

**Rilta Environmental Ltd.**

**RILTA**  
*Environmental*  
*Limited*



Annual Environmental Report (AER),  
Site 402, Greenogue Business Park.

January 1<sup>st</sup> – December 31<sup>st</sup> 2013

March 2014

**TOBIN CONSULTING ENGINEERS**



**TOBIN**  
Patrick J. Tobin & Co. Ltd.

**REPORT:**

**Annual Environmental Report**

**PROJECT:**

**Rilta Environmental Ltd.  
Site 402 – Environmental Monitoring**

**CLIENT:**

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## 1 INTRODUCTION

The Environmental Protection Agency (EPA) issued Rilta Environmental Ltd. (RILTA) with Waste Licence Reg. No. W0192-03 for its site at Block 402, Greenogue Business Park, Rathcoole, County Dublin on 22<sup>nd</sup> July 2010. The facility is located within an industrial estate approximately 2km east of Newcastle village and approximately 2.5km west of Rathcoole village. The facility has been in operation since 2004. RILTA retained TOBIN Consulting Engineers (TOBIN) to prepare the Annual Environmental Report (AER) for the reporting period January to December 2013. This report has been prepared in accordance with Condition 11.10 and Schedule E of the waste licence.

This report addresses Condition 11.10 of the waste licence for the facility which states:

*'The licensee shall submit to the Agency by the 31<sup>st</sup> March of each year an AER covering the previous calendar year. This report which shall be to the satisfaction of the Agency shall include as a minimum the information specified in Schedule E: Annual Environmental Report, of this licence and shall be prepared in accordance with any relevant guidelines issued by the Agency.'*

The format of the report follows guidelines set in the "Guidance Note for Annual Environmental Report" issued by the Environmental Protection Agency. Account is also taken of the AER Draft Guidance Document and AER Information Templates issued by the Agency in January 2013.

### 1.1 WASTE ACTIVITIES AND RECORDS

The RILTA facility is a fully engineered and contained industrial site. It is licensed to accept 111,000 tonnes of waste material per annum, as set out in Schedule A of the waste licence. Table 1.1 below summarises the tonnes of waste RILTA is licensed to accept and compares it to waste tonnages accepted in 2013.

**Table 1.1 Waste Acceptance Tonnages as per Waste Licence 192-03**

Waste Type		Maximum (Tonnes Per Annum) Note 3	2013 Tonnages
<b>Non-Hazardous Wastes</b> Note 1,2	Commercial Waste	500	0
	Construction & Demolition Waste	500	0
	Industrial Sludges	1,000	0
	Other Industrial Waste	3,000	33,807
<b>Non Hazardous Waste Total</b>		<b>5000</b>	<b>33,806.57</b>
<b>Hazardous Wastes</b> EWC Code 13 05 03* 16 07 08* 16 10 01* 17 05 03* 17 06 01* 17 06 05*	<i>Description *</i>		
	Interceptor sludges	10,000	714.6
	Waste containing oil	2,000	1,021.7
	Aqueous liquid waste containing dangerous substances	1,500	3,882.6
	Soil and stones containing dangerous substances	60,000	9,835
	Insulation materials and construction materials containing asbestos.	8,000	4,910
	<i>Other</i> <sup>Note 4</sup>	24,400	27,880
	<b>Hazardous Waste Total</b>	<b>106,000</b>	<b>48,244</b>
<b>Total</b>		<b>111,000</b>	<b>82,051</b>

**Note 1:** Any proposals to accept other compatible non-hazardous waste types must be agreed in advance with the Agency.

**Note 2:** Excluding putrescible waste.

**Note 3:** The limitations on individual hazardous and non-hazardous waste types may be varied with the agreement of the Agency subject to the individual total limits for hazardous and non-hazardous waste staying the same.

**Note 4:** Hazardous waste types as detailed in Attachment H.1 of the review application for this licence Reg No: 192-03 or may be otherwise agreed in advance with the Agency.

Waste activities at the facility are restricted to those outlined in *Part 1 – Schedule of Activities Licensed*.

#### **Licensed Waste Disposal Activities, in accordance with the 3<sup>rd</sup> Schedule of the Waste Management Act, 1996 to 2010:**

**Class 7:** Physico-chemical treatment not referred to elsewhere in this Schedule (including evaporation, drying and calcination), which results in final compounds or mixtures, which are disposed of by means of any activity referred to in paragraphs 1 to 10 of this Schedule (including evaporation, drying and calcination);

**Class 11:** Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule;

- Class 12:** Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule; and
- Class 13:** Storage prior to submission to any activity referred to in a preceding paragraph of this schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.

**Licensed Waste Disposal Activities, 4<sup>th</sup> Schedule of the Waste Management Acts 1996 to 2010:**

- Class 2:** Recycling or reclamation of organic substances, which are not used as solvents (including composting and other biological transformation processes);
- Class 3:** Recycling or reclamation of metals and metal compounds;
- Class 4:** Recycling or reclamation of other inorganic materials;
- Class 6:** Recovery of components used for pollution abatement;
- Class 8:** Oil re-refining or other re-uses of oil; and
- Class 13:** Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.

## 2 EMISSIONS FROM THE FACILITY

Schedule C of Waste Licence 192-03 requires RILTA to carry out noise, air, dust, surface water, groundwater and wastewater emissions monitoring. The locations of these monitoring points are shown on Drawing 1250/01/1002, as submitted to the Environmental Protection Agency on the 28<sup>th</sup> of February 2005 and attached in Appendix A.

Monthly, quarterly and annual monitoring was carried out during the period 1<sup>st</sup> January 2013 to 31<sup>st</sup> December 2013. All monitoring results and reports have been submitted to the Agency as required by Condition 11 and Schedule C of the waste licence. The following is a summary of the results and findings from the 2013 monitoring period.

### 2.1 GROUNDWATER EMISSIONS

Groundwater monitoring was conducted on a quarterly basis at 3 no. groundwater monitoring locations as set out Drawing 1250/01/1002 (see Appendix A). Results for all 4 quarterly monitoring events were furnished



to the Agency as part of the environmental monitoring reports sent in April, July and October 2013 and January 2014.

#### 2.1.1 Groundwater Monitoring at Borehole 1 (BH1)

The following is a summary of the values recorded for each parameter at BH1.

**pH:** The pH of groundwater analysed from BH1 ranged from 7.30 to 7.87 during 2013. Results from all monitoring events had values within the normal pH range ( $6.5 \geq \text{pH} \leq 9.5$ ) set out in the EPA Interim Guideline Values<sup>1</sup> (IGV) and reflects the natural background condition of the groundwater.

**Conductivity:** The conductivity concentrations in BH1 ranged from 506 $\mu\text{S}/\text{cm}$  to 574 $\mu\text{S}/\text{cm}$  during 2013. Results from all monitoring events were within the normal electrical conductivity range and were considerably lower than the IGV limit (1000  $\mu\text{S}/\text{cm}$ ), reflecting normal background groundwater concentrations.

**Heavy metals:** Concentrations of mercury in BH1 were below the laboratory limit of detection (LOD) ( $<0.04\mu\text{g}/\text{l}$ ), during all monitoring events in 2013. Concentrations of arsenic in BH1 ranged from  $<0.1\mu\text{g}/\text{l}$  to  $0.274\mu\text{g}/\text{l}$ , during 2013. Copper, chromium, cadmium, boron, nickel, iron, lead and zinc were all analysed as part of the annual groundwater suite of parameters for BH1 during Q3 2013. All concentrations of heavy metals at BH1 during 2013 were below the required limit levels set out in the EPA.

**Inorganic:** The following inorganic parameters were analysed at BH1 during Q3 2013, as part of the annual groundwater suite: total alkalinity, cyanide, chloride, sulphate, potassium, sodium, calcium, magnesium and manganese. These parameters all had results within the limit values specified in the EPA IGVs, with the exception of chloride (56.76mg/l) which exceeded the EPA IGV (30mg/l). These results are consistent with previous results recorded at the site.

**Pesticide:** No concentrations of pesticides were detected during any monitoring event at BH1 during 2013.

**List 1/11 Organic Substances, Mineral Oil, BTEX:** Concentrations of list 1/11 organic substances (VOCs & SVOCs), mineral oil and BTEX were below the laboratory LOD<sup>2</sup> during all groundwater monitoring events at BH1 during 2013.

#### 2.1.2 Groundwater Monitoring at Borehole 2 (BH2)

The following is a summary of the values recorded for each parameter at BH2.

**pH:** The pH of groundwater analysed from BH2 ranged from 8.74 to 10.34 during 2013. The pH values at BH2 were elevated relative to the guideline range set out in the IGVs ( $6.5 \geq \text{pH} \leq 9.5$ ) during monitoring

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<sup>1</sup> From the EPA Interim Report – 'TOWARDS SETTING GUIDELINE VALUES FOR THE PROTECTION OF GROUNDWATER IN IRELAND'

<sup>2</sup> TPG CWG - Limit of Detection

events Q1 and Q3 (10.34 and 9.98, respectively). Slight fluctuations in the pH at BH2 are not atypical but will continue to be monitored closely.

**Conductivity:** The conductivity concentrations in BH2 ranged from 177 $\mu$ S/cm to 351 $\mu$ S/cm during 2013. Results from all monitoring events were within the normal electrical conductivity range and were considerably lower than the IGV limit (1000  $\mu$ S/cm), reflecting normal background groundwater concentrations.

**Heavy metals:** All heavy metals analysed at BH2 in 2013 were below their respective EPA IGVs including copper, chromium, cadmium, boron, nickel, iron, lead and zinc, which were analysed as part of the annual groundwater suite of parameters in Q3 2013. Concentrations of arsenic at BH2 ranged from 1.6 $\mu$ g/l to 3.065 $\mu$ g/l during 2013, while concentrations of mercury at BH2 ranged from <0.04-0.358 $\mu$ g/l.

**Inorganic:** The following inorganic parameters were analysed at BH2 during Q3 2013, as part of the annual groundwater suite: total alkalinity, cyanide, chloride, sulphate, potassium, sodium, calcium, magnesium and manganese. These parameters all had results within the limit values specified in the EPA IGVs.

**Pesticide:** No concentrations of pesticides were detected during any monitoring event at BH2 during 2013.

**List 1/ 11 Organic Substances, Mineral Oil, BTEX:** All groundwater sampled at BH2 from January to December 2013 had concentrations of BTEX below the laboratory LOD. Mineral oil concentrations were also below laboratory LOD during all quarters with the exception of Q1 when mineral oil of 39.69 $\mu$ g/l was detected. This level of mineral oil is above the EPA IGV of (10 $\mu$ g/l).

List1/11 substances were detected at BH2 during monitoring events in 2013. Volatile organic compounds (VOCs) were detected during Q2, Q3 & Q4 (6.81, 13.63 and 11.19 $\mu$ g/l, respectively). Concentrations of semi volatile organic compounds (SVOC) were all below their respective laboratory LOD at BH2 during 2013.

### 2.1.3 Groundwater Monitoring at Borehole 3 (BH3)

The following is a summary of the values recorded for each parameter at BH3.

**pH:** The pH of the analysed groundwater from BH3 ranged from 9.18 to 10.33 during 2013. The reported pH values for BH3 were outside the pH range ( $6.5 \geq \text{pH} \leq 9.5$ ) set out in the EPA IGV during monitoring events Q1, Q2 and Q3 (10.33, 9.80 and 10.01, respectively). As discussed in the previous AERs, pH levels at BH3 are assumed to be elevated due to the use of alkaline cements and backfill construction material, which was used during the installation of underground tanks at the facility.

**Conductivity:** The conductivity within BH3 ranged from 222 $\mu$ S/cm to 360 $\mu$ S/cm during 2013. Electrical conductivity at BH3 during all monitoring events was below the EPA IGV (1000 $\mu$ S/cm).

**Heavy metals:** Concentrations of arsenic at BH3 ranged from 6.008- 10.42µ/l during 2013. This slightly exceeded the EPA IGV (10µg/l) during monitoring events Q3 and Q4 (10.39 and 10.42, respectively). Concentrations of mercury in BH3 ranged from <0.04 – 0.2041µg/l. This concentration is within the IGV limit of 1µg/l.

Copper, chromium, cadmium, boron, nickel, iron, lead and zinc were all analysed at BH3 during Q3 2013, as part of the annual groundwater testing suite of parameters. The concentrations of each of these metals were below the required limit levels set out in the EPA IGVs.

**Inorganic:** The following inorganic parameters were analysed at BH3 during Q3 2013 as part of the annual groundwater suite: total alkalinity, cyanide, chloride, sulphate, potassium, sodium, calcium, magnesium and manganese. These parameters all had results within the limit values specified in the EPA IGVs, with the exception of chloride (38.28mg/l) which exceeded the EPA IGV (30mg/l).

**Pesticide:** No Pesticide concentrations were detected during any monitoring event at BH3 during 2013.

**List 1/ 11 Organic Substances, Mineral Oil, BTEX:** BTEX were below the laboratory limit of detection during monitoring events at BH3 in 2013, with the exception of Benzene in Q1, Q2 and Q4 (4.66, 4.66 and 3.38µg/l, respectively) which exceeded the EPA IGV (1µg/l).

Mineral oil concentrations were below the laboratory limit of detection during monitoring events at BH3 in 2013, with the exception of Q4 (16.99µg/l) which exceeded the EPA IGV (10µg/l).

List1/11 substances were detected at BH3 during 2013. Volatile organic compounds (VOCs) were detected during Q1, Q2, Q3 & Q4 (29.17, 10.64, 11.87 and 6.98µg/l, respectively). Concentrations of semi volatile organic compounds were not detected were all below their respective laboratory LOD at BH3 during 2013.

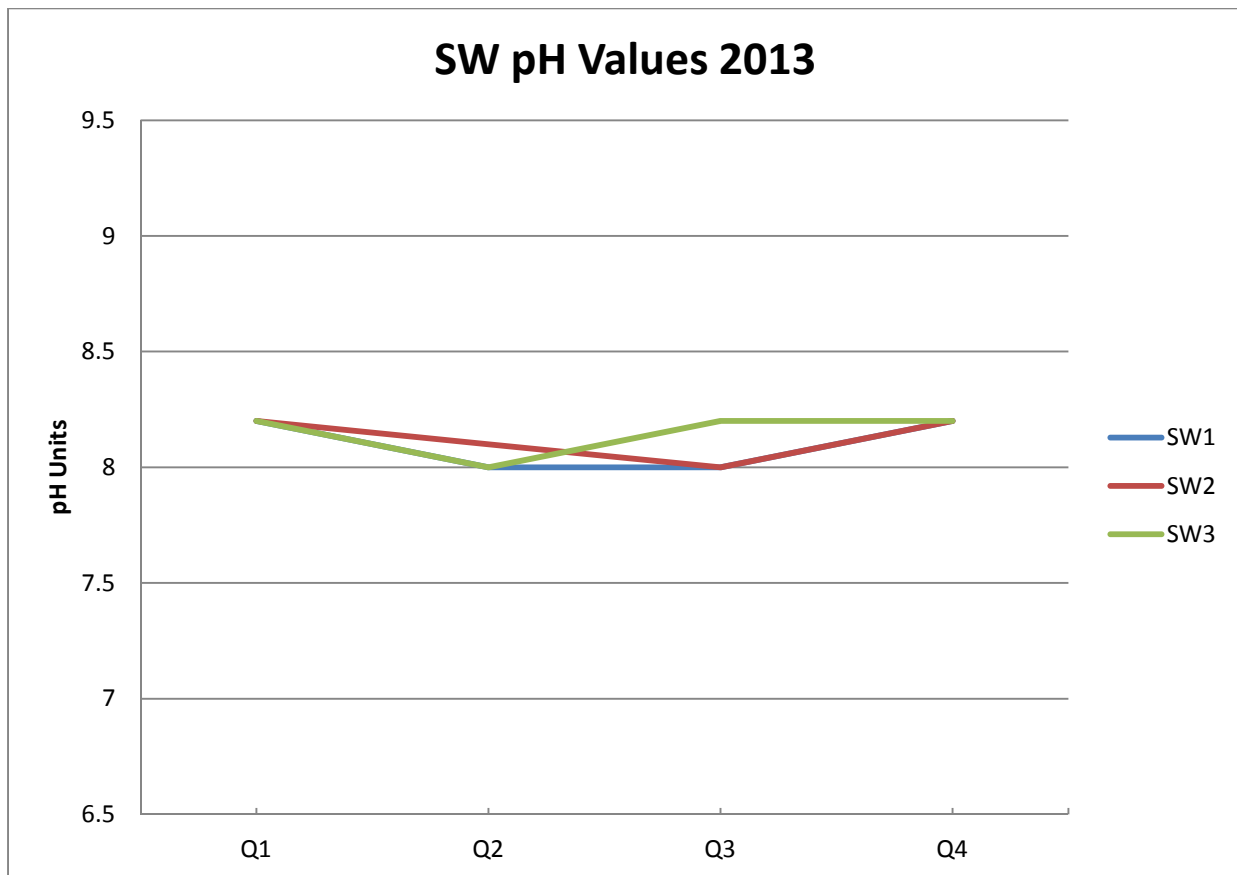
## 2.2 SURFACE WATER EMISSIONS

Surface water monitoring was conducted on a quarterly basis at 3 no. surface water monitoring locations, as set out Drawing 1250/01/1002 (see Appendix A). Results for all 4 quarterly monitoring events were furnished to the Agency as part of the environmental monitoring reports sent in April, July and October 2013 and January 2014.

### 2.2.1 Surface Water Monitoring

Results from all surface water monitoring locations indicate that surface water quality at the RILTA facility is within normal chemical range and is consistent with natural uncontaminated surface waters. The following is a summary of parameter concentrations at all surface water monitoring locations.

**pH:** The pH values at all surface water monitoring locations were within the normal range in 2013 ( $6.5 \geq \text{pH} \leq 9.5$ ) set out in SI No. 278 of 2007<sup>3</sup> and reflect the natural conditions of this surface water feature.



**Figure 2.1 Surface Water pH Results - 2013**

**Table 2.1 Surface Water pH Results - 2013**

Location	pH Quarter 1	pH Quarter 2	pH Quarter 3	pH Quarter 4
<b>SW1</b>	8.2	8.0	8.0	8.2
<b>SW2</b>	8.2	8.1	8.0	8.2
<b>SW3</b>	8.2	8.0	8.2	8.2

<sup>3</sup> SI No 278 of 2007 – European Communities (Drinking Water) (No. 2) Regulations

**Chemical Oxygen Demand:** The chemical oxygen demand at all monitoring locations was consistent with historic monitoring results from the site. Concentrations were slightly elevated in Q1 with peak concentrations of 23mg/l, 15mg/l and 7mg/l at SW1, SW2 and SW3, respectively. There is no limit for surface water COD set out in waste licence 192-03 or SI No. 278 of 2007m. COD results from 2013 are summarised in Table 2.2 below.

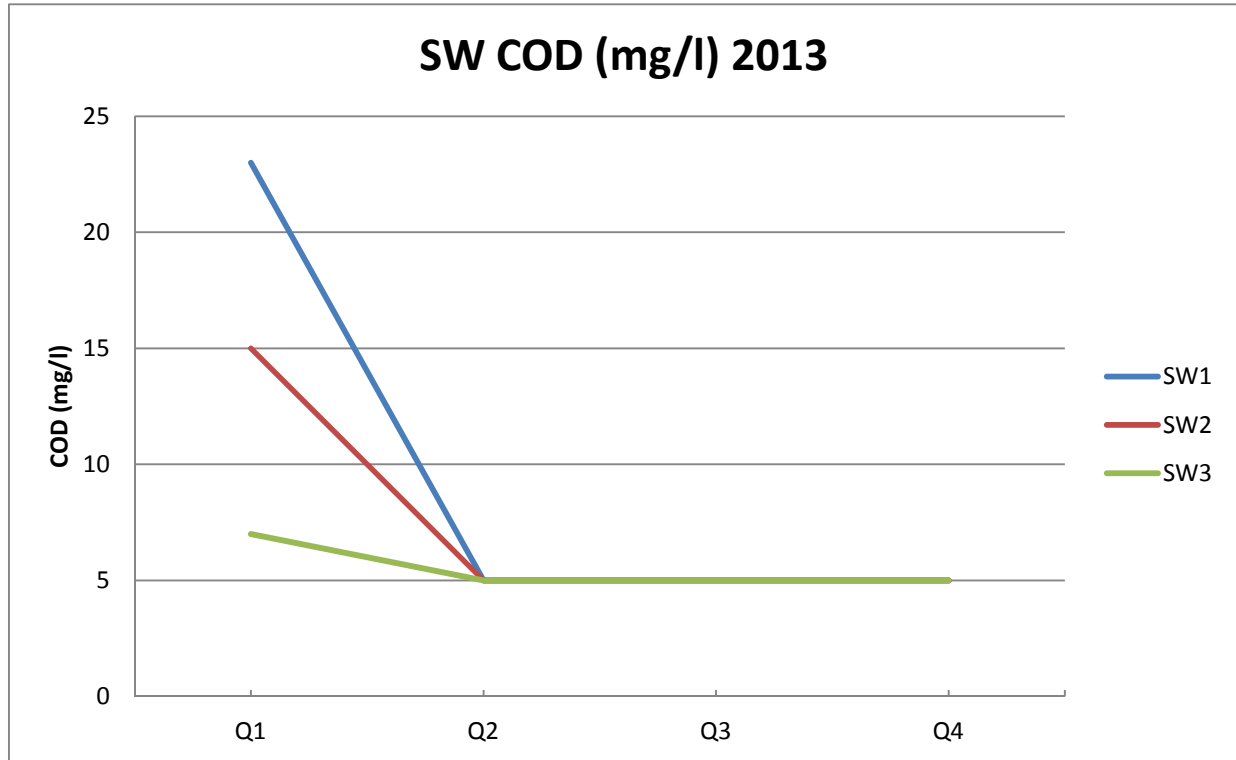


Figure 2.2 Surface Water COD Results - 2013

Table 2.2 Surface Water COD Results - 2013

Location	COD (mg/l) Quarter 1	COD (mg/l) Quarter 2	COD (mg/l) Quarter 3	COD (mg/l) Quarter 4
SW1	23	<5	<5	<5
SW2	15	<5	<5	<5
SW3	7	<5	<5	<5

**Suspended Solids:** The concentrations of suspended solids at all surface water monitoring locations were below the limit levels set out in waste licence 192-03 (35mg/l) for all monitoring events during 2013.

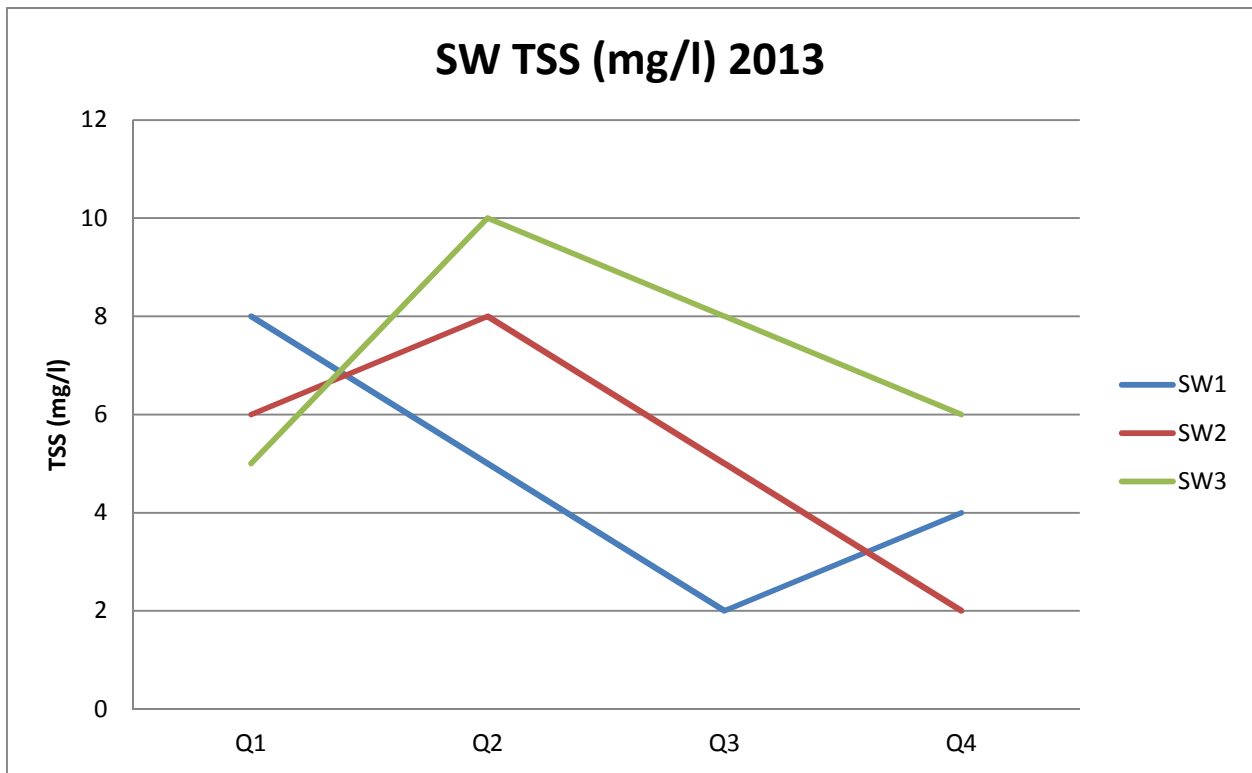
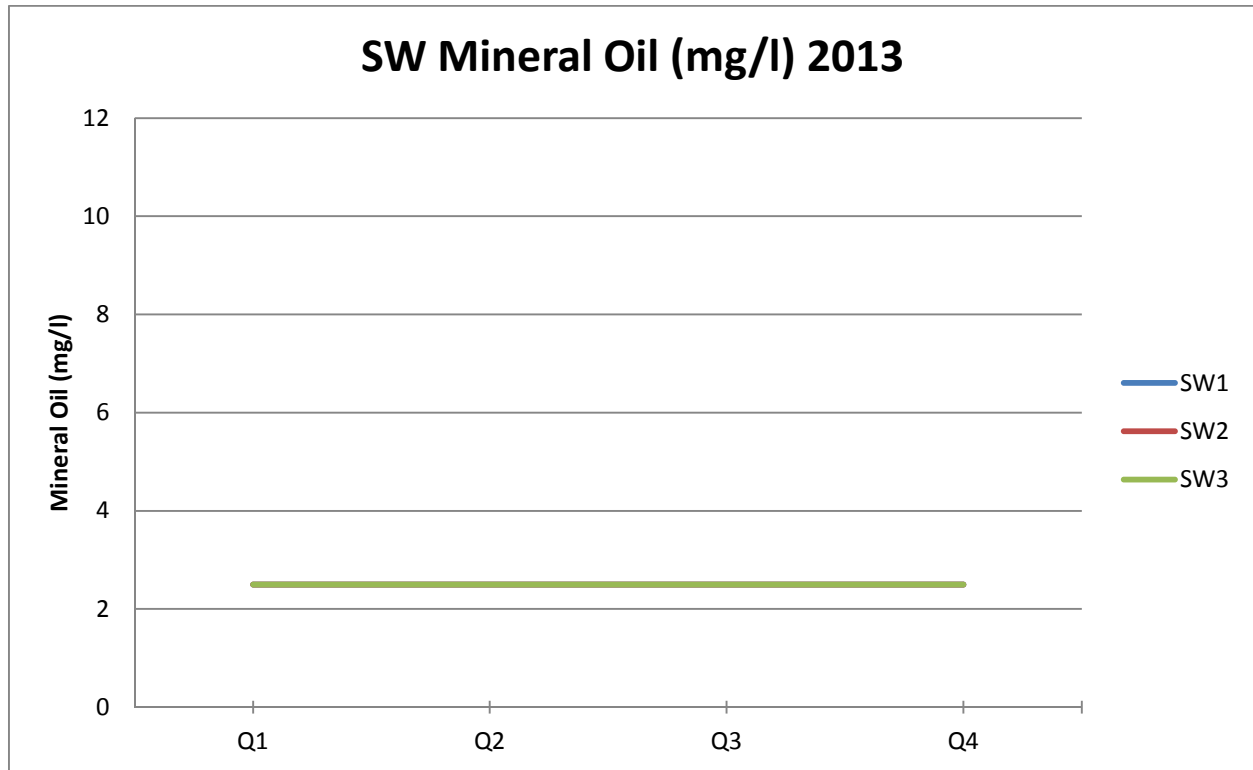


Figure 2.3 Surface Water Total Suspended Solids Results - 2013

Table 2.3 Surface Water Total Suspended Solids Results - 2013

Location	TSS (mg/l) Quarter 1	TSS (mg/l) Quarter 2	TSS (mg/l) Quarter 3	TSS (mg/l) Quarter 4
SW1	8	5	2	4
SW2	6	8	5	2
SW3	5	10	8	6

**Mineral Oils:** Concentrations of Mineral Oil were below the laboratory detection limit (<2.5µg/l) during all monitoring events during 2013.



**Figure 2.4 Surface Water Mineral Oil Results – 2013**

**Table 2.4 Surface Water Mineral Oil (mg/l) Results - 2013**

Location	Mineral Oil (µg/l) Quarter 1	Mineral Oil (µg/l) Quarter 2	Mineral Oil (µg/l) Quarter 3	Mineral Oil (µg/l) Quarter 4
<b>SW1</b>	<2.5	<2.5	<2.5	<2.5
<b>SW2</b>	<2.5	<2.5	<2.5	<2.5
<b>SW3</b>	<2.5	<2.5	<2.5	<2.5

## 2.3 WASTEWATER EMISSIONS

Waste water monitoring was conducted on a monthly basis at 1 no. monitoring location (SE-1), as per Schedule C of the waste licence 192-03 and illustrated on Drawing 1250/01/1002 (see Appendix A). The results for all 12 no. monitoring events were furnished to the Agency as part of the quarterly environmental monitoring reports sent to the Agency in April, July and October 2013, and January 2014.

### 2.3.1 Wastewater Monitoring

The daily maximum volume of waste water emitted is 175m<sup>3</sup> and the hourly maximum is 20m<sup>3</sup>. The total wastewater volume emitted during 2013 was 44,450m<sup>3</sup> (44 450 000 litres).

The concentration of pH was within the required licence limit ( $6.5 \geq \text{pH} \leq 10$ ) during all monitoring events in 2013. A summary of the reported monthly pH concentrations is contained in Table 2.5 and Figure 2.5 below.

The concentration of mineral oil at SE-1 was below the required licence limit during all monitoring events in 2013. A summary of the reported monthly mineral oil concentrations is contained in Table 2.5 and illustrated in Figure 2.6 below.

Concentrations of zinc, copper, chromium, lead, nickel, arsenic, benzene, toluene, ethyl-benzene and total xylene were all below respective licence limits during 2013. The reported monthly concentrations for these parameters are summarised in Table 2.5 and illustrated in Figure 2.7 below.

Concentrations of BOD, COD, sulphate, surfactants, suspended solids and ammoniacal nitrogen<sup>4</sup> were all below respective licence limits during 2013. A summary of the reported monthly wastewater concentrations for these parameters is contained in Table 2.5 and illustrated in Figure 2.8 below.

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<sup>4</sup> Ammoniacal nitrogen was added to the SE-1 monthly parameters in 2010, as part of licence 192-03.



Table 2.5 Wastewater Results – 2013

Parameter	Units	Limits*	2013											
			Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Temperature*	C	-	11.1	11.8	7.9	10.5	8.7	15.9	23.3	18.1	18	15.1	15.1	14.7
pH	pH units	6>pH<10	7.1	7.8	7.5	7.7	7.8	8.1	7.9	7.9	7.9	7.9	7.8	7.8
BOD	mg/l	2000	240	190	7	7	63	42	225	60	560	180	29	14
COD	mg/l	4000	771	1265	419	273	1168	594	3320	1830	3960	2042	749	315
Sulphate SO <sub>4</sub>	mg/l	1000	67.34	2.94	52.08	52.48	50.11	<0.82	123.37	6.11	34.88	20.88	48.94	35.45
Surfactants	mg/l	100	0.506	0.578	0.101	<0.05	0.63	0.113	0.207	0.74	1.393	0.204	0.446	0.130
Zinc Zn	µg/l	3000	8.29	34.49	38.41	54.98	537.6	77.5	826.4	208.3	165.5	168.4	31.24	70.74
Copper Cu	µg/l	1000	9.569	28.7	91.62	66	157.7	99.18	54.36	62.96	110	128	218.40	184.50
Chromium	µg/l	1000	9.605	87.18	40.78	37.15	303.3	86.81	449.9	277.6	343.4	208.6	95.97	44.03
Lead	µg/l	200	0.691	8.576	3.37	5.8	56.86	6.45	28.61	15.84	13.96	4.323	3.852	3.293
Nickel	µg/l	1000	238.8	78.75	38.49	32.44	239.8	63.48	236.1	133.5	154.9	118.2	56.93	24.18
Arsenic	µg/l	500	3.258	22.42	11.82	8.07	106.2	23.55	162.8	80.48	112.5	61.5	30.68	14.07
Benzene	µg/l	1000	14.863	<0.47	<0.47	<0.47	<0.47	<0.47	4.08	2.58	2.74	1.72	<0.47	<0.47
Toluene	µg/l	1000	111.03	6.784	<0.54	<0.54	12.503	<0.54	60.34	37.24	20.59	13.95	<1	<0.54
Ethylbenzene	µg/l	1000	14.15	<0.45	<0.45	<0.45	<0.45	<0.45	19.47	12.38	9.09	5.77	<0.45	<0.45
Total Xylene	µg/l	1000	133.93	8.425	<1.18	<1.18	40.22	11.28	121.51	70.33	38.16	18.01	<1.18	<1.18
Suspended Solids	mg/l	500	151	46	21	11	94	14	59	71	109	40	17	8
Ammonical Nitrogen	mg/l	-	132.91	600.50	227.00	158.65	2.18	275.93	1779.85	960.57	1784.42	<0.01	413.18	176.87
Mineral Oil	µg/l	10000	< 2.5	<2.5	177.75	< 2.5	<2.5	582.11	402.89	235.34	28.31	586.59	49.39	<2.5

\*Grab Sample Limits as per W0192-03

\*\*Sample is stored on site in refrigerator.

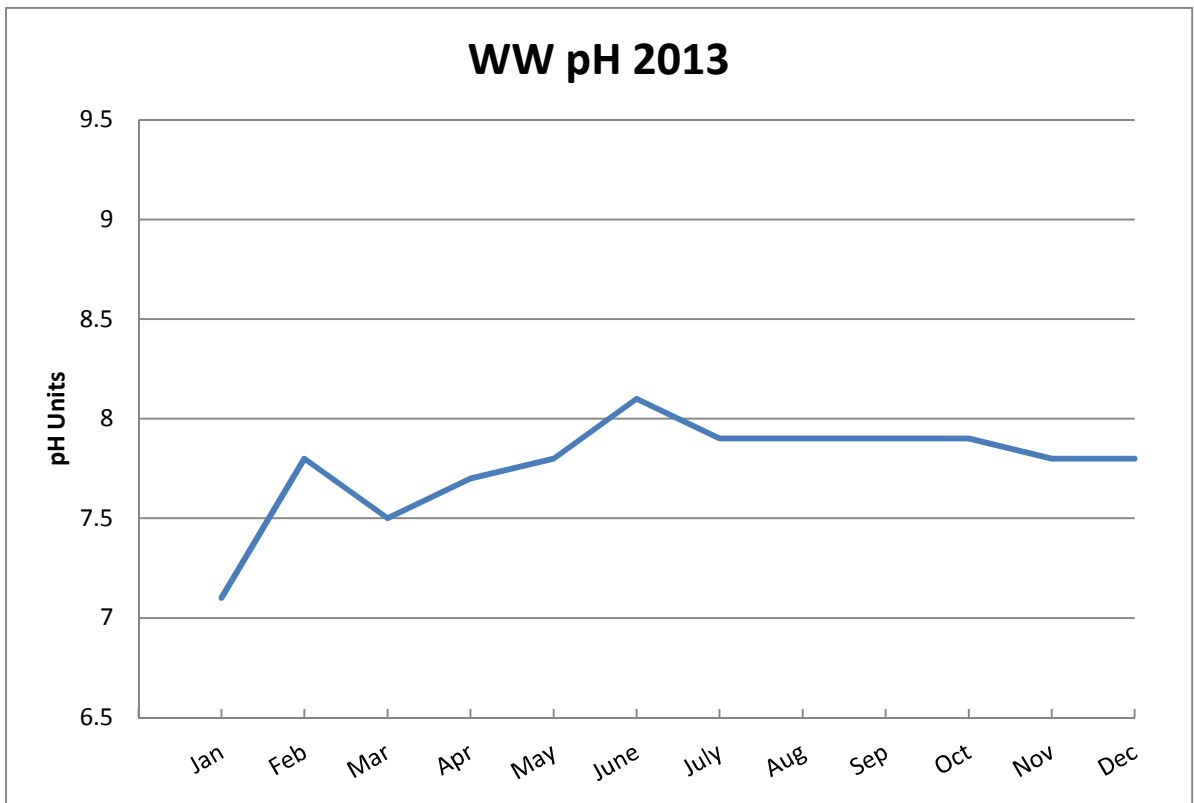


Figure 2.5 Wastewater – pH Trend Data 2013

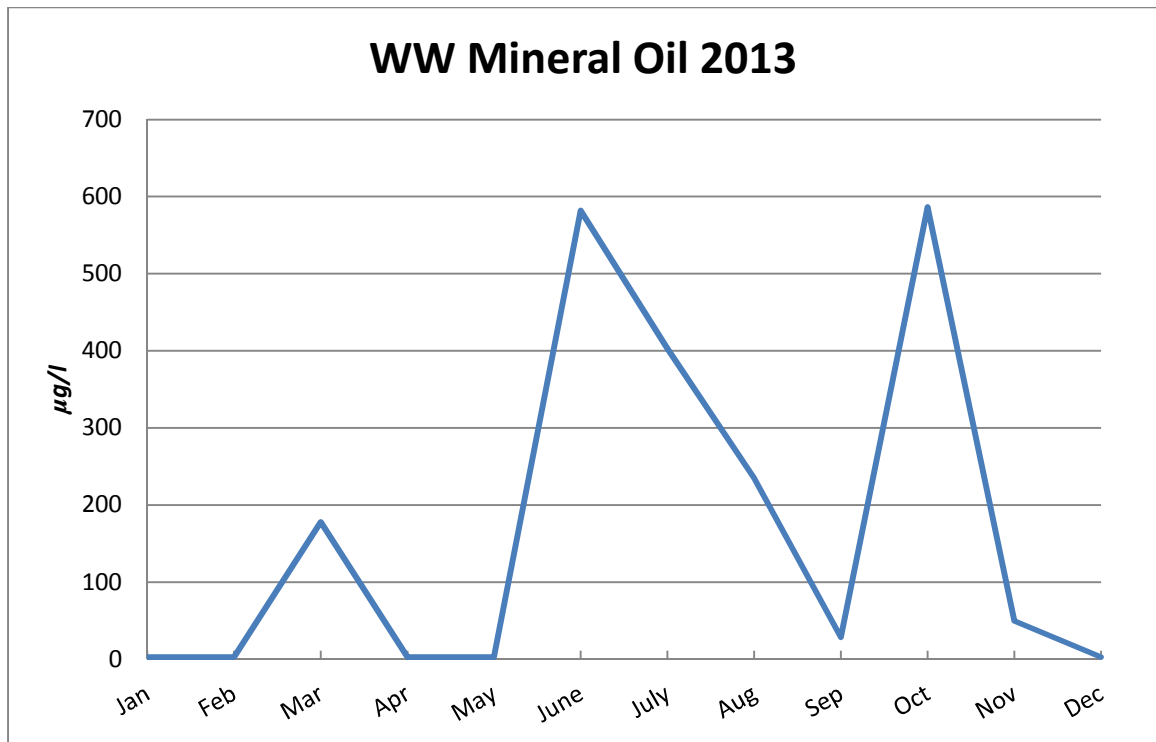


Figure 2.6 Wastewater – Mineral Oil Trend Data 2013

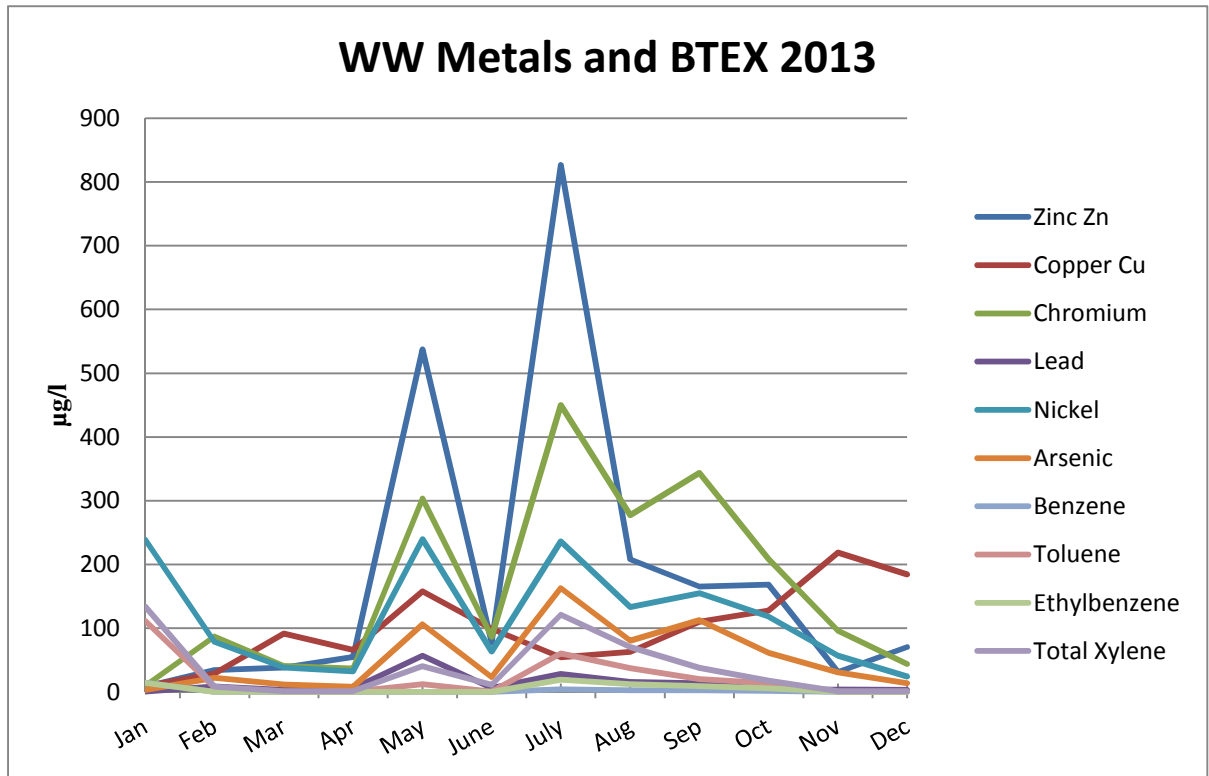


Figure 2.7 Wastewater – Metals and BTEX Trend Data 2013

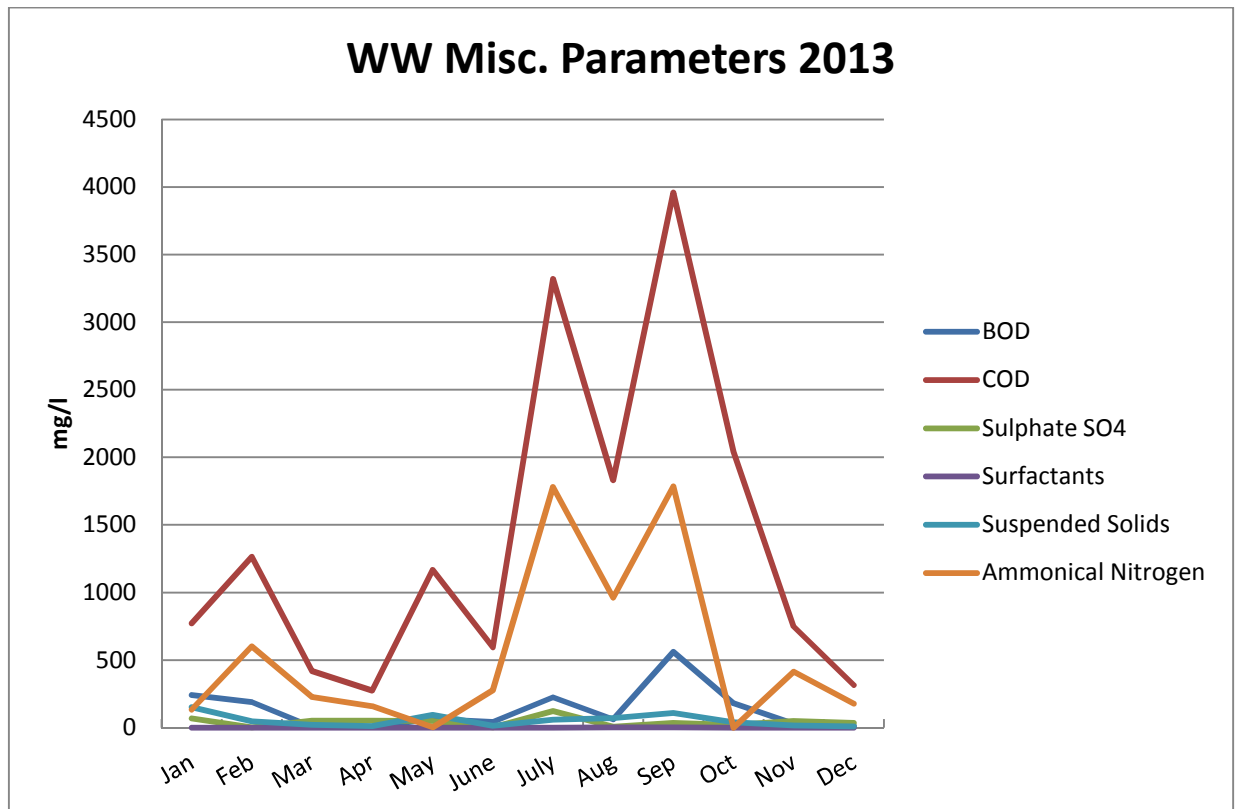


Figure 2.8 Wastewater – Miscellaneous Parameter Trend Data 2013

### 3 AMBIENT MONITORING

#### 3.1 DUST

According to Schedule E of the waste licence, dust monitoring is required at the facility three times a year (twice between May and September), at monitoring locations illustrated on Drawing 1250/01/1002 (see Appendix A). Dust monitoring was carried out at four separate locations at the 4 no. corner boundaries of the RILTA facility. The samples were analysed by Fitz Scientific laboratories.

The results for each sample location D1, D2, D3 and D4 are included in Appendix C. During the three periods, dust monitoring location D3 exceeded the mean daily deposition limit (350mg/m<sup>2</sup>/day) while during the third monitoring period D2 exceeded the limit set in schedule C.3. of the waste licence. No exceedance was recorded at D1 or D4. Monitoring points D2 and D3 are both located along the northern perimeter fence of the facility, within close proximity of at least two neighbouring facilities.

Both of monitoring locations D2 and D3 are largely sheltered from on-site activities at the Rilta facility due to their location behind large buildings. This, coupled with the observation that no exceedance has ever been recorded at D1 or D4, which are located in the south of the facility and have less neighbouring facilities, suggests it is possible that neighbouring facilities have contributed to dust levels recorded at D2 and D3.

**Table 3.1 Dust Monitoring Results – 2013**

Monitoring Period	D1 (mg/m <sup>2</sup> /d)	D2 (mg/m <sup>2</sup> /d)	D3 (mg/m <sup>2</sup> /d)	D4 (mg/m <sup>2</sup> /d)
<b>23/01/13 to 21/02/13</b>	68.15	78.11	<b>700.9</b>	103.8
<b>25/04/13 to 23/05/13</b>	255.83	146.79	<b>390.03</b>	156.75
<b>11/07/13 to 08/08/13</b>	152.55	<b>472.33</b>	<b>690.41</b>	245.34

#### 3.2 VOC EMISSIONS

Odour Monitoring Ireland were commissioned by Rilta Environmental Limited to perform Volatile Organic Compound (VOC) monitoring of the three licensed emission points located within the facility on a biannual basis. Monitoring was carried out on the 31<sup>st</sup> of October and the 7<sup>th</sup> of November 2013 (Round 1 and 2, respectively). With the exception of Volume flow for location A2, all results from the 2013 monitoring were in compliance with required limits. Measured volumetric airflow rate at A2 was 6,330Nm<sup>3</sup>/hr during the October monitoring event and 6,192 Nm<sup>3</sup>/hr during the November monitoring event, which exceeded the limit volumetric airflow rate at A2 (5,292 Nm<sup>3</sup>/hr). The full report from OMI detailing ambient emissions from the RILTA facility is contained in Appendix E.

### 4 NOISE MONITORING

The noise emission limits given in Waste Licence 192-03 are 55 dB(A) for daytime and 45 dB(A) for night time. These levels specifically relate to noise emissions arising from the facility, measured at any noise sensitive location. A more detailed noise monitoring report for this period is contained in Appendix D. The noise emissions recorded are given in Table 4.1 and Table 4.2 below.

**Table 4.1 RILTA Daytime Noise – 2013**

DAY TIME						
Receptor	Time	Leq dB(A)	Leq dB(A)*	L10	L90	Notes
<b>N1</b>	11:50	46.7	N/A	49.82	38.36	Noise at this location was dominated by internal industrial estate traffic passing the site. Distant traffic and vehicle movements at adjacent premises were also audible. Site activity was occasionally audible at this location.
<b>N2</b>	12:27	43.3	N/A	45.51	40.78	Hammering and heavy machinery movement at the adjacent premises was the dominant sources. Passing traffic on the nearby internal industrial estate road was also audible. The site was not audible at N2 during the daytime survey.
<b>N3</b>	11:09	47.4	N/A	51.36	42.62	A power washer in operation at an adjacent facility was the dominant noise source. Passing aircraft and bird song also contributed to daytime noise levels. Onsite activity was audible at low levels.
<b>N4</b>	10:26	<b>57.8</b>	<b>62.8</b>	60.06	54.85	Onsite activity (barrels being moved and radio on) and passing road traffic were the dominant noise sources during daytime monitoring at N4. Passing aircraft and activity at surrounding premises also contributed to noise levels.

Leq\* is Leq following application of any 5dB(A) penalties incurred.

**Table 4.2 RILTA Night Time Noise – 2013**

NIGHT TIME						
Receptor	Time	Leq dB(A)	Leq dB(A)*	L10	L90	Notes
<b>N1</b>	23:00	39.3	N/A	40.75	31.16	Noise at this location was dominated by passing traffic. A dog occasionally barking was also audible. A low hum was audible from the site at this location during night time monitoring.
<b>N2</b>	23:35	35.9	N/A	36.67	34.18	Night time noise sources included noise from a neighbouring facility, the flowing stream and passing traffic on the nearby internal industrial estate road. A low hum was audible from the site at N2 during night time monitoring.
<b>N3</b>	00:10	33.3	N/A	36.86	31.14	Night time noise at this location was dominated by aircraft and a helicopter passing overhead. Distant traffic also contributed to recorded noise levels. A low hum was audible at this location during night time monitoring.
<b>N4</b>	00:50	43.6	N/A	40.41	31.22	Noise at location N4 during night time monitoring was dominated by passing traffic as well as a truck at a neighbouring facility. The site was not audible at this location during night time monitoring.

Leq\* is Leq following application of any 5dB(A) penalties incurred.

Noise levels recorded at the four EPA agreed noise monitoring locations contain noise emissions from adjacent industrial sites, low flying aircraft and traffic on the internal road network of the industrial estate. During daytime monitoring, noise emissions from the RILTA facility was highly audible at monitoring location N4 and a low hum was audible coming from the site at N1 and N3. The site was not audible at N2.

The A-weighted equivalent continuous sound pressure level (LAeq, 30 min) recorded at the RILTA facility was above the limit of 55dB(A) at noise monitoring location N4 (**57.8dB(A)**) during daytime monitoring. It is likely that the Leq value of **57.8dB(A)** recorded at N4 is attributable to the facility as activities within the nearby warehouse were highly audible at this location (radio, barrels processing).

A tone was also observed at location N4 at 400Hz during the daytime survey, a 5dB(A) penalty has therefore been applied to this location bringing the Leq to **62.8dB(A)**, which exceeds the limit of 55dB(A).

Tones were also observed at N2 and N3 during the daytime survey. These tones were most likely attributed to activities at neighbouring facilities. The Rilta facility was not audible at N2 and was only audible at very low levels at N3. Heavy machinery was working offsite within the vicinity during the survey (jack hammer) as well as a power washer running, no penalty has therefore been applied.

During the night time monitoring period, a low hum was audible from the site at all locations during the night time noise survey with the exception of location N4. During the night time monitoring period the A-weighted equivalent continuous sound pressure level (LAeq, 30 min) of 45 dB(A) (night time) was not exceeded at any location.

During the night time survey the Rilta facility was audible at very low background levels (hum) at N1 and N3 only and was not audible at N2 or N4. Numerous tones were observed at N3 however during the survey a helicopter and two aeroplanes were audible overhead. It is likely that the tones observed at N3 were as a result of these overhead aircraft as the 'hum' from the facility was also audible at N1, where no tones were recorded. No penalty has therefore been applied. At N4, two tones were recorded at 25Hz and 31.5Hz, it is likely that passing traffic attributed to these tones as trucks and cars passed the facility during the survey and the facility was at no time audible from this location.

There were no impulsive noise emissions audible at any of the monitoring locations during the daytime or night time monitoring period.

Full 1/3 octave frequency band analysis of both day and night time surveys is presented in Appendix D.

## 5 RESOURCE CONSUMPTION SUMMARY

The main energy use at RILTA includes:

- Gas                                      -Water
- Diesel                                   -Electricity

A review of electricity and gas bills for the period from 01/01/08 to 31/12/13 shows that RILTA used the following quantities.

**Table 5.1 Resource and Energy Consumption 2008-2013**

Energy	Units	2010	2011	2012	2013
<b>Gas</b>	KwH	175,932	52,240	60,266	63,120
<b>Electricity</b>	KwH	422,560	422,566	418,766	480,660
<b>Water</b>	m <sup>3</sup>	13,132	19,420	17,020	20,620
<b>Diesel</b>	L	9,888	75,800	62,800	74,880

## 6 ENVIRONMENTAL MANAGEMENT

### 6.1 SCHEDULE OF ENVIRONMENTAL OBJECTIVES AND TARGETS

Details of the Environmental Management Programmes (EMP) for the RILTA facility are contained in Appendix B.

### 6.2 ENVIRONMENTAL MANAGEMENT PROGRAMME

Details of the 2013 and 2014 EMPs for the RILTA facility are contained in Appendix B.

## 7 POLLUTANT RELEASE AND TRANSFER REGISTER (PRTR)

Details of the 2012 and 2013 Pollutant Release Transfer Register (PRTR) for the RILTA facility are included in Appendix F.

## 8 TANK AND PIPELINE TESTING AND INSPECTION REPORT

As per Condition 11 of waste licence 192-03, any reports on integrity testing of bunds or tanks will be furnished to the Agency upon completion. Bund Integrity Testing was carried out at the RILTA facility in February 2013. The results are included in Appendix G of this report.

## 9 WATER DEMAND AND TRADE EFFLUENT DISCHARGE

The trade effluent discharged in 2013 was 44,450m<sup>3</sup>, of this 520m<sup>3</sup> of water was re-used; a decrease of 575m<sup>3</sup> when compared to 2012 when significant volumes of water were re-used in carrying out bund testing. Water re-use in 2013 therefore was greater, but more similar to levels in 2011 (445m<sup>3</sup> of treated effluent were re-used in 2011).

## 10 EFFICIENCY OF USE OF RAW MATERIALS/ REDUCTION IN WASTE GENERATED

The main raw material used on site is paint. Paint use overall decreased by 1,300L in 2013 when compared to 2012, while Acetone use increased by 25L.

**Table 10.1 Raw Material usage 2011-2013**

	2011	2012	2013
56% Solids Paint	2,200 L	Nil	5,500L
65% Solids Paint	6,100L	6,800L	Nil
Xylene	200L	240L	180L
Acetone	25L	25L	50L

## 11 DEVELOPMENT/INFRASTRUCTURAL WORKS

In 2013, 2 no. hardstanding concrete slabs located in the yard of the RILTA facility were replaced.

## 12 COMPLAINTS SUMMARY

There were two complaints received during 2013. Both complaints received related to odour. The source of the odour was likely related to the movement of processed 'filtercake' off-site. A mobile spray misting system has been brought in to alleviate this problem odour when moving this waste.

## 13 FINANCIAL PROVISION

Financial provision at the RILTA facility is currently under review.

### 13.1 MANAGEMENT AND STAFFING STRUCTURE

Details of the current management and staffing structure are contained in Appendix H, however this is currently under review.

### 13.2 PROGRAMME FOR PUBLIC INFORMATION

RILTA maintains a 'Public File' which contains all correspondence between RILTA and the Agency, all waste data and monitoring data as required by waste licence 0192-03. This file is available for viewing during normal office hours.

## 14 DECOMMISSIONING MANAGEMENT PLAN

The Decommissioning Management Plan at RILRA is currently under review.

### 14.1 PREVENTION OF ENVIRONMENTAL DAMAGE AND REMEDIAL ACTIONS (ENVIRONMENTAL LIABILITIES)

Environmental damage and Liabilities at the RILTA facility is currently under review.

### 14.2 ENVIRONMENTAL LIABILITIES RISK ASSESSMENT (ELRA)

Environmental Liabilities Risk Assessment at the RILTA facility is currently under review.



# APPENDIX A

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## Site Map

Monitoring Point Locations (to National Grid Reference)

**Groundwater Monitoring Points**  
 BH1 E301555, N 228440  
 BH2 E301600, N228550  
 BH3 E301630, N228555

**Underground Settlement Tank Monitoring Points**  
 GW1 E301630, N228515  
 GW2 E301650, N228540  
 GW3 E301625, N228540

**Surface Water/Invertebrate Monitoring Points**  
 SW1/KS1 E301670, N228562  
 SW2/KS2 E301565, N228555  
 SW3 (Proposed) E301480, N228560

**Dust Monitoring Points**  
 D1 E301630, N228450  
 D2 E301580, N228550  
 D3 E301670, N228555  
 D4 E301630, N228420

**Noise Monitoring Points**  
 N1 E301630, N228450  
 N2 E301580, N228550  
 N3 E301670, N228555  
 N4 E301630, N228420

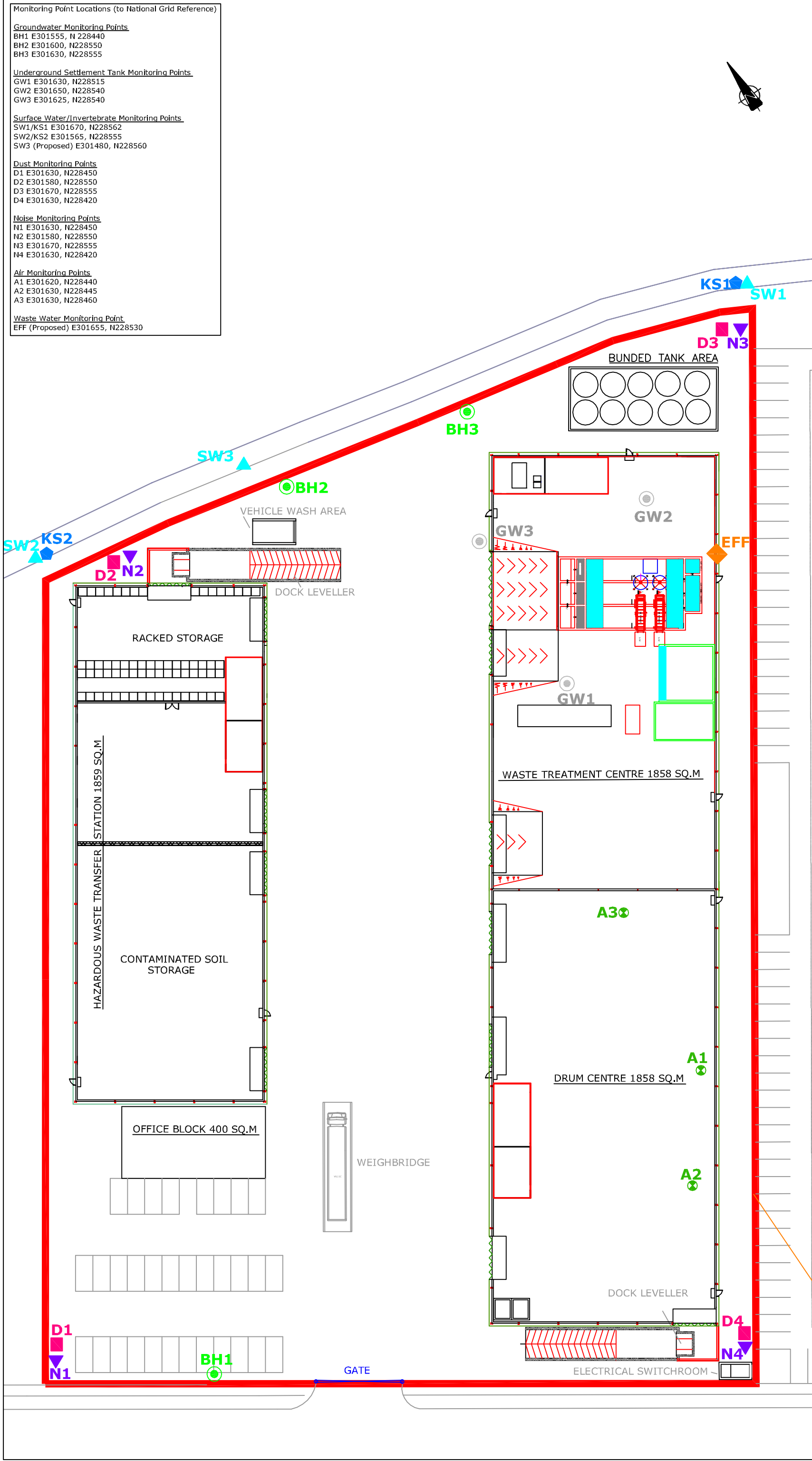
**Air Monitoring Points**  
 A1 E301620, N228440  
 A2 E301630, N228445  
 A3 E301630, N228460

**Waste Water Monitoring Point**  
 EFF (Proposed) E301655, N228530

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Legend:

- ▬▬▬▬▬▬ Licence Boundary
- ▲ Surface Water Monitoring Points
- ◆ Invertebrate Kick Sampling Monitoring Points
- Dust Monitoring Points
- ▼ Noise Monitoring Points
- ◆ Waste Water Monitoring Point
- Groundwater Monitoring Points
- Underground Settlement Tank Monitoring Points
- ⊗ Air Monitoring Points



- Notes:
1. Figured Dimensions only to be taken from this drawing
  2. All Drawings to be checked by the Contractor on site
  3. Engineer to be informed of any discrepancies before any work commences
  4. All levels relate to Ordnance Survey Datum at Mean Head

Client	date	Int
Drawing Title		
SITE LAYOUT PLAN		
Project		
INTEGRATED WASTE MANAGEMENT FACILITY, GREENOGUE, CO. DUBLIN		
Scale: 1/500	Checked by	Date
Drawn by	DAMIENGREHAN	January 2007
ENGINEER IN CHARGE: DAMIEN GREHAN		
<span style="font-size: small; vertical-align: middle;">         B-3-157          BLANCHARDSTOWN CORPORATE PARK,          DUBLIN 15,          IRELAND          TEL: 01 8036611          FAX: 01 8036410          email: info@tobin.ie       </span>		
Drawing No.		
1250/01/1002		
Rev.		

# APPENDIX B

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**Environmental Management Programme 2013 & 2014**

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**RILTA**  
Environmental  
Limited



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## ***ENVIRONMENTAL MANAGEMENT PLAN***

In accordance with  
***ISO 14001***

**ENVIRONMENTAL MANAGEMENT PROGRAMME FOR THE ACHIEVEMENT OF OBJECTIVES AND TARGETS**

<b><i>EMP Ref.</i></b>	<b><i>Objective</i></b>	<b><i>Target</i></b>	<b><i>Environmental Management Programme for the implementation of objectives.</i></b>	<b><i>Responsible Person</i></b>	<b><i>Completion Date</i></b>	<b><i>Completed (Y/N)</i></b>
1	Increase environmental awareness among RILTA staff.	Develop and issue quarterly e-mail environmental bulletin.	Confirm content IT to design email template Input information Distribute	CH ONE51 IT CH CH	June 13 June 13 August 13 August 13	
2	Promote best practice in the processing of waste generated on site.	Ensure all pallets are recovered	Maintain current pallet storage area to maximize capacity. Ensure broken pallets are not thrown in the skip Have clean and broken pallets collected once a month	CM CM CM	May 13 May 13 May 13	

<i>Issue No.</i>	009	<i>Compiled by: Name/Position</i>	Colm Hussey Facility & Environmental Manager
<i>Date:</i>	Jan 2013	<i>Reviewed by: Name/Position</i>	Eftim Ivanoff Operations Director

<b>EMP Ref.</b>	<b>Objective</b>	<b>Target</b>	<b>Environmental Management Programme for the implementation of objectives.</b>	<b>Responsible Person</b>	<b>Completion Date</b>	<b>Completed (Y/N)</b>
3	Improve site housekeeping.	Empty Drums loading Bay	1 person one Saturday per month to shred washed IBCs currently on loading bay.	AR	May 13	
		Remove all drums from back of drum division	1 person one Saturday per month to crush drums at back of drum division	AR	May 13	
4	Ensure only clean water released to the river	No ELV breaches	Implement thorough cleaning of attenuation tank and repeat on a 3 year basis	CH	June 13	
			Skim storm water interceptor on a monthly basis	CH	Ongoing	
			Replace damaged concrete on a rota basis to ensure no damaged areas by 2015	CH	Dec 14	

<i>Issue No.</i>	009	<i>Compiled by: Name/Position</i>	Colm Hussey Facility & Environmental Manager
<i>Date:</i>	Jan 2013	<i>Reviewed by: Name/Position</i>	Eftim Ivanoff Operations Director

<b>EMP Ref.</b>	<b>Objective</b>	<b>Target</b>	<b>Environmental Management Programme for the implementation of objectives.</b>	<b>Responsible Person</b>	<b>Completion Date</b>	<b>Completed (Y/N)</b>
5	Reduce use of hazardous raw materials used on site.	Implement the 'treat waste with waste' best practice method on an ongoing basis	Source suitable waste streams for treatment  Laboratory approval for the usage of wastes for treatment	RS  TMc	Ongoing  Ongoing	
6	Optimize the quality of effluent discharged to sewer	Have re-usable water on tap	Investigate possibility of final effluent polish system  Get approval from EPA	EI  CH	Sept 13  Dec 13	

<i>Issue No.</i>	009	<i>Compiled by: Name/Position</i>	Colm Hussey Facility & Environmental Manager
<i>Date:</i>	Jan 2013	<i>Reviewed by: Name/Position</i>	Eftim Ivanoff Operations Director

<b>EMP Ref.</b>	<b>Objective</b>	<b>Target</b>	<b>Environmental Management Programme for the implementation of objectives.</b>	<b>Responsible Person</b>	<b>Completion Date</b>	<b>Completed (Y/N)</b>
7	To be a good and considerate neighbour.	No complaints	<p>Complete noise monitoring.</p> <p>Monitor adjoining river on a quarterly basis.</p> <p>Implement 'closed door' policy system when unloading liquid waste tankers where possible</p> <p>Cold cutting at the cedar site to take place inside with doors close</p>	<p>CH</p> <p>CH</p> <p>CM/DG</p> <p>DG</p>	<p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p>	

<i>Issue No.</i>	009	<i>Compiled by: Name/Position</i>	Colm Hussey Facility & Environmental Manager
<i>Date:</i>	Jan 2013	<i>Reviewed by: Name/Position</i>	Eftim Ivanoff Operations Director



<b>EMP Ref.</b>	<b>Objective</b>	<b>Target</b>	<b>Environmental Management Programme for the implementation of objectives.</b>	<b>Responsible Person</b>	<b>Completion Date</b>	<b>Completed (Y/N)</b>
8	To Be Energy Efficient	Reduce Water and electricity usage	<p>Complete targeted energy audit at both 402 and 14A1 sites.</p> <p>Assess findings of audit.</p> <p>Implement findings of audit if economically and practically feasible.</p>	<p>CH</p> <p>CH/EI</p> <p>CH/EI</p>	<p>Aug 13</p> <p>July 13</p> <p>Dec 13</p>	

<i>Issue No.</i>	009	<i>Compiled by: Name/Position</i>	Colm Hussey Facility & Environmental Manager
<i>Date:</i>	Jan 2013	<i>Reviewed by: Name/Position</i>	Eftim Ivanoff Operations Director

**RILTA ENVIRONMENTAL Ltd.**

**ENVIRONMENTAL MANAGEMENT SYSTEM**



***ENVIRONMENTAL MANAGEMENT PLAN***

In accordance with  
***ISO 14001***

**ENVIRONMENTAL MANAGEMENT PROGRAMME FOR THE ACHIEVEMENT OF OBJECTIVES AND TARGETS**

<b>EMP Ref.</b>	<b>Objective</b>	<b>Target</b>	<b>Environmental Management Programme for the implementation of objectives.</b>	<b>Responsible Person</b>	<b>Completion Date</b>	<b>Completed (Y/N)</b>
1	Increase environmental awareness among RILTA staff.	Develop a sustainable monthly tool box talk to take into account all aspects of environmental risk on site.	Develop software to maintain record of tool box talks	CH	June 14	
			Develop topics and content	CH	Sept 14	
			Group suitable staff and begin talks	CH	Oct 14	
2	Optimize waste tracking from cradle to grave	Install suitable waste tracking system for all waste	Agree wish list.	CH/DM	Feb 14	
			Put list out to tender	CH/DM	Mar 14	
			Assess feedback	CH/DM	June 14	
			Chose vendor	CH/DM	Sept 14	
			Install system	CH/DM	Jan 15	
			Snag system	CH/DM	March 15	

<i>Issue No.</i>	010	<i>Compiled by: Name/Position</i>	Colm Hussey Facility & Environmental Manager
<i>Date:</i>	Mar 2014	<i>Reviewed by: Name/Position</i>	Eftim Ivanoff Operations Director

<b>EMP Ref.</b>	<b>Objective</b>	<b>Target</b>	<b>Environmental Management Programme for the implementation of objectives.</b>	<b>Responsible Person</b>	<b>Completion Date</b>	<b>Completed (Y/N)</b>
3	Ensure quality drainage system	Complete all improvement suggestions in CCTV report	Move trade effluent line to an over-ground position along by treatment building wall  Assess 3 no. pipe 'falls' and replace if possible	CH  CH	July 13  Dec 17	
4	Ensure only clean water released to the river	No ELV breaches	Implement thorough cleaning of attenuation tank and repeat on a 3 year basis  Skim storm water interceptor on a monthly basis  Replace damaged concrete on a rota basis to ensure no damaged areas by 2015	CH  CH  CH	June 13  Ongoing  Dec 14	

<i>Issue No.</i>	010	<i>Compiled by: Name/Position</i>	Colm Hussey Facility & Environmental Manager
<i>Date:</i>	Mar 2014	<i>Reviewed by: Name/Position</i>	Eftim Ivanoff Operations Director

<b>EMP Ref.</b>	<b>Objective</b>	<b>Target</b>	<b>Environmental Management Programme for the implementation of objectives.</b>	<b>Responsible Person</b>	<b>Completion Date</b>	<b>Completed (Y/N)</b>
5	Reduce use of hazardous raw materials used on site.	Implement the 'treat waste with waste' best practice method on an ongoing basis	Source suitable waste streams for treatment  Laboratory approval for the usage of wastes for treatment	RS  TMc	Ongoing  Ongoing	
6	Optimize the quality of effluent discharged to sewer	Have re-usable water on tap	Investigate possibility of final effluent polish system  Get approval from EPA	EI  CH	Jan 15  June 15	

<i>Issue No.</i>	010	<i>Compiled by: Name/Position</i>	Colm Hussey Facility & Environmental Manager
<i>Date:</i>	Mar 2014	<i>Reviewed by: Name/Position</i>	Eftim Ivanoff Operations Director

<i>EMP Ref.</i>	<i>Objective</i>	<i>Target</i>	<i>Environmental Management Programme for the implementation of objectives.</i>	<i>Responsible Person</i>	<i>Completion Date</i>	<i>Completed (Y/N)</i>
7	To be a good and considerate neighbour.	No complaints	<p>Complete noise monitoring.</p> <p>Monitor adjoining river on a quarterly basis.</p> <p>Implement 'closed door' policy system when unloading liquid waste tankers where possible</p> <p>Cold cutting at the cedar site to take place inside with doors close</p> <p>Inform neighbours when bulk soil/sludge are being moved off site</p>	<p>CH</p> <p>CH</p> <p>CM/DG</p> <p>DG</p> <p>CH</p>	<p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p>	

<i>Issue No.</i>	010	<i>Compiled by: Name/Position</i>	Colm Hussey Facility & Environmental Manager
<i>Date:</i>	Mar 2014	<i>Reviewed by: Name/Position</i>	Eftim Ivanoff Operations Director

<i>EMP Ref.</i>	<i>Objective</i>	<i>Target</i>	<i>Environmental Management Programme for the implementation of objectives.</i>	<i>Responsible Person</i>	<i>Completion Date</i>	<i>Completed (Y/N)</i>
8	To Be Energy Efficient	Reduce Water and electricity usage	<p>Complete targeted energy audit at both 402 and 14A1 sites.</p> <p>Assess findings of audit.</p> <p>Implement findings of audit if economically and practically feasible.</p>	<p>CH</p> <p>CH/EI</p> <p>CH/EI</p>	<p>Aug 14</p> <p>July 14</p> <p>Dec 14</p>	

<i>Issue No.</i>	010	<i>Compiled by: Name/Position</i>	Colm Hussey Facility & Environmental Manager
<i>Date:</i>	Mar 2014	<i>Reviewed by: Name/Position</i>	Eftim Ivanoff Operations Director

# APPENDIX C

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## Dust Analysis Laboratory Results



A copy of this certificate is available on [www.fitzsci.ie](http://www.fitzsci.ie)

<b>Customer</b>	Jessica Quinn Tobin Consulting Engineers TES Block 10-4 Blanchardstown Corp PK Dublin 15 Dublin	<b>Lab Report Ref. No.</b>	1102/020/02
<b>Customer PO</b>		<b>Date of Receipt</b>	22/02/2013
<b>Customer Ref</b>	D1 23/01/13 - 21/02/13	<b>Sampled On</b>	21/02/2013
<b>Ref 2</b>	Rilta Greenogue (Block 402) Ref: 3084	<b>Date Testing Commenced</b>	22/02/2013
		<b>Received or Collected</b>	Courier: DPD
		<b>Condition on Receipt</b>	Acceptable
		<b>Date of Report</b>	04/03/2013
		<b>Sample Type</b>	Other

## **CERTIFICATE OF ANALYSIS**

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Dust	144	Gravimetry	0.0130	g	
Dust (mg/m2/day)	144	Gravimetry	68.15	mg/m2/day	

**Signed :**   
**Aoife Harmon - Technical Supervisor**

**Date : 04/03/2013**

Acc. : Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

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<b>Customer</b>	Jessica Quinn Tobin Consulting Engineers TES Block 10-4 Blanchardstown Corp PK Dublin 15 Dublin	<b>Lab Report Ref. No.</b>	1102/020/03
<b>Customer PO</b>		<b>Date of Receipt</b>	22/02/2013
<b>Customer Ref</b>	D2 23/01/13 - 21/02/13	<b>Sampled On</b>	21/02/2013
<b>Ref 2</b>	Rilta Greenogue (Block 402) Ref: 3084	<b>Date Testing Commenced</b>	22/02/2013
		<b>Received or Collected</b>	Courier: DPD
		<b>Condition on Receipt</b>	Acceptable
		<b>Date of Report</b>	04/03/2013
		<b>Sample Type</b>	Other

## **CERTIFICATE OF ANALYSIS**

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Dust	144	Gravimetry	0.0149	g	
Dust (mg/m2/day)	144	Gravimetry	78.11	mg/m2/day	

**Signed :**   
**Aoife Harmon - Technical Supervisor**

**Date : 04/03/2013**

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PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

All organic results are analysed as received and all results are corrected for dry weight at 104 C

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<b>Customer</b>	Jessica Quinn Tobin Consulting Engineers TES Block 10-4 Blanchardstown Corp PK Dublin 15 Dublin	<b>Lab Report Ref. No.</b>	1102/020/04
<b>Customer PO</b>		<b>Date of Receipt</b>	22/02/2013
<b>Customer Ref</b>	D3 23/01/13 - 21/02/13	<b>Sampled On</b>	21/02/2013
<b>Ref 2</b>	Rilta Greenogue (Block 402) Ref: 3084	<b>Date Testing Commenced</b>	22/02/2013
		<b>Received or Collected</b>	Courier: DPD
		<b>Condition on Receipt</b>	Acceptable
		<b>Date of Report</b>	04/03/2013
		<b>Sample Type</b>	Other

## **CERTIFICATE OF ANALYSIS**

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Dust	144	Gravimetry	0.1337	g	
Dust (mg/m2/day)	144	Gravimetry	700.9	mg/m2/day	

**Signed :**   
**Aoife Harmon - Technical Supervisor**

**Date : 04/03/2013**

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<b>Customer</b>	Jessica Quinn Tobin Consulting Engineers TES Block 10-4 Blanchardstown Corp PK Dublin 15 Dublin	<b>Lab Report Ref. No.</b>	1102/020/05
<b>Customer PO</b>		<b>Date of Receipt</b>	22/02/2013
<b>Customer Ref</b>	D4 23/01/13 - 21/02/13	<b>Sampled On</b>	21/02/2013
<b>Ref 2</b>	Rilta Greenogue (Block 402) Ref: 3084	<b>Date Testing Commenced</b>	22/02/2013
		<b>Received or Collected</b>	Courier: DPD
		<b>Condition on Receipt</b>	Acceptable
		<b>Date of Report</b>	04/03/2013
		<b>Sample Type</b>	Other

## **CERTIFICATE OF ANALYSIS**

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Dust	144	Gravimetry	0.0198	g	
Dust (mg/m2/day)	144	Gravimetry	103.8	mg/m2/day	

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**Date : 04/03/2013**

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<b>Customer</b>	Jessica Quinn Tobin Consulting Engineers TES Block 10-4 Blanchardstown Corp PK Dublin 15 Dublin	<b>Lab Report Ref. No.</b>	1102/025/06
<b>Customer PO</b>		<b>Date of Receipt</b>	24/05/2013
<b>Customer Ref</b>	D1 25/04/13 - 23/05/13	<b>Sampled On</b>	23/05/2013
<b>Ref 2</b>	Rilta Greenogue Block 402 Ref. 3084	<b>Date Testing Commenced</b>	24/05/2013
		<b>Received or Collected</b>	Courier: DPD
		<b>Condition on Receipt</b>	Acceptable
		<b>Date of Report</b>	31/05/2013
		<b>Sample Type</b>	Other

## **CERTIFICATE OF ANALYSIS**

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Dust	144	Gravimetry	0.0488	g	
Dust (mg/m <sup>2</sup> /day)	144	Gravimetry	255.83	mg/m <sup>2</sup> /day	
Inorganic Dust	0	Calculation	0.0308	g	
Organic Dust	311	Ashing @ 500°C	0.018	g	

**Signed :**   
**Aoife Harmon - Technical Supervisor**

**Date : 31/05/2013**

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PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

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<b>Customer</b>	Jessica Quinn Tobin Consulting Engineers TES Block 10-4 Blanchardstown Corp PK Dublin 15 Dublin	<b>Lab Report Ref. No.</b>	1102/025/07
<b>Customer PO</b>		<b>Date of Receipt</b>	24/05/2013
<b>Customer Ref</b>	D2 25/04/13 - 23/05/13	<b>Sampled On</b>	23/05/2013
<b>Ref 2</b>	Rilta Greenogue Block 402 Ref. 3084	<b>Date Testing Commenced</b>	24/05/2013
		<b>Received or Collected</b>	Courier: DPD
		<b>Condition on Receipt</b>	Acceptable
		<b>Date of Report</b>	31/05/2013
		<b>Sample Type</b>	Other

## **CERTIFICATE OF ANALYSIS**

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Dust	144	Gravimetry	0.0280	g	
Dust (mg/m2/day)	144	Gravimetry	146.79	mg/m2/day	
Inorganic Dust	0	Calculation	0.0162	g	
Organic Dust	311	Ashing @ 500°C	0.0118	g	

**Signed :**   
**Aoife Harmon - Technical Supervisor**

**Date : 31/05/2013**

Acc. : Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

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<b>Customer</b>	Jessica Quinn Tobin Consulting Engineers TES Block 10-4 Blanchardstown Corp PK Dublin 15 Dublin	<b>Lab Report Ref. No.</b>	1102/025/08
<b>Customer PO</b>		<b>Date of Receipt</b>	24/05/2013
<b>Customer Ref</b>	D3 25/04/13 - 23/05/13	<b>Sampled On</b>	23/05/2013
<b>Ref 2</b>	Rilta Greenogue Block 402 Ref. 3084	<b>Date Testing Commenced</b>	24/05/2013
		<b>Received or Collected</b>	Courier: DPD
		<b>Condition on Receipt</b>	Acceptable
		<b>Date of Report</b>	31/05/2013
		<b>Sample Type</b>	Other

## **CERTIFICATE OF ANALYSIS**

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Dust	144	Gravimetry	0.0744	g	
Dust (mg/m <sup>2</sup> /day)	144	Gravimetry	390.03	mg/m <sup>2</sup> /day	
Inorganic Dust	0	Calculation	0.0387	g	
Organic Dust	311	Ashing @ 500°C	0.0357	g	

**Signed :**   
**Aoife Harmon - Technical Supervisor**

**Date : 31/05/2013**

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PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

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<b>Customer</b>	Jessica Quinn Tobin Consulting Engineers TES Block 10-4 Blanchardstown Corp PK Dublin 15 Dublin	<b>Lab Report Ref. No.</b>	1102/025/09
<b>Customer PO</b>		<b>Date of Receipt</b>	24/05/2013
<b>Customer Ref</b>	D4 25/04/13 - 23/05/13	<b>Sampled On</b>	23/05/2013
<b>Ref 2</b>	Rilta Greenogue Block 402 Ref. 3084	<b>Date Testing Commenced</b>	24/05/2013
		<b>Received or Collected</b>	Courier: DPD
		<b>Condition on Receipt</b>	Acceptable
		<b>Date of Report</b>	31/05/2013
		<b>Sample Type</b>	Other

## **CERTIFICATE OF ANALYSIS**

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Dust	144	Gravimetry	0.0299	g	
Dust (mg/m <sup>2</sup> /day)	144	Gravimetry	156.75	mg/m <sup>2</sup> /day	
Inorganic Dust	0	Calculation	0.0159	g	
Organic Dust	311	Ashing @ 500°C	0.014	g	

**Signed :**   
**Aoife Harmon - Technical Supervisor**

**Date : 31/05/2013**

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<b>Customer</b>	Jessica Quinn Tobin Consulting Engineers TES Block 10-4 Blanchardstown Corp PK Dublin 15 Dublin	<b>Lab Report Ref. No.</b>	1102/028/07
<b>Customer PO</b>		<b>Date of Receipt</b>	09/08/2013
<b>Customer Ref</b>	D1 - 08/08/13	<b>Sampled On</b>	08/08/2013
<b>Ref 2</b>	Rilta Cedar Site 14 -A1 Ref. 5965	<b>Date Testing Commenced</b>	09/08/2013
		<b>Received or Collected</b>	Courier: DPD
		<b>Condition on Receipt</b>	Acceptable
		<b>Date of Report</b>	26/08/2013
		<b>Sample Type</b>	Other

## **CERTIFICATE OF ANALYSIS**

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Dust	144	Gravimetry	0.0177	g	
Dust (mg/m <sup>2</sup> /day)	144	Gravimetry	92.79	mg/m <sup>2</sup> /day	
Inorganic Dust	0	Calculation	0.0115	g	
Organic Dust	311	Ashing @ 500°C	0.0062	g	

**Signed :**   
**Aoife Harmon - Technical Supervisor**

**Date : 26/08/2013**

Acc. : Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

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<b>Customer</b>	Jessica Quinn Tobin Consulting Engineers TES Block 10-4 Blanchardstown Corp PK Dublin 15 Dublin	<b>Lab Report Ref. No.</b>	1102/028/08
<b>Customer PO</b>		<b>Date of Receipt</b>	09/08/2013
<b>Customer Ref</b>	D2 - 08/08/13	<b>Sampled On</b>	08/08/2013
<b>Ref 2</b>	Rilta Cedar Site 14 -A1 Ref. 5965	<b>Date Testing Commenced</b>	09/08/2013
		<b>Received or Collected</b>	Courier: DPD
		<b>Condition on Receipt</b>	Acceptable
		<b>Date of Report</b>	26/08/2013
		<b>Sample Type</b>	Other

## **CERTIFICATE OF ANALYSIS**

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Dust	144	Gravimetry	0.0207	g	
Dust (mg/m2/day)	144	Gravimetry	108.52	mg/m2/day	
Inorganic Dust	0	Calculation	0.0117	g	
Organic Dust	311	Ashing @ 500°C	0.009	g	

**Signed :**   
**Aoife Harmon - Technical Supervisor**

**Date : 26/08/2013**

Acc. : Accredited Parameters by ISO 17025:2005

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<b>Customer</b>	Jessica Quinn Tobin Consulting Engineers TES Block 10-4 Blanchardstown Corp PK Dublin 15 Dublin	<b>Lab Report Ref. No.</b>	1102/028/09
<b>Customer PO</b>		<b>Date of Receipt</b>	09/08/2013
<b>Customer Ref</b>	D3 - 08/08/13	<b>Sampled On</b>	08/08/2013
<b>Ref 2</b>	Rilta Cedar Site 14 -A1 Ref. 5965	<b>Date Testing Commenced</b>	09/08/2013
		<b>Received or Collected</b>	Courier: DPD
		<b>Condition on Receipt</b>	Acceptable
		<b>Date of Report</b>	26/08/2013
		<b>Sample Type</b>	Other

## **CERTIFICATE OF ANALYSIS**

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Dust	144	Gravimetry	0.3753	g	
Dust (mg/m2/day)	144	Gravimetry	1967.45	mg/m2/day	
Inorganic Dust	0	Calculation	0.0927	g	
Organic Dust	311	Ashing @ 500°C	0.2826	g	

**Signed :**   
**Aoife Harmon - Technical Supervisor**

**Date : 26/08/2013**

Acc. : Accredited Parameters by ISO 17025:2005

PVL - Parametric Value Limit as per EU Drinking water Regulations (SI 278 2007)

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<b>Customer</b>	Jessica Quinn Tobin Consulting Engineers TES Block 10-4 Blanchardstown Corp PK Dublin 15 Dublin	<b>Lab Report Ref. No.</b>	1102/028/10
<b>Customer PO</b>		<b>Date of Receipt</b>	09/08/2013
<b>Customer Ref</b>	D4 - 08/08/13	<b>Sampled On</b>	08/08/2013
<b>Ref 2</b>	Rilta Cedar Site 14 -A1 Ref. 5965	<b>Date Testing Commenced</b>	09/08/2013
		<b>Received or Collected</b>	Courier: DPD
		<b>Condition on Receipt</b>	Acceptable
		<b>Date of Report</b>	26/08/2013
		<b>Sample Type</b>	Other

## **CERTIFICATE OF ANALYSIS**

Test Parameter	SOP	Analytical Technique	Result	Units	Acc.
Dust	144	Gravimetry	0.0253	g	
Dust (mg/m2/day)	144	Gravimetry	132.63	mg/m2/day	
Inorganic Dust	0	Calculation	0.015	g	
Organic Dust	311	Ashing @ 500°C	0.0103	g	

**Signed :**   
**Aoife Harmon - Technical Supervisor**

**Date : 26/08/2013**

Acc. : Accredited Parameters by ISO 17025:2005

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# APPENDIX D

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## Annual Noise Monitoring Report

**RILTA ENVIRONMENTAL LTD.**

**Annual Noise Survey 2013**

**RILTA**  
*Environmental*  
*Limited*



November 2013

**TOBIN CONSULTING ENGINEERS**



# REPORT

**PROJECT:**

**Rilta Environmental Ltd.  
Greenogue Monitoring.**

**CLIENT:**

**RILTA Environmental Ltd.**  
Greenogue Business Park,  
Rathcoole,  
D24

**COMPANY:**

**TOBIN Consulting Engineers**  
Block 10-4,  
Blanchardstown Corporate Park,  
Dublin 15

[www.tobin.ie](http://www.tobin.ie)

**DOCUMENT AMENDMENT RECORD**

<b>Client:</b>	<b>Rilta Environmental Ltd</b>
<b>Project:</b>	<b>Greenogue Monitoring</b>
<b>Title:</b>	<b>November 2013 Noise Monitoring</b>

PROJECT NUMBER: 3084				DOCUMENT REF: 3084 – 01			
A	Noise Report	JQ	07/01/13				
<b>Revision</b>	<b>Description &amp; Rationale</b>	<b>Originated</b>	<b>Date</b>	<b>Checked</b>	<b>Date</b>	<b>Authorised</b>	<b>Date</b>
<b>TOBIN Consulting Engineers</b>							



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## 1 INTRODUCTION

This report deals with the noise monitoring requirement conditions of RILTA Environmental Ltd. (RILTA) hazardous waste facility at Greenogue Business Park, Rathcoole, Co. Dublin, Waste Licence No. 192-03.

## 2 NOISE MONITORING SURVEY

TOBIN Consulting Engineers (TOBIN) was commissioned by RILTA to carry out an annual day and night time noise survey at their facility in Greenogue Business Park. The noise survey was carried out within the site boundary of the waste facility at four no. locations agreed with the EPA (see Appendix A). Weather conditions during monitoring event were dry and calm with an occasional slight breeze. The following conditions were adhered to in undertaking the survey:

- Measurement of noise levels was undertaken using Type 1 instrumentation;
- Cognisance was taken of the EPA's 'Guidance Note for Noise: Licence Applications, Surveys and Assessments in relation to Scheduled Activities (NG4); and
- The survey was carried out in accordance with ISO 1996 Acoustics - Description and Measurement of Environmental Noise: Parts 1/2/3.

### 2.1 INSTRUMENTATION USED

The following instrumentation was used in the environmental noise monitoring survey:

- One Larson Davis 824 Precision Integrating Sound Level Analyser/Data logger with *Real-Time* Frequency Analyser Facility;
- Wind Shield Type: Larson Davis 2120 Windscreen; and
- Calibration Type: Larson Davis Precision Acoustic Calibrator Model CA200.

### 2.2 MEASUREMENT PROCEDURE

Daytime and night time noise monitoring was carried out on 27<sup>th</sup> of November 2013 by TOBIN personnel. Noise monitoring was undertaken for 30 minute intervals at four agreed EPA locations. All the environmental noise analysers had data logging facilities were set on real-time, the logged data was later downloaded via a personal computer using software. One third octave frequency analysis was taken at the locations using the 824 Precision Integrating Sound Level Analyser/Data logger with real-time frequency analyser facility.

The measurement locations were all away from reflecting surfaces and at 1.5m height above local ground.

All acoustic instrumentation was calibrated before and after the survey period and no drift of calibration was observed (calibration level 114dB at 1000Hz).

## 2.3 RESULTS OF NOISE SURVEY

The noise monitoring locations are summarised in Table 2. 1 below and shown in Appendix A. The results of the noise survey are given in Table 2.2. The 1/3 octave frequency analysis data is given in graphical format in Appendix B.

Table 2.1 Noise Monitoring Locations

Monitoring Location	Description
N1	South western boundary of site
N2	North western boundary of site
N3	North eastern boundary of site
N4	South eastern boundary of site

### Location N1

Noise monitoring location N1 is located at the south-western boundary of the site, adjacent to the site car park and to the access road to RILTA within Greenogue Business Park. Noise at this location during daytime monitoring was dominated by internal industrial estate traffic passing the site. Distant traffic and vehicle movements at adjacent premises were also audible. Site activity was occasionally audible at this location during daytime monitoring.

Noise at this location during night time monitoring was dominated by passing traffic. A dog occasionally barking was also audible. A low hum was audible from the site at this location during night time monitoring.

### Location N2

N2 is located in the north-western corner of the site. Hammering and heavy machinery movement at the adjacent premises were the dominant sources of noise during daytime monitoring. Passing traffic on the nearby internal industrial estate road was also audible. The site was not audible at N2 during the daytime survey.

Night time noise sources included noise from a neighbouring facility, the flowing stream and passing traffic on the nearby internal industrial estate road. A low hum was audible from the site at N2 during night time monitoring.

### Location N3

N3 is located at the north-eastern site boundary, adjacent to the tank farm. At this location, a power washer in operation at an adjacent facility was the dominant noise source. Passing aircraft and bird song also contributed to daytime noise levels at N3. Onsite activity was audible at low levels.

Night time noise at this location was dominated by aircraft and a helicopter passing overhead. Distant traffic also contributed to recorded noise levels. A low hum was audible at this location during night time monitoring.

### Location N4

Noise monitoring location N4 is located in the south-eastern corner of the site adjacent to the access road to RILTA within Greenogue Business Park. Onsite activity (barrels being moved and radio on) and passing road traffic were the dominant noise sources during daytime monitoring at N4. Passing aircraft and activity at surrounding premises also contributed to noise levels.

Noise at location N4 during night time monitoring was dominated by passing traffic as well as a truck at a neighbouring facility. The site was not audible at this location during night time monitoring.

Table 2.2 Noise Monitoring Results – dB(A) and 30 minute intervals

Daytime Results				
Receptor	Time	Leq	L10	L90
<b>N1</b>	11:50	46.7	49.82	38.36
<b>N2</b>	12:27	43.3	45.51	40.78
<b>N3</b>	11:09	47.4	51.36	42.62
<b>N4</b>	10:26	<b>57.8</b>	60.06	54.85
Night Time Results				
Receptor	Time	Leq	L10	L90
<b>N1</b>	23:00	39.3	40.75	31.16
<b>N2</b>	23:35	35.9	36.67	34.18
<b>N3</b>	00:10	33.3	36.86	31.14
<b>N4</b>	00:50	43.6	40.41	31.22

## 3 CONCLUSION

The noise emission limits given in Waste Licence 192-03 are 55 dB(A) for daytime and 45 dB(A) for night time. These levels specifically relate to noise emissions arising from the facility, measured at any noise sensitive location.

The daytime and night time noise emissions from RILTA Environmental Ltd are summarised in Table 2.2 above.

Noise levels recorded at the four EPA agreed noise monitoring locations contain noise emissions from adjacent industrial sites, low flying aircraft and traffic on the internal road network of the industrial

estate. During daytime monitoring, noise emissions from the RILTA facility was highly audible at monitoring location N4 and a low hum was audible coming from the site at N1 and N3. The site was not audible at N2.

The A-weighted equivalent continuous sound pressure level (LAeq, 30 min) recorded at the RILTA facility was above 55 dB(A) at noise monitoring location N4 (57.8dB(A)) during daytime monitoring. It is likely that the Leq value of 57.8 recorded at N4 is attributable to the facility as activities within the nearby warehouse were highly audible at this location (radio, barrels processing).

A tone was also observed at location N4 at 400Hz during the daytime survey, a 5dB(A) penalty has therefore been applied to this location bringing the Leq to 62.8dB(A).

Tones were also observed at N2 and N3 during the daytime survey. These tones were most likely attributed to activities at neighbouring facilities. The Rilta facility was not audible at N2 and was only audible at very low levels at N3. Heavy machinery was working offsite within the vicinity during the survey (jack hammer) as well as a power washer running, no penalty has therefore been applied.

During the night time monitoring period, a low hum was audible from the site at all locations during the night time noise survey with the exception of location N4. During the night time monitoring period the A-weighted equivalent continuous sound pressure level (LAeq, 30 min) of 45 dB(A) (night time) was not exceeded at any location.

During the night time survey the Rilta facility was audible at very low background levels (hum) at N1 and N3 only and was not audible at N2 or N4. Numerous tones were observed at N3 however during the survey a helicopter and two aeroplanes were audible overhead. It is likely that the tones observed at N3 were as a result of these overhead aircraft as the 'hum' from the facility was also audible at N1, where no tones were recorded. No penalty has therefore been applied. At N4, two tones were recorded at 25Hz and 31.5Hz, it is likely that passing traffic attributed to these tones as trucks and cars passed the facility during the survey and the facility was at no time audible from this location.

There were no impulsive noise emissions audible at any of the monitoring locations during the daytime or night time monitoring period.

Note that the EPA agreed noise monitoring locations are all on site and do not reflect emissions at noise sensitive locations.

Full 1/3 octave frequency band analysis of both day and night time surveys is presented in Appendix B.

# APPENDIX A

---

## Noise Monitoring Locations

**Groundwater Monitoring Points**

BH1 E301566, N 228562  
 BH2 E301607, N228557  
 BH3 E301599, N228557

**Underground Settlement Tank Monitoring Points**

GW1 E301664, N228566  
 GW2 E301650, N228540  
 GW3 E301625, N228540

**Surface Water/Invertebrate Monitoring Points**

SW1/KS1 E301664, N228566  
 SW2/KS2 E301567, N228562  
 SW3 E301603, N228563

**Dust Monitoring Points**

D1 E301536, N228449  
 D2 E301567, N228562  
 D3 E301664, N228566  
 D4 E301639, N228427

**Noise Monitoring Points**

1 E301536, N228449  
 2 E301567, N228562  
 3 E301664, N228566  
 4 E301639, N228427

**Air Monitoring Points**

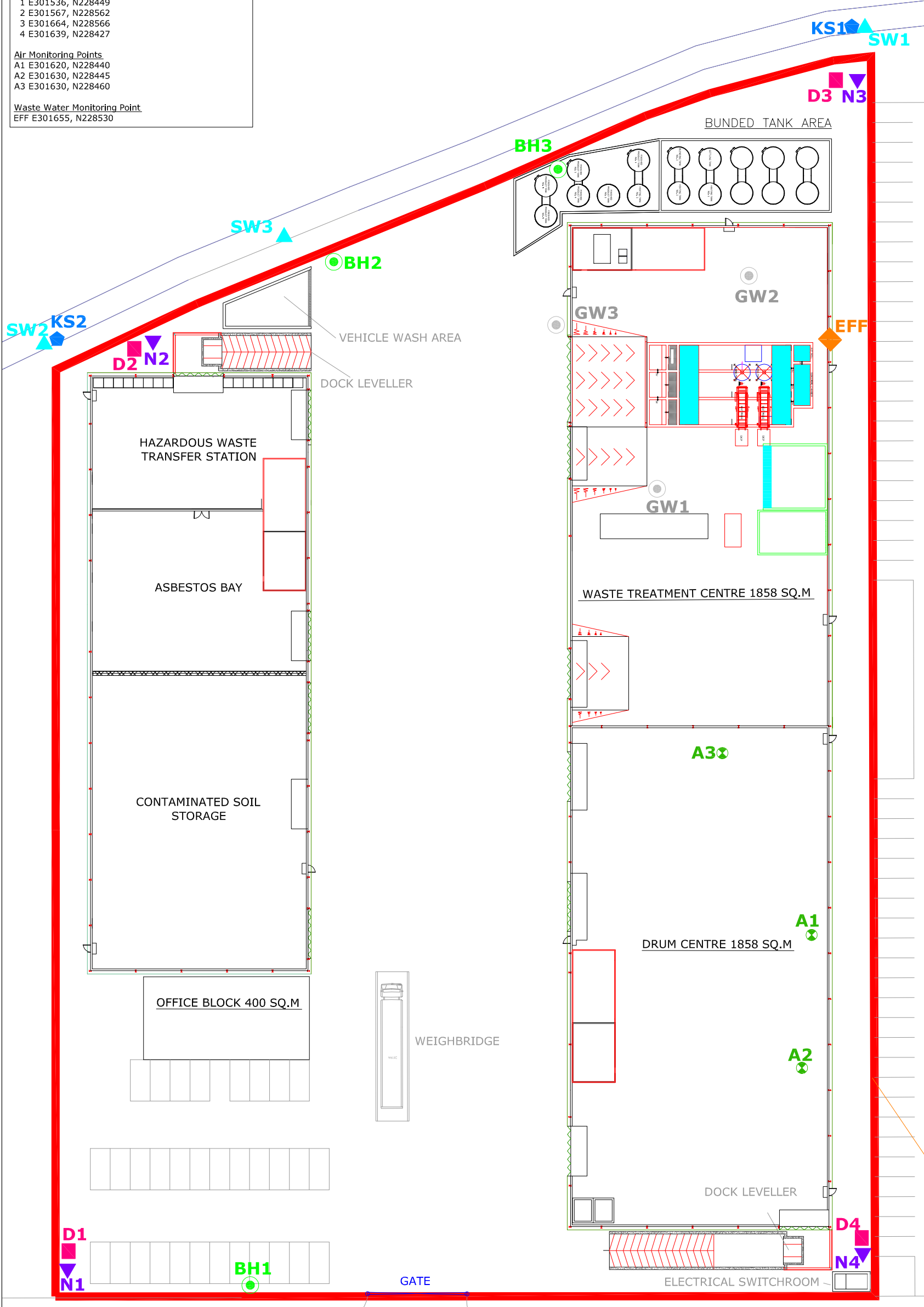
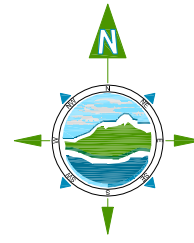
A1 E301620, N228440  
 A2 E301630, N228445  
 A3 E301630, N228460

**Waste Water Monitoring Point**

EFF E301655, N228530

**GENERAL LEGEND**

- ▬▬▬▬▬▬ LICENCE BOUNDARY
- ▲ SURFACE WATER MONITORING POINTS
- ◆ INVERTEBRATE KICK SAMPLING MONITORING POINTS
- DUST MONITORING POINTS
- ▼ NOISE MONITORING POINTS
- ◆ WASTE WATER MONITORING POINT
- GROUNDWATER MONITORING POINTS
- UNDERGROUND SETTLEMENT TANK MONITORING POINTS
- ⊗ AIR MONITORING POINTS



**NOTES**

1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING
2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE
3. ENGINEER TO BE INFORMED BY THE CONTRACTOR OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES
4. ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD

Rev	Date	Description	By	Chkd.
A	27.09.11	ISSUED FOR REVIEW	MN	ST

Client:

Project: **INTEGRATED WASTE MANAGEMENT FACILITY GREENOGUE, CO. DUBLIN**

Title: **ENVIRONMENTAL MONITORING POINTS**

Scale @ A1: 1:250

Prepared by:	Checked:	Date:
M. Nolan	S. Tinnelly	September 2011
Project Director: D. Grehan		

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Drawing No: **4709-1107**      Revision: **A**

# APPENDIX B

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## **1/3 Octave Frequency Analysis Day & Night Noise Surveys**



Figure 1 N1 Daytime Frequency Analysis

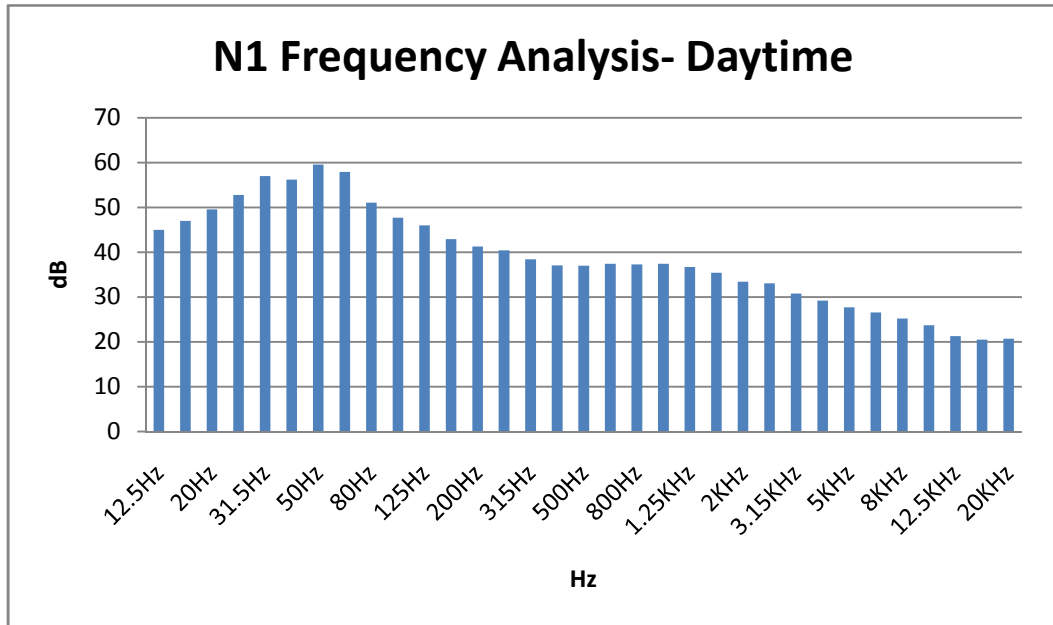


Figure 2 N1 Night Time Frequency Analysis

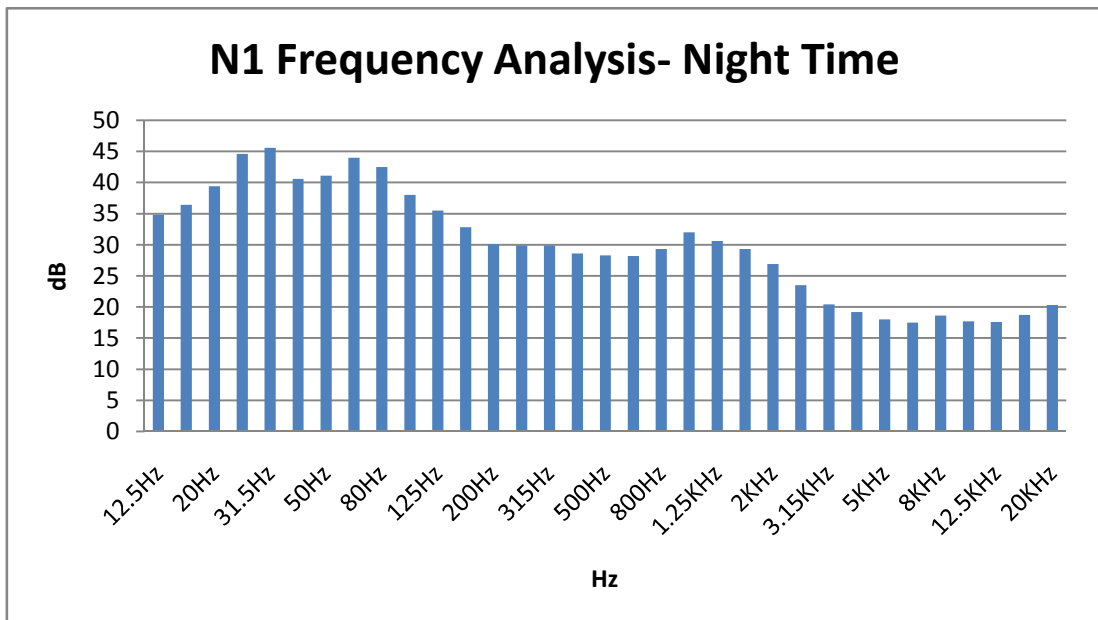


Figure 3 N2 Daytime Frequency Analysis

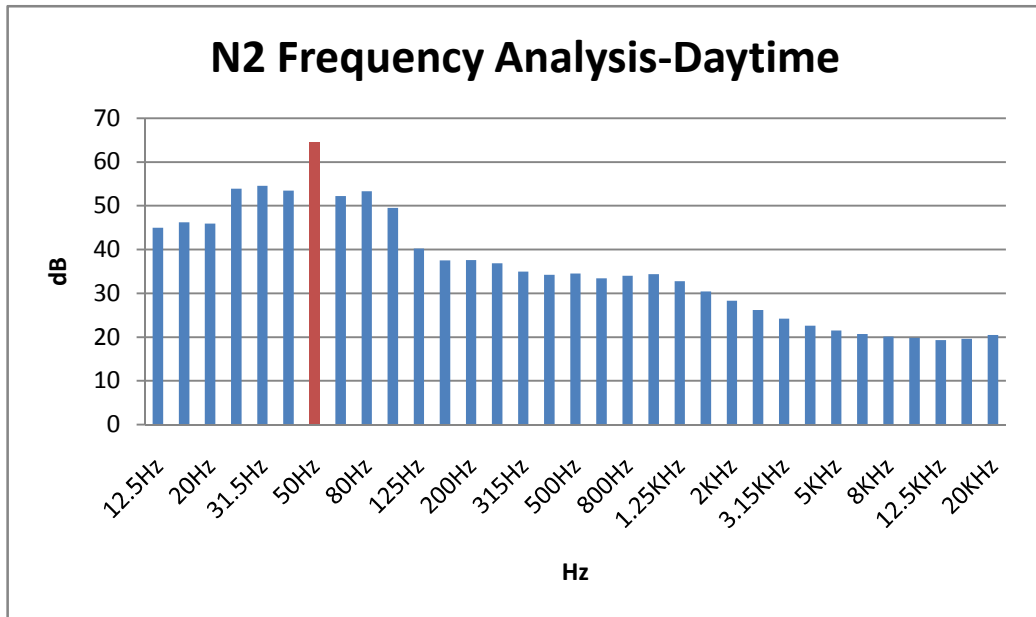


Figure 4 N2 Night Time Frequency Analysis

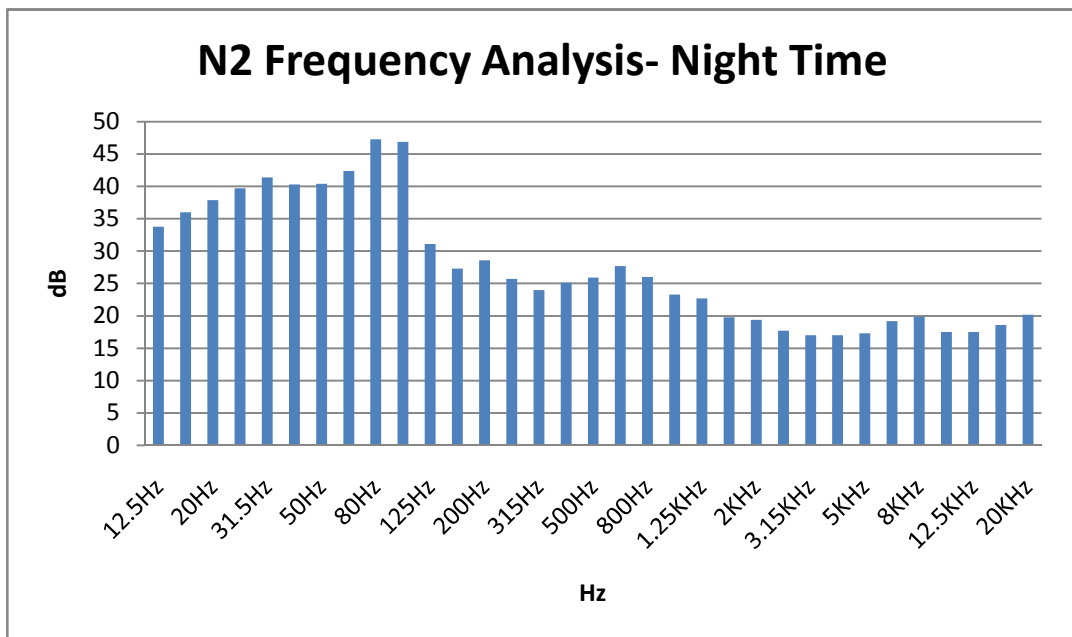


Figure 5 N3 Daytime Frequency Analysis

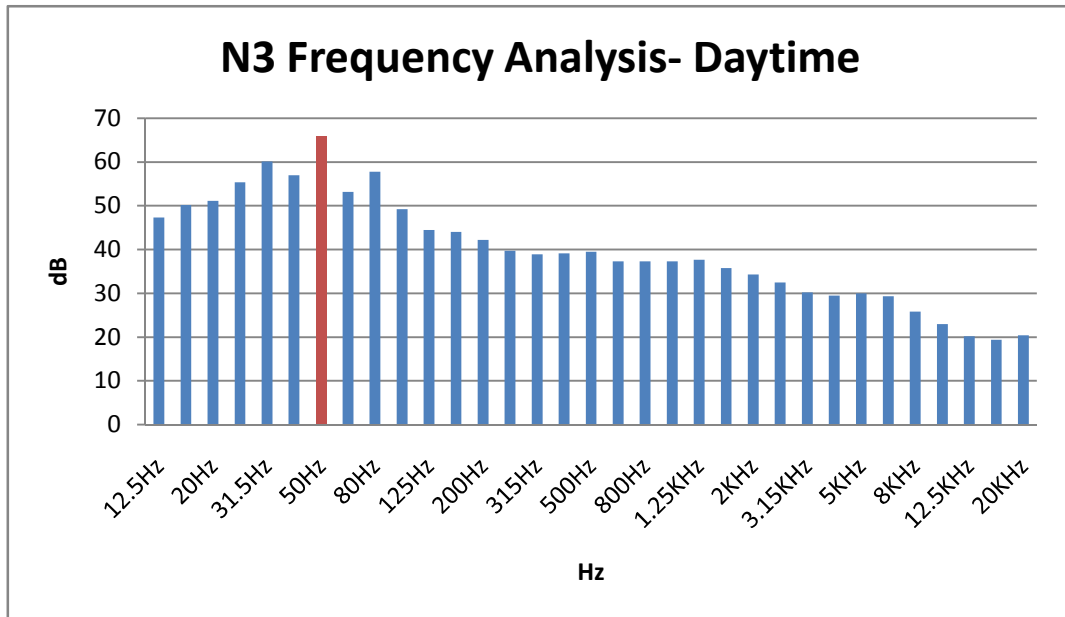


Figure 6 N3 Night Time Frequency Analysis

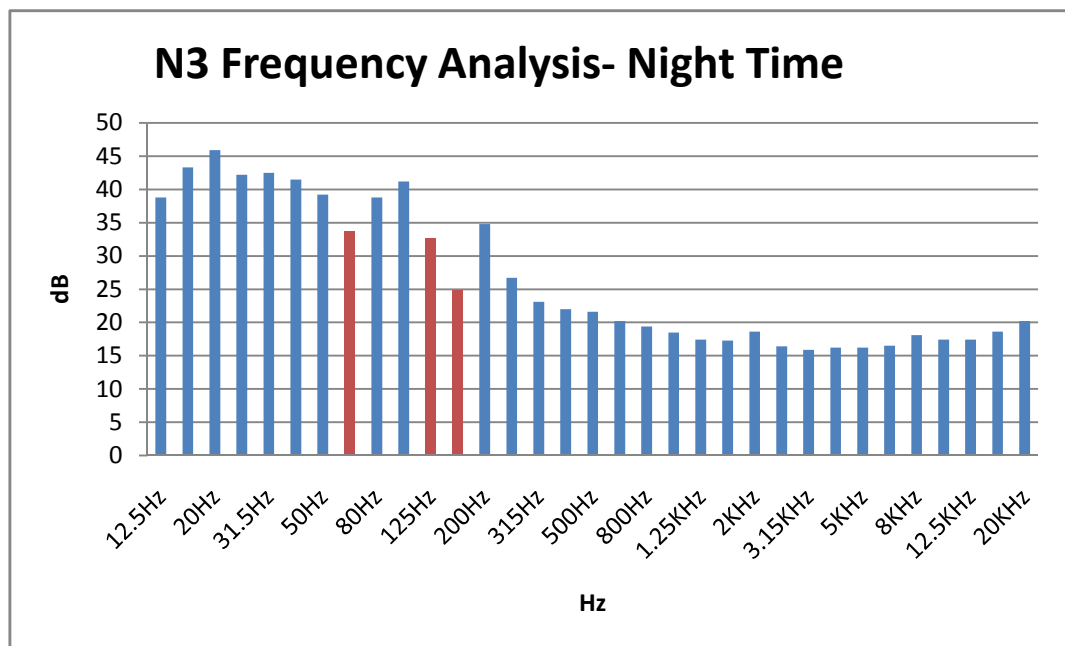


Figure 7 N4 Daytime Frequency Analysis

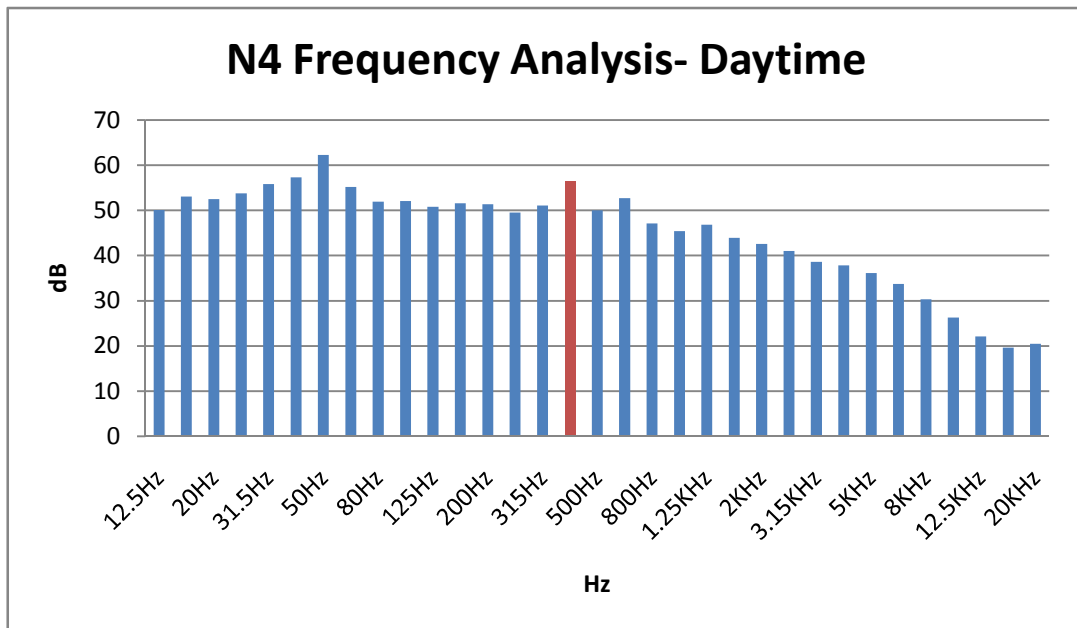
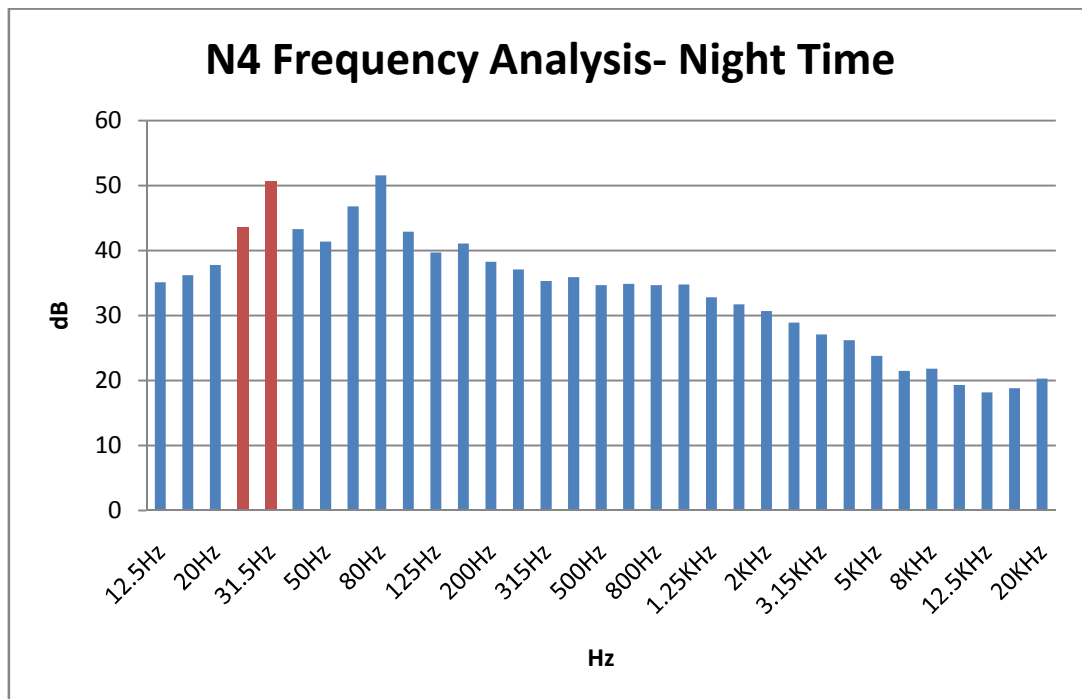


Figure 8 N4 Night Time Frequency Analysis





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# APPENDIX E

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## Emissions Report



**ODOUR & ENVIRONMENTAL CONSULTANTS**

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**ROUND 2 2013-MONITORING OF VOC EXHAUST STACKS  
CONCENTRATIONS AT RILTA LTD, BLOCK 402, GREENOGUE  
BUSINESS PARK, RATHCOOLE, CO. DUBLIN**

PERFORMED BY ODOUR MONITORING IRELAND ON BEHALF OF RILTA ENVIRONMENTAL LIMITED

<b>PREPARED BY:</b>	Dr. John Casey
<b>ATTENTION:</b>	Mr. Colm Hussey
<b>LICENCE NUMBER:</b>	WL00192-03
<b>LICENCE HOLDER:</b>	Rilta Environmental Limited
<b>FACILITY NAME:</b>	Block 402, Grants's Drive
<b>DATE OF MONITORING VISIT:</b>	31 <sup>st</sup> Oct. 2013
<b>NAME AND ADDRESS OF CLIENT ORGANISATION:</b>	Rilta Environmental Ltd., Block 402, Grants's Drive, Greenogue Business Park, Rathcoole, Co. Dublin
<b>NAME AND ADDRESS OF MONITORING ORGANISATION:</b>	Odour Monitoring Ireland, Unit 32 DeGranville Court, Dublin Road, Trim, Co. Meath
<b>DATE OF REPORTING:</b>	02 <sup>nd</sup> Dec. 2013
<b>NAME AND THE FUNCTION OF THE PERSON APPROVING THE REPORT:</b>	Dr. Brian Sheridan, Managing Partner, Odour Monitoring Ireland
<b>REPORT NUMBER:</b>	20131017(1)
<b>REVIEWERS:</b>	

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This document is submitted as part of environmental monitoring carried out by Odour Monitoring Ireland. The results reported are representative of actual conditions on the day of monitoring.

Respectively submitted,




Brian Sheridan  
Brian Sheridan B.Sc. M.Sc. (Agr) Ph.D (Eng).

For and on behalf of Odour Monitoring Ireland™

## DOCUMENT AMENDMENT RECORD

**Client:** Rilta Environmental Limited

**Title:** Round 1 2013 - Monitoring of VOC concentrations at Rilta Environmental Ltd., Block 402, Greenogue Business Park, Rathcoole, Co. Dublin

Project Number: 20131017(1)			Document Reference: 20131017(1)		
20131017(1)	Document for review	JWC	BAS	BAS	02/12/2013
Revision	Purpose/Description	Originated	Checked	Authorised	Date
					

## Part 1 - Executive Summary

The results of the monitoring exercise are contained in Section 2 of this report.

Location	Date and Time	Flow (m <sup>3</sup> N/hr)	Compliance	Mass flow (kgN/hr)	Expanded Uncertainty as % limit value	Compliance
A1	31/10/13 08.00 to 08.30	2,246	Yes	0.094	2.24	Yes
A2	31/10/13 08.00 to 08.30	6,330	No	0.006	2.84	Yes
A3	31/10/13 08.00 to 08.30	1,668	Yes	0.0002	2.14	Yes

## 1.1 Monitoring Objectives

Odour Monitoring Ireland were commissioned by Rilta Environmental Limited to perform Volatile Organic Compound (VOC) monitoring of three licensed emission points located within the facility. The survey was carried out on the 31/10/2013. The monitoring was carried out at this facility as part of compliance monitoring with the requirements of Waste licence W0192-03. The emissions testing was carried out by Odour Monitoring Ireland on behalf of Rilta Environmental Limited.

## 1.2 Special Monitoring Requirements

There were no special monitoring requirements for this campaign.

## 1.3 The substances to be monitored at each emission point

The parameters listed in *Table 1.1* were monitored using the appropriate instrumentation as illustrated in *Table 1.1*. All monitoring was carried out in accordance with Environmental Protection Agency Office of Environmental Enforcement (OEE) Air Emission Monitoring Guidance Note 2 (AG2).

**Table 1.1.** Monitored parameters and techniques

Sample location	Parameter	Analytical method
A1, A2, A3	Volumetric airflow rate & Temperature (°C)	Pitot in accordance with EN13284-1:2002. MGO coated K type thermocouple and PT100
A1, A2, A3	Total Organic Carbon (TOC)	EN13649:2002 analysis via Gas Chromatography in an UKAS accredited lab.

This report presents details of this monitoring programme. This environmental monitoring was carried out Dr. John Casey, Managing Partner, Odour Monitoring Ireland on the 31/10/2013. Results and Conclusions are presented herein.

## 2. Monitoring Results

This section will present the results of the monitoring exercise.

### 2.1 Operating Information

Emission Point Reference	Date	Process Type	Process Duration	Fuel	Feedstock	Abatement	Load
A1	31/10/2013	Drum washer	Continuous	N/A	Air emission from washing processes	No	Air emission from washing processes
A2	31/10/2013	Drum painter	Continuous	N/A	Air emission from paint processes	No	Air emission from paint processes
A3	31/10/2013	Drum dryer	Continuous	N/A	Air emission from drying processes	No	Air emission from drying processes

### 2.2 Monitoring Result Reference Conditions

Emission Point Reference	Temperature (K)	Pressure	Moisture Correction	Oxygen Correction (%)
A1	K	101.3	Yes	None
A2	K	101.3	Yes	None
A3	K	101.3	Yes	None

### 2.3. Sampling Location Summary

Comment	Yes/No
Recommended 5 hydraulic diameters straight length before sampling plane	Yes*
Recommended 2 hydraulic diameters straight length after sampling plane	Yes*
Ports number <1.5m - 2 ports >1.5m - 4 ports	2 ports*
Appropriate port size	Yes
Suitable working platform	Yes

**Note:** \*Airflow rate in accordance with EN13284 with exception of location A1 due to access issues airflow rate was performed at one plane on the base of the stack.

## 2.4. Sampling time runs

Parameter	Approx. Sampling period per location
Volumetric air flow rate	Manually calculated
Stack gas temp	15 minutes
T A Luft Organics	43 minutes

**Table 2.5.** Measurement results and emission limit values within Waste licence 192-03 - Schedule B

Emission Point	Temperature (Kelvin)	Limit Volumetric airflow rate (Nm <sup>3</sup> hr <sup>-1</sup> )	Measured Volumetric airflow rate (Nm <sup>3</sup> hr <sup>-1</sup> )
A1	286.15	5,292	2,246
A2	286.15	5,292	6,330
A3	298.15	2,520	1,668

**Table 2.6.** Results of monitoring at Emission Point A1

Library/ID	Conc. of VOC (mgC/ Nm <sup>3</sup> )	Expanded uncertainty as % of limit value	Mass Flow of Speciated VOC (kg/hr)
Total Organic Carbon (TOC as carbon)	0.1 mgC/Nm <sup>3</sup>	2.24	0.0002 kg/hr
Total Organic Carbon (TOC as carbon) Limit value	-	-	1.0 kg/hr

**Table 2.7.** Results of monitoring at Emission Point A2

Library/ID	Conc. of VOC (mgC/Nm <sup>3</sup> )	Expanded uncertainty as % of limit value	Mass Flow of Speciated VOC (kg/hr)
Total Organic Carbon (TOC as carbon)	40* mgC/Nm <sup>3</sup>	2.84	0.094 kg/hr
Total Organic Carbon (TOC as carbon) Limit value	-	-	0.10 kg/hr

\* Note compounds identified on GCMS screen were Ethylbenzene 3.72 mg/m<sup>3</sup>, m&p xylene 1.25 mg/m<sup>3</sup> and o-xylene 4.62 mg/m<sup>3</sup>.

**Table 2.8.** Results of VOC Monitoring at Emission Point A3.

Library/ID	Conc. of Speciated VOC (mg Nm <sup>-3</sup> as C)	Expanded uncertainty as % of limit value	Mass Flow of Speciated VOC (kg/hr)
Total Organic Carbon (TOC as carbon)	0.87 mgC/Nm <sup>3</sup>	2.14	0.006 kg/hr
Total Organic Carbon (TOC as carbon) Limit value	-	--	0.30 kg/hr

\* Note compounds identified on GCMS screen were m&p xylene 0.74 mg/m<sup>3</sup> and o-xylene 0.31 mg/m<sup>3</sup>.

Mass emissions for location A1, A2, A3 were in compliance with emission limit values as set out in Schedule B of Waste licence 192-03. Volume flow for locations A1 and A3 were in compliance with emission limit values as set out in Schedule B of Waste licence 192-03. Volume flow for location A2 was not in compliance with emission limit values as set out in Schedule B of Waste licence 192-03.

## 4. Conclusions

The following conclusions were drawn from the study:

- Mass emissions for location A1, A2, A3 were in compliance with emission limit values as set out in Schedule B of Waste licence 192-03.
- Volume flow for locations A1 and A3 were in compliance with emission limit values as set out in Schedule B of Waste licence 192-03.
- Volume flow for location A2 was not in compliance with emission limit values as set out in Schedule B of Waste licence 192-03.

## 5. *Appendix I*-Sampling, analysis

### 5.1.1 Location of Sampling

Rilta Environmental Ltd., Block 402, Grants's Drive, Greenogue Business Park, Rathcoole, Co. Dublin

### 5.1.2 Date & Time of Sampling

31/10/2013

### 5.1.3 Personnel Present During Sampling

Dr. John Casey, Odour Monitoring Ireland, Trim, Co. Meath.

### 5.1.4 Instrumentation check list

Federal Method 2 S type pitot and MGO coated thermocouple;

L type pitot tube

Testo 400 handheld and appropriate probes.

SKC sample pumps and Bios Primary calibrator and glass impingers.





**ODOUR & ENVIRONMENTAL CONSULTANTS**

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**ROUND 2 2013-MONITORING OF VOC EXHAUST STACKS  
CONCENTRATIONS AT RILTA LTD, BLOCK 402, GREENOGUE  
BUSINESS PARK, RATHCOOLE, CO. DUBLIN**

PERFORMED BY ODOUR MONITORING IRELAND ON BEHALF OF RILTA ENVIRONMENTAL LIMITED

<b>PREPARED BY:</b>	Dr. John Casey
<b>ATTENTION:</b>	Mr. Colm Hussey
<b>LICENCE NUMBER:</b>	WL00192-03
<b>LICENCE HOLDER:</b>	Rilta Environmental Limited
<b>FACILITY NAME:</b>	Block 402, Grants's Drive
<b>DATE OF MONITORING VISIT:</b>	07 <sup>th</sup> Nov. 2013
<b>NAME AND ADDRESS OF CLIENT ORGANISATION:</b>	Rilta Environmental Ltd., Block 402, Grants's Drive, Greenogue Business Park, Rathcoole, Co. Dublin
<b>NAME AND ADDRESS OF MONITORING ORGANISATION:</b>	Odour Monitoring Ireland, Unit 32 DeGranville Court, Dublin Road, Trim, Co. Meath
<b>DATE OF REPORTING:</b>	02 <sup>nd</sup> Dec. 2013
<b>NAME AND THE FUNCTION OF THE PERSON APPROVING THE REPORT:</b>	Dr. Brian Sheridan, Managing Partner, Odour Monitoring Ireland
<b>REPORT NUMBER:</b>	20131021(1)
<b>REVIEWERS:</b>	

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<b>5. <i>Appendix I-Sampling, analysis</i></b>	<b>6</b>

This document is submitted as part of environmental monitoring carried out by Odour Monitoring Ireland. The results reported are representative of actual conditions on the day of monitoring.

Respectively submitted,




Brian Sheridan  
Brian Sheridan B.Sc. M.Sc. (Agr) Ph.D (Eng).

For and on behalf of Odour Monitoring Ireland™

## DOCUMENT AMENDMENT RECORD

**Client:** Rilta Environmental Limited

**Title:** Round 2 2013 - Monitoring of VOC concentrations at Rilta Environmental Ltd., Block 402, Greenogue Business Park, Rathcoole, Co. Dublin

Project Number: 20131021(1)			Document Reference: 20131021(1)		
20131021(1)	Document for review	JWC	BAS	BAS	02/12/2013
Revision	Purpose/Description	Originated	Checked	Authorised	Date
					

## Part 1 - Executive Summary

The results of the monitoring exercise are contained in Section 2 of this report.

Location	Date and Time	Flow (m <sup>3</sup> N/hr)	Compliance	Mass flow (kgN/hr)	Expanded Uncertainty as % limit value	Compliance
A1	07/11/13 09.00 to 09.30	2,203	Yes	0.087	1.35	Yes
A2	07/11/13 09.00 to 09.30	6,192	No	0.116	1.5	Yes
A3	07/11/13 09.00 to 09.30	1,646	Yes	0.0029	1.1	Yes

## 1.1 Monitoring Objectives

Odour Monitoring Ireland were commissioned by Rilta Environmental Limited to perform Volatile Organic Compound (VOC) monitoring of three licensed emission points located within the facility. The survey was carried out on the 07/11/2013. The monitoring was carried out at this facility as part of compliance monitoring with the requirements of Waste licence W0192-03. The emissions testing was carried out by Odour Monitoring Ireland on behalf of Rilta Environmental Limited.

## 1.2 Special Monitoring Requirements

There were no special monitoring requirements for this campaign.

## 1.3 The substances to be monitored at each emission point

The parameters listed in *Table 1.1* were monitored using the appropriate instrumentation as illustrated in *Table 1.1*. All monitoring was carried out in accordance with Environmental Protection Agency Office of Environmental Enforcement (OEE) Air Emission Monitoring Guidance Note 2 (AG2).

**Table 1.1.** Monitored parameters and techniques

Sample location	Parameter	Analytical method
A1, A2, A3	Volumetric airflow rate & Temperature (°C)	Pitot in accordance with EN13284-1:2002. MGO coated K type thermocouple and PT100
A1, A2, A3	Total Organic Carbon (TOC)	EN13649:2002 analysis via Gas Chromatography in an UKAS accredited lab.

This report presents details of this monitoring programme. This environmental monitoring was carried out Dr. John Casey, Managing Partner, Odour Monitoring Ireland on the 07/11/2013. Results and Conclusions are presented herein.

## 2. Monitoring Results

This section will present the results of the monitoring exercise.

### 2.1 Operating Information

Emission Point Reference	Date	Process Type	Process Duration	Fuel	Feedstock	Abatement	Load
A1	07/11/2013	Drum washer	Continuous	N/A	Air emission from washing processes	No	Air emission from washing processes
A2	07/11/2013	Drum painter	Continuous	N/A	Air emission from paint processes	No	Air emission from paint processes
A3	07/11/2013	Drum dryer	Continuous	N/A	Air emission from drying processes	No	Air emission from drying processes

### 2.2 Monitoring Result Reference Conditions

Emission Point Reference	Temperature (K)	Pressure	Moisture Correction	Oxygen Correction (%)
A1	K	101.3	Yes	None
A2	K	101.3	Yes	None
A3	K	101.3	Yes	None

### 2.3. Sampling Location Summary

Comment	Yes/No
Recommended 5 hydraulic diameters straight length before sampling plane	Yes*
Recommended 2 hydraulic diameters straight length after sampling plane	Yes*
Ports number <1.5m - 2 ports >1.5m - 4 ports	2 ports*
Appropriate port size	Yes
Suitable working platform	Yes

**Note:** \*Airflow rate in accordance with EN13284 with exception of location A1 due to access issues airflow rate was performed at one plane on the base of the stack.

## 2.4. Sampling time runs

Parameter	Approx. Sampling period per location
Volumetric air flow rate	Manually calculated
Stack gas temp	15 minutes
T A Luft Organics	35 minutes

**Table 2.5.** Measurement results and emission limit values within Waste licence 192-03 - Schedule B

Emission Point	Temperature (Kelvin)	Limit Volumetric airflow rate (Nm <sup>3</sup> hr <sup>-1</sup> )	Measured Volumetric airflow rate (Nm <sup>3</sup> hr <sup>-1</sup> )
A1	286.15	5,292	2,203
A2	286.15	5,292	6,192
A3	298.15	2,520	1,646

**Table 2.6.** Results of monitoring at Emission Point A1

Library/ID	Conc. of VOC (mgC/ Nm <sup>3</sup> )	Expanded uncertainty as % of limit value	Mass Flow of Speciated VOC (kg/hr)
Total Organic Carbon (TOC as carbon)	1.7 mgC/Nm <sup>3</sup>	1.35	0.0029 kg/hr
Total Organic Carbon (TOC as carbon) Limit value	-	-	1.0 kg/hr

**Table 2.7.** Results of monitoring at Emission Point A2

Library/ID	Conc. of VOC (mgC/Nm <sup>3</sup> )	Expanded uncertainty as % of limit value	Mass Flow of Speciated VOC (kg/hr)
Total Organic Carbon (TOC as carbon)	38* mgC/Nm <sup>3</sup>	1.5	0.087 kg/hr
Total Organic Carbon (TOC as carbon) Limit value	-	-	0.10 kg/hr

\* Note compounds identified on GCMS screen were Ethylbenzene 1.72 mg/m<sup>3</sup>, m&p xylene 1.31 mg/m<sup>3</sup> and o-xylene 2.5 mg/m<sup>3</sup>.



**Table 2.8.** Results of VOC Monitoring at Emission Point A3.

Library/ID	Conc. of Speciated VOC (mg Nm <sup>-3</sup> as C)	Expanded uncertainty as % of limit value	Mass Flow of Speciated VOC (kg/hr)
Total Organic Carbon (TOC as carbon)	17* mgC/Nm <sup>3</sup>	1.1	0.116 kg/hr
Total Organic Carbon (TOC as carbon) Limit value	-	--	0.30 kg/hr

\* Note compounds identified on GCMS screen were m&p xylene 1.88 mg/m<sup>3</sup> and o-xylene 3.25 mg/m<sup>3</sup>.

Mass emissions for location A1, A2, A3 were in compliance with emission limit values as set out in Schedule B of Waste licence 192-03. Volume flow for locations A1 and A3 were in compliance with emission limit values as set out in Schedule B of Waste licence 192-03. Volume flow for location A2 was not in compliance with emission limit values as set out in Schedule B of Waste licence 192-03.

## 4. Conclusions

The following conclusions were drawn from the study:

- Mass emissions for location A1, A2, A3 were in compliance with emission limit values as set out in Schedule B of Waste licence 192-03.
- Volume flow for locations A1 and A3 were in compliance with emission limit values as set out in Schedule B of Waste licence 192-03.
- Volume flow for location A2 was not in compliance with emission limit values as set out in Schedule B of Waste licence 192-03.

## 5. *Appendix I-Sampling, analysis*

### 5.1.1 Location of Sampling

Rilta Environmental Ltd., Block 402, Grants's Drive, Greenogue Business Park, Rathcoole, Co. Dublin

### 5.1.2 Date & Time of Sampling

07/11/2013

### 5.1.3 Personnel Present During Sampling

Dr. John Casey, Odour Monitoring Ireland, Trim, Co. Meath.

### 5.1.4 Instrumentation check list

Federal Method 2 S type pitot and MGO coated thermocouple;

L type pitot tube

Testo 400 handheld and appropriate probes.

SKC sample pumps and Bios Primary calibrator and glass impingers.

# APPENDIX F

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## Pollutant Release and Transfer Register (PRTR)



Environmental Protection Agency

| PRTR# : W0192 | Facility Name : Rilta Environmental Limited | Filename : W0192\_2013.xlsm | Return Year : 2013 |

**Guidance to completing the PRTR workbook**

# AER Returns Workbook

Version 1.1.18

<b>REFERENCE YEAR</b>	2013
-----------------------	------

**1. FACILITY IDENTIFICATION**

Parent Company Name	Rilta Environmental Limited
Facility Name	Rilta Environmental Limited
PRTR Identification Number	W0192
Licence Number	W0192-03

Waste or IPPC Classes of Activity

No.	class_name
4.13	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.
3.11	Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.12	Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.13	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.
3.7	##### Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
4.2	Recycling or reclamation of metals and metal compounds.
4.3	Recycling or reclamation of other inorganic materials.
4.4	Recovery of components used for pollution abatement.
4.6	Oil re-refining or other re-uses of oil.
Address 1	Block 402, Grant's Drive
Address 2	Greenogue Business Park
Address 3	Rathcoole
Address 4	County Dublin
	Dublin
Country	Ireland
Coordinates of Location	-8.48281 51.8695
River Basin District	IEEA
NACE Code	3832
Main Economic Activity	Recovery of sorted materials
<b>AER Returns Contact Name</b>	Colm Hussey
<b>AER Returns Contact Email Address</b>	colm.hussey@rilta.ie
<b>AER Returns Contact Position</b>	Site Manager
<b>AER Returns Contact Telephone Number</b>	01 401 8000
<b>AER Returns Contact Mobile Phone Number</b>	087 9176264
<b>AER Returns Contact Fax Number</b>	01 401 8080
<b>Production Volume</b>	0.0
<b>Production Volume Units</b>	
<b>Number of Installations</b>	0

Number of Operating Hours in Year	0
Number of Employees	71
User Feedback/Comments	
Web Address	www.rilta.ie

**2. PRTR CLASS ACTIVITIES**

Activity Number	Activity Name
5(a)	Installations for the recovery or disposal of hazardous waste
5(c)	Installations for the disposal of non-hazardous waste
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) ?	Yes
--	-----

Link to previous years emissions data

31/03/2014 10:10

W0192 | Facility Name : Rita Environmental Limited | File Name : W0192\_2013.xlsm | Return Year : 2013

4.1 RELEASES TO AIR

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

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

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

SECTION B : REMAINING PRTR POLLUTANTS

No. Annex II	POLLUTANT	Name	METHOD		Please enter all quantities in this section in KGs					
			M/C/E	Method Code	Method Used	Description 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)

Pollutant No.	Pollutant	Name	METHOD		Emission Point 1	Emission Point 2	Emission Point 3	Please enter all quantities in this section in KGs					
			M/C/E	Method Code				Method Used	Description or Description	Blamudair measured result measured by 1000hrs operation	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
351	Total Organic Carbon (as C)		C	MAB				3.1	181.0	122.0	306.1	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 'Total' KG/yr for Section A: Sector specific PRTR pollutants above. Please complete the table below:

Landfill:

Rita Environmental Limited

Please enter summary data on the quantities of methane flared and / or utilised

Total estimated methane generation (as per site record)	Methane flared	Methane utilised in ignifuge	Net methane emission (as reported in Section A above)	Method Used		Facility Total Capacity m3 per hour
				M/C/E	Method Code	
0.0	0.0	0.0	0.0			N/A
0.0	0.0	0.0	0.0			0.0 (Total Flaring Capacity)
0.0	0.0	0.0	0.0			0.0 (Total Utilising Capacity)

4.3 RELEASES TO WASTEWATER OR SEWER

[Link to previous years emissions data](#)

[Printer - 20/1/2014] Facility Name: Pitts Environmental Limited (PittsEnv) - 6807962\_2013\_26m (R50a)

SECTION A : PRTR POLLUTANTS

No. Annex II	Name	METHOD		Please enter all quantities in this section in KGs				
		M/C/E	Method Code	Method Used	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
17	Arsenic and compounds (as As)	M	MAB	Average measured result multiplied by the discharge volume		2.36	2.36	0.0
19	Chromium and compounds (as Cr)	M	MAB	Average measured result multiplied by the discharge volume		7.33	7.33	0.0
20	Copper and compounds (as Cu)	M	MAB	Average measured result multiplied by the discharge volume		4.49	4.49	0.0
23	Lead and compounds (as Pb)	M	MAB	Average measured result multiplied by the discharge volume		0.58	0.58	0.0
22	Nickel and compounds (as Ni)	M	MAB	Average measured result multiplied by the discharge volume		5.25	5.25	0.0

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

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

Pollutant No.	Name	METHOD		Please enter all quantities in this section in KGs				
		M/C/E	Method Code	Method Used	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
238	Ammonia (as N)	M	MAB	Average measured result multiplied by the discharge volume		24121.79	24121.79	0.0
303	BOD	M	MAB	Average measured result multiplied by the discharge volume		5989.64	5989.64	0.0
306	COD	M	MAB	Average measured result multiplied by the discharge volume		61861.82	61861.82	0.0
308	Detergents (as MBAS)	M	MAB	Average measured result multiplied by the discharge volume		16.27	16.27	0.0
324	Mineral oils	M	MAB	Average measured result multiplied by the discharge volume		7.65	7.65	0.0
240	Suspended Solids	M	MAB	Average measured result multiplied by the discharge volume		2374.39	2374.39	0.0
343	Sulphate	M	MAB	Average measured result multiplied by the discharge volume		1832.01	1832.01	0.0
206	Benzene & toluene & xylene (combined)	M	MAB	Average measured result multiplied by the discharge volume		2.13	2.13	0.0

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE  
Please enter all quantities on this sheet in Tonnes

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	M/C/E	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)
							Method Used	Method Used					
To Other Countries	01 05 05	Yes	49.63	oil-containing drilling muds and wastes	D8	M	Weighted		Abroad	REVATECH SA, Zoning Industriale D'Ehein, B 4480 ENGIS, Belgium	Zoning Industriale D'Ehein, B 4480 ENGIS, Belgium	REVATECH SA, Zoning Industriale D'Ehein, B 4480 ENGIS, Belgium	Zoning Industriale D'Ehein, B 4480 ENGIS, Belgium
To Other Countries	02 07 04	No	191.49	materials unsuitable for consumption or processing	R10	M	Weighted		Abroad	REVATECH SA, Kompositiesysteme Nord GmbH, 106ZEB026	Industriepark 6, D-27777, Ganderskeese, Germany	REVATECH SA, Zoning Industriale D'Ehein, B 4480 ENGIS, Belgium	Zoning Industriale D'Ehein, B 4480 ENGIS, Belgium
To Other Countries	06 01 05	Yes	290.16	other acids	R6	M	Weighted		Abroad	REVATECH SA, Zimmermann Sonderabfallentsorgung und Verwertung & Co KG Festsstoffkonditionierung, 783/240406	3-7+31 Gottlieb-Daimler Strasse, DE 33334, Guterslo, Germany	REVATECH SA, Zoning Industriale D'Ehein, B 4480 ENGIS, Belgium	Zoning Industriale D'Ehein, B 4480 ENGIS, Belgium
To Other Countries	06 03 14	No	176.96	solid salts and solution other than those mentioned in 06 03 11 and 06 03 13	R5	M	Weighted		Abroad	REVATECH SA, Zimmermann Sonderabfallentsorgung und Verwertung & Co KG Festsstoffkonditionierung, 783/240406	3-7+31 Gottlieb-Daimler Strasse, DE 33334, Guterslo, Germany	REVATECH SA, Zoning Industriale D'Ehein, B 4480 ENGIS, Belgium	Zoning Industriale D'Ehein, B 4480 ENGIS, Belgium
To Other Countries	08 01 11	Yes	51.87	waste paint and varnish containing organic solvents or other dangerous substances	R1	M	Weighted		Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands	Alvalstoffen Terminal Moerdijk B.V., 821780, Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands
To Other Countries	09 01 05	Yes	3.79	bleach solutions and bleach fixer solutions	R4	M	Weighted		Abroad	Remondis Production GmbH, WML/0707/M01	Brunnenstrasse 138, DE 44536, Lunen, Germany	Remondis Production GmbH, WML/0707/M01 Brunnenstrasse 138, DE 44536, Lunen, Germany	Brunnenstrasse 138, DE 44536, Lunen, Germany
To Other Countries	10 01 01	No	467.8	Boiler Ash	R5	M	Weighted		Abroad	Lafarge Cement UK, P0052/04A	29 Sandholes Road, Cookstown, BT80 9AR, United Kingdom	Lafarge Activite Plâtre, rue Demouque, 500, Zone du Pôle Technologique Agro Parc, F-84915 Avignon Cedex 9, France	29 Sandholes Road, Cookstown, BT80 9AR, United Kingdom
To Other Countries	10 01 04	Yes	0.81	oil fly ash and boiler dust	R5	M	Weighted		Abroad	Zimmermann Sonderabfallentsorgung und Verwertung & Co KG Festsstoffkonditionierung, 783/240406	3-7+31 Gottlieb-Daimler Strasse, DE 33334, Guterslo, Germany	REVATECH SA, Zoning Industriale D'Ehein, B 4480 ENGIS, Belgium	3-7+31 Gottlieb-Daimler Strasse, DE 33334, Guterslo, Germany
To Other Countries	11 01 05	Yes	24.24	pickling acids	R4	M	Weighted		Abroad	REVATECH SA, Zimmermann Sonderabfallentsorgung und Verwertung & Co KG Festsstoffkonditionierung, 783/240406	3-7+31 Gottlieb-Daimler Strasse, DE 33334, Guterslo, Germany	REVATECH SA, Zoning Industriale D'Ehein, B 4480 ENGIS, Belgium	Zoning Industriale D'Ehein, B 4480 ENGIS, Belgium
To Other Countries	11 01 09	Yes	46.39	sludges and filter cakes containing dangerous substances	R5	M	Weighted		Abroad	Zimmermann Sonderabfallentsorgung und Verwertung & Co KG Festsstoffkonditionierung, 783/240406	3-7+31 Gottlieb-Daimler Strasse, DE 33334, Guterslo, Germany	REVATECH SA, Zoning Industriale D'Ehein, B 4480 ENGIS, Belgium	3-7+31 Gottlieb-Daimler Strasse, DE 33334, Guterslo, Germany
To Other Countries	13 02 08	Yes	1026.93	other engine, gear and lubricating oils	R9	M	Weighted		Abroad	Holcim SA, 43797764	Rue des Fabriques, 2, Obourg, B7034, Belgium	Holcim SA, 43797764, Rue des Fabriques, 2, Obourg, B7034, Belgium	Rue des Fabriques, 2, Obourg, B7034, Belgium
To Other Countries	13 03 01	Yes	0.0	insulating or heat transmission oils containing PCBs	D10	M	Weighted		Abroad	SITA Decontamination, DIP/MVC/O 1F28/33629	Westvaardijk, 97, Grimbergen n, 1850, Netherlands	SITA Decontamination, DIP/MVC/O 1F28/33629, Westvaardijk, 97, Grimbergen n, 1850, Netherlands	Westvaardijk, 97, Grimbergen n, 1850, Netherlands



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 Work Destination Facility Haz Waste Name and Licence/Permit No of Recoverer/Disposer	Haz Waste - Address of Not Non-Haz Waste - Address of Recoverer/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/IE	Method Used					
To Other Countries	13 03 07	Yes	0.0	mineral-based non-chlorinated insulating and heat transmission oils	R9	M	Weighed	Abroad	Midland Oil Refinery,GP3135SD,Shelah Road,,Halesowen,B63 3PN,United Kingdom	Shelah Road,,Halesowen,B63 3PN,United Kingdom	Midland Oil Refinery,GP3135SD,Shelah Road,,Halesowen,B63 3PN,United Kingdom	Shelah Road,,Halesowen,B63 3PN,United Kingdom
To Other Countries	13 07 03	Yes	67.22	other fuels (including mixtures)	R9	M	Weighed	Abroad	Centec International,EA	The Science Park,Brooks Lane,,Middlewich,CW10 0JG,United Kingdom	Centec International,EA,Brooks Lane,,Middlewich,CW10 0JG,United Kingdom	Brooks Lane,,Middlewich,CW10 0JG,United Kingdom
To Other Countries	14 06 03	Yes	98.87	other solvents and solvent mixtures	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,,The Netherlands	Seaport M152,Vlasweg 12,4782 PW Moerdijk,,The Netherlands	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,Netherlands
To Other Countries	15 01 02	No	0.03	plastic packaging	R3	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,,The Netherlands	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,Netherlands
To Other Countries	15 01 04	No	0.12	metallic packaging	R4	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,,The Netherlands	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,Netherlands
To Other Countries	15 02 02	Yes	850.06	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,,The Netherlands	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,Netherlands
To Other Countries	15 02 03	No	20.35	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,,The Netherlands	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,Netherlands
To Other Countries	16 01 07	Yes	21.29	oil filters	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,,The Netherlands	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,Netherlands
To Other Countries	16 02 09	Yes	0.0	transformers and capacitors containing PCBs	D10	M	Weighed	Abroad	Orion B.V.,18/07/2937	De Steven,25,AX Drachten,9206, Netherlands	Orion B.V.,18/07/2937 De Steven,25,AX Drachten,9206, Netherlands	De Steven,25,AX Drachten,9206, Netherlands
To Other Countries	16 02 14	No	0.05	discarded equipment other than those mentioned in 16 02 09 to 16 02 13	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,,The Netherlands	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,Netherlands
Within the Country	16 02 14	No	0.0	discarded equipment other than those mentioned in 16 02 09 to 16 02 13	R4	M	Weighed	Offsite in Ireland	The Recycling Village Ltd, WP2007/20	Park,,Monasterboice,Co. Louth,Ireland	Orion B.V.,18/07/2937 De Steven,25,AX Drachten,9206, Netherlands	De Steven,25,AX Drachten,9206, Netherlands
To Other Countries	16 05 04	Yes	6.95	gases in pressure containers (including halons) containing dangerous substances	R3	M	Weighed	Abroad	PHS Group,EA	Block B,Western Industrial Estate,Caerphilly,CF83 1XH,United Kingdom	PHS Group,EA,Block B,Western Industrial Estate,Caerphilly,CF83 1XH,United Kingdom	Block B,Western Industrial Estate,Caerphilly,CF83 1XH,United Kingdom

Transfer Destination	European Waste Code	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Waste Treatment		Location of Treatment	Haz. Waste, Name and Licence/Permit No of Next Destination Facility Haz. Waste, Name and Licence/Permit No of Recover/Disposer	Haz. Waste, Address of Next Destination Facility Next Destination Facility Name and Address of Recover/Disposer	Name and Licence / Permit No. and Address of Recover/Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination (HAZARDOUS WASTE ONLY)
					M/C/E	Method Used					
To Other Countries	16 05 06	117.54	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals	R1	M	Method Used	Abroad	Alvaltoestoffen Terminal Moerdijk B.V., 821780 Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	
To Other Countries	16 05 07	103.5	discarded inorganic chemicals consisting of or containing dangerous substances	R6	M	Method Used	Abroad	Alvaltoestoffen Terminal Moerdijk B.V., 821780 Moerdijk, The Netherlands	Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium	Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium	
To Other Countries	16 06 01	4891.22	lead batteries	R4	M	Method Used	Abroad	HJ Enthoven & Sons, BL5598 Moerdijk, The Netherlands	Darley Dale Smelter, South Darley, Derbyshire, DE4 2LP, United Kingdom	Darley Dale Smelter, South Darley, Derbyshire, DE4 2LP, United Kingdom	
Within the Country	16 06 02	12.05	Ni-Cd batteries	R4	M	Method Used	Offsite in Ireland	Electrical Waste Ireland, Permit No. WFP-DS-09-0012-01	Jordanstown drive, Unit 648 Greenogue Business Park, Rathcoole, Co. Dublin, Ireland	Jordanstown Drive Unit 648 Greenogue Business Park, Rathcoole Co Dublin, Ireland	
Within the Country	16 06 04	8.06	alkaline batteries (except 16 06 03)	R4	M	Method Used	Offsite in Ireland	The Recycling Village Ltd., WP2007/20	Unit 4 Tinure Business Park, Monasterboice, Co. Louth, Ireland		
Within the Country	16 06 04	9.4	alkaline batteries (except 16 06 03)	R4	M	Method Used	Offsite in Ireland	Electrical Waste Ireland, Permit No. WFP-DS-09-0012-01	Jordanstown drive, Unit 648 Greenogue Business Park, Rathcoole, Co. Dublin, Ireland		
Within the Country	16 06 05	1.16	other batteries and accumulators	R4	M	Method Used	Offsite in Ireland	The Recycling Village Ltd., WP2007/20	Unit 4 Tinure Business Park, Monasterboice, Co. Louth, Ireland		
To Other Countries	16 10 01	131.91	aqueous liquid wastes containing dangerous substances	R1	M	Method Used	Abroad	Alvaltoestoffen Terminal Moerdijk B.V., 821780 Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	
To Other Countries	16 10 01	534.74	aqueous liquid wastes containing dangerous substances	D8	M	Method Used	Abroad	REVATECH SA, Sava Gmbh & Co.,	Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium	Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium	
To Other Countries	16 10 01	500.55	aqueous liquid wastes containing dangerous substances	D10	M	Method Used	Abroad	Sava Gmbh & Co.,	Osterweute, Ce25541, Bruns buttel, Germany	Osterweute, Ce25541, Bruns buttel, Germany	
To Other Countries	16 10 01	15.63	aqueous liquid wastes containing dangerous substances	R10	M	Method Used	Abroad	Komposystemen Nord GmbH, 1082EB026	Industriepark 6 D-27777, Ganderkesee, Germany	Industriepark 6 D-27777, Ganderkesee, Germany	
To Other Countries	17 03 01	1.6	bituminous mixtures containing coal tar	R1	M	Method Used	Abroad	Alvaltoestoffen Terminal Moerdijk B.V., 14/12/4149	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	
To Other Countries	17 05 03	7100.64	soil and stones containing dangerous substances	D5	M	Method Used	Abroad	Terracon GmbH, Hamburg, Germany	74-76 Hovestrasse, 20539 Hamburg, Germany	74-76 Hovestrasse, 20539 Hamburg, Germany	

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	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	17 05 04	No	2744.96	soil and stones other than those mentioned in 17 05 03	R5	M	Weighed	Offsite in Ireland	Knockharney Landfill, Kentstown, Co. Meath, Ireland	Helko Neumann Entsorgungfachbetrieb, Dep onie Reesen GmbH & Co. KG, Johann - Sebastian Bach - Strabe 60, 39288 Burg, Germany	Depone Reesen GmbH & Co. KG, Johann - Sebastian Bach - Strabe 60, 39288 Burg, Germany
To Other Countries	17 06 01	Yes	64.33	insulation materials containing asbestos	D1	M	Weighed	Abroad	Helko Neumann Entsorgungfachbetrieb, Bimohler Strasse 57a, Grossenasppe, 2 4623, Germany	GEG mbH, EGO108, Bimohler Strasse 57a, Grossenasppe, 2 4623, Germany	GEG mbH, EGO108, Bimohler Strasse 57a, Grossenasppe, 2 4623, Germany
To Other Countries	18 01 09	No	3.54	medicines other than those mentioned in 18 01 08	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Alvalstoffen Terminal Moerdijk B.V., 821780	Alvalstoffen Terminal Moerdijk B.V., 821780
To Other Countries	18 02 08	No	87.87	medicines other than those mentioned in 18 02 07	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Alvalstoffen Terminal Moerdijk B.V., 821780	Alvalstoffen Terminal Moerdijk B.V., 821780
To Other Countries	19 02 05	Yes	11.74	sludges from physico/chemical treatment containing dangerous substances	R5	M	Weighed	Abroad	Zimmermann Sonderabfallsorgung und Verwertung & Co KG Festsstoffkonditionierung, 783/ 240406	3-7-31 Gottlieb-Daimler Strasse, DE 33334, Guterslo, Germany	3-7-31 Gottlieb-Daimler Strasse, DE 33334, Guterslo, Germany
To Other Countries	19 02 05	Yes	7.42	sludges from physico/chemical treatment containing dangerous substances	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Alvalstoffen Terminal Moerdijk B.V., 821780	Alvalstoffen Terminal Moerdijk B.V., 821780
To Other Countries	19 08 12	No	53.32	mentioned in 19 08 11	R1	M	Weighed	Abroad	Granex Ltd, CP3230BE	Granex Ltd, CP3230BE	Granex Ltd, CP3230BE
Within the Country	19 12 02	No	0.0	ferrous metal	R4	M	Weighed	Offsite in Ireland	A 1 Metal, WMP007d	A 1 Metal, WMP007d	A 1 Metal, WMP007d
To Other Countries	20 01 21	Yes	0.15	fluorescent tubes and other mercury-containing waste	R4	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Alvalstoffen Terminal Moerdijk B.V., 821780	Alvalstoffen Terminal Moerdijk B.V., 821780
To Other Countries	20 01 27	Yes	205.44	paint, inks, adhesives and resins containing dangerous substances	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Alvalstoffen Terminal Moerdijk B.V., 821780	Alvalstoffen Terminal Moerdijk B.V., 821780

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 (Ref. to No of Recover/Disposer)	Haz. Waste - Address of Next Destination Facility (Ref. to No of Recover/Disposer)	Name and License / Permit No. and Address of Recover/Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination (Ref. to F.R. No of Recover/Disposer) (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
To Other Countries	20 01 27	Yes	119.5	paint, inks, adhesives and resins containing dangerous substances	R3	M	Weighed	Abroad	Nehlsen GmbH & Co. A-4187HH	Neiderlassung Nehlsen-Pilmp, Betriebsstatte Bremen, Louis-Krages Strasse 10, Bremen, Germany	Nehlsen GmbH & Co. A-4187HH, Neiderlassung Nehlsen-Pilmp, Betriebsstatte Bremen, Louis-Krages Strasse 10, Bremen, Germany	Neiderlassung Nehlsen-Pilmp, Betriebsstatte Bremen, Louis-Krages Strasse 10, Bremen, Germany
To Other Countries	20 01 27	Yes	24.12	paint, inks, adhesives and resins containing dangerous substances	R1	M	Weighed	Abroad	Recyfuel, Sava GmbH & Co.	Engis, ... B4480 Belgium 1 Oosterveute, Ce25541, Bruns buttel, Germany	Recyfuel, Engis, ... B4480 Belgium 1 Oosterveute, Ce25541, Bruns buttel, Germany	Engis, ... B4480 Belgium 1 Oosterveute, Ce25541, Bruns buttel, Germany
To Other Countries	20 01 27	Yes	0.67	paint, inks, adhesives and resins containing dangerous substances	D10	M	Weighed	Abroad	Sava GmbH & Co.	Engis, ... B4480 Belgium 1 Oosterveute, Ce25541, Bruns buttel, Germany	Sava GmbH & Co.	Engis, ... B4480 Belgium 1 Oosterveute, Ce25541, Bruns buttel, Germany
To Other Countries	01 01 01	No	3.32	wastes from mineral excavation	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V.	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, ... The Netherlands	Alvalstoffen Terminal Moerdijk B.V.	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, ... The Netherlands
To Other Countries	01 05 05	Yes	0.46	oil-containing drilling muds and wastes	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V.	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, ... The Netherlands	Alvalstoffen Terminal Moerdijk B.V.	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, ... The Netherlands
To Other Countries	01 05 05	Yes	1541.87	oil-containing drilling muds and wastes	R9	M	Weighed	Abroad	Nov Brandt Environmental Division, Aberdeen, ... Scotland	Nov Brandt Environmental Division, Aberdeen, ... Scotland	Nov Brandt Environmental Division, Aberdeen, ... Scotland	Nov Brandt Environmental Division, Aberdeen, ... Scotland
To Other Countries	02 03 04	No	1.16	materials unsuitable for consumption or processing	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V.	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, ... The Netherlands	Alvalstoffen Terminal Moerdijk B.V.	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, ... The Netherlands
To Other Countries	02 07 02	No	52.46	wastes from spirits distillation	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V.	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, ... The Netherlands	Alvalstoffen Terminal Moerdijk B.V.	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, ... The Netherlands
To Other Countries	03 02 01	Yes	1.1	non-halogenated organic wood preservatives	R3	M	Weighed	Abroad	Nehlsen GmbH & Co. A-4187HH	Neiderlassung Nehlsen-Pilmp, Betriebsstatte Bremen, Louis-Krages Strasse 10, Bremen, Germany	Nehlsen GmbH & Co. A-4187HH, Neiderlassung Nehlsen-Pilmp, Betriebsstatte Bremen, Louis-Krages Strasse 10, Bremen, Germany	Neiderlassung Nehlsen-Pilmp, Betriebsstatte Bremen, Louis-Krages Strasse 10, Bremen, Germany
To Other Countries	05 07 99	No	3.04	wastes not otherwise specified	D8	M	Weighed	Abroad	REVATECH SA, ... Zoning	Industrial D'Ehein, B 4480 ENGIS, ... Belgium	REVATECH SA, ... Zoning Industrial D'Ehein, B 4480 ENGIS, ... Belgium	Industrial D'Ehein, B 4480 ENGIS, ... Belgium
To Other Countries	05 01 01	Yes	6.91	sulphuric acid and sulphurous acid	R6	M	Weighed	Abroad	REVATECH SA, ... Zoning	Industrial D'Ehein, B 4480 ENGIS, ... Belgium	REVATECH SA, ... Zoning Industrial D'Ehein, B 4480 ENGIS, ... Belgium	Industrial D'Ehein, B 4480 ENGIS, ... Belgium
To Other Countries	05 01 02	Yes	1.98	hydrochloric acid	R6	M	Weighed	Abroad	REVATECH SA, ... Zoning	Industrial D'Ehein, B 4480 ENGIS, ... Belgium	REVATECH SA, ... Zoning Industrial D'Ehein, B 4480 ENGIS, ... Belgium	Industrial D'Ehein, B 4480 ENGIS, ... Belgium
To Other Countries	05 01 05	Yes	22.93	nitric acid and nitrous acid	R6	M	Weighed	Abroad	REVATECH SA, ... Zoning	Industrial D'Ehein, B 4480 ENGIS, ... Belgium	REVATECH SA, ... Zoning Industrial D'Ehein, B 4480 ENGIS, ... Belgium	Industrial D'Ehein, B 4480 ENGIS, ... Belgium
To Other Countries	05 01 99	No	0.13	wastes not otherwise specified	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V.	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, ... The Netherlands	Alvalstoffen Terminal Moerdijk B.V.	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, ... The Netherlands

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz. Waste: Name and Licence/Permit No of Next Destination Facility Haz. Waste: Name and Licence/Permit No of Recover/Disposer	Haz. Waste: Address of Next Destination Facility Next Destination: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Receiver/ Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
To Other Countries	06 02 04	Yes	32.54	sodium and potassium hydroxide	R6	M	Weighted	Abroad	REVA TECH SA., Industrial D'Ehein, B 4480 ENGIS, Belgium	Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium	REVA TECH SA., Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium	Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium
To Other Countries	06 02 05	Yes	2.52	other bases	R6	M	Weighted	Abroad	REVA TECH SA.,	Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium	REVA TECH SA., Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium	Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium
To Other Countries	06 08 99	No	0.14	wastes not otherwise specified	R1	M	Weighted	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Industriele rein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Alvalstoffen Terminal Moerdijk B.V., 821780	Industriele rein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands
To Other Countries	06 13 03	No	0.06	carbon black	R1	M	Weighted	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Industriele rein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Alvalstoffen Terminal Moerdijk B.V., 821780	Industriele rein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands
To Other Countries	07 01 04	Yes	0.1	other organic solvents, washing liquids and mother liquors	R1	M	Weighted	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Industriele rein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Alvalstoffen Terminal Moerdijk B.V., 821780	Industriele rein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands
To Other Countries	07 02 17	No	0.04	waste containing silicones other than those mentioned in 07 02 16	R1	M	Weighted	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Industriele rein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Alvalstoffen Terminal Moerdijk B.V., 821780	Industriele rein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands
To Other Countries	07 03 01	Yes	0.94	aqueous washing liquids and mother liquors	R1	M	Weighted	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Industriele rein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Alvalstoffen Terminal Moerdijk B.V., 821780	Industriele rein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands
To Other Countries	07 03 04	Yes	0.02	other organic solvents, washing liquids and mother liquors	R1	M	Weighted	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Industriele rein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Alvalstoffen Terminal Moerdijk B.V., 821780	Industriele rein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands
To Other Countries	07 03 10	Yes	0.12	other filter cakes and spent absorbents	R1	M	Weighted	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Industriele rein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Alvalstoffen Terminal Moerdijk B.V., 821780	Industriele rein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands
To Other Countries	07 05 04	Yes	16.52	other organic solvents, washing liquids and mother liquors	R1	M	Weighted	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Industriele rein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Alvalstoffen Terminal Moerdijk B.V., 821780	Industriele rein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands
To Other Countries	07 06 04	Yes	0.41	other organic solvents, washing liquids and mother liquors	R1	M	Weighted	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Industriele rein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Alvalstoffen Terminal Moerdijk B.V., 821780	Industriele rein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands
To Other Countries	08 01 11	Yes	52.13	waste paint and varnish containing organic solvents or other dangerous substances	R1	M	Weighted	Abroad	Recy(fuel),	Engis, Belgium	Recy(fuel), Engis, Belgium	Engis, Belgium

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz. Waste: Name and Licence/Permit No of Next Destination Facility Haz. Waste: Name and Licence/Permit No of Site or Recover/Disposer	Haz. Waste: Address of Next Destination Facility Next Destination: Address of Recover/Disposer	Name and License/ Permit No. and Address of Recover/ Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination (HAZARDOUS WASTE ONLY)
						IM/C/E	Method Used					
To Other Countries	08 01 13	Yes	4.13	sludges from paint or varnish containing organic solvents or other dangerous substances	R1	M	Weighed	Abroad	Afvalstoffen Terminal Moerdijk B.V., 821780, Industrielerrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Industrielerrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	Industrielerrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	
To Other Countries	08 01 19	Yes	0.43	aqueous suspensions containing paint or varnish containing organic solvents or other dangerous substances	R1	M	Weighed	Abroad	Afvalstoffen Terminal Moerdijk B.V., 821780	Industrielerrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Industrielerrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	
To Other Countries	08 01 20	No	0.43	aqueous suspensions containing paint or varnish other than those mentioned in 08 04 01 19	R1	M	Weighed	Abroad	Afvalstoffen Terminal Moerdijk B.V., 821780	Industrielerrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Industrielerrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	
To Other Countries	08 03 08	No	8.3	aqueous liquid waste containing ink	R1	M	Weighed	Abroad	Afvalstoffen Terminal Moerdijk B.V., 821780	Industrielerrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Industrielerrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	
To Other Countries	08 03 12	Yes	23.63	waste ink containing dangerous substances	R1	M	Weighed	Abroad	Afvalstoffen Terminal Moerdijk B.V., 821780	Industrielerrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Industrielerrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	
To Other Countries	08 03 12	Yes	14.31	waste ink containing dangerous substances	R1	M	Weighed	Abroad	Recyfuel, Recyfuel, Engis, B4480, Belgium	Engis, B4480, Belgium	Recyfuel, Engis, B4480, Belgium	
To Other Countries	08 03 13	No	1.24	waste ink other than those mentioned in 08 03 12	R1	M	Weighed	Abroad	Recyfuel, Recyfuel, Engis, B4480, Belgium	Engis, B4480, Belgium	Recyfuel, Engis, B4480, Belgium	
To Other Countries	08 03 13	No	0.13	waste ink other than those mentioned in 08 03 12	R1	M	Weighed	Abroad	Afvalstoffen Terminal Moerdijk B.V., 821780	Industrielerrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Industrielerrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	
To Other Countries	08 03 17	Yes	0.06	waste printing toner containing dangerous substances	R1	M	Weighed	Abroad	Afvalstoffen Terminal Moerdijk B.V., 821780	Industrielerrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Industrielerrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	
To Other Countries	08 04 09	Yes	0.75	waste adhesives and sealants containing organic solvents or other dangerous substances	R1	M	Weighed	Abroad	Recyfuel, Recyfuel, Engis, B4480, Belgium	Engis, B4480, Belgium	Recyfuel, Engis, B4480, Belgium	
To Other Countries	08 04 09	Yes	8.86	waste adhesives and sealants containing organic solvents or other dangerous substances	R1	M	Weighed	Abroad	Afvalstoffen Terminal Moerdijk B.V., 821780	Industrielerrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Industrielerrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	
To Other Countries	08 04 10	No	5.2	waste adhesives and sealants other than those mentioned in 08 04 09	R1	M	Weighed	Abroad	Recyfuel, Recyfuel, Engis, B4480, Belgium	Engis, B4480, Belgium	Recyfuel, Engis, B4480, Belgium	
To Other Countries	08 04 13	Yes	3.68	aqueous sludges containing adhesives or sealants containing organic solvents or other dangerous substances	R1	M	Weighed	Abroad	Afvalstoffen Terminal Moerdijk B.V., 821780	Industrielerrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Industrielerrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	

Transfer Destination To Other Countries	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	M/C/E	Method Used		Location of Treatment	Haz Waste - Name and Licence/Permit No of Next Destination Facility Haz Waste - Name and Licence/Permit No of Recover/Disposer	Haz Waste - Address of Next Destination Facility Non-Haz Waste - Address of Recover/Disposer	Name and Licence / Permit No. and Address of Final Recovery/Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination (ie. Final Recovery/Disposal Site) (HAZARDOUS WASTE ONLY)
							M/C/E	Method Used					
To Other Countries	08 04 99	No	1.15	wastes not otherwise specified	R1	M	Method Used	Weighted	Abroad	Recyfuel,...	Engis, ...B4480, Belgium		
To Other Countries	08 04 99	No	1.16	wastes not otherwise specified	R1	M	Method Used	Weighted	Abroad	Afvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, ... The Netherlands		
To Other Countries	09 01 01	Yes	0.48	water-based developer and activator solutions	R4	M	Method Used	Weighted	Abroad	Remondis Production GmbH, WML0707M01	Brunnenstrasse 138, DE 44536 Lunen, ... Germany	Remondis Production GmbH, WML0707M01, Brunnenstrasse 138, DE 44536 Lunen, ... Germany	Brunnenstrasse 138, DE 44536 Lunen, ... Germany
To Other Countries	09 01 04	Yes	35.99	fixed solutions bottom ash, slag and boiler dust from co-incineration containing dangerous substances	R4	M	Method Used	Weighted	Abroad	Remondis Production GmbH, WML0707M01	Brunnenstrasse 138, DE 44536 Lunen, ... Germany	Remondis Production GmbH, WML0707M01, Brunnenstrasse 138, DE 44536 Lunen, ... Germany	Brunnenstrasse 138, DE 44536 Lunen, ... Germany
To Other Countries	10 01 14	Yes	0.13	substances	R1	M	Method Used	Weighted	Abroad	Recyfuel,...	Engis, ...B4480, Belgium	Recyfuel, Engis, ...B4480, Belgium	Engis, ...B4480, Belgium
To Other Countries	10 01 14	Yes	0.49	bottom ash, slag and boiler dust from co-incineration containing dangerous substances	R1	M	Method Used	Weighted	Abroad	Afvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, ... The Netherlands	Seaport M152, Vlasweg 12, 4782 PW Moerdijk, ... Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	10 13 14	No	0.06	waste concrete and concrete sludge	R1	M	Method Used	Weighted	Abroad	Afvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, ... The Netherlands	TIB Chemicals AG, ... 16-22 Muelheimer Strasse 68219, Mannheim, ... Germany	16-22 Muelheimer Strasse 68219, Mannheim, ... Germany
To Other Countries	11 01 05	Yes	23.84	pickling acids	R4	M	Method Used	Weighted	Abroad	TIB Chemicals AG, Zimmermann Sonderabfallentsorgung und Verwertung & Co KG Festsorffkonditionierung, 783/240405	3-7-31 Gottlieb-Daimler Strasse, DE 33334, Guterslo, ... Germany		
To Other Countries	11 01 10	No	6.99	sludges and filter cakes other than those mentioned in 11 01 09	R5	M	Method Used	Weighted	Abroad				
To Other Countries	11 01 11	Yes	0.14	aqueous rinsing liquids containing dangerous substances	R1	M	Method Used	Weighted	Abroad	Afvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, ... The Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	11 03 01	Yes	1.26	waste containing cyanide	R1	M	Method Used	Weighted	Abroad	Afvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, ... The Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	11 05 03	Yes	2.82	solid wastes from gas treatment	R1	M	Method Used	Weighted	Abroad	Afvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, ... The Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	12 01 03	No	3.83	non-ferrous metal filings and turnings	R6	M	Method Used	Weighted	Abroad	REVATECH SA, ...	Zoning Industriel D'Erein, B 4480 ENGIS, ... Belgium		

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Licence/Permit No of Next Destination Facility Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste: Address of Next Destination Facility Non-Haz Waste: Address of Recover/Disposer	Name and License /Permit No and Address of Final Receiver / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination (ie. Recovery Facility Site (HAZARDOUS WASTE ONLY))
						M/C/E	Method Used					
To Other Countries	12 01 09	Yes	183.45	machining emulsions and solutions free of halogens	D10	M	Weighed	Abroad	Sava GmbH & Co.	Ostenweute, Ce25541, Bruns buttel., Germany	Sava GmbH & Co., 1 Ostenweute, Ce25541, Bruns buttel., Germany	Ostenweute, Ce25541, Bruns buttel., Germany
To Other Countries	12 01 09	Yes	0.96	machining emulsions and solutions free of halogens	R1	M	Weighed	Abroad	Alvaistoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk., The Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk., Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	12 01 09	Yes	14.57	machining emulsions and solutions free of halogens	R1	M	Weighed	Abroad	Recyfuel.	Engis., B4480, Belgium	Recyfuel., Engis., B4480, B elgium	Engis., B4480, Belgium
To Other Countries	12 03 01	Yes	1.14	aqueous washing liquids mineral-based chlorinated engine, gear and lubricating oils	R6	M	Weighed	Abroad	REVATECH SA.,	Zoning 'Industrial D'Ehein, B 4480 ENGIS., Belgium	REVATECH SA., Zoning 'Industrial D'Ehein, B 4480 ENGIS., Belgium	Zoning 'Industrial D'Ehein, B 4480 ENGIS., Belgium
To Other Countries	13 02 04	Yes	0.42	mineral-based non-chlorinated engine, gear and lubricating oils	R1	M	Weighed	Abroad	Recyfuel.	Engis., B4480, Belgium	Recyfuel., Engis., B4480, B elgium	Engis., B4480, Belgium
To Other Countries	13 02 05	Yes	0.97	and lubricating oils	R1	M	Weighed	Abroad	Recyfuel.	Engis., B4480, Belgium	Recyfuel., Engis., B4480, B elgium	Engis., B4480, Belgium
To Other Countries	13 02 05	Yes	1.61	and lubricating oils	R1	M	Weighed	Abroad	Alvaistoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk., The Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk., Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	13 02 06	Yes	0.34	synthetic engine, gear and lubricating oils	R1	M	Weighed	Abroad	Alvaistoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk., The Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk., Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	13 02 08	Yes	76.94	other engine, gear and lubricating oils	R9	M	Weighed	Abroad	Midland Oil Refinery, GP3135SD	Shelah Road., Halesowen, B63 3PN, United Kingdom	Refinery, GP3135SD Shelah Road., Halesowen, B63 3PN, United Kingdom	Shelah Road., Halesowen, B63 3PN, United Kingdom
To Other Countries	13 02 08	Yes	4.99	other engine, gear and lubricating oils	R1	M	Weighed	Abroad	Alvaistoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk., The Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk., Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	13 02 08	Yes	4.21	other engine, gear and lubricating oils	D8	M	Weighed	Abroad	REVATECH SA.,	Zoning 'Industrial D'Ehein, B 4480 ENGIS., Belgium	REVATECH SA., Zoning 'Industrial D'Ehein, B 4480 ENGIS., Belgium	Zoning 'Industrial D'Ehein, B 4480 ENGIS., Belgium
To Other Countries	13 02 08	Yes	4.38	other engine, gear and lubricating oils	R1	M	Weighed	Abroad	Recyfuel.	Engis., B4480, Belgium	Recyfuel., Engis., B4480, B elgium	Engis., B4480, Belgium
To Other Countries	13 03 06	Yes	0.49	mineral-based chlorinated insulating and heat transmission oils other than those mentioned in 13 03 01	R1	M	Weighed	Abroad	Alvaistoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk., The Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk., Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	13 07 02	Yes	3.7	petrol	R9	M	Weighed	Abroad	Centec International, EA	The Science Park, Brooks Lane., Middlewich, CW10 0JG, United Kingdom	International, EA, Brooks Lane., Middlewich, CW10 0JG, United Kingdom	Brooks Lane., Middlewich, CW10 0JG, United Kingdom



Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Site Waste - Name and Licence/Permit No of Next Destination Facility Licence/Permit No of Receiver/Disposer	Site Waste - Address of Next Destination Facility Non Hazardous Areas of Receiver/Disposer	Name and Licence / Permit No. and Address of Receiver/Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination (ie. Final Recovery / Disposal Site) (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
To Other Countries	13 07 03	Yes	0.08	other fuels (including mixtures)	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	14 06 03	Yes	16.41	other solvents and solvent mixtures	D10	M	Weighed	Abroad	Sava Gmbh & Co.	Ostenweute,Ce25541,Bruns buttel,,Germany	Sava Gmbh & Co.,1 Ostenweute,Ce25541,Bruns buttel,,Germany	Ostenweute,Ce25541,Bruns buttel,,Germany
To Other Countries	14 06 05	Yes	3.77	sludges or solid wastes containing other solvents	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	15 01 07	No	0.07	glass packaging	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	15 01 10	Yes	49.95	packaging containing residues of or contaminated by dangerous substances	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	15 01 10	Yes	24.41	packaging containing residues of or contaminated by dangerous substances	R3	M	Weighed	Abroad	Nehlsen Gmbh & Co.,A-4187HH	Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany	Nehlsen Gmbh & Co.,A-4187HH,Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany	Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany
To Other Countries	15 02 02	Yes	244.77	absorbents, filler materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	R3	M	Weighed	Abroad	Nehlsen Gmbh & Co.,A-4187HH	Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany	Nehlsen Gmbh & Co.,A-4187HH,Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany	Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany
To Other Countries	15 02 02	Yes	66.26	absorbents, filler materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	R3	M	Weighed	Abroad	Recyfuel,	Engis, B4480,Belgium	Recyfuel,Engis, B4480,Belgium	Engis, B4480,Belgium
To Other Countries	15 02 03	No	5.69	absorbents, filler materials, wiping cloths and protective clothing other than those mentioned in 15 02 02	R3	M	Weighed	Abroad	Nehlsen Gmbh & Co.,A-4187HH	Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany	Nehlsen Gmbh & Co.,A-4187HH	Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany
To Other Countries	15 02 03	No	8.01	absorbents, filler materials, wiping cloths and protective clothing other than those mentioned in 15 02 02	R3	M	Weighed	Abroad	Recyfuel,	Engis, B4480,Belgium	Recyfuel,Engis, B4480,Belgium	Engis, B4480,Belgium
To Other Countries	16 01 13	Yes	0.24	brake fluids	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands

Transfer/Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz. Waste - Name and Licence/Permit No of Next Destination Facility Haz. Waste Name and Licence/Permit No of Recover/Disposer	Haz. Waste - Address of Next Destination Facility Non-Haz. Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recoverer/Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
To Other Countries	16 01 13	Yes	0.24 brake fluids		R1	M	Weighed	Abroad	Nehlsen Gmbh & Co. A-4187HH,Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany	Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany	Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany	
To Other Countries	16 01 14	Yes	0.31 antifreeze fluids containing dangerous substances		R3	M	Weighed	Abroad	Nehlsen Gmbh & Co. A-4187HH	Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany	Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany	
To Other Countries	16 01 14	Yes	10.83 antifreeze fluids containing dangerous substances		R3	M	Weighed	Abroad	Sava Gmbh & Co.	Osterweute,Ce25541,Brunsbuettel,,Germany Alvalstoffen Terminal Moerdijk	Osterweute,Ce25541,Brunsbuettel,,Germany	
To Other Countries	16 01 14	Yes	1.43 antifreeze fluids containing dangerous substances hazardous components other than those mentioned in 16 01 07 to 16 01 11 and 16 01 13 and 16 01 14		R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Viasweg 12,4782 PW Moerdijk,,The Netherlands	Industrieterrein - Seaport M152,Viasweg 12,,4782 PW,Moerdijk,Netherlands	
To Other Countries	16 01 21	Yes	0.79 inorganic wastes containing dangerous substances		R1	M	Weighed	Abroad	Recyfuel,	Engis,,B4480,Belgium	Engis,,B4480,Belgium	
To Other Countries	16 03 03	Yes	8.51 inorganic wastes containing dangerous substances		R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Viasweg 12,4782 PW Moerdijk,,The Netherlands	Industrieterrein - Seaport M152,Viasweg 12,,4782 PW,Moerdijk,Netherlands	
To Other Countries	16 03 03	Yes	0.13 inorganic wastes containing dangerous substances		D10	M	Weighed	Abroad	AGR mbh - RZR Herten,,	Im Emscherbruch 11,45699,Herten,,Germany	Im Emscherbruch 11,45699,Herten,,Germany	
To Other Countries	16 03 03	Yes	0.07 inorganic wastes containing dangerous substances other than those mentioned in 16 03 03		R1	M	Weighed	Abroad	Recyfuel,	Engis,,B4480,Belgium Zoning 'Industrial D'Ehain,B 4480 ENGIS,,Belgium	Engis,,B4480,Belgium	
To Other Countries	16 03 04	No	1.2 organic wastes other than those mentioned		R6	M	Weighed	Abroad	REVATECH SA,,			
To Other Countries	16 03 05	Yes	0.03 organic wastes containing dangerous substances		R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Viasweg 12,4782 PW Moerdijk,,The Netherlands	Industrieterrein - Seaport M152,Viasweg 12,,4782 PW,Moerdijk,Netherlands	
To Other Countries	16 03 06	No	0.84 laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals		D10	M	Weighed	Abroad	Sava Gmbh & Co.,	Osterweute,Ce25541,Brunsbuettel,,Germany		
To Other Countries	16 05 06	Yes	0.01 laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals		R3	M	Weighed	Abroad	PHS Group EA	Block B,Western Industrial Estate,Caerphilly,CF83 1XH,United Kingdom REVATECH SA,,Zoning 'Industrial D'Ehain,B 4480 ENGIS,,Belgium	Block B,Western Industrial Estate,Caerphilly,CF83 1XH,United Kingdom	
To Other Countries	16 05 06	Yes	15.62 laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals		R6	M	Weighed	Abroad	REVATECH SA,,	Zoning 'Industrial D'Ehain,B 4480 ENGIS,,Belgium	Zoning 'Industrial D'Ehain,B 4480 ENGIS,,Belgium	

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 Phys. 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. Recover/Disposal Site) (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
To Other Countries	16 05 06	Yes	10.56	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals	D10	M	Weighted	Abroad	Sava Gmbh & Co., Osterweute,Ce25541,Brunsbuettel,,Germany	Osterweute,Ce25541,Brunsbuettel,,Germany	Sava Gmbh & Co., Osterweute,Ce25541,Brunsbuettel,,Germany	Osterweute,Ce25541,Brunsbuettel,,Germany
To Other Countries	16 05 06	Yes	6.3	mixtures of laboratory chemicals, including containing dangerous substances, including laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals	R1	M	Weighted	Abroad	Recyfuel,, Alvalstoffen Terminal	Engis,,...B4480,Belgium	Recyfuel,, Alvalstoffen Terminal	Engis,,...B4480,Belgium
To Other Countries	16 05 07	Yes	54.28	discarded inorganic chemicals consisting of or containing dangerous substances	R1	M	Weighted	Abroad	Alvalstoffen Terminal Moerdijk B.V.,821780	Moerdijk,,The Netherlands	Alvalstoffen Terminal Moerdijk,,The Netherlands	Moerdijk,,The Netherlands
To Other Countries	16 05 07	Yes	7.71	discarded inorganic chemicals consisting of or containing dangerous substances	R10	M	Weighted	Abroad	Kompostsysteme Nord GmbH,108ZEB026	Industriepark 6,D-27777, Ganderkesee,,Germany	Kompostsysteme Nord GmbH,108ZEB026,Industrie park 6,D- 27777,Ganderkesee,,Germ any	Industriepark 6,D- 27777,Ganderkesee,,Germ any
To Other Countries	16 05 07	Yes	0.56	discarded inorganic chemicals consisting of or containing dangerous substances	D10	M	Weighted	Abroad	Sava Gmbh & Co.,	Osterweute,Ce25541,Brunsbuettel,,Germany	Sava Gmbh & Co., Osterweute,Ce25541,Brunsbuettel,,Germany	Osterweute,Ce25541,Brunsbuettel,,Germany
To Other Countries	16 05 07	Yes	0.18	discarded inorganic chemicals consisting of or containing dangerous substances	R4	M	Weighted	Abroad	Remondis Production GmbH,WML0707M01	Brunnenstrasse 138,DE 44536,Lunen,,Germany	Remondis Production GmbH,WML0707M01,Brun nenstrasse 138,DE 44536,Lunen,,Germany	Brunnenstrasse 138,DE 44536,Lunen,,Germany
To Other Countries	16 05 07	Yes	0.79	discarded inorganic chemicals consisting of or containing dangerous substances	R3	M	Weighted	Abroad	Nehlsen Gmbh & Co.,A- 4187HH	Neiderlassung Nehlsen- Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany	Neiderlassung Nehlsen- Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany	Neiderlassung Nehlsen- Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany
To Other Countries	16 05 08	Yes	38.09	discarded organic chemicals consisting of or containing dangerous substances	R1	M	Weighted	Abroad	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Viasweg 12,4782 PW Moerdijk,,The Netherlands	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Viasweg 12,4782 PW Moerdijk,Netherlands
To Other Countries	16 05 08	Yes	21.26	discarded organic chemicals consisting of or containing dangerous substances	R6	M	Weighted	Abroad	REVATECH SA,,	Zoning 'Industrial D'Ehein,B 4480 ENGIS,,Belgium	REVATECH SA,, Zoning 'Industrial D'Ehein,B 4480 ENGIS,,Belgium	Zoning 'Industrial D'Ehein,B 4480 ENGIS,,Belgium
To Other Countries	16 05 08	Yes	1.15	discarded organic chemicals consisting of or containing dangerous substances other than those mentioned in 16 05 06, 16 05 07 or 16 05 08	R1	M	Weighted	Abroad	Recyfuel,,	Engis,,...B4480,Belgium	Recyfuel,, Osterweute,Ce25541,Brunsbuettel,,Germany	Engis,,...B4480,Belgium
To Other Countries	16 05 09	No	0.83	discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08	D10	M	Weighted	Abroad	Sava Gmbh & Co.,	Osterweute,Ce25541,Brunsbuettel,,Germany	Sava Gmbh & Co., Osterweute,Ce25541,Brunsbuettel,,Germany	Osterweute,Ce25541,Brunsbuettel,,Germany
To Other Countries	16 05 09	No	2.65	discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08	R1	M	Weighted	Abroad	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Viasweg 12,4782 PW Moerdijk,,The Netherlands	Alvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Viasweg 12,4782 PW Moerdijk,Netherlands
To Other Countries	16 07 08	Yes	1.91	wastes containing oil	R9	M	Weighted	Abroad	Centec International,EA Lane ,Middlewich,CW10 OJG,United Kingdom	The Science Park,Brooks Lane ,Middlewich,CW10 OJG,United Kingdom	Centec International,EA,Brooks Lane ,Middlewich,CW10 OJG,United Kingdom	Brooks Lane ,Middlewich CW10 OJG,United Kingdom
To Other Countries	16 07 08	Yes	4.06	wastes containing oil wastes containing other dangerous substances	R1	M	Weighted	Abroad	Recyfuel,,	Engis,,...B4480,Belgium	Recyfuel,, Osterweute,Ce25541,Brunsbuettel,,Germany	Engis,,...B4480,Belgium
To Other Countries	16 07 09	Yes	19.42	substances	R1	M	Weighted	Abroad	Recyfuel,,	Engis,,...B4480,Belgium	Recyfuel,, Osterweute,Ce25541,Brunsbuettel,,Germany	Engis,,...B4480,Belgium

Transfer/Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Licence/Permit No of Next Destination Facility Haz Waste: Name and Licence/Permit No of Next Destination Facility Non Haz Waste: Address of Recoverer/Disposer	Haz Waste: Address of Next Destination Facility Non Haz Waste: Address of Recoverer/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					
To Other Countries	16 07 09	Yes	9.53	wastes containing other dangerous substances	D8	M	Weighed	Abroad	REVATECH SA, Zoning Industriële D'Ehain, B 4480 ENGIS, Belgium	Zoning Industriële D'Ehain, B 4480 ENGIS, Belgium	REVATECH SA, Zoning Industriële D'Ehain, B 4480 ENGIS, Belgium	Zoning Industriële D'Ehain, B 4480 ENGIS, Belgium
To Other Countries	16 07 09	Yes	24.15	wastes containing other dangerous substances	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821760	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	B.V.1412/149, Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	16 09 04	Yes	3.0	oxidising substances, not otherwise specified	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821760	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	B.V.1412/149, Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	16 10 01	Yes	55.89	aqueous liquid wastes containing dangerous substances	R1	M	Weighed	Abroad	Recyfuel, Moerdijk	Engis, B4480, Belgium	Recyfuel, Engis, B4480, Belgium	Engis, B4480, Belgium
To Other Countries	16 10 01	Yes	0.37	aqueous liquid wastes containing dangerous substances	R4	M	Weighed	Abroad	Remondis Production GmbH, WML0707M01	Brunnenstrasse 138, DE 44536, Lunen, Germany	Remondis Production GmbH, WML0707M01 Brunnenstrasse 138, DE 44536, Lunen, Germany	Brunnenstrasse 138, DE 44536, Lunen, Germany
To Other Countries	17 03 01	Yes	0.69	bituminous mixtures containing coal tar	R1	M	Weighed	Abroad	Recyfuel, Moerdijk	Engis, B4480, Belgium	Recyfuel, Engis, B4480, Belgium	Engis, B4480, Belgium
To Other Countries	17 05 03	Yes	0.83	soil and stones containing dangerous substances	R1	M	Weighed	Abroad	Recyfuel, Moerdijk	Engis, B4480, Belgium	Recyfuel, Engis, B4480, Belgium	Engis, B4480, Belgium
To Other Countries	17 05 03	Yes	2.04	soil and stones containing dangerous substances	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821760	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	B.V.1412/149, Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	17 05 03	Yes	0.34	soil and stones containing dangerous substances	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821760	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	B.V.1412/149, Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
Within the Country	17 05 04	No	820.04	soil and stones other than those mentioned in 17 05 03	R5	M	Weighed	Offsite in Ireland	Greensiar, W0178-02	Ballynagran, Co. Meath, Ireland	B.V.1412/149, Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	18 01 01	No	0.09	chemicals consisting of or containing dangerous substances	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821760	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	B.V.1412/149, Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	18 01 06	Yes	2.12	chemicals consisting of or containing dangerous substances	R1	M	Weighed	Abroad	Recyfuel, Moerdijk	Engis, B4480, Belgium	Recyfuel, Engis, B4480, Belgium	Engis, B4480, Belgium
To Other Countries	18 01 06	Yes	35.5	chemicals consisting of or containing dangerous substances	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821760	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	B.V.1412/149, Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	18 01 07	No	4.22	chemicals other than those mentioned in 18 01 06	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821760	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	B.V.1412/149, Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	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				
To Other Countries	18 02 01	No	0.13 sharps except (18 02 02)		R1	M	Weighted	Abvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands	REVA TECH SA, Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium	Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium
To Other Countries	18 02 05	Yes	0.82 chemicals consisting of or containing dangerous substances		R6	M	Weighted	REVA TECH SA, Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium	Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium	REVA TECH SA, Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium	Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium
To Other Countries	18 02 08	No	0.97 02 07 medicines other than those mentioned in 18 02 07		R6	M	Weighted	REVA TECH SA, Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium	Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium	REVA TECH SA, Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium	Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium
To Other Countries	19 02 05	Yes	8.94 sludges from physicochemical treatment containing dangerous substances		R3	M	Weighted	Nehlsen GmbH & Co., A-4187HH, Neiderlassung Moerdijk, The Netherlands	Neiderlassung Nehlsen-Plimp, Betriebsstätte Bremen, Louis-Krages Strasse 10, Bremen, Germany	Nehlsen GmbH & Co., A-4187HH, Neiderlassung Moerdijk, The Netherlands	Neiderlassung Nehlsen-Plimp, Betriebsstätte Bremen, Louis-Krages Strasse 10, Bremen, Germany
To Other Countries	19 03 05	No	5.97 stabilised wastes other than those mentioned in 19 03 04		D5	M	Weighted	IAG Ihenberger Abfallentsorgungsgesellschaft mbH, Ihenberg 1, D-23923 Seimtsdorf, Germany	Ihenberg 1, D-23923 Seimtsdorf, Germany	IAG Ihenberger Abfallentsorgungsgesellschaft mbH, Ihenberg 1, D-23923 Seimtsdorf, Germany	Ihenberg 1, D-23923 Seimtsdorf, Germany
To Other Countries	19 09 04	No	3.45 spent activated carbon		R1	M	Weighted	Abvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands	IAG Ihenberger Abfallentsorgungsgesellschaft mbH, Ihenberg 1, D-23923 Seimtsdorf, Germany	Ihenberg 1, D-23923 Seimtsdorf, Germany
To Other Countries	19 12 11	Yes	9.87 other wastes (including mixtures of materials) from mechanical treatment of waste containing dangerous substances		D5	M	Weighted	IAG Ihenberger Abfallentsorgungsgesellschaft mbH, Ihenberg 1, D-23923 Seimtsdorf, Germany	Ihenberg 1, D-23923 Seimtsdorf, Germany	IAG Ihenberger Abfallentsorgungsgesellschaft mbH, Ihenberg 1, D-23923 Seimtsdorf, Germany	Ihenberg 1, D-23923 Seimtsdorf, Germany
To Other Countries	20 01 19	Yes	3.5 pesticides		R1	M	Weighted	Abvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands
To Other Countries	20 01 25	No	0.69 edible oil and fat		R1	M	Weighted	Abvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands
To Other Countries	20 01 26	Yes	2.42 oil and fat other than those mentioned in 20 01 25		R1	M	Weighted	Recyfuel, Moerdijk	Engis, B-4480, Belgium	Recyfuel, Moerdijk	Engis, B-4480, Belgium
To Other Countries	20 01 28	Yes	0.02 oil and fat other than those mentioned in 20 01 25		R1	M	Weighted	Abvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands	Abvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands
To Other Countries	20 01 28	No	0.07 paint, inks, adhesives and resins other than those mentioned in 20 01 27		R1	M	Weighted	Abvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands	Abvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands
To Other Countries	20 01 29	Yes	0.56 detergents containing dangerous substances		R1	M	Weighted	Recyfuel, Moerdijk	Engis, B-4480, Belgium	Recyfuel, Moerdijk	Engis, B-4480, Belgium
To Other Countries	20 01 29	Yes	26.4 detergents containing dangerous substances		R6	M	Weighted	REVA TECH SA, Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium	Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium	REVA TECH SA, Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium	Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium

Transfer/Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Licence/Permit No of Next Destination Facility Name and Address of Next Destination Facility Non-BEL/REG: Address of Recover/Disposer	Licence/Permit No of Next Destination Facility Name and Address of Next Destination Facility Non-BEL/REG: Address of Recover/Disposer	Name and Licence / Permit No. and Address of Recover/Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
To Other Countries	20 01 29	Yes	21.57	detergents containing dangerous substances	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Alvalstoffen Terminal Moerdijk B.V., 1412/14149, Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands	Alvalstoffen Terminal Moerdijk B.V., 1412/14149, Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	20 01 32	No	1.62	01 31 medicines other than those mentioned in 20	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Alvalstoffen Terminal Moerdijk B.V., 1412/14149, Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands	Alvalstoffen Terminal Moerdijk B.V., 1412/14149, Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	19 10 06	No	1243.0	19 10 05 other fractions other than those mentioned	R5	M	Weighed	Abroad	BAUER Umwelt GmbH, 1,86529 Schrobenhausen, Germany	BAUER Umwelt GmbH, 1,86529 Schrobenhausen, Germany	BAUER Umwelt GmbH, 1,86529 Schrobenhausen, Germany	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands
To Other Countries	08 01 12	No	0.03	waste paint and varnish other than those mentioned in 08 01 11	R3	M	Weighed	Abroad	PHS Group, EA	PHS Group, EA	PHS Group, EA	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands
To Other Countries	11 01 09	Yes	2.98	sludges and filler cakes containing dangerous substances	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Alvalstoffen Terminal Moerdijk B.V., 1412/14149, Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands	Alvalstoffen Terminal Moerdijk B.V., 1412/14149, Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	11 01 09	Yes	14.24	sludges and filler cakes containing dangerous substances	R6	M	Weighed	Abroad	REVATECH SA, Belgium	Zoning Industriale D'Ehain, B 4480 ENGIS, Belgium	Zoning Industriale D'Ehain, B 4480 ENGIS, Belgium	Zoning Industriale D'Ehain, B 4480 ENGIS, Belgium
To Other Countries	11 01 09	Yes	25.47	sludges and filler cakes containing dangerous substances	D5	M	Weighed	Abroad	IAG Ihenberger Abfallentsorgungsgesellschaft mbH, Ihenberg 1, D 23923 Selmsdorf, Germany	IAG Ihenberger Abfallentsorgungsgesellschaft mbH, Ihenberg 1, D 23923 Selmsdorf, Germany	IAG Ihenberger Abfallentsorgungsgesellschaft mbH, Ihenberg 1, D 23923 Selmsdorf, Germany	Ihenberg 1, D 23923 Selmsdorf, Germany
To Other Countries	13 05 03	Yes	6.97	interceptor sludges	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Alvalstoffen Terminal Moerdijk B.V., 1412/14149, Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands	Alvalstoffen Terminal Moerdijk B.V., 1412/14149, Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	13 05 03	Yes	33.16	interceptor sludges	D8	M	Weighed	Abroad	Recyfuel, Belgium	Engis, Belgium	Recyfuel, Belgium	Engis, Belgium
To Other Countries	13 05 03	Yes	2.79	interceptor sludges	R3	M	Weighed	Abroad	4187HH, Netherlands	4187HH, Netherlands	4187HH, Netherlands	Niederlassung Nehlsen-Pilmp, Betriebsstätte Bremen, Louis-Krages Strasse 10, Bremen, Germany
To Other Countries	13 05 03	Yes	2.02	interceptor sludges	R1	M	Weighed	Abroad	Recyfuel, Belgium	Engis, Belgium	Recyfuel, Belgium	Engis, Belgium
To Other Countries	13 07 01	Yes	11.19	fuel oil and diesel	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Alvalstoffen Terminal Moerdijk B.V., 1412/14149, Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands	Alvalstoffen Terminal Moerdijk B.V., 1412/14149, Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	16 10 02	No	18.62	aqueous liquid wastes other than those mentioned in 16 10 01	R1	M	Weighed	Abroad	Recyfuel, Belgium	Engis, Belgium	Recyfuel, Belgium	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands
To Other Countries	16 10 02	No	115.01	aqueous liquid wastes other than those mentioned in 16 10 01	R6	M	Weighed	Abroad	REVATECH SA, Belgium	Zoning Industriale D'Ehain, B 4480 ENGIS, Belgium	Zoning Industriale D'Ehain, B 4480 ENGIS, Belgium	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Licence/Permit No of Next Destination Facility Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste: Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recoverer/Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
To Other Countries	19 03 04	Yes	2859.71	wastes marked as hazardous, partly (20) stabilised	D8	M	Weighed	Abroad	Terracon GmbH, Hovesstrasse,20539 Hamburg, Germany	74-76 Hovesstrasse,20539 Hamburg, Germany	74-76 Hovesstrasse,20539 Hamburg, Germany	
Within the Country	19 12 02	No	900.0	ferrous metal	R4	M	Weighed	Offsite in Ireland	A1 Metal, WMP007d	Acragar, Mountmellick, Co. Laois, Ireland		
To Other Countries	16 10 01	Yes	27.56	aqueous liquid wastes containing dangerous substances	D8	M	Weighed	Abroad	REVATECH SA,	Zoning Industriale D'Ehein, B 4480 ENGIS, Belgium	REVATECH SA, Zoning Industriale D'Ehein, B 4480 ENGIS, Belgium	Zoning Industriale D'Ehein, B 4480 ENGIS, Belgium
To Other Countries	15 01 04	No	83.36	metallic packaging	R3	M	Weighed	Abroad	Delta Containers Direct Ltd.,	Preston Street, Manchester, Manchester, M18 8DB, United Kingdom		
To Other Countries	15 01 04	No	20.78	metallic packaging	R3	M	Weighed	Abroad	Global Recycling Solutions Ltd.,	Ci>Newark, NG24 2FB, United Kingdom		
Within the Country	19 02 99	No	44450.0	wastes not otherwise specified	D8	M	Weighed	Offsite in Ireland	Ringsend WWTW,	Pigeon House Road Ringsend, Dublin 4, Ireland		

\* Select a row by clicking the Description of Waste then click the details button



Environmental Protection Agency

[ PRTR# : W0192 | Facility Name : Rilta Environmental Limited | Filename : W0192\_2012.xls | Return Year : 2012 ]

Guidance to completing the PRTR workbook

# AER Returns Workbook

Version 1.1.12

<b>REFERENCE YEAR</b>	2012
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**1. FACILITY IDENTIFICATION**

Parent Company Name	Rilta Environmental Limited
Facility Name	Rilta Environmental Limited
PRTR Identification Number	W0192
Licence Number	W0192-03

Waste or IPPC Classes of Activity

No.	class_name
4.13	Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced.
3.11	Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.12	Repackaging prior to submission to any activity referred to in a preceding paragraph of this Schedule.
3.13	Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced.
3.7	#####
4.2	Recycling or reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
4.3	Recycling or reclamation of metals and metal compounds.
4.4	Recycling or reclamation of other inorganic materials.
4.6	Recovery of components used for pollution abatement.
4.8	Oil re-refining or other re-uses of oil.
Address 1	Block 402, Grant's Drive
Address 2	Greenogue Business Park
Address 3	Rathcoole
Address 4	County Dublin
	Dublin
Country	Ireland
Coordinates of Location	-8.48281 51.8695
River Basin District	IEEA
NACE Code	3832
Main Economic Activity	Recovery of sorted materials
<b>AER Returns Contact Name</b>	Colm Hussey
<b>AER Returns Contact Email Address</b>	colm.hussey@rilta.ie
<b>AER Returns Contact Position</b>	Facility Manager
<b>AER Returns Contact Telephone Number</b>	014018024
<b>AER Returns Contact Mobile Phone Number</b>	0879176264
<b>AER Returns Contact Fax Number</b>	014018080
<b>Production Volume</b>	0.0
<b>Production Volume Units</b>	
<b>Number of Installations</b>	0
<b>Number of Operating Hours in Year</b>	0
<b>Number of Employees</b>	68
<b>User Feedback/Comments</b>	



<b>Web Address</b>	
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**2. PRTR CLASS ACTIVITIES**

Activity Number	Activity Name
5(a)	Installations for the recovery or disposal of hazardous waste
5(c)	Installations for the disposal of non-hazardous waste
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) ?	
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[Link to previous years emissions data](#)

4.1 RELEASES TO AIR

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

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

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

SECTION B : REMAINING PRTR POLLUTANTS

No. Annex II	POLLUTANT	Name	METHODOLOGY		Please enter all quantities in this section in KGs				
			M/C/E	Method Code	Method Used / 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)

Pollutant No.	Name	METHODOLOGY		Please enter all quantities in this section in KGs						
		M/C/E	Method Code	Method Used / Designation or Description biannual measured result measured by 1000hrs	Emission Point 1	Emission Point 2	Emission Point 3	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
351	Total Organic Carbon (as C)	C	MAB		4.0	27.5	155.0	186.5	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 flared 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: Please enter summary data on the quantities of methane flared and / or utilised	M/C/E	Method Code	Method Used / Designation or Description	Facility Total Capacity m3 per hour	
				Method Used / Designation or Description	Facility Total Capacity m3 per hour
Total estimated methane generation (as per site model)	0.0				N/A
Methane flared	0.0				0.0 (Total Flaring Capacity)
Methane utilised in engines	0.0				0.0 (Total Utilising Capacity)
Net methane emission (as reported in Section A above)	0.0				N/A

4.3 RELEASES TO WASTEWATER OR SEWER

[Link to previous years emissions data](#)

SECTION A : PRTR POLLUTANTS		OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER				Please enter all quantities in this section in KGs			
No. Annex II	Name	M/C/E	Method Code	Method Used Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	QUANTITY
17	Arsenic and compounds (as As)	M	MAB	Average measured result multiplied by the discharged volume		1.75	1.75	0.0	0.0
19	Chromium and compounds (as Cr)	M	MAB	Average measured result multiplied by the discharged volume		4.07	4.07	0.0	0.0
20	Copper and compounds (as Cu)	M	MAB	Average measured result multiplied by the discharged volume		3.5	3.5	0.0	0.0
23	Lead and compounds (as Pb)	M	MAB	Average measured result multiplied by the discharged volume		1.17	1.17	0.0	0.0
22	Nickel and compounds (as Ni)	M	MAB	Average measured result multiplied by the discharged volume		8.16	8.16	0.0	0.0

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

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

SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)		OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER				Please enter all quantities in this section in KGs			
Pollutant No.	Name	M/C/E	Method Code	Method Used Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	QUANTITY
303	BOD	M	MAB	Average measured result multiplied by the discharge volume		4643.7	4643.7	0.0	0.0
238	Ammonia (as N)	M	MAB	Average measured result multiplied by the discharged volume		11944.3	11944.3	0.0	0.0
206	Benzene & toluene & xylene (combined)	M	MAB	Average measured result multiplied by the discharged volume		3.56	3.56	0.0	0.0
306	COD	M	MAB	Average measured result multiplied by the discharged volume		39981.4	39981.4	0.0	0.0
308	Detergents (as MBAS)	M	MAB	Average measured result multiplied by the discharged volume		81.57	81.57	0.0	0.0
324	Mineral oils	M	MAB	Average measured result multiplied by the discharged volume		1.17	1.17	0.0	0.0
240	Suspended Solids	M	MAB	Average measured result multiplied by the discharged volume		2313.1	2313.1	0.0	0.0
343	Sulphate	M	MAB	Average measured result multiplied by the discharged volume		1730.47	1730.47	0.0	0.0

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

Please enter all quantities on this sheet in Tonnes

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Licence/Permit No of Next Destination Facility Haz Waste Name and Licence/Permit No of Recover/Disposer	Haz Waste: Address of Next Destination Facility Non-Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination (i.e. Final Recoverer / Disposer Site (HAZARDOUS WASTE ONLY))
						M/C/E	Method Used					
To Other Countries	02 07 04	No	187.36	materials unsuitable for consumption or processing	R10	M	Weighed	Abroad	Kompositssysteme Nord GmbH, 108ZEB026	Industriepark 6, D-27777, Ganderskeese, Germany	REVATECH SA, Zoning Industrial D'Eihein, B 4480 ENGIS, Belgium	Zoning Industrial D'Eihein, B 4480 ENGIS, Belgium
To Other Countries	06 01 06	Yes	283.84	other acids	R9	M	Weighed	Abroad	REVATECH SA, Zimmermann Sonderabfallentsorgung und Verwertung & Co KG Festsstoffkonditionierung, 783/240406	3-7+31 Gottlieb-Daimler Strasse DE 33334, Guterslo, Germany	REVATECH SA, Zoning Industrial D'Eihein, B 4480 ENGIS, Belgium	Zoning Industrial D'Eihein, B 4480 ENGIS, Belgium
To Other Countries	06 03 14	No	185.0	solid salts and solution other than those mentioned in 06 03 11 and 06 03 13	R5	M	Weighed	Abroad	Verwertung & Co KG Festsstoffkonditionierung, 783/240406	3-7+31 Gottlieb-Daimler Strasse DE 33334, Guterslo, Germany	REVATECH SA, Zoning Industrial D'Eihein, B 4480 ENGIS, Belgium	Zoning Industrial D'Eihein, B 4480 ENGIS, Belgium
To Other Countries	01 05 05	Yes	433.0	oil-containing drilling muds and wastes	D9	M	Weighed	Abroad	TWMA EA	Unit 12, Dates Industrial Estate Peterhead, AB42 3JF, United Kingdom	TWMA Ltd., EA, Unit 12, Dates Industrial Estate Peterhead, AB42 3JF, United Kingdom	Unit 12, Dates Industrial Estate Peterhead, AB42 3JF, United Kingdom
To Other Countries	08 01 11	Yes	497.18	solvents or other dangerous substances	R1	M	Weighed	Abroad	Alvastoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Viasweg 12, 4782 PW Moerdijk, The Netherlands	REVATECH SA, Zoning Industrial D'Eihein, B 4480 ENGIS, Belgium	Zoning Industrial D'Eihein, B 4480 ENGIS, Belgium
To Other Countries	09 01 05	Yes	94.68	bleach solutions and bleach fixer solutions	R4	M	Weighed	Abroad	Remondis Production GmbH, WML0707M01	Brunnenstrasse 138 DE 44536, Lunen, Germany	Remondis Production GmbH, WML0707M01, Brunnenstrasse 138 DE 44536, Lunen, Germany	Brunnenstrasse 138 DE 44536, Lunen, Germany
To Other Countries	10 01 04	Yes	11.86	oil fly ash and boiler dust	R5	M	Weighed	Abroad	Zimmermann Sonderabfallentsorgung und Verwertung & Co KG Festsstoffkonditionierung, 783/240406	3-7+31 Gottlieb-Daimler Strasse DE 33334, Guterslo, Germany	Zimmermann Sonderabfallentsorgung und Verwertung & Co KG Festsstoffkonditionierung, 783/240406, 3-7+31 Gottlieb-Daimler Strasse DE 33334, Guterslo, Germany	3-7+31 Gottlieb-Daimler Strasse DE 33334, Guterslo, Germany
To Other Countries	10 01 01	No	403.0	Boiler Ash	R5	M	Weighed	Abroad	Lafarge Cement UK, P0052/04A	29 Sandholes Road, Cookstown BT80 9AR, United Kingdom	Lafarge Activit� Pl�tre, rue Marcel Demonque, 500, Zone du P�le Technologique Agro Parc, F-84915 Avignon Cedex 9, France	rue Marcel Demonque, 500, Zone du P�le Technologique Agro Parc, F-84915 Avignon Cedex 9, France
To Other Countries	11 01 05	Yes	82.0	pickling acids	R4	M	Weighed	Abroad	REVATECH SA, Zimmermann Sonderabfallentsorgung und Verwertung & Co KG Festsstoffkonditionierung, 783/240406	Zoning Industrial D'Eihein, B 4480 ENGIS, Belgium	REVATECH SA, Zoning Industrial D'Eihein, B 4480 ENGIS, Belgium	Zoning Industrial D'Eihein, B 4480 ENGIS, Belgium
To Other Countries	11 01 09	Yes	35.38	sludges and filter cakes containing dangerous substances	R5	M	Weighed	Abroad	Zimmermann Sonderabfallentsorgung und Verwertung & Co KG Festsstoffkonditionierung, 783/240406	3-7+31 Gottlieb-Daimler Strasse DE 33334, Guterslo, Germany	Zimmermann Sonderabfallentsorgung und Verwertung & Co KG Festsstoffkonditionierung, 783/240406, 3-7+31 Gottlieb-Daimler Strasse DE 33334, Guterslo, Germany	3-7+31 Gottlieb-Daimler Strasse DE 33334, Guterslo, Germany
To Other Countries	13 03 01	Yes	11.82	insulating or heat transmission oils containing PCBs	D10	M	Weighed	Abroad	SITA Decontamination, D/PMVC0 1F28/33629	Westvaardijk 97, Grimbergen, 1850, Netherlands	SITA Decontamination, D/PMVC0 1F28/33629, Westvaardijk 97, Grimbergen, 1850, Netherlands	Westvaardijk 97, Grimbergen, 1850, Netherlands
To Other Countries	13 02 08	Yes	22.2	other engine, gear and lubricating oils	R9	M	Weighed	Abroad	Holcim SA, 43797764	Rue des Fabriques, 2, Obourg B7034, Belgium	Holcim SA, 43797764, Rue des Fabriques, 2, Obourg B7034, Belgium	Rue des Fabriques, 2, Obourg B7034, Belgium

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste - Name and Licence/Permit No of Next Destination Facility Haz Waste Name and Licence/Permit No of Recover/Disposer	Haz Waste - Address of Next Non-Haz Waste Address of Recover/Disposer	Name and License /Permit No. and Address of Final Receiver/Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination (i.e. Final/Recovery/ Disposal Site (HAZARDOUS WASTE ONLY))
						M/C/E	Method Used					
To Other Countries	14 06 03	Yes	238.66	other solvents and solvent mixtures	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Alvalstoffen Terminal Moerdijk B.V., 821780, Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
Within the Country	15 01 04	No	3.5	metallic packaging	R4	M	Weighed	Offsite in Ireland	A1 Metal/WMP007d	Laos, Ireland	Alvalstoffen Terminal Moerdijk	
To Other Countries	15 02 02	Yes	56.16	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
Within the Country	16 02 14	No	1.14	discarded equipment other than those mentioned in 16 02 09 to 16 02 13	R4	M	Weighed	Offsite in Ireland	Electrical Waste Ireland, Permit No. WFP-DS-09-0012-01	Greenogue Business Park, Rathcoole, Co. Dublin, Ireland	Alvalstoffen Terminal Moerdijk	
To Other Countries	16 05 06	Yes	60.21	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals	R1	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	16 05 07	Yes	72.12	discarded inorganic chemicals consisting of or containing dangerous substances	R6	M	Weighed	Abroad	REVATECH SA, Ireland, Permit No. WFP-DS-09-0012-01	Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium
To Other Countries	16 06 01	Yes	5239.1	lead batteries	R4	M	Weighed	Abroad	HJ Enthoven & Sons, BL5598	Darley Dale Smelter, South Darley, Derbyshire, DE4 2LP, United Kingdom	Sons, BL5598, Darley Dale Smelter, South Darley, Derbyshire, DE4 2LP, United Kingdom	Darley Dale Smelter, South Darley, Derbyshire, DE4 2LP, United Kingdom
Within the Country	16 06 02	Yes	13.5	Ni-Cd batteries	R4	M	Weighed	Offsite in Ireland	The Recycling Village Ltd., WP2007/20	Louth, Ireland	Alvalstoffen Terminal Moerdijk	
Within the Country	16 06 04	No	20.0	alkaline batteries (except 16 06 03)	R4	M	Weighed	Offsite in Ireland	The Recycling Village Ltd., WP2007/20	Louth, Ireland	Alvalstoffen Terminal Moerdijk	
Within the Country	16 06 05	No	1.0	other batteries and accumulators	R4	M	Weighed	Offsite in Ireland	The Recycling Village Ltd., WP2007/20	Louth, Ireland	Alvalstoffen Terminal Moerdijk	
To Other Countries	16 10 01	Yes	49.0	aqueous liquid wastes containing dangerous substances	D8	M	Weighed	Abroad	Alvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands
To Other Countries	16 10 01	Yes	424.3	aqueous liquid wastes containing dangerous substances	D8	M	Weighed	Abroad	REVATECH SA, Ireland, Permit No. WFP-DS-09-0012-01	Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Zoning 'Industrial D'Ehein, B 4480 ENGIS, Belgium
To Other Countries	16 10 01	Yes	398.4	aqueous liquid wastes containing dangerous substances	D8	M	Weighed	Abroad	Sava GmbH & Co., Austria, Permit No. WFP-DS-09-0012-01	Osternweite, Ce25541, Bruns butel, Germany	Osternweite, Ce25541, Bruns butel, Germany	Osternweite, Ce25541, Bruns butel, Germany
To Other Countries	17 05 03	Yes	1367.0	soil and stones containing dangerous substances	D5	M	Weighed	Abroad	Terracon GmbH, Germany, Permit No. WFP-DS-09-0012-01	74-76 Hovestrasse, 20539 Hamburg, Germany	Terracon GmbH, Germany, Permit No. WFP-DS-09-0012-01	74-76 Hovestrasse, 20539 Hamburg, Germany

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Licence/Permit No of Next Destination Facility Haz.Waste: Name and Licence/Permit No of Recover/Disposer	Haz.Waste: Address of Next Destination Facility Non-Haz.Waste: Address of Recover/Disposer	Name and License /Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination (i.e. Final Recoverer / Disposer) (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
To Other Countries	18 01 09	No	69.5	medicines other than those mentioned in 18 01 08	R1	M	Weighted	Abroad	Afvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands		
To Other Countries	18 02 08	No	103.8	medicines other than those mentioned in 18 02 07	R1	M	Weighted	Abroad	Afvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands		
Within the Country	20 01 21	Yes	0.84	fluorescent tubes and other mercury-containing waste	R4	M	Weighted	Offsite in Ireland	Irish Lamp Recycling, Blackpark, Kilkenny Rd., Athy, Co. Kildare, Ireland	Irish Lamp Recycling, Blackpark, Kilkenny Rd., Athy, Co. Kildare, Ireland	Blackpark, Kilkenny Rd., Athy, Co. Kildare, Ireland	
To Other Countries	20 01 27	Yes	483.8	paint, inks, adhesives and resins containing dangerous substances	R1	M	Weighted	Abroad	Afvalstoffen Terminal Moerdijk B.V., 821780	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	
To Other Countries	20 01 27	Yes	96.68	paint, inks, adhesives and resins containing dangerous substances	R3	M	Weighted	Abroad	Nehlsen GmbH & Co., A-4187HH	Nehlsen GmbH & Co., A-4187HH, Neiderlassung Nehlsen-Pilmp, Betriebsstrasse Bremen, Louis-Krages Strasse 10, Bremen, Germany	Neiderlassung Nehlsen-Pilmp, Betriebsstrasse Bremen, Louis-Krages Strasse 10, Bremen, Germany	
To Other Countries	13 07 03	Yes	107.1	other fuels (including mixtures) absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02	R9	M	Weighted	Abroad	Centec International, EA	The Science Park, Brooks Lane, Middlewich, CW10 0JG, United Kingdom	Brooks Lane, Middlewich, CW10 0JG, United Kingdom	
To Other Countries	15 02 03	No	23.9	discarded equipment other than those mentioned in 16 02 09 to 16 02 13	D1	M	Weighted	Abroad	GVE Gesellschaft GmbH, G7fersloh, Germany		Felix Gormley Metals, 01/07/2015, Monery, Crossodoney Co. Cavan, Ireland	
Within the Country	16 01 07	Yes	70.8	oil filters	R4	M	Weighted	Offsite in Ireland	Felix Gormley Metals, 07/01/2015	Monery, Crossodoney Co. Cavan, Ireland	Monery, Crossodoney Co. Cavan, Ireland	
To Other Countries	16 02 09	Yes	55.6	transformers and capacitors containing PCBs	D10	M	Weighted	Abroad	Orion B.V., 18/07/2937	De Steven, 25 AX Drachten, 9206, Netherlands	De Steven, 25 AX Drachten, 9206, Netherlands	
Within the Country	16 02 14	No	4.7	discarded equipment other than those mentioned in 16 02 09 to 16 02 13	R4	M	Weighted	Offsite in Ireland	The Recycling Village Ltd., WP2007/20	Unit 4 Timre Business Park, Monasterboice, Co. Louth, Ireland		
To Other Countries	16 05 04	Yes	11.64	gases in pressure containers (including halons) containing dangerous substances	R4	M	Weighted	Abroad	PHS Group, EA	Block B, Western Industrial Estate, Caerphilly, CF83 1XH, United Kingdom	Block B, Western Industrial Estate, Caerphilly, CF83 1XH, United Kingdom	
Within the Country	16 06 05	No	1.0	other batteries and accumulators	R4	M	Weighted	Offsite in Ireland	The Recycling Village Ltd., WP2007/20	Unit 4 Timre Business Park, Monasterboice, Co. Louth, Ireland		
To Other Countries	16 10 01	Yes	26.5	aqueous liquid wastes containing dangerous substances	D10	M	Weighted	Abroad	Scoti Centre, Z.I. De Port Jerome, Lillebonne, 76170, France	Scoti Centre, Z.I. De Port Jerome, Lillebonne, 76170, France	Z.I. De Port Jerome, Lillebonne, 76170, France	
To Other Countries	17 03 01	Yes	21.4	bituminous mixtures containing coal tar	R5	M	Weighted	Abroad	Afvalstoffen Terminal Moerdijk B.V., 14/12/4149	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, The Netherlands	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW Moerdijk, Netherlands	

Transfer Destination	European Waste Code	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Licence/Permit No of Next Destination Facility Haz Waste Licence No of Next Recover/Disposer	Haz Waste / Address of Next 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					
To Other Countries	17 06 01	29.0	insulation materials containing asbestos	D5	M	Weighed	Abroad	Quinn Environmental P0145/06A	Auglish Rd.29 Tandragee,BT62 2EE,United Kingdom	Auglish Rd.29 Tandragee,BT62 2EE,United Kingdom	
To Other Countries	17 06 05	2659.2 (18)	construction materials containing asbestos	D1	M	Weighed	Abroad	GEG mbH,EG0108	Bimohler Strasse,57a,Grossenasppe,2 4623,Germany	GEG mbH,EG0108,Bimohler Strasse,57a,Grossenasppe,2 4623,Germany	
To Other Countries	19 02 05	513.77	sludges from physico/chemical treatment containing dangerous substances	R1	M	Weighed	Abroad	Geocycle	Rue de Courrière 49 B - 7181 Senefle ... ,Belgium	Geocycle S.A. ... ,Rue de Courrière 49 B - 7181 Senefle ... ,Belgium	
To Other Countries	19 08 12	98.9	industrial waste water other than those mentioned in 19 08 11	R1	M	Weighed	Abroad	Granox Ltd.,CP3230BE	Dock Estate,Widnes,WA8 0PB,United Kingdom		
Within the Country	19 12 02	901.2	ferrous metal	R4	M	Weighed	Offsite in Ireland	A1 Metal,WMP007d	Acragar,Mountmellick,Co. Laois,Ireland		
To Other Countries	20 01 27	131.6	paint, inks, adhesives and resins containing dangerous substances	R1	M	Weighed	Abroad	Avalstoffen Terminal Moerdijk B.V.,14/12/4149	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,The Netherlands	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,Netherlands	
Within the Country	19 02 99	58265.0	wastes not otherwise specified	D8	M	Weighed	Offsite in Ireland	Ringsend WWTW	Road,Ringsend,Dublin 4,Ireland		
To Other Countries	13 03 07	175.7	mineral-based non-chlorinated insulating and heat transmission oils	R9	M	Weighed	Abroad	Midland Oil Refinery,GP3135SD	Shelah Road,Halesowen,B63 3PN,United Kingdom	Shelah Road,Halesowen,B63 3PN,United Kingdom	
Within the Country	17 05 04	4681.9	soil and stones other than those mentioned in 17 05 03	R5	M	Weighed	Offsite in Ireland	Greenstar,W0178-02	Ballinrober,Ballinasloe,Co. Galway,Ireland		
To Other Countries	15 01 02	80.44	plastic packaging	R3	M	Weighed	Abroad	Envaco	Schumanplein,16/02/2013,L anaken,3620,Belgium		

# APPENDIX G

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## Bund Integrity Testing Report





**Rilta Environmental Ltd.**

**Bund Integrity Testing  
at Block 402,  
Greenogue Business Park,  
Rathcoole, Co. Dublin**

November 2013

Revision: B

**TOBIN CONSULTING ENGINEERS**



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# REPORT

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**PROJECT:**

**Bund Integrity Testing**

**Block 402, Greenogue Business  
Park, Rathcoole, Co. Dublin**

**CLIENT:**

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**DOCUMENT AMENDMENT RECORD**

<b>Client:</b>	<b>Rilta Environmental Ltd.</b>
<b>Project:</b>	<b>6731 – Bund Testing</b>
<b>Title:</b>	<b>Bund Integrity Testing</b>

PROJECT NUMBER: 6731				DOCUMENT REF:6731/Rev A			
Revision	Description & Rationale	Originated	Date	Checked	Date	Authorised	Date
C	Final	MN	281113	ST	281113	DG	281113
B	Additional Testing	MN	191113	ST	191113	DG	191113
A	Bund Integrity Testing	MN	180213	ST	190213	DG	190213

**TOBIN Consulting Engineers**

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### Appendix A

Figure 1 – Bund / Tank Locations for testing (Block 402, Greenogue Business Park)

### Appendix B

Block 402- CCTV Drainage Inspection Report  
AJ – MHF-11 – CCTV Drainage Inspection Report  
Pipework between outdoor Bund & internal sump – Hydrostatic Test Results

## 1 INTRODUCTION

Tobin Consulting Engineers (hereafter referred to as TOBIN) have been commissioned by Rilta Environmental Ltd. to carry out Bund Integrity Testing at their facility at Block 402, Greenogue Business Park, Rathcoole, Co. Dublin under the requirements of the site's EPA Waste Licence (EPA Waste Licence Reg. No. W0192-03).

TOBIN proposed that over a period amenable to facility operations hydrostatic testing, CCTV survey and structural survey would be carried out on the specified bunds and areas.

A CCTV survey of the site drainage was carried out by Rilta staff on 31/05/12. A structural survey of the buildings outlined for assessment at the site was carried out by a TOBIN Engineer on Friday, 24<sup>th</sup> August 2012.

Hydrostatic testing of a number of bunded areas and underground settlement tanks commenced on Saturday, 25<sup>th</sup> September and concluded on Monday, 27<sup>th</sup> August 2012.

Areas / Bunds for testing identified within Block 402, Greenogue Business Park include:

- Area / Bund No. 1: Contaminated Soil Storage Building
- Area / Bund No. 2: Asbestos Storage Building
- Area / Bund No. 3: Outdoor Bunded Tank Area
- Area / Bund No. 4: Indoor Oil Bund
- Area / Bund No. 5: Indoor Chemical Bund
- Area / Bund No. 6: Underground Tanks (Settlement Tanks (3No.) & Wet Wells (2No.))
- Area / Bund No. 7: Site Drainage Network
- Area / Bund No. 8: Brokerage Quarantine Area, Portable Bund
- Area / Bund No. 9: Indoor PH Plant Bund
- Area / Bund No. 10: Drum Division Sump
- AJ – MHF-11: CCTV Drainage Inspection
- Pipework between Outdoor bund & Internal sump

TOBIN carried out preliminary inspections of the bunds and areas listed above and made assessments as to the necessity/suitability of each for hydrostatic testing or structural assessment. A detailed bund location map (Figure 1) is contained in Appendix A.

## 2 METHODOLOGY

It was proposed that over a period when the facility was non-operational, liquid levels within the overground bunds and underground tanks would be monitored, following preparatory works, for a three day period (preferably over a weekend). Any subsequent fluctuation in levels over this period would indicate if the integrity of each bund is intact.

## 2.1 METHODOLOGY FOR TESTING AT BLOCK 402, GREENOGUE BUSINESS PARK

A methodology for the testing of individual bunds and tanks within Block 402 is detailed below. The locations of the areas tested at Block 402 are shown in Figure 1 in Appendix A.

### 2.1.1 Contaminated Soil Storage Building (Area / Bund No. 1)

A structural survey was carried out by a TOBIN Engineer on the Contaminated Soil Storage Building at Block 402, on Friday, 24<sup>th</sup> August 2012, located as shown on Figure 1 of Appendix A. This building is designated as an area for the storage of contaminated soil material.

The survey consisted of a visual assessment of all walls, floors and ramps within the building.

### 2.1.2 Asbestos Storage Building (Area / Bund No. 2)

A CCTV survey was carried out on all drainage pipework associated with the Asbestos Storage Building at Block 402, to ensure the integrity of the pipes and associated valves. The location of the valve connection from this building to the site drainage network is shown on Figure 1.

A structural survey was carried out by a TOBIN Engineer on the Asbestos Storage Building on Friday, 24<sup>th</sup> August 2012, located as shown on Figure 1 of Appendix A. This building is designated as an area for the storage of contaminated soil material.

The survey consisted of a visual assessment of all walls, floors and ramps within the building.

### 2.1.3 Outdoor Bunded Tank Area (Area / Bund No. 3)

It was proposed to carry out a hydrostatic test on the Outdoor Concrete Bund at the Tank Area on the Block 402 site, located as shown in Figure 1 of Appendix A. The bund was thoroughly cleaned out, with any debris and sludge removed from the bund prior to testing.

The bund was then incrementally filled with water to a level that is equal to 25% of the overall capacity of the bund. This was to represent the maximum capacity the bund will be required to hold.

When the bund was full to the required limit it was allowed to sit for one day to allow the concrete walls and base to absorb any initial water and reach an equilibrium state. After this 24hr period had lapsed, the level of water was measured at 24hr intervals over 3 days.

Further to this testing the bund was inspected by a structural engineer to ensure that any remedial work that is required has been carried out such as protective coating applied or any cracks or faults repaired and sealed to a satisfactory standard.

**Please Note:** *During this 3 day test period the total drop in water level, after allowing for rainfall and evaporation, should not exceed 1/500th of the average depth of water or 10mm.*

#### *2.1.4 Indoor Oil Bund (Area / Bund No. 4)*

It was proposed to carry out a hydrostatic test on the Indoor Oil Bund in the Hydrocarbon Waste Treatment Building on the Block 402 site, located as shown in Figure 1 of Appendix A. The bund was thoroughly cleaned out, with any debris and sludge removed from the bund prior to testing.

The bund was then incrementally filled with water to a level that is equal to 25% of the overall capacity of the bund. This was to represent the maximum capacity the bund will be required to hold.

When the bund was full to the required limit it was allowed to sit for one day to allow the concrete walls and base to absorb any initial water and reach an equilibrium state. After this 24hr period had lapsed, the level of water was measured at 24hr intervals over 3 days.

Further to this testing the bund was inspected by a structural engineer to ensure that any remedial work that is required has been carried out such as protective coating applied or any cracks or faults repaired and sealed to a satisfactory standard.

**Please Note:** *During this 3 day test period the total drop in water level, after allowing for rainfall and evaporation, should not exceed 1/500th of the average depth of water or 10mm.*

#### *2.1.5 Indoor Chemical Bund (Area / Bund No. 5)*

It was proposed to carry out a hydrostatic test on the Indoor Chemical Bund in the Hydrocarbon Waste Treatment Building on the Block 402 site, located as shown in Figure 1 of Appendix A. The bund was thoroughly cleaned out, with any debris and sludge removed from the bund prior to testing.



The bund was then incrementally filled with water to a level that is equal to 25% of the overall capacity of the bund. This was to represent the maximum capacity the bund will be required to hold.

When the bund was full to the required limit it was allowed to sit for one day to allow the concrete walls and base to absorb any initial water and reach an equilibrium state. After this 24hr period had lapsed, the level of water was measured at 24hr intervals over 3 days.

Further to this testing the bund was inspected by a structural engineer to ensure that any remedial work that is required has been carried out such as protective coating applied or any cracks or faults repaired and sealed to a satisfactory standard.

**Please Note:** *During this 3 day test period the total drop in water level, after allowing for rainfall and evaporation, should not exceed 1/500th of the average depth of water or 10mm.*

#### *2.1.6 Underground Tanks {Settlement Tanks (3No.) and Wet Wells (2No.)} (Area / Bund No. 6)*

It was proposed that hydrostatic testing on the Underground Tanks on the Block 402 site, would be carried out over a period when the underground tanks were non-operational.

It was proposed, similar to previous testing events, that 2No. floats would be placed in each of the underground settlement tanks to increase measurement accuracy. A single float was placed in the wet wells, as access constraints impeded the use of additional floats at these locations. Floats were then added to each tank on the Friday of the testing period and the liquid allowed stand for 24hrs to ensure a state of equilibrium.

After the 24hr period had elapsed, the level of the liquid was measured at 24hr intervals over 3 consecutive days. Liquid levels within the tanks were measured using a laser measuring device, ensuring this was only done from a specific marked point above the float.

The exit and entry points to the tanks were closed on the Friday and the internal liquid allowed to stand for a 24hr period. The level of the liquid in each chamber was noted on the Saturday. Further readings were taken on the Sunday and again on the Monday, prior to the recommencement of work at the facility on the Monday afternoon.

### *2.1.7 Site Drainage Network (Area / Bund No. 7)*

It was proposed to carry out a CCTV survey on the entire drainage network and associated valves on the Block 402 site, to ensure the integrity of same. Upon inspection, if any pipework or valves show signs of major deterioration or malfunction they shall be replaced or repaired.

### *2.1.8 Brokerage Quarantine Area Portable Bund (Area / Bund No. 8)*

It was proposed to test the Outdoor Portable Plastic Bund at the Brokerage Quarantine Building on the Block 402 site, located as shown in Figure 1 of Appendix A. The bund was thoroughly cleaned out, with any debris and sludge removed from the bund prior to testing.

The bund was then incrementally filled with water to a level that is equal to 25% of the overall capacity of the bund. This was to represent the maximum capacity the bund will be required to hold.

When the bund was full to the required limit it was be allowed to sit for one day to allow the container/bund to absorb any initial water and reach an equilibrium state. After this 24hr period had lapsed, the level of water was measured at 24hr intervals over 3 days.

Further to this testing the bund was inspected by a structural engineer to ensure that any remedial work that is required has been carried out. In this case as the bunds are plastic it would be recommended to replace the bund in the event of a fault or malfunction.

**Please Note:** *During this 3 day test period the total drop in water level, after allowing for rainfall and evaporation, should not exceed 1/500th of the average depth of water or 10mm.*

### *2.1.9 Indoor pH Plant Bund (Area / Bund No. 9)*

It was proposed to hydrostatically test the Indoor pH Plant Bund in the Hydrocarbon Waste Treatment Building on the Block 402 site, located as shown in Figure 1 of Appendix A. The bund was thoroughly cleaned out, with any debris and sludge removed from the bund prior to testing.

The bund was then incrementally filled with water to a level that is equal to 25% of the overall capacity of the bund. This was to represent the maximum capacity the bund will be required to hold.

When the bund was full to the required limit it will be allowed to sit for one day to allow the container/bund to absorb any initial water and reach an equilibrium state. After this 24hr period had lapsed, the level of water was measured at 24hr intervals over 3 days.

Further to this testing the bund was inspected by a structural engineer to ensure that any remedial work that is required has been carried out such as protective coating applied or any cracks or faults repaired and sealed to a satisfactory standard.

**Please Note:** *During this 3 day test period the total drop in water level, after allowing for rainfall and evaporation, should not exceed 1/500th of the average depth of water or 10mm.*

#### *2.1.10 Drum Division Sump (Area / Bund No. 10)*

A CCTV survey was carried out on all drainage pipework associated with the Drum Division Sump to ensure the integrity of the pipes and associated valves. The location of the sump is shown on Figure 1 in Appendix A.

### 3.0 CONTROL

Due to the potential for evaporation in the settlement tanks/bunded areas, a control was put in place (note: where tanks are internal there is no risk of precipitation influencing levels). A container was filled to a specific level with liquid from the Underground Tanks. This control was left beside the internal tanks throughout the testing period. This control provides an indication of the evaporation rate active on the tanks and the influence of any rainfall during the testing period.

Due to the potential for evaporation and precipitation in the Outdoor Concrete Bund, a control was put in place. A container was filled to a specific level with water. This control was left beside the Outdoor Concrete Bund.

These controls provide an indication of the evaporation and precipitation rate active on the bunds both indoors and outdoors.

### 3.1 FAILURE

Should the structure not satisfy the test, remedial works will be recommended and carried out and the same procedure will be repeated.

### 3.2 WATER DISPOSAL

Any water used in this procedure will be disposed of through the surface water drainage system on site.

### 3.3 PROGRAMME FOR TESTING (BLOCK 402)

It was proposed that all testing would be carried out for Block 402 over a 5-day period (ie. from Thursday, 23<sup>rd</sup> August to Monday, 27<sup>th</sup> August 2012).

- Day 1: TOBIN staff attended Block 402 on Thursday, 23<sup>rd</sup> August 2012, before the testing commenced in order to assess all Areas / Bunds for testing and to review the locations of the Areas / Bunds to be tested (with Rilta staff).
- Day 2: Preparation of test areas including the addition of water to containers/bunds where required for hydrostatic testing (with Rilta staff). Levels were taken by TOBIN staff.
- Days 3-5: TOBIN staff attended site on Saturday, 25<sup>th</sup> August, Sunday, 26<sup>th</sup> August and Monday, 27<sup>th</sup> August to take levels at each test location. Levels were taken at the same time each day, weather conditions noted and controls checked.
- A TOBIN Structural Engineer visited site to carry out a structural assessment of the bunds and buildings on Friday, 24<sup>th</sup> August.

## 4 RESULTS

### 4.1 HYDROSTATIC SURVEY RESULTS

Hydrostatic testing was carried out on the Bunded areas & Underground Storage Tanks from Saturday, 25<sup>th</sup> August to Monday, 27<sup>th</sup> August 2012.

No fluctuation in liquid level was noted in the bunds or tanks during the first monitoring period Day 1 to Day 2 (25<sup>th</sup> August – 26<sup>th</sup> August 2012) and levels remained constant for the second monitoring period Day 2 to Day 3 (26<sup>th</sup> August – 27<sup>th</sup> August 2012). Results from the controls showed no variation and were consistent with readings from all storage tanks.

As no fluctuation was noted in liquid levels during the measurement period and the control remained constant, it is determined that all tested bunds and tanks are in good structural condition. No ancillary works are required for these bunds.

#### 4.2 TESTING AT BLOCK 402, GREENOGUE BUSINESS PARK

Testing commenced 'as per methodology' on Saturday, 25<sup>th</sup> August 2012. Measurements were recorded over three consecutive days and the results were analysed by TOBIN staff. No fluctuation in liquid level was noted at any of the monitoring locations, during any of the daily monitoring events (see results below). The controls for these assessments showed no change, remaining consistent with the results from the daily monitoring.

##### 4.2.1 Contaminated Soil Storage Building (Area / Bund No. 1)

As per methodology a structural survey was carried out by a TOBIN Engineer on the Contaminated Soil Storage Building on Friday, 24<sup>th</sup> August 2012, located as shown on Figure 1 of Appendix A.

This area is generally used to store contaminated soil. The floor is of a concrete slab with no obvious construction joints. Large areas of the floor were obscured at the time of the survey as the facility was in use. The areas of the floor that were visible, while showing some cosmetic damage due to the scraping of machinery, did not show signs of structural damage such as cracking.

##### 4.2.2 Asbestos Storage Building (Area / Bund No. 2)

As per methodology a structural survey was carried out by a TOBIN Engineer on the Asbestos Storage Building on Friday, 24<sup>th</sup> August 2012, located as shown on Figure 1 of Appendix A.

This area is generally used to store dry material. The concrete floors have no joints and were found to be in good condition. There is a reinforced concrete wall around the perimeter of the units, this was also found to be in good structural condition. There is a valved drainage system under the floor which is manually released. The drainage system is outlined in detail in section 5.1 of this report.

##### 4.2.3 Outdoor Bunded Tank Area (Area / Bund No. 3)

As per methodology Area / Bund No. 3 was filled with water to an appropriate level (110% tank volume) on Friday 24<sup>th</sup> August 2012. A >24hr absorption period was observed (due to weekend period) to allow the bund walls to become saturated. The test commenced on Saturday 25<sup>th</sup> August. Table 4-1 below represents recorded water levels within the bund and control over the

test period. Various levels were taken for each bund as there was a variation in floor level in some of the bunds. The overall bund was tested in 3 separate parts (Front, Middle & Rear).

**Table 4-1 Bund / Area No. 3 Test Result**

Measurement Location	Sat 25 <sup>th</sup> Aug (Top of bund to water level)	Sun 26 <sup>th</sup> Aug (Top of bund to water level)	Mon 27 <sup>th</sup> Aug (Top of bund to water level)	Fluctuation	Pass / Fail
<b>Front of bund</b>					
A, Front Left	114cm	114cm	114cm	0.0cm	<b>Pass</b>
B, Front Right	112cm	112cm	112cm	0.0cm	<b>Pass</b>
C, Rear Left	121cm	121cm	121cm	0.0cm	<b>Pass</b>
D, Rear Right	122cm	122cm	122cm	0.0cm	<b>Pass</b>
<b>Middle of bund</b>					
E, Front Left	125cm	125cm	125cm	0.0cm	<b>Pass</b>
F, Front Right	126cm	126cm	126cm	0.0cm	<b>Pass</b>
G, Rear Left	125cm	125cm	125cm	0.0cm	<b>Pass</b>
H, Rear Right	126cm	126cm	126cm	0.0cm	<b>Pass</b>
<b>Rear of bund</b>					
I, Front Left	120cm	120cm	120cm	0.0cm	<b>Pass</b>
J, Front Right	120cm	120cm	120cm	0.0cm	<b>Pass</b>
K, Rear Left	120cm	120cm	120cm	0.0cm	<b>Pass</b>
L, Rear Right	120cm	120cm	120cm	0.0cm	<b>Pass</b>
Control	21cm	21cm	21cm	0.0cm	<b>Pass</b>

Testing at this location was not impacted by facility operations.

#### 4.2.4 Indoor Oil Bund (Area / Bund No. 4)

As per methodology Area / Bund No. 4 was filled with water to an appropriate level (110% tank volume) on Friday 24<sup>th</sup> August 2012. A >24hr absorption period was observed (due to weekend period) to allow the bund walls to become saturated. The test commenced on Saturday 25<sup>th</sup> August. Table 4-2 below represents recorded water levels within the bund and control over the test period. Various levels were taken for each bund as there was a variation in floor level in some of the bunds.

**Table 4-2 Bund / Area No. 4 Test Result**

Measurement Location	Sat 25 <sup>th</sup> Aug (Top of bund to water level)	Sun 26 <sup>th</sup> Aug (Top of bund to water level)	Mon 27 <sup>th</sup> Aug (Top of bund to water level)	Fluctuation	Pass / Fail
A, Front Left	123cm	123cm	123cm	0.0cm	<b>Pass</b>
B, Front Right	124cm	124cm	124cm	0.0cm	<b>Pass</b>
C, Left Centre	124cm	124cm	124cm	0.0cm	<b>Pass</b>
Control	6cm	6cm	6cm	0.0cm	<b>Pass</b>

Testing at this location was not impacted by facility operations.

#### 4.2.5 Indoor Chemical Bund (Area / Bund No. 5)

As per methodology Area / Bund No. 5 was filled with water to an appropriate level (110% tank volume) on Friday 24<sup>th</sup> August 2012. A >24hr absorption period was observed (due to weekend period) to allow the bund walls to become saturated. The test commenced on Saturday 25<sup>th</sup> August. Table 4-3 below represents recorded water levels within the bund and control over the test period. Various levels were taken for each bund as there was a variation in floor level in some of the bunds.

**Table 4-3 Bund / Area No. 5 Test Result**

Measurement Location	Sat 25 <sup>th</sup> Aug (Top of bund to water level)	Sun 26 <sup>th</sup> Aug (Top of bund to water level)	Mon 27 <sup>th</sup> Aug (Top of bund to water level)	Fluctuation	Pass / Fail
A, Front Left	134cm	134cm	134cm	0.0cm	<b>Pass</b>
B, Front Right	132cm	132cm	132cm	0.0cm	<b>Pass</b>
C, Rear Right	134cm	134cm	134cm	0.0cm	<b>Pass</b>
D, Rear Left	132cm	132cm	132cm	0.0cm	<b>Pass</b>
Control	6cm	6cm	6cm	0.0cm	<b>Pass</b>

Testing at this location was not impacted by facility operations.

#### 4.2.6 Underground Tanks (Area / Bund No. 6) {Settlement Tanks (3No.) and Wet Wells (2No.)}

As per methodology 2No. floats were placed in each of the Underground Settlement Tanks. A single float was placed in the Wet Wells. Floats were added to each tank on the Friday of the testing period and the liquid allowed stand for 24hrs to ensure a state of equilibrium.

After the 24hr period, the level of the liquid was measured at 24hr intervals over 3 consecutive days. As no fluctuation was noted in tank liquid levels during the measurement period and the

control remained constant, it is determined that the Settlement Tanks and Wet Wells are in good structural condition.

The test commenced on Saturday 25<sup>th</sup> August. Table 4-4 below represents recorded levels within the tanks and control over the test period.

**Table 4-4 Bund / Area No. 6 Test Result**

Measurement Location	Sat 25 <sup>th</sup> Aug (Top of tank to float level)	Sun 26 <sup>th</sup> Aug (Top of tank to float level)	Mon 27 <sup>th</sup> Aug (Top of tank to float level)	Fluctuation	Pass / Fail
<b>Settlement Tanks (Front)</b>					
A, Tank 1	5.480m	5.480m	5.480m	0.0cm	<b>Pass</b>
B, Tank 2	1.394m	1.394m	1.394m	0.0cm	<b>Pass</b>
C, Tank 3	5.614m	5.614m	5.614m	0.0cm	<b>Pass</b>
<b>Settlement Tanks (Rear)</b>					
D, Tank 1	5.501m	5.501m	5.501m	0.0cm	<b>Pass</b>
E, Tank 2	1.394m	1.394m	1.394m	0.0cm	<b>Pass</b>
F, Tank 3	5.613m	5.613m	5.613m	0.0cm	<b>Pass</b>
<b>Wet Wells</b>					
G, Well 1	3.681m	3.681m	3.681m	0.0cm	<b>Pass</b>
H, Well 2	3.680m	3.680m	3.680m	0.0cm	<b>Pass</b>
Control	14cm	14cm	14cm	0.0cm	<b>Pass</b>

Testing at this location was not impacted by facility operations.

#### 4.2.7 Site Drainage Network (Area / Bund No. 7)

As per methodology a CCTV survey was carried out on the entire drainage network and associated valves at Block 402 to ensure the integrity of same. The CCTV report is included in Appendix B.

#### 4.2.8 Brokerage Quarantine Area Portable Bund (Area / Bund No.8)

As per methodology Area / Bund No. 8 was filled with water to an appropriate level (110% tank volume) on Friday 24<sup>th</sup> August 2012. A >24hr absorption period was observed (due to weekend period) to allow the bund walls to become saturated. The test commenced on Saturday 25<sup>th</sup> August. Table 4-5 below represents recorded water levels within the bund and control over the test period. Various levels were taken for each bund as there was a variation in floor level in some of the bunds.



**Table 4-5 Bund / Area No. 8 Test Result**

Measurement Location	Sat 25 <sup>th</sup> Aug (Top of bund to water level)	Sun 26 <sup>th</sup> Aug (Top of bund to water level)	Mon 27 <sup>th</sup> Aug (Top of bund to water level)	Fluctuation	Pass / Fail
A, Front Left	23cm	23cm	23cm	0.0cm	<b>Pass</b>
B, Front Right	23cm	23cm	23cm	0.0cm	<b>Pass</b>
C, Rear Right	23cm	23cm	23cm	0.0cm	<b>Pass</b>
D, Rear Left	23cm	23cm	23cm	0.0cm	<b>Pass</b>
Control	21cm	21cm	21cm	0.0cm	<b>Pass</b>

Testing at this location was not impacted by facility operations.

#### 4.2.9 Indoor pH Plant Bund (Area / Bund No. 9)

As per methodology Area / Bund No. 4 was filled with water to an appropriate level (110% tank volume) on Friday 24<sup>th</sup> August 2012. A >24hr absorption period was observed (due to weekend period) to allow the bund walls to become saturated. The test commenced on Saturday 25<sup>th</sup> August. Table 4-6 below represents recorded water levels within the bund and control over the test period. Various levels were taken for each bund as there was a variation in floor level in some of the bunds.

**Table 4-6 Bund / Area No. 9 Test Result**

Measurement Location	Sat 25 <sup>th</sup> Aug (Top of bund to water level)	Sun 26 <sup>th</sup> Aug (Top of bund to water level)	Mon 2 <sup>th</sup> Aug (Top of bund to water level)	Fluctuation	Pass / Fail
A, Front Left	31cm	31cm	31cm	0.0cm	<b>Pass</b>
B, Front Right	31cm	31cm	31cm	0.0cm	<b>Pass</b>
C, Rear Right	33cm	33cm	33cm	0.0cm	<b>Pass</b>
D, Rear Left	31cm	31cm	31cm	0.0cm	<b>Pass</b>
Control	6cm	6cm	6cm	0.0cm	<b>Pass</b>

Testing at this location was not impacted by facility operations.

Upon visual assessment of this Bund some leakage was observed at the south western corner of the bund. It is recommended that a structural survey is undertaken and that any remedial works required to repair any faults in the bund are completed. See Photo No. 1 below for location of the suspected fault in the bund.



**Photo 1: Suspected fault in Area / Bund No. 9**

#### *4.2.10 Drum Division Sump (Area / Bund No. 10)*

A CCTV survey was carried out on all drainage pipework associated with the Drum Division Sump to ensure the integrity of the pipes and associated valves. The CCTV report is included in Appendix B.

### 4.3 ADDITIONAL TESTING

#### *4.3.1 Additional Hydrostatic Pipeline Test October 2013*

An additional hydrostatic test was carried out on the section of pipe between the outdoor bunds and sump internal to the Hydrocarbon treatment building known as the sludge return pipe. Upon testing this pipework was deemed to be in good structural condition. The results of this test are included in Appendix B attached.

## 5 CCTV

### 5.1 CCTV SURVEY

A CCTV drainage inspection was carried out on May 31<sup>st</sup> 2013 on behalf of Rilta Environmental Ltd. The Inspection Report is included in Appendix B attached. A further CCTV was then carried out in October 2013 on the section of pipe between AJ & MHF-11 as shown on Figure 1 in Appendix A. Upon inspection it was discovered that there were some faults in the section of pipe between AJ & MHF-11, while these minor faults could be repaired, due to the fact that the pipe runs beneath existing hedging, it would be prudent to relocate the pipe overground next to the building wall.

## 6 CONCLUSION

*The assessment of the bunds / areas after CCTV survey, structural and hydrostatic testing is as follows:*

**Areas / Bunds for testing identified within Rilta Site, Block 402, Greenogue Business Park include:**

- Area / Bund No. 1: Contaminated Soil Storage Building = **PASS**
- Area / Bund No. 2: Asbestos Storage Building = **PASS**
- Area / Bund No. 3: Outdoor Bunded Tank Area = **PASS**
- Area / Bund No. 4: Indoor Oil Bund = **PASS**
- Area / Bund No. 5: Indoor Chemical Bund = **PASS**
- Area / Bund No. 6: Underground Tanks = **PASS**
- Area / Bund No. 7: Site Drainage Network = **PASS**
- Area / Bund No. 8: Brokerage Quarantine Area, Portable Bund = **PASS**
- Area / Bund No. 9: Indoor PH Plant Bund = **PASS**

### **Remedial Works recommended**

- Area / Bund No. 10: Drum Division Sump = **PASS**



# APPENDIX A

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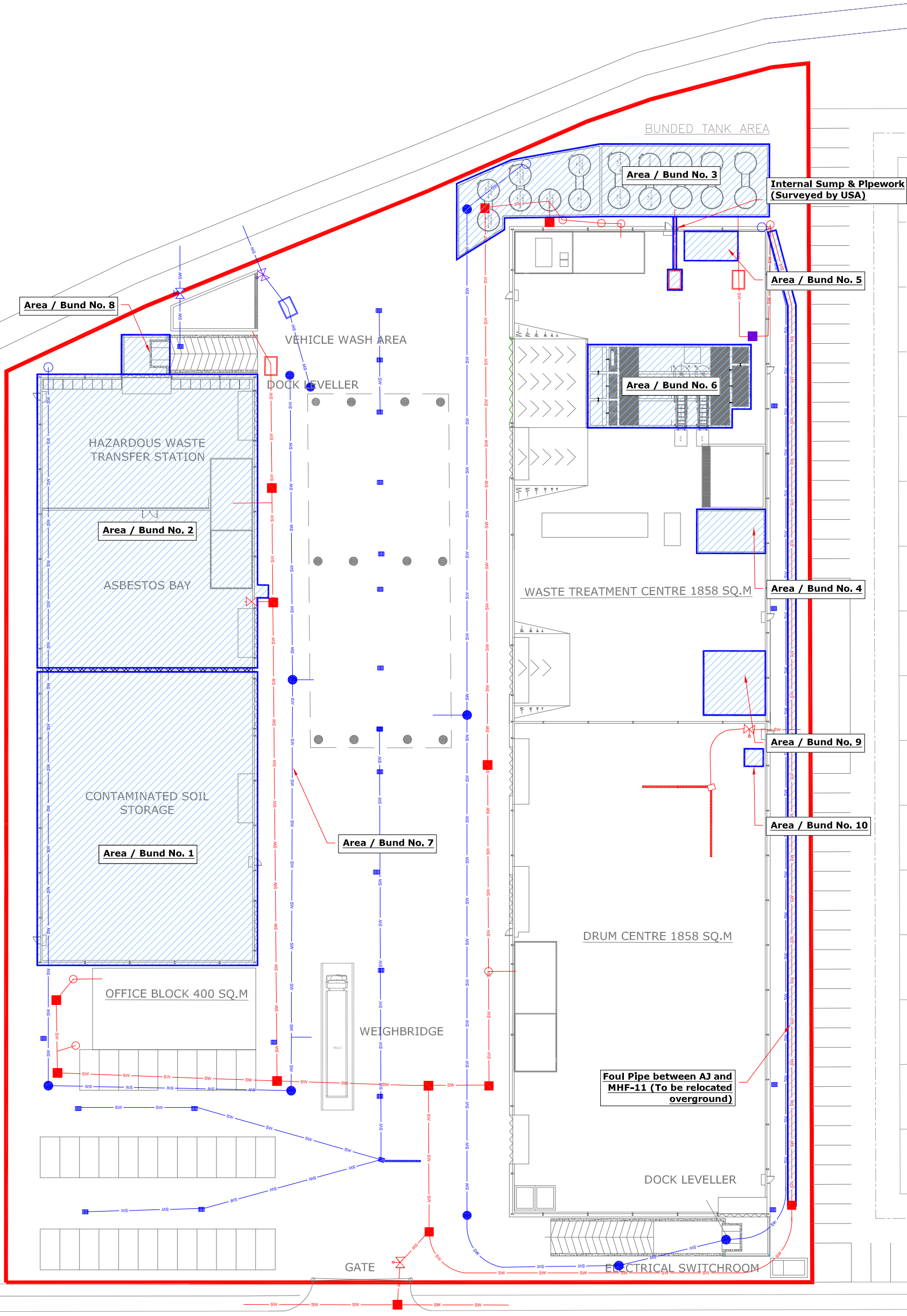
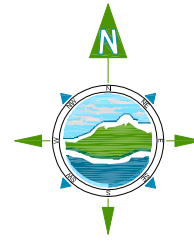
**Figure 1: Bund / Tank Locations for Testing**  
(Block 402, Greenogue Business Park)

**TEST AREAS**

1. Contaminated Soil Storage Building
2. Asbestos Storage Building
3. Outdoor Bunded Tank Area
4. Indoor Oil Bund
5. Indoor Chemical Bund
6. Underground tanks {Settlement Tanks (3No.) and Wet Wells (2No.)}
7. Site Drainage Network
8. Brokerage Quarantine Area Portable Bund
9. Indoor pH Plant Bund
10. Drum Division Sump
11. Internal Sump & Pipework
12. Foul pipe between AJ & MHF-11

**GENERAL LEGEND**

- |                     |                  |  |
|---------------------|------------------|--|
| FACILITY BOUNDARY   | TEST AREAS       |  |
| SURFACE WATER DRAIN | FOUL WATER DRAIN |  |
| SW MANHOLE          | FOUL MANHOLE     |  |
| GULLY               | SHUT OFF VALVE   |  |
| ACCESS CHAMBER      | INTERCEPTOR      |  |



**NOTES**

1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING
2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE
3. ENGINEER TO BE INFORMED BY THE CONTRACTOR OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES
4. ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD

Rev	Date	Description	By	Chkd.
A	28.11.12	ISSUED FOR REPORT	MN	ST

Client:

Project: **BUND INTEGRITY TESTING AT BLOCK 402 GREENOGUE BUSINESS PARK, RATHCOOLE, CO. DUBLIN**

Title: **BUND / TANK LOCATIONS FOR TESTING**

**BLOCK 402 SITE**

Scale @ A1: **1:250**

Prepared by: **M. Nolan**      Checked: **S. Tinnelly**      Date: **July 2012**

Project Director: **D. Grehan**

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Drawing No: **Figure 1**      Revision: **A**

# APPENDIX B

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Block 402 - CCTV Drainage Inspection Report  
AJ – MHF-11 – CCTV Drainage Inspection Report  
Pipework between outdoor Bund & internal sump – Hydrostatic Test  
Results



### Project-information

Project name:  
Rilta Environmental

Contract number:  
01

Contact:  
Colm Hussey

Date:  
31/05/2012

Client **Rilta Environmental Ltd.**  
 Contact: **Colm Hussey**  
 Position:  
 Road **Grant's Drive**  
 Town **Rathcoole, Greenogue Industrial Estate**  
 County **Dublin**  
 Telephone:  
 Fax:  
 Mobile:  
 E-Mail:

Site **Rilta Environmental limited**  
 Contact: **Colm Hussey**  
 Position:  
 Road **Grant's Drive**  
 Town **Block 402, Greenogue Business Park, Rathcoole**  
 County **Dublin**  
 Telephone: **01 401 8000**  
 Fax: **01 401 8080**  
 Mobile:  
 E-Mail: **info@rilta.ie**

Contractor **Rilta Environmental limited**  
 Contact: **Martin Stehlik**  
 Position: **C.C.T.V. Operator**  
 Road **Grant's Drive**  
 Town **Block 402, Greenogue Business Park, Rathcoole**  
 County **Dublin**  
 Telephone: **01 401 8000**  
 Fax: **01 401 8080**  
 Mobile: **+353 0876185460**  
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## Defect Grade Description

Project name: Rilta Environmental	Contract number: 01	Contact: Colm Hussey	Date: 31/05/2012
<b>1:</b>	Occurrences without damage: for example, laterals, joints etc.		
	<b>NO DEFECTS WERE DETECTED.</b>		
<b>2:</b>	Constructional deficiencies or occurrences with insignificant influence to tightness, hydraulic or static pressure of pipe: f.e. wide joints, badly torched intakes, minor deformation of plastic pipes, minor erosions etc.		
	<b>REHABILITATION CAN BE SCHEDULED LONG-TERM.</b>		
<b>3:</b>	Constructional deficiencies diminishing static, hydraulic and tightness: f.e. open joints, untorched intakes, cracks, minor drainage obstructions such as calcide build ups, protruding laterals, minor damages to pipe wall, individual root penetrations, corroded pipe walls etc.		
	<b>REHABILITATION IS NECESSARY MEDIUM-TERM WITHIN 3 TO 5 YEARS.</b>		
<b>4:</b>	Constructional damages with nonsufficient static safety, hydraulic or tightness: f.e. axial/radial pipebursts, pipe deformations, visually noticeable infiltration/exfiltration, cavities in pipe-wall, severe protruding, laterals severe root penetrations, severe corrosion of pipe wall etc.		
	<b>REHABILITATION PROCEDURE IS URGENT AND HAS TO BE COMPLETED WITHIN 1 TO 2 YEARS. NECESSITY FOR EMERGENCY OPERATIONS HAS TO BE EXAMINED.</b>		
<b>5:</b>	Pipe is already or will shortly be impermeable: f.e. collapsed pipe, deeply rooted pipe or other drainage obstructions. Pipe loses water or danger of backwater in basements etc.		
	<b>REHABILITATION IS URGENT AND SHORT-TERM. IN ORDER TO PREVENT FURTHER DAMAGE, NECESSARY TEMPORARY SPOT REPAIR HAS TO BE CONDUCTED ON EMERGENCY LEVEL.</b>		



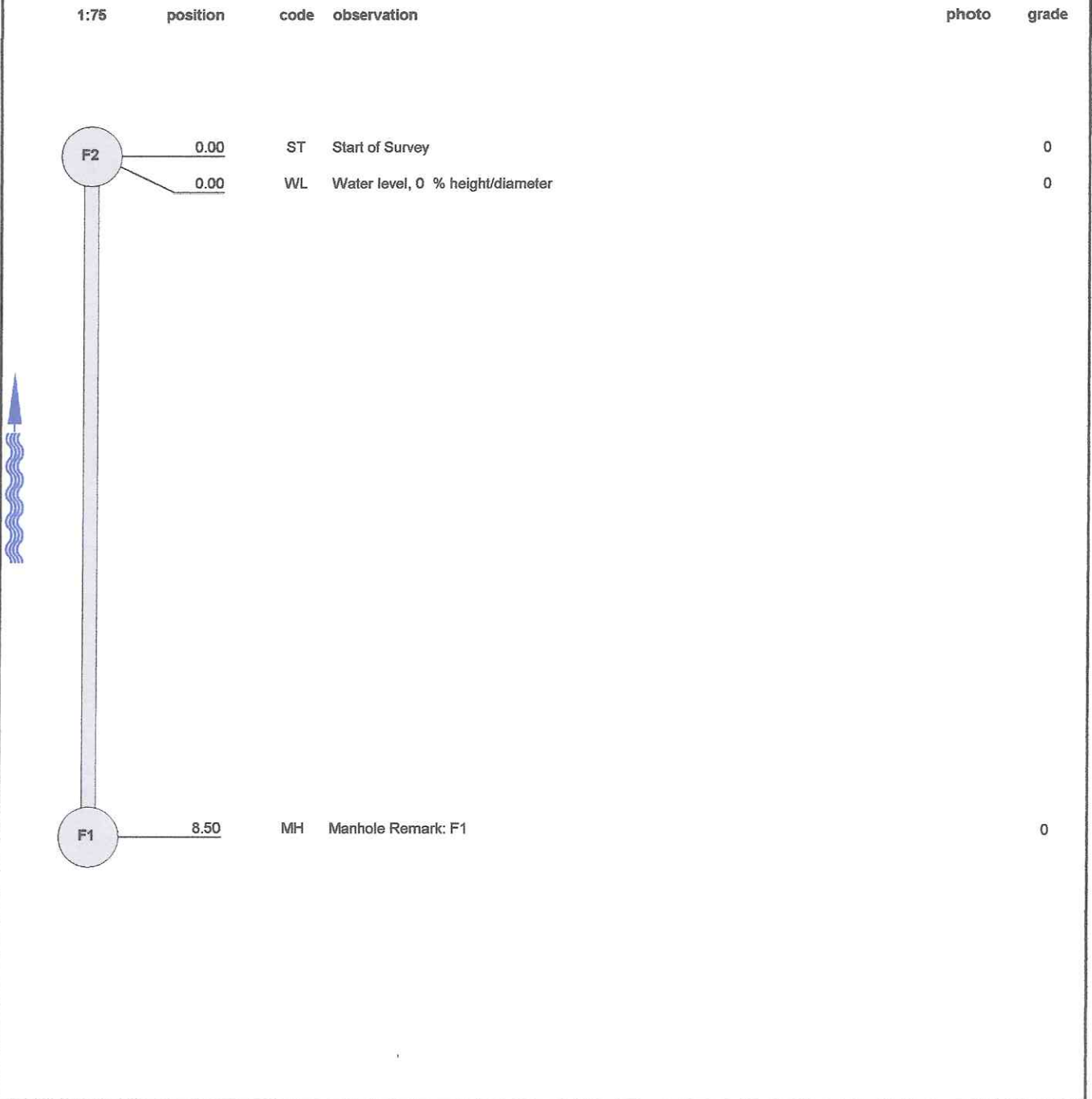
### Inspection report

Date: 31/05/2012	Job N°:	Weather: Dry	Operator: MS	section number: 1	PLR: F1 X
Present:	Vehicle: Camera van	Camera: Minicam	Preset:	Cleaned: Yes	Grade:

Road: Grant's Drive	Division:	start MH: F2
Place: Greenogue Ind. Est.	District:	end MH: F1
Location: Difficult access	Tape No.:	Total length: 8.5 m

Purpose: Resurvey	Size/Shape: Circular 125
Use: Foul	Material: Polyvinyl chloride Pipe length:
Catchment:	Lining:
	Category:

Comment:  
 Location details:





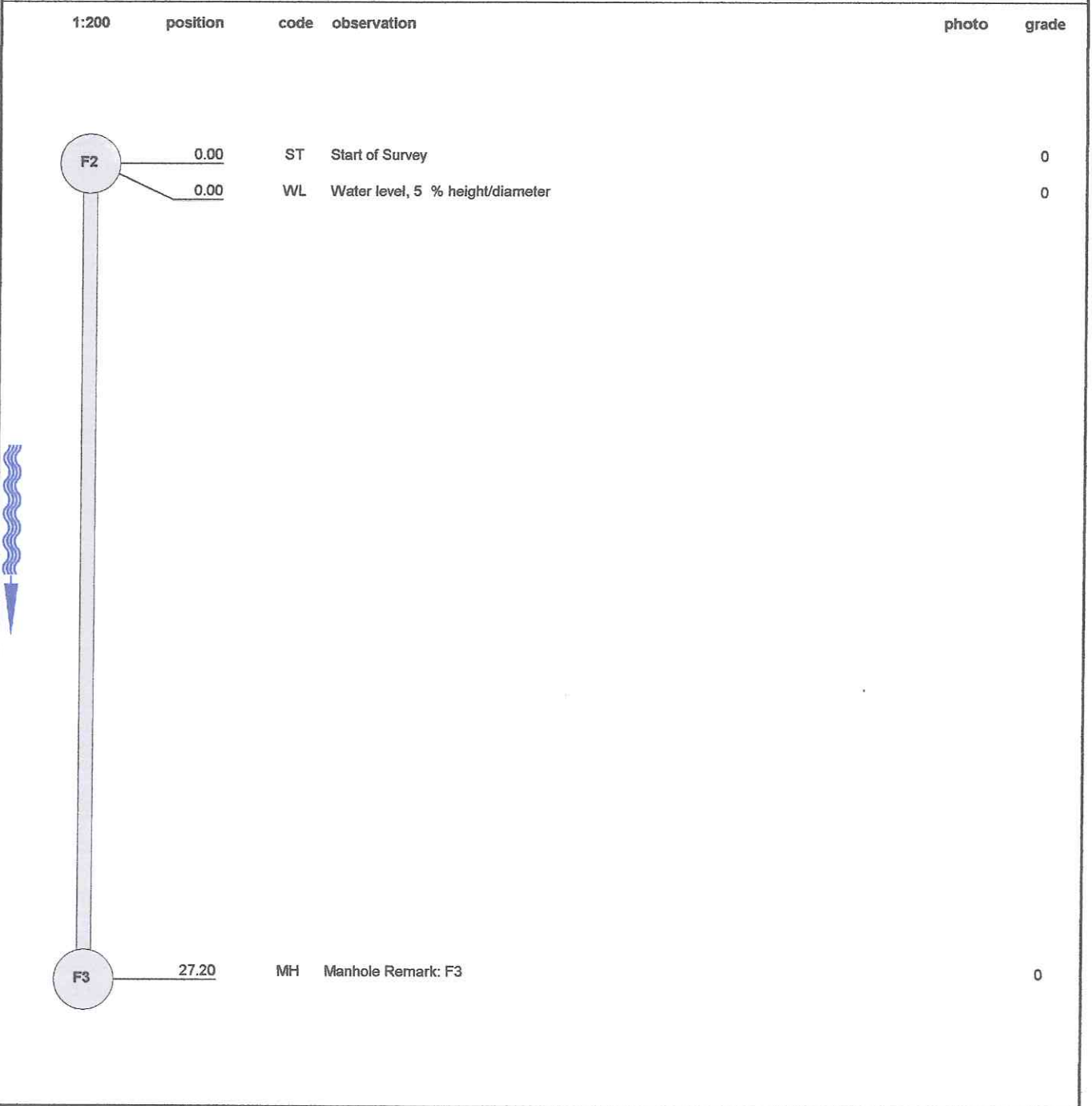
### Inspection report

Date: 31/06/2012	Job N°:	Weather: Dry	Operator: MS	section number: 2	PLR: F2 X
Present:	Vehicle: Camera van	Camera: Minicam	Preset:	Cleaned: Yes	Grade:

Road: Grant's Drive	Division:	start MH: F2
Place: Greenogue Ind. Est.	District:	end MH: F3
Location: Difficult access	Tape No.:	Total length: 27.2 m

Purpose: Resurvey	Size/Shape: Circular 125
Use: Foul	Material: Polyvinyl chloride Pipe length:
Catchment:	Lining:
	Category:

Comment:  
 Location details:





### Inspection report

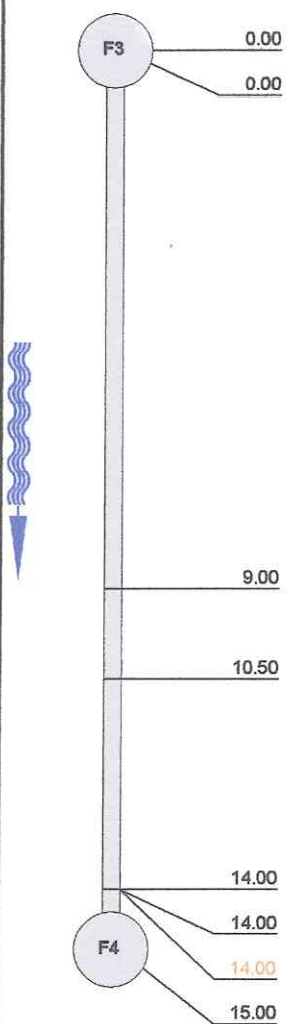
Date: 31/05/2012	Job N°:	Weather: Dry	Operator: MS	section number: 3	PLR: F3 X
Present:	Vehicle: Camera van	Camera: Minicam	Preset:	Cleaned: Yes	Grade:

Road: Grant's Drive	Division:	start MH: F3
Place: Greenogue Ind. Est.	District:	end MH: F4
Location: Difficult access	Tape No.:	Total length: 15 m

Purpose: Resurvey	Size/Shape: Circular 125
Use: Foul	Material: Polyvinyl chloride Pipe length:
Catchment:	Lining:
	Category:

Comment:  
 Location details:

1:125	position	code	observation	photo	grade
		ST	Start of Survey		0
	0.00	WL	Water level, 5 % height/diameter		0
	0.00				
	9.00	WL	Water level, 20 % height/diameter		0
	10.50	WL	Water level, 40 % height/diameter		0
	14.00	WL	Water level, 50 % height/diameter		0
	14.00	CU	Camera Underwater		0
	14.00	GO	General Observation:BAD FALL BETWEEN F4 AND F10 IS BACKING UP THE WATER		3
	15.00	MH	Manhole Remark: F4		0





## Inspection report

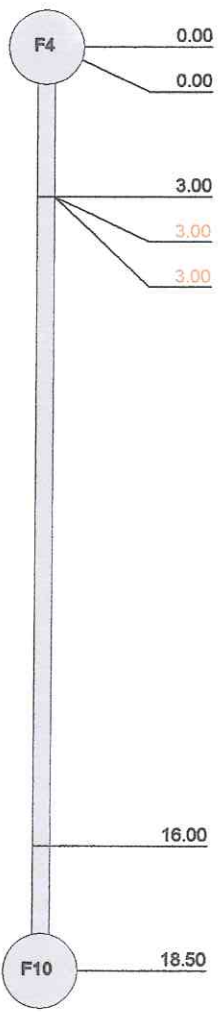
Date: 31/05/2012	Job N°:	Weather: Dry	Operator: MS	section number: 4	PLR: F4 X
Present:	Vehicle: Camera van	Camera: Minicam	Preset:	Cleaned: Yes	Grade:

Road: Grant's Drive	Division:	start MH: F4
Place: Greenogue Ind. Est.	District:	end MH: F10
Location: Difficult access	Tape No.:	Total length: 18.5 m

Purpose: Resurvey	Size/Shape: Circular 125
Use: Foul	Material: Polyvinyl chloride Pipe length:
Catchment:	Lining:
	Category:

Comment:  
 Location details:

1:150	position	code	observation	photo	grade
	0.00	ST	Start of Survey		0
	0.00	WL	Water level, 5 % height/diameter		0
	3.00	WL	Water level, 10 % height/diameter		0
	3.00	GO	General Observation: BAD FALL OF THE PIPE		3
	3.00	GO	Observation:sludge and debris might get lodged at this point		3
	16.00	WL	Water level, 30 % height/diameter		0
	18.50	MH	Manhole Remark: F10		0





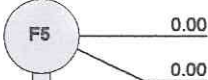

### Inspection report

Date: 31/05/2012	Job N°:	Weather: Dry	Operator: MS	section number: 5	PLR: F5 X
Present:	Vehicle: Camera van	Camera: Minicam	Preset:	Cleaned: Yes	Grade:

Road: Grant's Drive	Division:	start MH: F5
Place: Greenogue Ind. Est.	District:	end MH: F3
Location: Difficult access	Tape No.:	Total length: 46.2 m

Purpose: Resurvey	Size/Shape: Circular 125
Use: Foul	Material: Polyvinyl chloride Pipe length:
Catchment:	Lining:
	Category:

Comment:  
 Location details:

1:350	position	code	observation	photo	grade
		ST	Start of Survey		0
		WL	Water level, 5 % height/diameter		0
		SA	Survey abandoned: END OF CABLE - SECTION TOO LONG		0



### Inspection report

Date: 31/05/2012	Job N°:	Weather: Dry	Operator: MS	section number: 6	PLR: F6 X
Present:	Vehicle: Camera van	Camera: Minicam	Preset:	Cleaned: Yes	Grade:

Road: Grant's Drive	Division:	start MH: F5
Place: Greenogue Ind. Est.	District:	end MH: F6
Location: Difficult access	Tape No.:	Total length: 17.5 m

Purpose: Resurvey	Size/Shape: Circular 125
Use: Foul	Material: Polyvinyl chloride Pipe length:
Catchment:	Lining:
	Category:

Comment:  
 Location details:

1:150	position	code	observation	photo	grade
	0.00	ST	Start of Survey		0
	0.00	WL	Water level, 5 % height/diameter		0
	6.20	DES	Debris silt, 10 % cross-sectional area loss		1
	8.40	CN	Connection, at 11 o'clock, dia 100 mm		0
	17.50	MH	Manhole Remark: F6		0



### Inspection report

Date: 31/05/2012	Job N°:	Weather: Dry	Operator: MS	section number: 7	PLR: INTERCEPT.X
Present:	Vehicle: Camera van	Camera: Minicam	Preset:	Cleaned: Yes	Grade:

Road: Grant's Drive	Division:	start MH: F6
Place: Greenogue Ind. Est.	District:	end MH: INTERCEPT.
Location: Difficult access	Tape No.:	Total length: 12.6 m

Purpose: Resurvey	Size/Shape: Circular 125
Use: Foul	Material: Polyvinyl chloride Pipe length:
Catchment:	Lining:
	Category:

Comment:  
 Location details:

1:100	position	code	observation	photo	grade
	0.00	ST	Start of Survey		0
	0.00	WL	Water level, 5 % height/diameter		0
	1.00	WL	Water level, 10 % height/diameter		0
	2.00	WL	Water level, 20 % height/diameter		0
	3.00	WL	Water level, 40 % height/diameter		0
	4.00	WL	Water level, 50 % height/diameter		0
	4.00	CU	Camera Underwater		0
	4.00	GO	General Observation:BAD FALL IN THE PIPE		3
	12.50	LD	Line of Sewer deviates down, Remark: Approx. 90 deg.		0
	12.60	MH	Manhole Remark: INTERCEPT.		0





## Inspection report

Date: 31/05/2012	Job N°:	Weather: Dry	Operator: MS	section number: 8	PLR: F7 X
Present:	Vehicle: Camera van	Camera: Minicam	Preset:	Cleaned: Yes	Grade:

Road: Grant's Drive	Division:	start MH: F8
Place: Greenogue Ind. Est.	District:	end MH: F7
Location: Difficult access	Tape No.:	Total length: 39 m

Purpose: Resurvey	Size/Shape: Circular 125
Use: Foul	Material: Polyvinyl chloride Pipe length:
Catchment:	Lining:
	Category:

Comment:  
 Location details:

1:300	position	code	observation	photo	grade
	0.00	ST	Start of Survey		0
	0.00	WL	Water level, 0 % height/diameter		0
	7.50	WL	Water level, 5 % height/diameter		0
	9.00	WL	Water level, 20 % height/diameter		0
	9.00	GO	General Observation, Remark: PIPE SLIGHTLY DEPRESSED - HOLDING WATER		2
	12.00	WL	Water level, 5 % height/diameter		0
	22.50	CN	Connection, at 10 o'clock, dia 100 mm		0
	23.20	CN	Connection, at 10 o'clock, dia 100 mm		0
	24.70	CN	Connection, at 10 o'clock, dia 100 mm		0
	32.10	CN	Connection, at 11 o'clock, dia 100 mm		0
	37.00	WL	Water level, 30 % height/diameter		0
	37.00	GO	General Observation, Remark: PIPE SLIGHTLY DEPRESSED		2
	39.00	MH	Manhole Remark: F7		0



## Inspection report

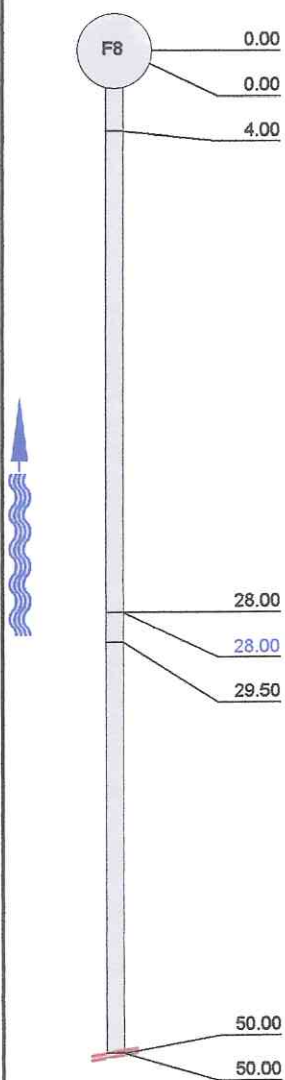
Date: 31/05/2012	Job N°:	Weather: Dry	Operator: MS	section number: 9	PLR: F9 X
Present:	Vehicle: Camera van	Camera: Minicam	Preset:	Cleaned: Yes	Grade:

Road: Grant's Drive	Division:	start MH: F8
Place: Greenogue Ind. Est.	District:	end MH: F9
Location: Difficult access	Tape No.:	Total length: 50 m

Purpose: Resurvey	Size/Shape: Circular 125
Use: Foul	Material: Polyvinyl chloride Pipe length:
Catchment:	Lining:
	Category:

Comment:  
 Location details:

1:375	position	code	observation	photo	grade
	0.00	ST	Start of Survey		0
	0.00	WL	Water level, 10 % height/diameter		0
	4.00	WL	Water level, 5 % height/diameter		0
	28.00	WL	Water level, 20 % height/diameter		0
	28.00	GO	General Observation, Remark: PIPE SLIGHTLY DEPRESSED		2
	29.50	WL	Water level, 5 % height/diameter		0
	50.00	SA	Survey abandoned: END OF CABLE - SECTION TOO LONG		0
	50.00	GO	General Observation: F9 IS BURIED WITHOUT ACCESS		0





## Inspection report

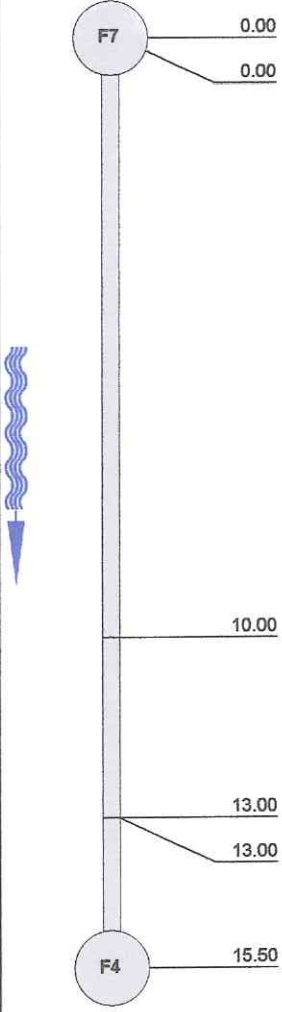
Date: <b>31/05/2012</b>	Job N°:	Weather: <b>Dry</b>	Operator: <b>MS</b>	section number: <b>10</b>	PLR: <b>F7 X</b>
Present:	Vehicle: <b>Camera van</b>	Camera: <b>Minicam</b>	Preset:	Cleaned: <b>Yes</b>	Grade:

Road: <b>Grant's Drive</b>	Division:	start MH: <b>F7</b>
Place: <b>Greenogue Ind. Est.</b>	District:	end MH: <b>F4</b>
Location: <b>Difficult access</b>	Tape No.:	Total length: <b>15.5 m</b>

Purpose: <b>Resurvey</b>	Size/Shape: <b>Circular 125</b>
Use: <b>Foul</b>	Material: <b>Polyvinyl chloride</b> Pipe length:
Catchment:	Lining:
	Category:

Comment:  
 Location details:

1:125	position	code	observation	photo	grade
	0.00	ST	Start of Survey		0
	0.00	WL	Water level, 5 % height/diameter		0
	10.00	WL	Water level, 30 % height/diameter		0
	13.00	WL	Water level, 50 % height/diameter		0
	13.00	CU	Camera Underwater - WATER BACKING UP, BAD FALL BETWEEN F4 AND F10		0
	15.50	MH	Manhole Remark: F4		0





# Inspection report

Date: 31/05/2012	Job N°:	Weather: Dry	Operator: MS	section number: 11	PLR: S2 X
Present:	Vehicle: Camera van	Camera: Minicam	Preset:	Cleaned: Yes	Grade:

Road: Grant's Drive	Division:	start MH: S2
Place: Greenogue Ind. Est.	District:	end MH: S3
Location: Difficult access	Tape No.:	Total length: 30 m
Purpose: Resurvey	Size/Shape: Circular 200	Material: Vitrified clay
Use: Surface water	Lining:	Pipe length:
Catchment:	Category:	

Comment:

Location details:

1:225	position	code	observation	photo	grade
		ST	Start of Survey		0
		WL	Water level, 0 % height/diameter		0
		CN	Connection, at 02 o'clock, dia 125 mm		0
		CN	Connection, at 02 o'clock, dia 125 mm		0
		MH	Manhole Remark: S3		0



## Inspection report

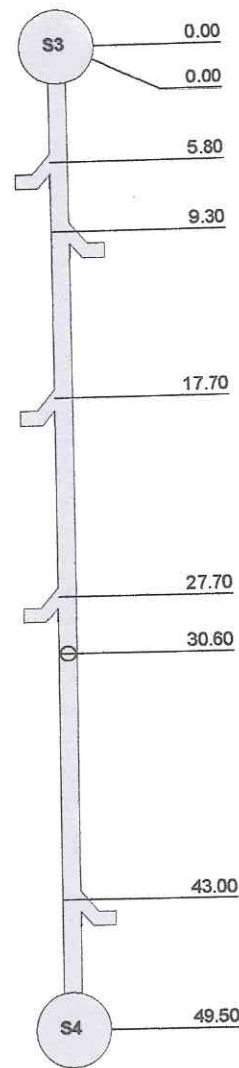
Date: <b>31/05/2012</b>	Job N°:	Weather: <b>Dry</b>	Operator: <b>MS</b>	section number: <b>12</b>	PLR: <b>S4 X</b>
Present:	Vehicle: <b>Camera van</b>	Camera: <b>Minicam</b>	Preset:	Cleaned: <b>Yes</b>	Grade:

Road: <b>Grant's Drive</b>	Division:	start MH: <b>S3</b>
Place: <b>Greenogue Ind. Est.</b>	District:	end MH: <b>S4</b>
Location: <b>Difficult access</b>	Tape No.:	Total length: <b>49.5 m</b>

Purpose: <b>Resurvey</b>	Size/Shape: <b>Circular 200</b>
Use: <b>Surface water</b>	Material: <b>Vitrified clay</b> Pipe length:
Catchment:	Lining:
	Category:

Comment:  
 Location details:

1:375	position	code	observation	photo	grade
	0.00	ST	Start of Survey		0
	0.00	WL	Water level, 5 % height/diameter		0
	5.80	CN	Connection, at 02 o'clock, dia 125 mm		0
	9.30	CN	Connection, at 10 o'clock, dia 125 mm		0
	17.70	CN	Connection, at 02 o'clock, dia 125 mm		0
	27.70	CN	Connection, at 03 o'clock, dia 125 mm		0
	30.60	CN	Connection, at 11 o'clock, dia 125 mm		0
	43.00	CN	Connection, at 10 o'clock, dia 125 mm		0
	49.50	MH	Manhole Remark: S4		0





### Inspection report

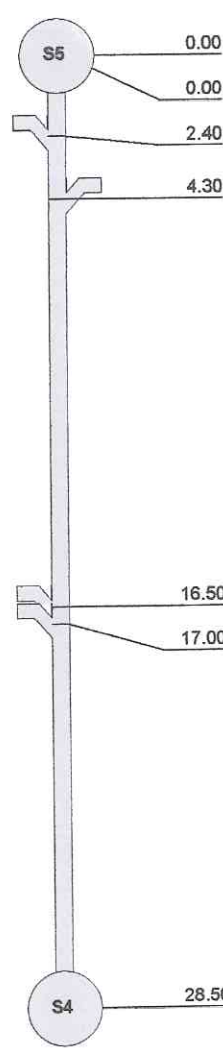
Date: <b>31/05/2012</b>	Job N°:	Weather: <b>Dry</b>	Operator: <b>MS</b>	section number: <b>13</b>	PLR: <b>S5 X</b>
Present:	Vehicle: <b>Camera van</b>	Camera: <b>Minicam</b>	Preset:	Cleaned: <b>Yes</b>	Grade:

Road: <b>Grant's Drive</b>	Division:	start MH: <b>S5</b>
Place: <b>Greenogue Ind. Est.</b>	District:	end MH: <b>S4</b>
Location: <b>Difficult access</b>	Tape No.:	Total length: <b>28.5 m</b>

Purpose: <b>Resurvey</b>	Size/Shape: <b>Circular 200</b>
Use: <b>Surface water</b>	Material: <b>Vitrified clay</b> Pipe length:
Catchment:	Lining:
	Category:

Comment:  
 Location details:

1:225	position	code	observation	photo	grade
	0.00	ST	Start of Survey		0
	0.00	WL	Water level, 5 % height/diameter		0
	2.40	JN	Junction at 02 o'clock, dia 125 mm		0
	4.30	CN	Connection, at 10 o'clock, dia 125 mm		0
	16.50	CN	Connection, at 02 o'clock, dia 125 mm		0
	17.00	CN	Connection, at 02 o'clock, dia 125 mm		0
	28.50	MH	Manhole Remark: S4		0





### Inspection report

Date: 31/05/2012	Job N°:	Weather: Dry	Operator: MS	section number: 14	PLR: AJ X
Present:	Vehicle: Camera van	Camera: Minicam	Preset:	Cleaned: Yes	Grade:

Road: Grant's Drive	Division:	start MH: S5
Place: Greenogue Ind. Est.	District:	end MH: AJ
Location: Difficult access	Tape No.:	Total length: 46.2 m

Purpose: Resurvey	Size/Shape: Circular 200
Use: Surface water	Material: Vitrified clay Pipe length:
Catchment:	Lining:
	Category:

Comment:  
 Location details:

1:350	position	code	observation	photo	grade
	0.00	ST	Start of Survey		0
	0.00	WL	Water level, 0 % height/diameter		0
	19.70	CN	Connection, at 10 o'clock, dia 125 mm		0
	32.80	CN	Connection, at 10 o'clock, dia 125 mm		0
	46.20	CXI	Connection defective, at 10 o'clock, dia 125 mm, intrusion 200 mm	14_5a	4
46.20	SA	Survey abandoned:CAN'T CONTINUE		0	



## Inspection photos

Place: <b>Greenogue Ind. Est.</b>	Road: <b>Grant's Drive</b>	Date: <b>31/05/2012</b>	section number: <b>14</b>	PLR: <b>AJ X</b>
--------------------------------------	-------------------------------	----------------------------	------------------------------	---------------------



Photo: 14\_5a  
46.2m, Connection defective, at 10 o'clock, dia 125 mm, intrusion  
200 mm





### Inspection report

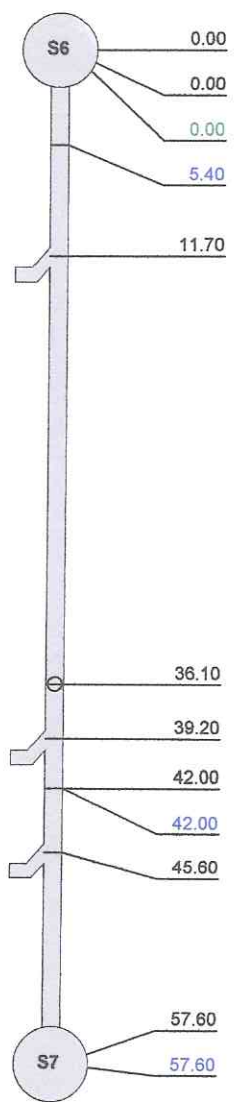
Date: 31/05/2012	Job N°:	Weather: Dry	Operator: MS	section number: 15	PLR: S7 X
Present:	Vehicle: Camera van	Camera: Minicam	Preset:	Cleaned: Yes	Grade:

Road: Grant's Drive	Division:	start MH: S6
Place: Greenogue Ind. Est.	District:	end MH: S7
Location: Difficult access	Tape No.:	Total length: 57.6 m

Purpose: Resurvey	Size/Shape: Circular 200
Use: Surface water	Material: Vitrified clay Pipe length:
Catchment:	Lining:
	Category:

Comment:  
 Location details:

1:425	position	code	observation	photo	grade
	0.00	ST	Start of Survey		0
	0.00	WL	Water level, 5 % height/diameter		0
	0.00	DES	Debris silt, 10 % cross-sectional area loss		1
	5.40	D	Sewer Deformed, 10 %		2
	11.70	CN	Connection, at 03 o'clock, dia 125 mm		0
	36.10	CN	Connection, at 11 o'clock, dia 125 mm		0
	39.20	CN	Connection, at 02 o'clock, dia 125 mm		0
	42.00	WL	Water level, 20 % height/diameter		0
	42.00	GO	General Observation, Remark: PIPE SLIGHTLY DEPRESSED - HOLDING		2
	45.60	CN	Connection, at 03 o'clock, dia 125 mm		0
	57.60	MH	Manhole Remark: S7		0
	57.60	GO	General Observation: MANHOLE BURIED WITHOUT ACCESS		2







# Inspection report

Date: 31/05/2012	Job N°:	Weather: Dry	Operator: MS	section number: 16	PLR: S8 X
Present:	Vehicle: Camera van	Camera: Minicam	Preset:	Cleaned: Yes	Grade:

Road: Grant's Drive	Division:	start MH: S6
Place: Greenogue Inq. Est.	District:	end MH: S8
Location: Difficult access	Tape No.:	Total length: 65.9 m
Purpose: Resurvey	Size/Shape: Circular 200	
Use: Surface water	Material: Vitrified clay	Pipe length:
Catchment:	Lining:	
	Category:	

Comment:

Location details:

1:500	position	code	observation	photo	grade
	0.00	ST	Start of Survey		0
	0.00	WL	Water level, 5 % height/diameter		0
	10.90	CN	Connection, at 12 o'clock, dia 125 mm		0
	16.40	CN	Connection, at 09 o'clock, dia 125 mm		0
	22.70	CN	Connection, at 02 o'clock, dia 125 mm		0
	29.20	CN	Connection, at 10 o'clock, dia 125 mm		0
	46.40	CN	Connection, at 10 o'clock, dia 125 mm		0
	51.40	CN	Connection, at 03 o'clock, dia 125 mm		0
	57.30	CN	Connection, at 09 o'clock, dia 125 mm		0
	58.10	CN	Connection, at 02 o'clock, dia 125 mm		0
	58.60	CN	Connection, at 02 o'clock, dia 125 mm		0
	65.90	MH	Manhole Remark: S8		0



### Inspection report

Date: 17/12/2012	Job N°:	Weather: Dry	Operator: MS	section number: 17	PLR: S9 X
Present:	Vehicle: Camera van	Camera: Pearpoint	Preset:	Cleaned: Yes	Grade:

Road: Grant's Drive	Division:	start MH: S8
Place: Greenogue Ind. Est.	District:	end MH: S9
Location: Difficult access	Tape No.:	Total length: 5.8 m

Purpose: Resurvey	Size/Shape: Circular 200
Use: Surface water	Material: Vitrified clay Pipe length:
Catchment:	Lining:
	Category:

Comment:

Location details:

1:50	position	code	observation	photo	grade
		ST	Start of Survey		0
		WL	Water level, 0 % height/diameter		0
		LL	Line of Sewer deviates left, Remark: Approx. 90 degrees		0
		SA	Survey abandoned - too sharp bend		0



### Inspection report

Date: 17/12/2012	Job N°:	Weather: Dry	Operator: MS	section number: 18	PLR: HWTS X
Present:	Vehicle: Camera van	Camera: Minicam	Preset:	Cleaned: Yes	Grade:

Road: Grant's Drive	Division:	start MH: F5
Place: Greenogue Ind. Est.	District:	end MH: HWTS
Location: Difficult access	Tape No.:	Total length: 10 m

Purpose: Resurvey	Size/Shape: Circular 125
Use: Foul	Material: Vitrified clay Pipe length:
Catchment:	Lining:
	Category:

Comment:  
 Location details:

1:75	position	code	observation	photo	grade
	0.00	ST	Start of Survey		0
	0.00	WL	Water level, 0 % height/diameter		0
	3.00	GO	Emergency shut-off valve		0
	4.30	CN	Connection, at 09 o'clock, dia 125 mm		0
	10.00	MH	Gully trap in HWTS		0



## Inspection report

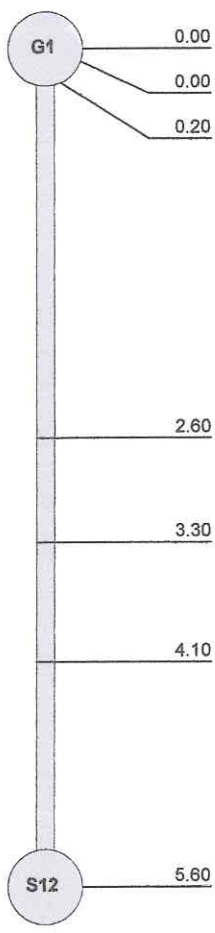
Date: <b>17/12/2012</b>	Job N°:	Weather: <b>Dry</b>	Operator: <b>MS</b>	section number: <b>19</b>	PLR: <b>G1 X</b>
Present:	Vehicle: <b>Camera van</b>	Camera: <b>Minicam</b>	Preset:	Cleaned: <b>Yes</b>	Grade:

Road: <b>Grant's Drive</b>	Division:	start MH: <b>G1</b>
Place: <b>Greenogue Ind. Est.</b>	District:	end MH: <b>S12</b>
Location: <b>Difficult access</b>	Tape No.:	Total length: <b>5.6 m</b>

Purpose: <b>Resurvey</b>	Size/Shape: <b>Circular 125</b>
Use: <b>Surface water</b>	Material: <b>Vitrified clay</b> Pipe length:
Catchment:	Lining:
	Category:

Comment:  
 Location details:

1:50	position	code	observation	photo	grade
	0.00	ST	Start of Survey		0
	0.00	WL	Water level, 0 % height/diameter		0
	0.20	LL	Line of Sewer deviates left, Remark: Approx. 45 degrees		0
	2.60	LL	Line of Sewer deviates left, Remark: Approx. 45 degrees		0
	3.30	GO	Emergency shut-off valve		0
	4.10	LL	Line of Sewer deviates left, Remark: Approx. 45 degrees		0
	5.60	MH	Manhole Remark: S12		0





### Inspection report

Date: 17/12/2012	Job N°:	Weather: Dry	Operator: MS	section number: 20	PLR: S12 X
Present:	Vehicle: Camera van	Camera: Minicam	Preset:	Cleaned: Yes	Grade:

Road: Grant's Drive	Division:	start MH: S12
Place: Greenogue Ind. Est.	District:	end MH: river
Location: Difficult access	Tape No.:	Total length: 3.6 m

Purpose: Resurvey	Size/Shape: Circular 150
Use: Surface water	Material: Vitrified clay Pipe length:
Catchment:	Lining:
	Category:

Comment:

Location details:

1:50	position	code	observation	photo	grade
	0.00	ST	Start of Survey		0
	0.00	WL	Water level, 0 % height/diameter		0
	3.00	WL	Water level, 10 % height/diameter		0
	3.60	MH	River outfall		0
	3.60	GO	General Observation:river discharge pipe plugged		0

**Project-information / Inspection: 1**

 Project name :  
**RILTA ENVIRONMENTAL**

Contract Number :

Contact :

 Date :  
**31/10/2013**

Client **Colm Hussey**  
 Responsible: **01 4018000**  
 Department: **Treatment Division**  
 Street: **Grants Drive**  
 City, St Zip: **Rathcoole**  
 Po Box: **Dublin**  
 Telephone:  
 Fax:  
 Mobile:  
 e-mail:

Proj mgr **Colm Hussey**  
 Responsible:  
 Department: **Rilta Yard Bay 5 Rear**  
 Street:  
 City, St Zip:  
 Po Box:  
 Telephone:  
 Fax:  
 Mobile:  
 e-mail:

Contractor **RILTA ENVIRONMENTAL**  
 Responsible: **FINTAN DUFFY**  
 Department: **CONTRACTS**  
 Street: **GREENOGUE INDUSTRIAL ESTATE**  
 City, St Zip: **RATHCOOLE**  
 Po Box: **DUBLIN**  
 Telephone: **01 4018000**  
 Fax:  
 Mobile: **087 9041052**  
 e-mail: **info@rilta.ie**

## Inspection report / Inspection: 1

Date : <b>31/10/2013</b>	Job number :	Weather : <b>Light rain</b>	Sewer category:	Section number : <b>1</b>	PLR suffix : <b>X</b>
Present :	Vehicle :	Camera :	Preset :	Cleaned : <b>yes</b>	Operator : <b>MICHAEL</b>

Place : Road : Location Inspection	<b>RILTA</b> <b>RATHCOOLE</b> <b>MH20.4 (D/S) MH20.3</b>	Location details: Catchment: Tape number : Pipe length :	<b>311013_1</b> 	U/S MH : U/S Depth : D/S MH : D/S Depth :	<b>MH20.4</b> <b>MH20.3</b>
---	--	---	---------------------	--	--------------------------------

Use: Year laid : Purpose : Total length :	<b>Other (state in comments)</b> 	Pipe shape : Pipe size : Pipe material : Lining :	<b>Circular</b> <b>100.00 mm</b> <b>Polyvinyl chloride (PVC)</b>
--	--------------------------------------	--	--

Comment :

1:798	Position	Code	Observation	MPEG	Photo	Grade
	MH20.4					
	0.00	ST	Start of survey	00:00:34		(Misc) 0
	0.01	WL	Water level, 5% of sewer height			(Serv) 0
	14.76	D	Deformed sewer, 5% of original diameter/height	00:03:07	1_3A	(Struct) 2
	27.49	OJM	Open joint, medium (between 1.0 and 1.5 times the pipe wall thickness) Remarks: SEAL OUT	00:06:31	1_4A	(Struct) 1
	54.96	D	Deformed sewer, 5% of original diameter/height	00:14:48	1_5A	(Struct) 2
	101.30	WL	Water level, 5% of sewer height			(Serv) 0
	101.30	FH	Finish survey			(Misc) 0
	MH20.3					

<b>Structural Defects</b>					<b>Constructional Features</b>				
<b>Service Defects</b>					<b>Miscellaneous Features</b>				
STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
3	20	0.4	41	2	0	0	0	0	1



## Inspection pictures / Inspection: 1

Place : <b>RILTA</b>	Road : <b>RATHCOOLE</b>	Date : <b>31/10/2013</b>	Section number : <b>1</b>	PLR suffix : <b>X</b>
-------------------------	----------------------------	-----------------------------	------------------------------	--------------------------



Photo: 1\_3A, MPEG #: 311013\_1, 00:03:07  
 14.76m, Deformed sewer, 5% of original diameter/height



Photo: 1\_4A, MPEG #: 311013\_1, 00:06:31  
 27.49m, Open joint, medium (between 1.0 and 1.5 times the pipe wall thickness)

### Inspection pictures / Inspection: 1

Place : RILTA	Road : RATHCOOLE	Date : 31/10/2013	Section number : 1	PLR suffix : X
------------------	---------------------	----------------------	-----------------------	-------------------



Photo: 1\_5A, MPEG #: 311013\_1, 00:14:48  
54.96m, Deformed sewer, 5% of original diameter/height



**USA Ltd.**

**Underground  
Surveying and Analysis Ltd.**

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email: info@usa-ltd.ie

Your Ref:  
Our Ref : 7034 / KB / CH

<b>DATE</b>	11-Oct-13																
<b>LOCATION</b>	Rilta, Greenogue Business Park																
<b>OPERATIVES</b>	Derek Tyrrell Sean Burke																
<b>MANHOLE No. 1</b>	Bund	Hydrostatic Pipeline Test															
<b>MANHOLE No. 2</b>	Sump	Location A on attached plan															
<b>SEWER DIAMETER</b>	90																
<b>SEWER MATERIAL</b>	PVC																
<b>SEWER LENGTH</b>	35																
<b>EFFLUENT TYPE</b>		Foul	Storm														
			Process														
<b>VOLUME OF WATER ADDED</b>	0																
<b>ALLOWABLE WATER LOSS</b>	2.63																
in 30 minute period																	
<b>TEST RESULTS</b>		Pass	Fail														
		✓															
<b>COMMENTS</b>																	
<b>ALLOWABLE WATER LOSS PER METER RUN OF PIPE IN EACH 30 MINUTE PERIOD</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Diameter</th> <th style="text-align: right;">No. Of Litres</th> </tr> </thead> <tbody> <tr> <td>150mm</td> <td style="text-align: right;">0.075</td> </tr> <tr> <td>160mm</td> <td style="text-align: right;">0.080</td> </tr> <tr> <td>200mm</td> <td style="text-align: right;">0.100</td> </tr> <tr> <td>225mm</td> <td style="text-align: right;">0.113</td> </tr> <tr> <td>300mm</td> <td style="text-align: right;">0.150</td> </tr> <tr> <td>375mm</td> <td style="text-align: right;">0.188</td> </tr> </tbody> </table>				Diameter	No. Of Litres	150mm	0.075	160mm	0.080	200mm	0.100	225mm	0.113	300mm	0.150	375mm	0.188
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# APPENDIX H

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## **Environmental Management and Staffing Structure**

# Rilta Environmental Management Structure

