/07/2016	GW4	Calcium	ICP-MS	Annual		56.4	mg/l	N/A	N/A	no
21/07/2016	GW4	Chromium (total)	ICP-MS	Annual		<20.000	µg/l	37.5	4.7	no
21/07/2016	GW4	Copper	ICP-MS	Annual		<20.000	µg/l	1500	5	no
21/07/2016	GW4	Iron	ICP-MS	Annual		748	µg/l		N/A	no
21/07/2016	GW4	Lead	ICP-MS	Annual		<20.000	µg/l	18.75	7.2	no
21/07/2016	GW4	Magnesium	ICP-MS	Annual		3.98	mg/l	N/A	N/A	no
21/07/2016	GW4	Manganese	ICP-MS	Annual		525	µg/l	N/A	N/A	no
21/07/2016	GW4	Nickel	ICP-MS	Annual		<20.000	µg/l	15	20	no
21/07/2016	GW4	Potassium	ICP-MS	Annual		0.58	mg/l	N/A	N/A	no
21/07/2016	GW4	Zinc	ICP-MS	Annual		77	µg/l	N/A	40	no
21/07/2016	GW4	Cyanide (total)	Steam Distillation & Colourimetry	Annual		12	µg/l	37.5	10	no
21/07/2016	GW4	Flouride	Konelab Aquakem	Annual		<0.020	mg/l	N/A	0.5	no
21/07/2016	GW4	Mercury	ICP-MS	Annual		<10.000	µg/l			no
21/07/2016	GW4	Sulphate	Konelab Aquakem	Annual		11.74	mg/l SO4	187.5	N/A	no

Groundwater/Soil monitoring template					Lic No:	W0089-02		Year	2016	
21/07/2016	GW4	Total Phosphorous	ICP-MS	Annual		0.16	mg/l P	N/A	0.075	no
25/11/2016	GW4	Total ammonia	Konelab Aquakem	Quarterly		0.99	mg/l NH3	0.065-0.175	<0.014	no
25/11/2016	GW4	Conductivity	Electrometry	Quarterly		251	µS/cm @20oC	800-1875	N/A	no
28/01/2016	GW8	Total ammonia	Konelab Aquakem	Quarterly	0.48	0.17	mg/l NH3	0.065-0.175	<0.014	yes
28/01/2016	GW8	Conductivity	Electrometry	Quarterly	506	304	µS/cm @20oC	800-1875	N/A	yes
21/04/2016	GW8	Total ammonia	Konelab Aquakem	Quarterly		0.2	mg/l NH3	0.065-0.175	<0.014	yes
21/04/2016	GW8	Conductivity	Electrometry	Quarterly		278	µS/cm @20oC	800-1875	N/A	yes
21/07/2016	GW8	Total ammonia	Konelab Aquakem	Quarterly		0.22	mg/l NH3	24-187.5	250	yes
21/07/2016	GW8	Conductivity	Electrometry	Quarterly		318	µS/cm @20oC	0.75	N/A	yes
21/07/2016	GW8	Chloride	Konelab Aquakem	Annual		45.33	mg/l	3.75	N/A	yes
21/07/2016	GW8	Boron	ICP-MS	Annual		0.02	mg/l	N/A	N/A	no
21/07/2016	GW8	Cadmium	ICP-MS	Annual		<20.000	µg/l	37.5	4.7	no
21/07/2016	GW8	Calcium	ICP-MS	Annual		27.5	mg/l	1500	5	no
21/07/2016	GW8	Chromium (total)	ICP-MS	Annual		<20.000	µg/l		N/A	no
21/07/2016	GW8	Copper	ICP-MS	Annual		<20.000	µg/l	18.75	7.2	no
21/07/2016	GW8	Iron	ICP-MS	Annual		2641	µg/l	N/A	N/A	no
21/07/2016	GW8	Lead	ICP-MS	Annual		<20.000	µg/l	N/A	N/A	no
21/07/2016	GW8	Magnesium	ICP-MS	Annual		6.79	mg/l	15	20	no
21/07/2016	GW8	Manganese	ICP-MS	Annual		2150	µg/l	N/A	N/A	no
21/07/2016	GW8	Nickel	ICP-MS	Annual		<20.000	µg/l	N/A	40	no
21/07/2016	GW8	Potassium	ICP-MS	Annual		0.85	mg/l	37.5	10	no
21/07/2016	GW8	Zinc	ICP-MS	Annual		356	µg/l	N/A	0.5	no
21/07/2016	GW8	Cyanide (total)	Steam Distillation &	Annual		3	µg/l			no
21/07/2016	GW8	Flouride	Konelab Aquakem	Annual		0.22	mg/l	187.5	N/A	no
21/07/2016	GW8	Mercury	ICP-MS	Annual		<10.000	µg/l	N/A	0.075	no
21/07/2016	GW8	Sulphate	Konelab Aquakem	Annual		8.32	mg/l SO4	0.065-0.175	<0.014	no
21/07/2016	GW8	Total Phosphorous	ICP-MS	Annual		0.31	mg/l P	800-1875	N/A	no
25/11/2016	GW8	Total ammonia	Konelab Aquakem	Quarterly		0.48	mg/l NH3	0.065-0.175	<0.014	yes
25/11/2016	GW8	Conductivity	Electrometry	Quarterly		506	µS/cm @20oC	800-1875	N/A	yes

.+ where average indicates arithmetic mean

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

Table 2: Downgradient Groundwater monitoring results

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration	unit	GTV's*	SELECT**	Upward trend in yearly average pollutant concentration over last 5 years of monitoring data
28/01/2016	GW1	Total ammonia	Konelab Aquakem	Quarterly	0.27	0.27	mg/l NH3	0.065-0.175	<0.014	no
28/01/2016	GW1	Conductivity	Electrometry	Quarterly	211	211	µS/cm @20oC	800-1875	N/A	no
28/01/2016	GW2	Total ammonia	Konelab Aquakem	Quarterly	0.95	0.05	mg/l NH3	0.065-0.175	<0.014	yes
28/01/2016	GW2	Conductivity	Electrometry	Quarterly	270	204	µS/cm @20oC	800-1875	N/A	no
21/04/2016	GW2	Total ammonia	Konelab Aquakem	Quarterly		0.01	mg/l NH3	0.065-0.175	<0.014	yes
21/04/2016	GW2	Conductivity	Electrometry	Quarterly		270	µS/cm @20oC	800-1875	N/A	no
21/07/2016	GW2	Total ammonia	Konelab Aquakem	Quarterly		0.06	mg/l NH3	0.065-0.175	<0.014	yes
21/07/2016	GW2	Conductivity	Electrometry	Quarterly		212	µS/cm @20oC	800-1875	N/A	no
21/07/2016	GW2	Chloride	Konelab Aquakem	Annual		11.86	mg/l	24-187.5	250	yes
21/07/2016	GW2	Boron	ICP-MS	Annual		0.01	mg/l	0.75	N/A	no
21/07/2016	GW2	Cadmium	ICP-MS	Annual		<20.000	µg/l	3.75	N/A	no
21/07/2016	GW2	Calcium	ICP-MS	Annual		30.6	mg/l	N/A	N/A	no
21/07/2016	GW2	Chromium (total)	ICP-MS	Annual		<20.000	µg/l	37.5	4.7	no
21/07/2016	GW2	Copper	ICP-MS	Annual		<20.000	µg/l	1500	5	no
21/07/2016	GW2	Iron	ICP-MS	Annual		3580	µg/l		N/A	no
21/07/2016	GW2	Lead	ICP-MS	Annual		<20.000	µg/l	18.75	7.2	no
21/07/2016	GW2	Magnesium	ICP-MS	Annual		3.59	mg/l	N/A	N/A	no

Groundwater/Soil monitoring template					Lic No:	W0089-02		Year	2016	
21/07/2016	GW2	Manganese	ICP-MS	Annual		574	µg/l	N/A	N/A	no
21/07/2016	GW2	Nickel	ICP-MS	Annual		<20.000	µg/l	15	20	no
21/07/2016	GW2	Potassium	ICP-MS	Annual		2.13	mg/l	N/A	N/A	no
21/07/2016	GW2	Zinc	ICP-MS	Annual		564	µg/l	N/A	40	no
21/07/2016	GW2	Cyanide (total)	Steam Distillation & Colourimetry	Annual		1	µg/l	37.5	10	no
21/07/2016	GW2	Flouride	Konelab Aquakem	Annual		<0.020	mg/l	N/A	0.5	no
21/07/2016	GW2	Mercury	ICP-MS	Annual		<10.000	mg/l			no
21/07/2016	GW2	Sulphate	Konelab Aquakem	Annual		9.05	mg/l SO4	187.5	N/A	no
21/07/2016	GW2	Total Phosphorous	ICP-MS	Annual		0.32	mg/l P	N/A	0.075	no
25/11/2016	GW2	Total ammonia	Konelab Aquakem	Quarterly		0.95	mg/l NH3	0.065-0.175	<0.014	yes
25/11/2016	GW2	Conductivity	Electrometry	Quarterly		183	µS/cm @20oC	800-1875	N/A	no
28/01/2016	GW5	Total ammonia	Konelab Aquakem	Quarterly	0.87	0.09	mg/l NH3	0.065-0.175	<0.014	no
28/01/2016	GW5	Conductivity	Electrometry	Quarterly	341	185	µS/cm @20oC	800-1875	N/A	yes
21/04/2016	GW5	Total ammonia	Konelab Aquakem	Quarterly		0.04	mg/l NH3	0.065-0.175	<0.014	no
21/04/2016	GW5	Conductivity	Electrometry	Quarterly		341	µS/cm @20oC	800-1875	N/A	yes
21/07/2016	GW5	Total ammonia	Konelab Aquakem	Quarterly		0.09	mg/l NH3	0.065-0.175	<0.014	no
21/07/2016	GW5	Conductivity	Electrometry	Quarterly		266	µS/cm @20oC	800-1875	N/A	no
21/07/2016	GW5	Chloride	Konelab Aquakem	Annual		31.73	mg/l	24-187.5	250	yes
21/07/2016	GW5	Boron	ICP-MS	Annual		0.01	mg/l	0.75	N/A	no
21/07/2016	GW5	Cadmium	ICP-MS	Annual		<20.000	µg/l	3.75	N/A	no
21/07/2016	GW5	Calcium	ICP-MS	Annual		39.1	mg/l	N/A	N/A	no
21/07/2016	GW5	Chromium (total)	ICP-MS	Annual		<20.000	µg/l	37.5	4.7	no
21/07/2016	GW5	Copper	ICP-MS	Annual		<20.000	µg/l	1500	5	no
21/07/2016	GW5	Iron	ICP-MS	Annual		1660	µg/l		N/A	no
21/07/2016	GW5	Lead	ICP-MS	Annual		<20.000	µg/l	18.75	7.2	no
21/07/2016	GW5	Magnesium	ICP-MS	Annual		4.12	mg/l	N/A	N/A	no
21/07/2016	GW5	Manganese	ICP-MS	Annual		418	µg/l	N/A	N/A	no
21/07/2016	GW5	Nickel	ICP-MS	Annual		<20.000	µg/l	15	20	no
21/07/2016	GW5	Potassium	ICP-MS	Annual		0.55	mg/l	N/A	N/A	no
21/07/2016	GW5	Zinc	ICP-MS	Annual		351	µg/l	N/A	40	no
21/07/2016	GW5	Cyanide (total)	Steam Distillation & Colourimetry	Annual		4	µg/l	37.5	10	no
21/07/2016	GW5	Flouride	Konelab Aquakem	Annual		<0.020	mg/l	N/A	0.5	no
21/07/2016	GW5	Mercury	ICP-MS	Annual		<10.000	mg/l			no
21/07/2016	GW5	Sulphate	Konelab Aquakem	Annual		10.32	mg/l SO4	187.5	N/A	no
21/07/2016	GW5	Total Phosphorous	ICP-MS	Annual		0.3	mg/l P	N/A	0.075	no
25/11/2016	GW5	Total ammonia	Konelab Aquakem	Quarterly		0.87	mg/l NH3	0.065-0.175	<0.014	no
25/11/2016	GW5	Conductivity	Electrometry	Quarterly		255	µS/cm @20oC	800-1875	N/A	yes
28/01/2016	GW6	Total ammonia	Konelab Aquakem	Quarterly	1.76	1.76	mg/l NH3	0.065-0.175	<0.014	no
28/01/2016	GW6	Conductivity	Electrometry	Quarterly	544	372	µS/cm @20oC	800-1875	N/A	yes
21/04/2016	GW6	Total ammonia	Konelab Aquakem	Quarterly		0.22	mg/l NH3	0.065-0.175	<0.014	no
21/04/2016	GW6	Conductivity	Electrometry	Quarterly		544	µS/cm @20oC	800-1875	N/A	yes
28/01/2016	GW7	Total ammonia	Konelab Aquakem	Quarterly	26.67	36.37	mg/l NH3	0.065-0.175	<0.014	yes
28/01/2016	GW7	Conductivity	Electrometry	Quarterly	1054	948	µS/cm @20oC	800-1875	N/A	yes
21/04/2016	GW7	Total ammonia	Konelab Aquakem	Quarterly		35.51	mg/l NH3	0.065-0.175	<0.014	yes
21/04/2016	GW7	Conductivity	Electrometry	Quarterly		1054	µS/cm @20oC	800-1875	N/A	yes
21/07/2016	GW7	Total ammonia	Konelab Aquakem	Quarterly		21.86	mg/l NH3	0.065-0.175	<0.014	yes
21/07/2016	GW7	Conductivity	Electrometry	Quarterly		946	µS/cm @20oC	800-1875	N/A	yes
21/07/2016	GW7	Chloride	Konelab Aquakem	Annual		72.15	mg/l	24-187.5	250	yes
21/07/2016	GW7	Boron	ICP-MS	Annual		0.12	mg/l	0.75	N/A	no
21/07/2016	GW7	Cadmium	ICP-MS	Annual		<20.000	µg/l	3.75	N/A	no
21/07/2016	GW7	Calcium	ICP-MS	Annual		110.6	mg/l	N/A	N/A	no
21/07/2016	GW7	Chromium (total)	ICP-MS	Annual		<20.000	µg/l	37.5	4.7	no
21/07/2016	GW7	Copper	ICP-MS	Annual		<20.000	µg/l	1500	5	no
21/07/2016	GW7	Iron	ICP-MS	Annual		10967	µg/l		N/A	no

Groundwater/Soil monitoring template					Lic No:	W0089-02		Year	2016	
21/07/2016	GW7	Lead	ICP-MS	Annual		<20.000	µg/l	18.75	7.2	no
21/07/2016	GW7	Magnesium	ICP-MS	Annual		13.5	mg/l	N/A	N/A	no
21/07/2016	GW7	Manganese	ICP-MS	Annual		5973	µg/l	N/A	N/A	no
21/07/2016	GW7	Nickel	ICP-MS	Annual		<20.000	µg/l	15	20	no
21/07/2016	GW7	Potassium	ICP-MS	Annual		17.2	mg/l	N/A	N/A	no
21/07/2016	GW7	Zinc	ICP-MS	Annual		246	µg/l	N/A	40	no
21/07/2016	GW7	Cyanide (total)	Steam Distillation &	Annual		7	µg/l	37.5	10	no
21/07/2016	GW7	Flouride	Konelab Aquakem	Annual		<0.020	mg/l	N/A	0.5	no
21/07/2016	GW7	Mercury	ICP-MS	Annual		<10.000	mg/l			no
21/07/2016	GW7	Sulphate	Konelab Aquakem	Annual		13.93	mg/l SO4	187.5	N/A	no
21/07/2016	GW7	Total Phosphorous	ICP-MS	Annual		0.13	mg/l P	N/A	0.075	no
25/11/2016	GW7	Total ammonia	Konelab Aquakem	Quarterly		23.52	mg/l NH3	0.065-0.175	<0.014	yes
25/11/2016	GW7	Conductivity	Electrometry	Quarterly		1009	µS/cm @20oC	800-1875	N/A	yes

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

Groundwater monitoring template

More information on the use of soil and groundwater standards/ generic assessment criteria (GAC) and risk assessment tools is available in the EPA published guidance (see the link in G31)

Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites (EPA 2013).

**Depending on location of the site and proximity to other sensitive receptors alternative Receptor based Water Quality standards should be used in addition to the GTV e.g. if the site is close to surface water compare to Surface Water Environmental Quality Standards (SWEQS), If the site is close to a drinking water supply compare results to the Drinking Water Standards (DWS)

Surface water EQS | Groundwater regulations GTV's | Drinking water (private supply) standards | Drinking water (public supply) standards | Interim Guideline Values (IGV)

Table 3: Soil results

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

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

Environmental Liabilities template	Lic No:	W0089-02	Year	2016

Click here to access EPA guidance on Environmental Liabilities and Financial provision

			Commentary
1	ELRA initial agreement status	Submitted and agreed by EPA	
2	ELRA review status	SELECT	
3	Amount of Financial Provision cover required as determined by the latest ELRA	Specify	
4	Financial Provision for ELRA status	SELECT	
5	Financial Provision for ELRA - amount of cover	Specify	
6	Financial Provision for ELRA - type	SELECT	
7	Financial provision for ELRA expiry date	Enter expiry date	
8	Closure plan initial agreement status	SELECT	
9	Closure plan review status	SELECT	
10	Financial Provision for Closure status	SELECT	
11	Financial Provision for Closure - amount of cover	Specify	
12	Financial Provision for Closure - type	SELECT	
13	Financial provision for Closure expiry date	Enter expiry date	

Environmental Management Programme/Continuous Improvement Programme template	Lic No:	W0089-02	Year	2016

Highlighted cells contain dropdown menu click to view

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

Environmental Management Programme (EMP) report

Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Reduction of emissions to Air	Maintain/Improve landfill gas extraction regieme	Ongoing	Regular & frequent field gas balancing	Individual	Improved Environmental Management Practices
Materials Handling/Storage/Bunding	Procure secure storage unit for WEEE	50	Interaction with WEEE Collection Contractor	Individual	Improved Environmental Management Practices
Groundwater protection	Ensure contaminated groundwater/surface water does not impact of site receptors	Ongoing	Consultants retained to monitor and make recommendations for on site GW contamination issues	Individual	Remediation of contamination on site

Noise monitoring summary report	Lic No:	W0089-02	Year	2016

1	Was noise monitoring a licence requirement for the AER period? If yes please fill in table N1 noise summary below	Yes
2	Was noise monitoring carried out using the EPA Guidance note, including completion of the "Checklist for noise measurement report" included in the Noise Guidance note NG4	Yes
3	Does your site have a noise reduction plan	No
4	When was the noise reduction plan last updated?	N/A
5	Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the	No

Table N1: Noise monitoring summary

Date of monitoring	Time period	Noise location (on site)	Noise sensitive location - NSL (if applicable)	LA_{eq}	LA_{90}	LA_{10}	LA_{max}	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is site compliant with noise limits (day/evening/night)?
17/11/2016	12:10 - 13:42	N1		51.60	39.73	50.83	83.06	No		By EPA agreement, nighttime monitoring not required	Yes
17/11/2016	08:54 – 10:27	N6		53.20	36.70	55.40	77.76	No		By EPA agreement, nighttime monitoring not required	Yes
17/11/2016	10:33 – 12:04	N7		51.15	34.26	55.56	88.46	No		By EPA agreement, nighttime monitoring not required	Yes
17/11/2016	13:49 – 15:20	N10		53.40	40.63	46.80	80.30	No		By EPA agreement, nighttime monitoring not required	Yes
17/11/2016	15:29 – 16:17	N12		53.86	44.06	59.06	82.13	No		By EPA agreement, nighttime monitoring not required	Yes

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

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

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

Resource Usage/Energy efficiency summary

Lic No: W0089-02 Year 2016

		Additional information
1 When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below	Sep-15	
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	SELECT	Cork County Council has energy usage reduction team in operation countywide
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	N/A

SEAI - Large Industry Energy Network (LIEN)

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)	32.4	30.37	N/A	N/A
Total Energy Generated (MWHrs)	0	0		
Total Renewable Energy Generated (	0	0		
Electricity Consumption (MWHrs)	32.4	30.37		N/A
Fossil Fuels Consumption:	N/A			
Heavy Fuel Oil (m3)				
Light Fuel Oil (m3)				
Natural gas (m3)				
Coal/Solid fuel (metric tonnes)				
Peat (metric tonnes)				
Renewable Biomass				
Renewable energy generated on site				

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

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

Table R2 Water usage on site

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

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

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

Table R3 Waste Stream Summary

	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)					
Non-Hazardous (Tonnes)					

Resource Usage/Energy efficiency summary Lic No: W0089-02 Year 2016

Table R4: Energy Audit finding recommendations

Date of audit	Recommendations	Description of Measures proposed	Origin of measures	Predicted energy savings %	Implementation date	Responsibility	Completion date	Status and comments
Sep-15	Replace existing lighting with modern, more efficient LED lights and sensors.	Replace existing lighting with modern, more efficient LED lights and sensors.	energy audit	33	2016	Facility Manager	Dec-16	Complete
			SELECT					
			SELECT					

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

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

Complaints and Incidents summary template Lic No: W0089-02 Year 2016

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	

Table 1 Complaints summary

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		
	SELECT				SELECT		
	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

Table 2 Incidents summary

Date of occurrence	Incident nature	Location of occurrence	Incident category*please refer to guidance	Receptor	Cause of incident	Other cause(please specify)	Activity in progress at time of incident	Communication	Occurrence	Corrective action<20 words	Preventative action <20 words	Resolution status	Resolution date	Likelihood of reoccurence
	Select	Select	Select	Select	Select		Select	Select	Select			Select		Select
	Select	Select	Select	Select	Select		Select	Select	Select			Select		Select
	Select	Select	Select	Select	Select		Select	Select	Select			Select		Select
	Select	Select	Select	Select	Select		Select	Select	Select			Select		Select

Total number of incidents current year	0
Total number of incidents previous year	8
% reduction/ increase	100%

WASTE SUMMARY Lic No: W0089-02 Year 2016

SECTION A-PRTR ON SITE WASTE TREATMENT AND WASTE TRANSFERS TAB- TO BE COMPLETED BY ALL IPPC AND WASTE FACILITIES PRTR facility logon dropdown list click to see options

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

			Additional Information
1	Were any wastes accepted onto your site for recovery or disposal or treatment prior to recovery or disposal within the boundaries of your facility ?; (waste generated within your boundaries is to be captured through PRTR reporting) If yes please enter details in table 1 below	No	
2	Did your site have any rejected consignments of waste in the current reporting year? If yes please give a brief explanation in the additional information	No	
3	Was waste accepted onto your site that was generated outside the Republic of Ireland? If yes please state the quantity in tonnes in additional information	No	

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

Licenced annual tonnage limit for your site (total tonnes/annum)	EWC code European Waste Catalogue EWC codes	Source of waste accepted	Description of waste accepted **Please enter an accurate and detailed description - which applies to relevant EWC code** European Waste Catalogue EWC codes	Quantity of waste accepted in current reporting year (tonnes)	Quantity of waste accepted in previous reporting year (tonnes)	Reduction/ Increase over previous year +/ - %	Reason for reduction/ increase from previous reporting year	Packaging Content (%)- only applies if the waste has a packaging component	Disposal/Recovery or treatment operation carried out at your site and the description of this operation	Quantity of waste remaining on site at the end of reporting year (tonnes)	Comments -

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

4	Is all waste processing infrastructure as required by your licence and approved by the Agency in place? If no please list waste processing infrastructure required onsite	SELECT	
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	SELECT	
6	Does your facility have relevant nuisance controls in place?	SELECT	
7	Do you have an odour management system in place for your facility? If no why?	SELECT	
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
N/A - Landfill Closed				

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 SELECT UNIT	Lined disposal area occupied by waste SELECT UNIT	Unlined area SELECT UNIT	Comments on liner type
N/A - Landfill Closed													

Table 4 Environmental monitoring-landfill only Landfill Manual-Monitoring Standards

WASTE SUMMARY

Lic No: W0089-02 Year 2016

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

.+ 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					
N/A - Landfill Capped						

*please note this includes daily cover area

Table 6 Leachate-Landfill only

9	Is leachate from your site treated in a Waste Water Treatment Plant?	Yes
10	Is leachate released to surface water? If yes please complete leachate mass load information below	No

Volume of leachate in reporting year(m3)	Leachate (BOD) mass load (kg/annum)	Leachate (COD) mass load (kg/annum)	Leachate (NH4) mass load (kg/annum)	Leachate (Chloride) mass load kg/annum	Leachate treatment on-site	Specify type of leachate treatment	Comments
6169.83					No	Bandon WWTP	

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

Table 7 Landfill Gas-Landfill only

Gas Captured&Treated by LFG System m3	Power generated (MW / KWh)	Used on-site or to national grid	Was surface emissions monitoring performed during the reporting year?	Comments
CH_4 - 54,500	0	0	No	

Environmental Protection Agency

Guidance to completing the PRTR workbook

PRTR Returns Workbook

Version 1.1.19

REFERENCE YEAR	2016

1. FACILITY IDENTIFICATION

Parent Company Name	Cork County Council
Facility Name	Derryconnell Landfill
PRTR Identification Number	W0089
Licence Number	W0089-02

Classes of Activity

No.	class_name
-	Refer to PRTR class activities below

Address 1	Derryconnell
Address 2	Schull
Address 3	
Address 4	
	Cork
Country	Ireland
Coordinates of Location	-7.46596 53.2762
River Basin District	IESW
NACE Code	3821
Main Economic Activity	Treatment and disposal of non-hazardous waste
AER Returns Contact Name	Mairead Hales
AER Returns Contact Email Address	mairead.hales@corkcoco.ie
AER Returns Contact Position	Executive Engineer
AER Returns Contact Telephone Number	028 37742
AER Returns Contact Mobile Phone Number	086 6018493
AER Returns Contact Fax Number	028 37742
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	3
User Feedback/Comments	Intake of paint, inks, adhesives and resins containing dangerous substances (20 01 27) increassed by 6.4tns from 2015 - Increased customer activity for this item.
Web Address	

2. PRTR CLASS ACTIVITIES

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

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

Is it applicable?	No
Have you been granted an exemption ?	
If applicable which activity class applies (as per Schedule 2 of the regulations) ?	
Is the reduction scheme compliance route being used ?	

4. WASTE IMPORTED/ACCEPTED ONTO SITE Guidance on waste imported/accepted onto site

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

This question is only applicable if you are an IPPC or Quarry site

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

RELEASES TO AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD				QUANTITY		
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
01	Methane (CH4)	C	OTH	LandGEM Modelling	0.0	237032.8	0.0	237032.8

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

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

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

Additional Data Requested from Landfill operators

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

Landfill: Derryconnell Landfill

Please enter summary data on the quantities of methane flared and / or utilised	T (Total) kg/Year	M/C/E	Method Used: Method Code	Method Used: Designation or Description	Facility Total Capacity m3 per hour	
Total estimated methane generation (as per site model)	274012.8	C	OTH	Landgem	N/A	
Methane flared	36980.0	C	OTH	Landfill Gas Survey	500.0	(Total Flaring Capacity)
Methane utilised in engine/s	0.0				0.0	(Total Utilising Capacity)
Net methane emission (as reported in Section A above)	237032.8	C	OTH	LandGEM Modelling	N/A	

Please enter all quantities on this sheet in Tonnes 0

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	13 02 08	Yes	2.38	other engine, gear and lubricating oils	R13	M	Weighed	Offsite in Ireland	Enva Ireland Ltd.,W0184-01	Clonminam Industrial Estate,Portlaoise,Co. Laois,.,Ireland	Enva Ireland Ltd.,W0184-01	Clonminam Industrial Estate,Portlaoise,Co. Laois,.,Ireland
Within the Country	15 01 04	No	4.98	metallic packaging	R13	M	Weighed	Offsite in Ireland	Green Dragon Recycling,WFP-CK-10-0060-03	Corbally,Glanmire,Co. Cork,.,Ireland		
Within the Country	15 01 06	No	136.5	mixed packaging	R13	M	Weighed	Offsite in Ireland	Bantry Skip Hire,WFP-CK-12-0120-01	Dunbittern East ,Bantry ,Co. Cork ,.,Ireland		
Within the Country	15 01 07	No	48.14	glass packaging	R13	M	Weighed	Offsite in Ireland	Mr. Binman Ltd.,W0061-02	Luddenmore,Grange,Kilmallock,Co. Limerick,Ireland		
Within the Country	16 01 07	Yes	0.11	oil filters	R13	M	Weighed	Offsite in Ireland	Enva Ireland Ltd.,W0184-01	Clonminam Industrial Estate,Portlaoise,Co. Laois,.,Ireland	Enva Ireland Ltd.,W0184-01	Clonminam Industrial Estate,Portlaoise,Co. Laois,.,Ireland
Within the Country	16 02 14	No	40.04	discarded equipment other than those mentioned in 16 02 09 to 16 02 13	R13	M	Weighed	Offsite in Ireland	KMK Metals Recycling,W0113-03	Cappincur Industrial Estate,Duingean Road,Tullamore,Co. Offaly,Ireland		
Within the Country	16 05 04	Yes	0.6	gases in pressure containers (including halons) containing dangerous substances	R13	M	Weighed	Offsite in Ireland	Enva Ireland Ltd.,W0184-01	Clonminam Industrial Estate,Portlaoise,Co. Laois,.,Ireland	Enva Ireland Ltd.,W0184-01	Clonminam Industrial Estate,Portlaoise,Co. Laois,.,Ireland
Within the Country	16 06 01	Yes	1.9	lead batteries	R13	M	Weighed	Offsite in Ireland	KMK Metals Recycling,W0113-03	Cappincur Industrial Estate,Duingean Road,Tullamore,Co. Offaly,Ireland	Enva Ireland Ltd.,W0184-01	Clonminam Industrial Estate,Portlaoise,Co. Laois,.,Ireland
Within the Country	16 06 05	No	0.76	other batteries and accumulators	R13	M	Weighed	Offsite in Ireland	KMK Metals Recycling,W0113-03	Cappincur Industrial Estate,Duingean Road,Tullamore,Co. Offaly,Ireland		
Within the Country	19 07 03	No	6169.83	landfill leachate other than those mentioned in 19 07 02	D9	M	Weighed	Offsite in Ireland	Cork County Council - Bandon WWTP,.	Glaslin Road,Bandon,Co. Cork,.,Ireland		
To Other Countries	20 01 11	No	2.86	textiles	R13	M	Weighed	Abroad	All-Tex Recyclers Ltd.,LN/13/17	1 Ballycregagh Road,Cloughmills,Co. Antrim,.,Ireland		
Within the Country	20 01 25	No	0.0	edible oil and fat	R13	M	Weighed	Offsite in Ireland	Cork Oil Collectors,WFP-CK-10-0058-02	5 St. Lappans Place,Little Island,Cork,.,Ireland		
Within the Country	20 01 27	Yes	12.64	paint, inks, adhesives and resins containing dangerous substances	R13	M	Weighed	Offsite in Ireland	Enva Ireland Ltd.,W0184-01	Clonminam Industrial Estate,Portlaoise,Co. Laois,.,Ireland	Enva Ireland Ltd.,W0184-01	Clonminam Industrial Estate,Portlaoise,Co. Laois,.,Ireland
Within the Country	20 01 38	No	21.5	wood other than that mentioned in 20 01 37	R13	M	Weighed	Offsite in Ireland	Bantry Skip Hire,WFP-CK-12-0120-01	Dunbittern East ,Bantry ,Co. Cork ,.,Ireland		
Within the Country	20 01 40	No	65.4	metals	R13	M	Weighed	Offsite in Ireland	Pouladuff Dismantlers,CK-10-0070-03	Forge Hill,Airport Road,Cork,.,Ireland		
Within the Country	20 03 01	No	272.45	mixed municipal waste	D15	M	Weighed	Offsite in Ireland	Bantry Skip Hire,WFP-CK-12-0120-01	Dunbittern East ,Bantry ,Co. Cork ,.,Ireland		
Within the Country	20 03 07	No	149.5	bulky waste	D15	M	Weighed	Offsite in Ireland	Bantry Skip Hire,WFP-CK-12-0120-01	Dunbittern East ,Bantry ,Co. Cork ,.,Ireland		
Within the Country	20 01 11	No	2.3	textiles	R13	M	Weighed	Offsite in Ireland	Eco Environmental,WCP/KK/048 8/01	Mill River Business Park,Carrik-On-Suir,Tipperary,Co. Tipperary,Ireland		
Within the Country	20 01 38	No	55.84	wood other than that mentioned in 20 01 37	R13	M	Weighed	Offsite in Ireland	KWD Recycling,W0217-01	Aughacurreen,Killarney,Co. Kerry,.,Ireland		
Within the Country	20 03 01	No	25.12	mixed municipal waste	D15	M	Weighed	Offsite in Ireland	KWD Recycling,W0217-01	Aughacurreen,Killarney,Co. Kerry,.,Ireland		
Within the Country	20 03 07	No	24.62	bulky waste	D15	M	Weighed	Offsite in Ireland	KWD Recycling,W0217-01	Aughacurreen,Killarney,Co. Kerry,.,Ireland		