Unit 15 Melbourne Business Park Model Farm Road Cork



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ANNUAL ENVIRONMENTAL REPORT

RILTA ENVIRONMENTAL LTD.

BLOCK 402 GREENOGUE BUSINESS PARK

LICENCE NO. W0192-03

JANUARY 2017 – DECEMBER 2017

Prepared For: -

Rilta Environmental Ltd, Greenogue Business Park, Rathcoole, County Dublin.

Prepared By: -

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Project	Annual Environmental Report 2017									
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1. INTRODUCTION

This is the 2017 Annual Environmental Report (AER) for Rilta Environmental Limited's (Rilta) Materials Recovery Facility (MRF) located at Block 402, Greenogue Business Park, Rathcoole, County Dublin. The report covers the period from the 1st January 2017 to the 31st December 2017.

The content of the AER is based on Condition 10.1 and Schedule E of the Industrial Emissions Licence (W0192-03) and the report format follows guidelines set in the "Guidance Note for Annual Environmental Report" issued by the Environmental Protection Agency (Agency)¹. Account is also taken of the AER Draft Guidance Document and AER Information Templates issued by the Agency in December 2013^2 .

¹ EPA (Environmental Protection Agency) 1999 Waste Licensing – Draft Guidance on Environmental Management Systems and Reporting to the Agency

² EPA (Environmental Protection Agency) 2013 AER Draft Guidance Document

2. SITE DESCRIPTION

2.1 Site Location and Layout

The facility is located within an industrial estate approximately 2km east of Newcastle village and approximately 2.5km west of Rathcoole village. A site layout plan is in Appendix 1.

2.2 Waste Management Activities

The current licence allows Rilta to accept and process up to 111,000 tonnes of non-hazardous and hazardous waste per annum, as set out in Appendix A and Table 2.1 on the next page:

Waste activities at are restricted to those listed in Part 1 – Schedule of Activities Licensed.

Licensed Waste Disposal Activities, in accordance with the 3rd 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, 4th 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.

	Maximum Allowable					
		Description	Annual Tonnage Note 3			
		Commercial Waste	500			
Non-Hazardous waste	Notes 1,2	C & D Waste	500			
		Industrial Sludges	1,000			
		Other Industrial Waste	3,000			
Non	-Hazardous V	Vaste Total	5,000			
	EWC Code	Description	Maximum Allowable Annual Tonnage _{Note 3}			
	13 05 03*	Interceptor Sludges	10,000			
	16 07 08*	Waste containing Oil	2,000			
Hazardous Waste	16 10 01*	Aqueous Liquid waste containing Dangerous Substances	1,500			
	17 05 03*	Soil and Stones containing Dangerous Substances	60,000			
	17 06 01*	Insulation Materials and Construction Materials	8,000			
	17 06 05*	containing Asbestos				
		Other Note 4				
Н	azardous Wa	ste Total	106,000			
Tot	tal Tonnage p	er Annum	111,000			

Table 2.1Waste Types and Quantities (W0192-03)

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 total annual waste quantity remaining 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.

3. EMISSION MONITORING

Rilta implements the environmental monitoring programme specified in the licence to assess the significance of emissions from site activities. The programme includes surface water, wastewater, groundwater, noise, air and dust monitoring.

The monitoring locations are shown on the site layout plan in Appendix 1. The results are submitted in reports to the Agency at quarterly intervals. An overview of the results is presented in this Section, which includes tabulated data.

3.1 Surface Water Monitoring

The rainwater run-off from the hard standing and building roofs discharges to a tributary of the River Grifeen, which flow along the northern site boundary. The tributary flows from east to west towards the River Grifeen. Surface water samples were collected at the discharge point (SW-3) and in the stream at SW-1, which is upstream and SW-2, which is downstream of SW-3. Tables 3.1 to 3.3 present the results for 2017. Table 3.3 includes the Emission Limit Values (ELV) specified in the licence. The emission complied with the ELVs.

Parameter	Units	Q1	Q2	Q3	Q4
pН	pH units	8.21	8.22	8.21	8.36
Conductivity	µS/cm	594	601	533	570
COD	mg/l	<7	19	<7	33
Total Suspended Solids	mg/l	<10	<10	<10	<10
Mineral Oil	mg/l	<0.01	<0.01	<0.01	<0.01

 Table 3.1
 Surface water Monitoring Results 2017: SW-1

Table 3.2Surface water Monitoring Results 2017: SW-2

Parameter	Units	Q1	Q2	Q3	Q4
pН	pH units	8.21	8.23	8.20	8.38
Conductivity	µS/cm	594	592	525	561
COD	mg/l	<7	12	<7	<7
Total Suspended Solids	mg/l	<10	<10	<10	<10
Mineral Oil	mg/l	<0.01	<0.01	<0.01	<0.01

Parameter	Units	Q1	Q2	Q3	Q4	ELV
pН	pH units	7.48	7.67	7.40	7.78	-
Conductivity	µS/cm	323	167	162	251	-
COD	mg/l	23	23	10	14	-
Total Suspended Solids	mg/l	<10	<10	<10	<10	35
Mineral Oil	mg/l	<0.01	<0.01	<0.01	<0.01	5

Table 3.3Surface water Monitoring Results 2017: SW-3

3.2 Groundwater Monitoring

There are three on-site groundwater monitoring wells (BH-1, BH-2 and BH-3) at the locations shown on the plan in Appendix 1. BH-1 is in the southern (upgradient) section of the site. BH-2 and BH-3 are located in the northern (downgradient) section of the site. In April 2017 during a site visit by the EPA, agency personal removed the sampling equipment from BH-3, located within the tank farm. This has rendered BH-3 inaccessible for monitoring purposes. An alternative borehole (GW-3) located immediately south (upgradient) of the tank farm has been used for monitoring purposes for Q2 to Q4 2017.

The monitoring includes monthly measurement of groundwater levels and the collection and analysis of samples for pH, electrical conductivity and temperature, quarterly monitoring for pH, electrical conductivity, volatile organic compounds (VOCs), semi volatile organics (sVOC), pesticides, DRO, mineral oil, benzene, toluene, ethylbenzene, xylene, arsenic and mercury and annually for dissolved oxygen, alkalinity, sulphate, total cyanide, chloride, boron, cadmium, calcium, total chromium, copper, iron, lead, magnesium, manganese, nickel, potassium, sodium and zinc. At the request of the agency, DRO was added to the list of parameters analysed quarterly from Q3 2016 onwards.

There are no trigger levels set in the Licence, but for comparative purposes the Table includes the EPA Interim Guideline Values (IGVs) on groundwater quality and the Groundwater Regulations Threshold Value (TV) which were introduced in 2010 (S.I. 9 of 2010)

Table 3.4 includes the monthly field reading results for the three wells. There were no exceedances of the IGV / TVs.

Tables 3.5 to 3.8 include the quarterly groundwater results, with the annual results included in Table 3.5.

BH-1	Unit	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	IGV	TV
Water Level	mBTOC	2.48	2.34	2.28	2.64	2.28	2.58	2.62	2.14	2.34	2.54	2.53	2.21		
pH	pH Units	7.25	8.27	8.73	7.31	7.96	8.04	7.26	6.36	7.29	7.69	7.65	7.55	6.5-9.5	
Electrical Conductivity	μS/cm	622	581	685	545	644	626	617	704	586	537	616	663	1,000	800 – 1,875
Temperature	°C	11.8	11.3	11.2	11	12.0	11.6	11.7	12.4	12.7	13.2	12.8	12.2	25	
BH-2	Unit														
Water Level	mBTOC	2.45	2.43	2.38	2.50	2.43	2.51	2.53	2.42	2.52	2.54	2.51	2.38		
pH	pH Units	7.26	8.37	9.47	7.3	7.52	8.26	7.61	7.04	7.77	8.02	7.99	7.98	6.5-9.5	
Electrical Conductivity	μS/cm	451	411	453	445	382	433	416	454	414	403	357	436	1,000	800 – 1,875
Temperature	°C	11.4	11.1	10.5	10.5	11.1	11.3	11.2	11.8	12.2	12.3	12.2	11.7	25	
	Unit		BH-3			-			GW-3			_			
Water Level	mBTOC	1.63	1.64	1.54	1.65	1.56	1.64	1.63	1.52	1.57	1.60	1.56	1.45		
pH	pH Units	7.26	8.70	9.30	7.19	7.29	8.14	7.41	6.61	7.46	7.77	7.62	7.56	6.5-9.5	
Electrical Conductivity	μS/cm	447	442	425	706	590	687	693	675	668	661	674	617	1,000	800 – 1,875
Temperature	°C	11.2	10.9	11.0	11.2	12.5	11.9	12.1	12.5	12.7	12.9	12.6	12.3	25	

Table 3.4Monthly Monitoring Results

Parameter	Units	BH-1	BH-2	BH-3	IGV	TV
рН	pH Units	7.45	7.72	8.34	6.5-9.5	-
E.C.	μS/cm	653	434	477	1,000	875 – 1,875
Mercury	μg/l	<1	<1	<1	1	0.75
Arsenic	μg/l	<2.5	<2.5	<2.5	10	7.5
Benzene	μg/l	<0.5	<0.5	<0.5	1	0.75
Toluene	μg/l	<5	<5	<5	10	-
Ethylbenzene	μg/l	<0.5	<0.5	<0.5	10	-
o-Xylene	μg/l	<0.5	<0.5	<0.5	10	-
p/m-Xylene	μg/l	<1	<1	<1	10	-
MTBE	μg/l	<0.1	2.6	15.7	30	-
Mineral Oil	mg/l	<0.01	<0.01	<0.01	0.01	-
EPH	mg/l	<0.01	<0.01	<0.01	-	-
VOC (Excluding MTBE)	µg/l	<0.01	<0.01	<0.01	*	*
SVOC	μg/l	ND	ND	ND	*	*
Pesticides	μg/l	ND	ND	ND	*	*

Table 3.5 O1 Groundwater Monitoring Results

* - various IGVs in place for individual VOCs.

ND - not detected

In Q1, mercury, arsenic, benzene, mineral oil, EPH, toluene, ethylbenzene, xylene, VOCs, SVOCs and pesticides were not detected in any sample. There were no exceedances of the IGV or TVs. MTBE was detected in BH-2 and BH-3, but the levels did not exceed the IGV.

Parameter	Units	BH-1	BH-2	BH-3	IGV	TV
pH	pH Units	7.59	7.94	7.80	6.5-9.5	-
E.C.	μS/cm	586	326	523	1,000	875 - 1,875
Mercury	µg/l	<1	<1	<1	1	0.75
Arsenic	µg/l	<2.5	4.4	3.2	10	7.5
Benzene	µg/l	<0.5	<0.5	<0.5	1	0.75
Toluene	μg/l	<5	<5	<5	10	-
Ethylbenzene	µg/l	<0.5	<0.5	<0.5	10	-
o-Xylene	µg/l	<0.5	<0.5	<0.5	10	-
p/m-Xylene	µg/l	<1	<1	<1	10	-
MTBE	µg/l	<0.1	2.2	18.9	30	-
Mineral Oil	mg/l	<0.01	<0.01	<0.01	0.01	-
EPH	mg/l	<0.01	<0.01	<0.01		
SVOC	μg/l	ND	ND	ND	*	*
Pesticides	μg/l	ND	ND	ND	*	*

Table 3.6 Q2 Groundwater Monitoring Results

* - various IGVs in place for individual VOCs.

ND - not detected

In Q2, mercury, benzene, toluene, ethylbenzene, xylene, mineral oil, EPH, SVOCs and pesticides were not detected in any sample. There were no exceedances of the IGV or TVs. Arsenic and MTBE were detected in BH-2 and BH-3, but the levels did not exceed the IGV or TV.

Parameter	Units	BH-1	BH-2	BH-3	IGV	TV
pН	pH Units	7.49	7.68	7.68	6.5-9.5	-
E.C.	μS/cm	605	444	675	1,000	875 – 1,875
Mercury	μg/l	<1	<1	<1	1	0.75
Arsenic	μg/l	<2.5	<2.5	2.9	10	7.5
Boron	μg/l	27	24	55	1,000	750
Cadmium	μg/l	<0.5	<0.5	<0.5	5	3.75
Calcium	mg/l	89.3	57.9	83.6	200	-
Copper	μg/l	<7	<7	<7	30	1,500
Total Iron	μg/l	<20	<20	<20	200	-
Lead	μg/l	<5	<5	<5	10	18.75
Magnesium	mg/l	24.6	9.4	13.4	50	-
Manganese	μg/l	49	142	693	50	-
Nickel	μg/l	<2	6	22	20	15
Potassium	mg/l	1.2	1.5	3	5	-
Sodium	mg/l	12.8	28.1	52	150	150
Zinc	μg/l	<3	6	<3	100	-
Total Chromium	μg/l	<1.5	<1.5	<1.5	30	37.5
Sulphate	mg/l	23.5	32.7	70.6	200	187.5
Chloride	mg/l	19.7	23.7	55.1	30	187.5
Total Cyanide	mg/l	<0.01	0.01	<0.01	0.01	0.0375
Total Alkalinity as CaCO3	mg/l	344	212	238	NAC	-
Dissolved Oxygen	mg/l	6	6	4	NAC	-
Benzene	μg/l	<0.5	<0.5	<0.5	1	0.75
Toluene	μg/l	<0.5	<0.5	<0.5	10	-
Ethylbenzene	μg/l	< 1	<1	<1	10	-
o-Xylene	μg/l	< 1	<1	<1	10	-
p/m-Xylene	μg/l	<2	<2	<2	10	-
MTBE	μg/l	<0.1	3.6	5	30	-
Mineral Oil	mg/l	<0.010	<0.010	<0.010	0.01	-
VOC (Excluding MTBE)	μg/l	ND	ND	ND	*	*
VOC	μg/l	ND	ND	ND	*	*
SVOCs	μg/l	ND	ND	ND	*	*
Pesticides (except Diazinon)	μg/l	ND	ND	ND	*	*
Diazinon	μg/l	<0.01	0.04	<0.01	-	-

Table 3.7Q3 Groundwater Monitoring Results

* - various IGVs in place for individual VOCs.

ND - not detected

NAC - no abnormal change

In Q3, mercury, cadmium, copper, iron, lead, chromium, mineral oil, benzene, toluene, ethylbenzene, xylene, VOCs (excluding MTBE) and SVOCs were not detected in any sample. At BH-3 nickel exceeded the TV and the IGV; manganese and chloride exceeded the IGV. In BH-2 the manganese level also exceeded the IGV. All other parameters were below their respective IGV and TV's.

Parameter	Units	BH-1	BH-2	GW-3	IGV	TV
pН	pH Units	7.31	7.26	7.34	6.5-9.5	-
E.C.	µS/cm	651	365	701	1,000	875 - 1,875
Mercury	µg/l	<1	<1	<1	1	0.75
Arsenic	μg/l	<2.5	<2.5	<2.5	10	7.5
Benzene	µg/l	<0.5	<0.5	<0.5	1	0.75
Toluene	μg/l	<5	<5	<5	10	-
Ethylbenzene	μg/l	<1	<1	<1	10	-
o-Xylene	μg/l	<1	<1	<1	10	-
p/m-Xylene	μg/l	<2	<2	<2	10	-
Mineral Oil	mg/l	<0.01	<0.01	<0.01	0.01	-
EPH	mg/l	<0.01	<0.01	<0.01	-	-
VOCs (except)	µg/l	ND	ND	ND	*	*
MTBE	µg/l	<0.1	8.9	5.6	30	-
SVOC	μg/l	ND	ND	ND	*	*
Pesticides (except)	μg/l	ND	ND	ND	*	*
Diazinon	µg/l	<0.01	0.09	<0.01	-	-

Table 3.8Q4 Groundwater Monitoring Results

* - various IGVs in place for individual VOCs.

ND – not detected

In Q4, arsenic, mercury, mineral oil, benzene, toluene, ethylbenzene, xylenes, VOCs (excluding MTBE) and SVOCs were not detected in any sample. There were no exceedances of the IGV or TVs. MTBE was detected in BH-2 and BH-3 but the levels did not exceed the IGV or TV.

3.3 Wastewater Monitoring

The Licence requires the monitoring of the wastewater discharge from the site to the municipal sewer on a monthly basis at SE-1. A grab sample and a composite sample are collected and sent to an accredited laboratory and analysed for the parameters listed Tables 3.9 and 3.10.

All of the results were below their respective ELVs. The laboratory pH measurement in the grab sample was 11.75 in January 2017, which exceeded the ELV of 10. The pH recorded by OCM at the time the sample was collected was 7.40. Upon receiving the laboratory report OCM requested Rilta to check pH they had recorded on the 30th January and this was 7.46. As the two separate measurements were similar and it is best practice to record the pH at the time a sample is collected, OCM considered that the laboratory pH measurement was not representative of the emission and was not deemed to be an incident.

The daily and hourly maximum volumes of waste water to be discharged from the facility are 180m³ and 40m³ respectively (as set out in Schedule B.3 of the licence). The total volume of wastewater discharged during 2017 was 44,100m³. The maximum daily and hourly waste water discharges recorded were 175m³ and 24m³ respectively.

		Janua	ary	Febru	iary	Mar	ch	Apr	il	Ma	y	Jun	ie	ELV	ELV Croh
Parameter	Unit	Composite	Grab	Composite Sample	Sample										
Temperature	°C	-	7	-	5	-	8	-	10	-	13	-	15		42
pН	Units	-	11.75*	-	7.35	-	7.77	-	7.83	-	7.67	-	7.88	6 – 10	6 - 10
BOD	mg/l	233	-	29	I	92	-	20	-	25	-	38	-	800	2,000
COD	mg/l	590	-	107	I	482	-	262	-	143	-	150	-	1,600	4,000
Sulphate	mg/l	26.5	-	32.5	I	40.4	-	45.9	-	35.1	-	28	-	1,000	1,000
Surfactants	mg/l	-	0.4	-	1.3	-	0.3	-	0.6	-	1.6	-	1.3	100	100
Zinc	mg/l	1.043	-	0.099	I	0.143	-	0.1	-	0.092	-	0.069	-	3	3
Copper	mg/l	0.102	-	0.207	-	0.039	-	0.036	-	0.093	-	0.080	-	1	1
Chromium	mg/l	< 0.0015	-	0.0145	-	0.0604	-	0.0422	-	0.0216	-	0.0157	-	1	1
Lead	mg/l	< 0.005	-	< 0.005	-	< 0.005	-	< 0.005	-	< 0.005	-	< 0.005	-	0.2	0.2
Nickel	mg/l	0.022	-	0.009	-	0.032	-	0.022	-	0.013	-	0.009	-	1	1
Arsenic	mg/l	0.0061	-	< 0.0025	-	0.031	-	0.0227	-	0.006.9	-	0.0049	-	0.5	0.5
Benzene	mg/l	-	< 0.005	-	< 0.005	-	< 0.005	-	< 0.005	-	< 0.005	-	< 0.005	1	1
Toluene	mg/l	-	< 0.005	-	< 0.005	-	0.006	-	< 0.005	-	0.008	-	< 0.005	1	1
Ethylbenzene	mg/l	-	< 0.005	-	< 0.005	-	< 0.005	-	< 0.005	-	< 0.005	-	< 0.005	1	1
Xylenes	mg/l	-	<0.010	-	<0.010	-	0.006	-	<0.01	-	<0.010	-	<0.010	1	1
TSS	mg/l	22	-	<10	-	16	-	10	-	<10	-	<10	-	400	500
Ammonia	mg/l	2.71	-	46.82	-	187.68	-	128.54	-	59.81	-	33.28	-		
Mineral Oil	mg/l	-	<0.01	-	0.260	-	< 0.01	-	<0.01	-	<0.010	-	<0.01	10	10

Table 3.9Wastewater Monitoring Results Q1 – Q2

* considered to be a laboratory error. OCM field reading was 7.4 and Rilta's own reading was 7.46.

		Jul	у	Aug	ust	Septen	nber	Octo	ber	Noven	ıber	Decem	ıber	ELV	FI V Croh
Parameter	Unit	Composite	Grab	Composite	Grab	Composite	Grab	Composite	Grab	Composite	Grab	Composite	Grab	Composite Sample	Sample
Temperature	°C	-	17	-	14	-	11	-	13	-	8	-	6		42
рН	Units	-	7.81	-	7.38	-	7.80	-	7.64	-	7.87	-	7.76	6 – 10	6 - 10
BOD	mg/l	110	-	21	-	24	-	8	-	37	-	50	-	800	2,000
COD	mg/l	625	-	304	-	234	-	81	-	553	-	405	-	1,600	4,000
Sulphate	mg/l	17.8	-	43.8	-	54.5	-	35.8	-	41.4	-	54.5	-	1,000	1,000
Surfactants	mg/l	-	1.7	-	0.7	-	0.8	-	0.9	-	<0.2	-	1.5	100	100
Zinc	mg/l	0.097	-	0.076	-	0.097	-	0.062	-	0.056	-	0.119	-	3	3
Copper	mg/l	0.088	-	0.137	-	0.087	-	0.059	-	0.035	-	0.133	-	1	1
Chromium	mg/l	0.0909	-	0.0499	-	0.0326	-	0.0119	-	0.0807	-	0.0613	-	1	1
Lead	mg/l	< 0.005	-	< 0.005	-	< 0.005	-	< 0.005	-	< 0.005	-	< 0.005	-	0.2	0.2
Nickel	mg/l	0.048	-	0.027	-	0.030	-	0.012	-	0.038	-	0.032	-	1	1
Arsenic	mg/l	0.0451	-	< 0.0025	-	0.0056	-	0.0063	-	0.0173	-	0.0195	-	0.5	0.5
Benzene	mg/l	-	< 0.005	-	< 0.005	-	< 0.005	-	< 0.0005	-	0.0012	-	< 0.005	1	1
Toluene	mg/l	-	0.005	-	< 0.005	-	0.007	-	< 0.005	-	0.005	-	< 0.005	1	1
Ethylbenzene	mg/l	-	< 0.005	-	< 0.005	-	< 0.005	-	<0.001	-	0.003	-	< 0.005	1	1
Xylenes	mg/l	-	<0.01	-	<0.010	-	< 0.010	-	0.001	-	0.008	-	< 0.010	1	1
TSS	mg/l	11	-	18	-	<10	-	<10	-	16	-	15	-	400	500
Ammonia	mg/l	289.56	-	129.91	-	88.21	-	33.54	-	259.15	-	177.69	-		
Mineral Oil	mg/l	-	<0.01	-	<0.010	-	< 0.01	-	< 0.01	-	<0.010	-	<0.01	10	10

Table 3.10Wastewater Monitoring Results Q3 – Q4

3.4 Noise Survey

A noise survey is carried out annually at the facility. This was conducted in October 2017. Day time noise monitoring was carried out at approved noise monitoring locations as shown in the site plan with the monitoring locations in Appendix 1 and the results are presented in Table 3.11

Site specific $L_{Aeq 30 \text{ min}}$ levels were calculated at <55 dB at N1, <51 at N2, 57 dB at N3 and 53 dB at N4. The 55 dB daytime limit specified in waste licence W0192-03 is not considered relevant to any of the four noise stations due to the absence of nearby sensitive receptors. The limit is considered more appropriate to NSLs. An inspection at the nearest NSLs following the survey indicated that facility operations were not audible, and thus lower than the 55 dB daytime noise limit. No tones or impulses were noted at offsite NSLs, thus complying with schedule B.4 of the licence.

Station	Date	Time	Wind	LAeq 30 min	LAF10 30 min	LAF90 30 min	Specific
			vector	dB	dB	dB	LAeq 30 min
							dB
	26.10.17	0815-0845	0	60	63	53	<55
	Facility: Tr	ucks queuing thro audible	ough weighbri at low level re	dge regularly c peatedly, chief	learly audible. C ly drum centre a	Deprations deep activity.	er within site
N1	Extraneous:	Regular traffic on	industrial est	ate roadway ou	tside boundary	dominant. Activ	vity at adjacent
	Specific	premises also	clearly audib	le, particularly	fork lift truck in	i regular use.	truck Site
	specific	LAeq T UCICI IIIIId	contrib	oution at least 5	dB less.	offsite forking	TUCK. SILC
	26.10.17	0822-0852	0	59	61	54	<51
N2	 Facility: Operations inaudible, apart from loudest activity at N end of yard, slightly audible when present. Extraneous: Activity at several nearby premises regularly clearly audible, particularly regular forklift truck and reversing alarm emissions at nearest premises to N. No other emissions audible. Specific LAeq T determination: Leq dominated by offsite noise. Amplitude and occurrence of yard activity insufficient to influence Leq or L90, thus <l90, (1.5="" 3="" building="" correction="" db="" distance="" field="" found).<="" li="" m="" near="" separation="" to="" with=""> </l90,>						
	26.10.17	0859-0929	0	57	58	57	57
N3	 Facility: Water flow in adjacent water tank, and air extraction system hum in nearby onsite building, continuously quite audible. Yard and in-building operations inaudible. Extraneous: Activity occasionally clearly audible at premises to N and NW. Birdsong and aircraft. Specific LAce T determination: L90 representative of audible site emissions. 						
	26.10.17	0925-0955	0	59	60	56	53
N4	Facility: Air e down/venting Extraneous: I Specific LAeq	xtraction system e hiss also quite au Regular passing re r determination :	emissions in a dible and imp badway traffic L90 represen	djacent building ulsive. Yard op outside bound tative of contin	continuously q erations not auc ary dominant w uous extraction	uite audible, wit lible. hen present. system emissio	h regular blow-
	dB near field of	correction due to	available sepa	ration distance	<1.5 m.		

Table 3.11Noise Data

Audibility scale: Inaudible; faintly discernible; slightly audible; audible at low level; quite audible; clearly audible; dominant; intrusive; excessive.

3.5 Dust Monitoring

The facility conducted dust monitoring in May, August/September and October 2017. The results are in Table 3.9.

The results for D-2 (604 mg/m²/day) exceeded the dust deposition limit in May 2017. The inorganic particulate faction of the sample, which is representative of site activities, was 147 mg/m²/day. The samples were impacted by the presence of vegetation (leaves, algae, etc.), which are not associated with waste activities. All other samples were below the dust deposition limit.

	May mg/m²/day	August / September mg/m²/day	October mg/m²/day	Deposition Limit mg/m²/day
D-1	153	158	143	350
D-2	604	37	315	350
D-3	224	11	167	350
D-4	220	199	129	350

Table 3.12	Dust Monitoring	Results 2017
	2	10000100 =017

3.6 Air Quality

Volatile Organic Compound monitoring was completed at three monitoring points (A1, A2 and A3) shown on the site layout plan in Appendix 1 on two occasions. All results were in compliance with licence limits.

3.7 Nuisance Control Review

Rilta use masking agents in the treatment of waste as required along with a closed door policy when required. Rilta outsource vermin control to an external contractor.

4. SITE DEVELOPMENT WORKS

4.1 Engineering Works

In March 2017 some concrete hardstand areas were replaced. An upgrade to the drum washing equipment will be installed in Q1 2018, as notified to the Agency.

4.2 Summary of Resource & Energy Consumption

Table 4.1 is summary of the resources used on-site during the reporting period.

Resources	Quantities 2016	Quantities 2017
Natural Gas	138,000 KwH	88,0085 KwH
Road Diesel	72,000 Litres	212,921 Litres
Electricity	610,000 KwH	610,025 KwH
Water	$46,080 \text{ m}^3$	39,316 m ³

Table 4.1Resources Used On-Site in 2016 & 2017

5. WASTE RECEIVED AND CONSIGNED FROM THE FACILITY

Table 5.1 shows the total quantities of waste received and Table 5.2 shows the total quantities of waste consigned from the facility in 2017. Table 5.3 shows the quantities of waste received and consigned in previous years. A breakdown of the waste types is provided in accordance with the European Waste Catalogue and Hazardous Waste (EWC/HWL) list. A more detailed description of the wastes consigned and the waste destinations are provided in the PRTR Return in Appendix 2.

	Wast	Maximum Allowable	Waste	
		Description	Annual Tonnage Note 3	Received 2017
Non-Haza	rdous Waste	Commercial Waste	500	137.392
Not	tes 1,2	C & D Waste	500	8,649.799
		Industrial Sludges	1,000	1,961.924
		Other Industrial Waste	3,000	25,744.198
	Non-Hazardo	us Waste Total	5,000	36,493.313
	EWC Code	Description	Maximum Allowable Annual Tonnage _{Note 3}	Waste Received 2017
	13 05 03*	Interceptor Sludges	10,000	1,400.469
	16 07 08*	Waste containing Oil	2,000	1,021.658
Hazardous Waste	16 10 01*	Aqueous Liquid waste containing Dangerous Substances	1,500	4,477.967
	17 05 03*	Soil and Stones containing Dangerous Substances	60,000	13,365.764
	17 06 01*	Insulation Materials and Construction Materials	8,000	246.157
	17 06 05*	containing Asbestos		4,764.702
		24,500	21,272.293	
	Hazardous	Waste Total	106,000	46,459.01
	Total Tonna	111,000	83,042.323	

Table 5.1Waste Received 2017

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 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.

Note 3: The limitations on individual hazardous and non-hazardous waste types may be varied with the agreement of the Agency subject to the total annual waste quantity remaining the same.

The total amount of non-hazardous waste received was 36,493.313 tonnes and the total amount of hazardous waste received was 46,459.01 tonnes giving a total amount of waste received as 83,042.323 tonnes. The total amount consigned was 78,996.838 tonnes.

The difference in waste received into and consigned from the facility in 2017 is 4,045.485 tonnes. This is related to waste that remained on site at the end of 2017 and was consigned from the site in Q1 2018.

All the wastes consigned from the site went to recovery and disposal facilities agreed with the Agency.

EWC	Description	Waste Out
02 03 04	Food Waste unsuitable for consumption or processing	0.06
02 07 04	Beverage waste unsuitable for consumption or processing	16.037
03 02 01*	Organic Wood Preservatives	4.228
03 02 05*	Other wood preservatives containing dangerous substances	20.932
06 01 01*	Sulphuric acid and sulphurous acid	25.718
06 01 02*	Hydrochloric Acid	23.107
06 01 04*	Phosphoric Acid	0.019
06 01 05*	Nitric Acid	0.320
06 01 06*	Other acids	302.962
06 02 04*	Sodium & potassium hydroxide	14.049
06 02 05*	Other bases	107.858
06 04 04*	Wastes containing mercury	0.008
06 13 02*	Spent Activated Carbon	4.139
07 05 13*	Solid wastes containing dangerous substances	33.386
08 01 11*	08 01 11* Waste paint and varnish containing organic solvents or other dangerous substances	
08 03 12*	Waste Ink	12.814
08 04 09*	Waste Adhesives	11.899
09 01 05*	Bleach solutions and bleach fixer solutions	25.225
10 01 04*	Oil Fly Ash	8.482
11 01 05*	Pickling Acids	42.259
11 01 09*	Sludges and filter cakes containing dangerous substances	102.998
12 01 09*	Machining emulsions and solutions free of halogens	403.489
13 02 05*	Engine and Gear Oil	271.113
13 02 08*	Nondescript waste oils	13.627
13 07 01*	Fuel Oil and Diesel	15.573
13 07 03*	Other fuels (including mixtures)	71.202
14 06 03*	Mixed Organic Solvents	436.593
15 01 04	Metallic Packaging	1098.438
15 01 10*	01 10* Packaging containing residues of or contaminated by dangerous substances	
15 02 02*	Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	467.725
15 02 03	Absorbents (Non Haz)	0.297
16 01 12	Brake Pads	0.92
16 02 13*	Discarded Components containing hazardous substances	0.44
16 02 14	WEEE	21.068

Table 5.2Waste Consigned 2017

Table 5.2 Cont'd					
EWC	Description	Waste Out			
16 03 03*	Inorganic Off spec Product Wastes	17.394			
16 03 04	Inorganic Off spec Product Wastes	31.1			
16 03 05*	Organic Off spec Product Wastes	23.703			
16.05.04*	Gases in pressure containers (including halons) containing	13 404			
10 05 04	dangerous substances	13.404			
16.05.06*	Laboratory chemicals, consisting of or containing dangerous	187 405			
10 05 00	substances, including mixtures of laboratory chemicals	107.405			
16.05.07*	Discarded inorganic chemicals consisting of or containing	171 294			
10 05 07	dangerous substances	171.271			
16 05 08*	Discarded organic chemicals consisting of or containing dangerous	259 006			
10 00 00	substances	2071000			
16 06 01*	Lead batteries	1426.55			
16 06 02*	Ni-Cd batteries	1.869			
16 06 03*	Mercury Containing batteries	3.578			
16 06 04	Alkaline batteries (except 16 06 03)	0.662			
16 07 08*	Wastes containing Oil	295.659			
16 10 01*	Aqueous liquid wastes containing dangerous substances	809.366			
17 01 03	Tiles and Ceramics	40.001			
17 02 04*	Glass, plastic and wood containing dangerous substances	50.64			
17 03 01*	* Bituminous mixtures containing coal tar				
17 05 03*	Soil & stones containing dangerous substances	12,391.11			
17 05 04	Soil and stones other than those mentioned in 17 05 03	7,096.94			
17 06 01*	Insulation material containing asbestos				
17 06 05*	Construction materials containing asbestos	4782.346			
18 01 01*	Sharps	0.506			
18 01 09	Medicines	11.149			
18 02 08*	Veterinary Waste	61.836			
19 01 07*	Solid Waste From Gas Treatment	23.22			
19.02.05*	Sludges from physico/chemical treatment containing dangerous	1126.15			
17 02 05	substances	1120.15			
19 02 11*	Process Sludge	858.8			
19 02 99	Wastes not otherwise specified	44,100			
19 12 02	Ferrous Metal	93.64			
19 12 11*	Other wastes (including mixtures of materials) from mechanical treatment of waste containing dangerous substances	0.628			
20 01 19*	Pesticides	17.912			
20 01 21*	Fluorescent Tubes	0.219			
20 01 25*	Grease Trap Waste	7.145			
20 01 27*	Paint, inks, adhesives and resins containing dangerous substances	262.815			
20 01 29*	Detergents	20.467			
20 01 32	Medicines	3.615			
20 03 01	Mixed Municipal Waste	5.8			
	Total Consigned	78,996.838			
	Recovered	11,794.296			
	Disposed	67,202.542			
	Recovery Rate (%)	17.55			

	2016	2015	2014	2013	2012
Total Received	108,318.8	92,812.421	93,787	82,051	90,081
Total Consigned	101,669.59	82,725.058	86,337.171	78,303.94	78,835.38
Total Recovered	22,925.04	8,892.793	13,366.258	17,927.52	15,082.66
Total Disposed	78,744.316	73,832.265	72,970.913	60,376.42	63,752.72
Recovery Rate	22.55	12.04%	15.48%	22.89%	19.13%

Table 5.3Waste Received & Consigned in recent years

6. ENVIRONMENTAL INCIDENTS AND COMPLAINTS

6.1 Incidents

There was 1 notifiable environmental incident in 2017.

 29th May 2017 – Non-compliance of ELV for dust at monitoring point D-2. The total volume exceeded the ELV as a result of contamination of the sample by organic matter and not site derived inorganic matter. Agency notified following incident (Ref: Env2917.epa/INCI012429).

6.2 Register of Complaints

Rilta maintains a register of complaints received in accordance with Condition 10.4 of the waste licence. The complaints register includes the details of all complaints and the actions carried out in response to each complaint. There were no complaints during the reporting period that related to activity at the licensed site.

7. ENVIRONMENTAL DEVELOPMENT

7.1 Environmental Management Programme Report

Rilta have implemented an Integrated Management System (IMS) in accordance with the requirements of Occupational Health and Safety Assessment Series (OHSAS) 18001:2007 and International Standard Organisation (ISO) 14001:2004 in order to manage the Health, Safety and Environmental performance of their business and to control health and safety risk and to minimise their environmental aspects and impacts.

The IMS has been developed for the achievement of continual improvement taking into account the requirements of the Waste Licence Conditions. Rilta has prepared and effectively implement documented procedures and instructions in accordance with the requirements of both the OHSAS 18001:2007 and ISO 14001:2004. The EMS was recertified in February 2015.

The schedule of Objectives and Targets, including their status for 2017 is included in Appendix 3. A schedule of proposed Objectives and Targets for 2018 is in Appendix 4.

7.2 Site Management Structure

Details of the site management structure are presented in Appendix 5.

7.3 Environmental Management Programme

7.3.1 Schedule of Objectives 2017

The objectives that were achieved during this reporting period are outlined in Appendix 3.

7.4 Communications Programme

Rilta maintains a 'Public File' which contains all correspondence between Rilta and the Agency, all waste data and monitoring data as required by the licence. The 'Public File' is available to view during normal office hours.

7.5 Report Financial Provision

A Decommissioning Management Plan (DMP) and Environmental Liabilities Risk Assessment (ELRA) including Financial Provision (FP) have been submitted to and approved by the Agency.

7.6 Nuisance Controls

Rilta has contracted an external vermin control company to carry out nuisance control at the facility.

7.7 Tank and Pipeline Testing

Bund integrity testing commenced in July 2016 and was completed in May 2017 as per Condition 6.11 of the Licence. A copy of the Bund Integrity Test report is included in Appendix 6.

7.8 Water Demand and Trade Effluent Discharge

The trade effluent discharged in 2017 was 44,100m³.

7.9 Efficiency of use of Raw Materials / Reduction in Waste Generated

The main raw material used on site is paint. Paint use overall decreased by 400 litres in 2017 when compared to 2014. The use of Xylene increased by 80 litres in 2017 compared to 2016 and acetone continues to not be used at the facility.

	Units	2014	2015	2016	2017
56% Solids Paint	Litres	5,111	5,360	6,200	5,800
65% Solids Paint	Litres	0	0	0	0
Xylene	Litres	200	80	120	200
Acetone	Litres	0	0	0	0

Table 7.1Raw Material Usage 2014 - 2017

8. OTHER REPORTS

8.1 European Pollutant Release and Transfer Register

Under the European Pollutant Release and Transfer Register Regulation (EC) No. 166/2006 Rilta are required to submit information annually to the Agency. A copy of the return submitted to the Agency via the web-based data reporting system is included in Appendix 2.

APPENDIX 1

Site Plan showing Environmental Monitoring Locations



APPENDIX 2

European Pollutant Release and Transfer Register



| PRTR# : W0192 | Facility Name : Rilta Environmental Limited | Filename : W0192_03 2017(FINAL).xlsm | Return Year : 2017 |

Guidance to completing the PRTR workbook

PRTR Returns Workbook

REFERENCE YEAR 2017

1. FACILITY IDENTIFICATION

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

Classes of Activity

No. class_name

- Refer to PRTR class activities below

Address 1	Block 402 Grant Drive
Address 2	Greenogue Business Park
Address 3	Bathcoole
Address 4	
	Dublin
Country	Ireland
Coordinates of Location	-8.48281 51.8695
River Basin District	IEEA
NACE Code	3832
Main Economic Activity	Recovery of sorted materials
AER Returns Contact Name	Mr.Colm Hussey
AER Returns Contact Email Address	colm.hussey@rilta.ie
AER Returns Contact Position	Site Manager
AER Returns Contact Telephone Number	014018000
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	
Production Volume	0.0
Production Volume Units	
Number of Installations	1
Number of Operating Hours in Year	0
Number of Employees	89
User Feedback/Comments	Differences in pollutant outputs in trade effluent would have been
	affected by varying volumes of trade effluent from year to year.
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 20	02)
Is it applicable?	No
Have you been granted an exemption ?	
If applicable which activity class applies (as per	
Schedule 2 of the regulations) ?	
Is the reduction scheme compliance route being	
used ?	

4. WASTE IMPORTED/ACCEPTED ONTO SITE	Guidance on waste imported/accepted onto site
Do you import/accept waste onto your site for on-	
site treatment (either recovery or disposal	
activities) ?	

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

AER Returns Workbook

25

4.1 RELEASES TO AIR Link to previous years emissions data | PRTR#: W0192 | Facility Name : Rita Environmental Limited | Filename : W0192_02 0217;FINAL].stem | Return Year : 2017 |

03/04/2018 11:28

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

	RELEASES TO AIR	Please enter all quantities in this section in KGs							
	POLLUTANT			METHOD			QUANTITY		
				Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	
					0.0	0	0.0 0.	0.0	

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

SECTION B : REMAINING PRTR POLLUTANTS

	RELEASES TO AIR				Please enter all quantit	ies in this section in KG	8		
POLLUTANT				METHOD	QUANTITY				
				Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Ac	cidental) 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)

	Please enter all quantities in this section in KGs									
POLLUTANT			MET	THOD					QUANTITY	
		Method Used		A1	A2	A3				
									A (Accidental)	F (Fugitive)
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	Emission Point 3	T (Total) KG/Year	KG/Year	KG/Year
230	TA Luft organic substances class 1	М	OTH		0.0	0.0	0.0) 0.	0 0.	0.0
351	Total Organic Carbon (as C)	M	OTH		56.64	94.08	120.0) 270.7	2 0.	0.0

Select a row broke clicking on the Pollutant Name (Column B) then click the delete button

For the purposes of the National Inventory on Greenhor flared or utilised on their facilities to accompany the fig to the environment under T(total) KG/yr for Section A:	use Gases, landill operators are requested to provide summary data on landfill gas (Methane) jures for total methane generated. Operators should only report their Net methane (CH4) emission Sector specific PRTR pollutants above. Please complete the table below:					
Landfill:	Rilta Environmental Limited				т	
Please enter summary data on the quantities of methane flared and / or utilised			Meth	od Used		
				Designation or	Facility Total Capacity m3	
Total and a standard state of the state of t	T (Total) kg/Year	M/C/E	Method Code	Description	per hour	
Total estimated methane generation (as per						
site model)	0.0				N/A	(Table Fig. 2) and (Table Fig. 2)
Methane flared	0.0				0.0	(Total Flaring Capacity)
ivietnane utilised in engine/s	0.0				0.0	(Total Utilising Capacity)
Net methane emission (as reported in Section A						
above)	0.0				N/A	

4.2 RELEASES TO WATERS

Link to previous years emissions data

PRTR# : W0192 | Facility Name : Rilta Environmental Limited | Filename : W0192_03 2017(FINAL).xlsm | Return Year : 2017 |

0.0

0.0

03/04/2018 11:29

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

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

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

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

	RELEASES TO WATERS				Please enter all quantities in			
POI	LUTANT						QUANTITY	
				Method Used				
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0) 00	0.0

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

4.3 RELEASES TO WASTEWATER OR SEWER

Link to previous years emissions data

PRTR# : W0192 | Facility Name : Rilta Environmental Limited | Filename : W0192_03 2017(FINAL). 03/04/2018 11:30

8

SECTION A : PRTR POLLUTANTS

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATI	MENT OR	SEWER		Please enter all quantities in this section in KGs							
POLLUTANT	METHOD				QUANTITY						
			Method Used	SE1							
Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year				
Benzene	М			0.	0.0	0.0	0.0				
Chromium and compounds (as Cr)	M			0.05	5 0.055	0.0	0.0				
Copper and compounds (as Cu)	M			0.11	3 0.118	0.0	0.0				
Ethyl benzene	M			0.	0.0	0.0	0.0				
Lead and compounds (as Pb)	M			0.	0.0	0.0	0.0				
Nickel and compounds (as Ni)	M			0.03	2 0.032	0.0	0.0				
Toluene	M			0.	0.0	0.0	0.0				
Xylenes	M			0.	0.0	0.0	0.0				
Zinc and compounds (as Zn)	M			0.2	2 0.22	0.0	0.0				
Arsenic and compounds (as As)	M			0.01	0.019	0.0	0.0				
	OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREAT POLLUTANT Name Berezene Chromium and compounds (as Cr) Copper and compounds (as Cl) Ethyl benzene Lead and compounds (as Pb) Nickel and compounds (as Ni) Toluene Xylenes Zinc and compounds (as Zn) Arsenic and compounds (as As)	OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR POLLUTANT Name Nume Nume Nume Nume Nume Nume Nume Nu	OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER POLLUTANT N Name M/C/E Method Code Benzene M M Copper and compounds (as Cr) M Chromium and compounds (as Cr) M M Lead and compounds (as Pb) M Lead and compounds (as Ni) M Toluene M Toluene M Xylenes M Zinc and compounds (as Zn) M Arsenic and compounds (as As) M	OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER Method Used Name MC/E Method Used Benzene M Method Code Designation or Description Chromium and compounds (as Cr) M M Lead and compounds (as Cu) M Ethyl benzene M M Lead and compounds (as Ni) M Lead and compounds (as Ni) M Nickel and compounds (as Ni) M M Znc and compounds (as Zn) M Zinc and compounds (as Zn) M M Znc and compounds (as As) M	OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER Please enter all quantities POLLUTANT METHOD SE1 Name Mc//E Method Used SE1 Benzene M C//E Method Code Designation or Description Emission Point 1 Chromium and compounds (as Cr) M 0.005 0.005 Chromium and compounds (as Cr) M 0.0118 0.0118 Ethyl benzene M 0.005 0.005 Colsel and compounds (as Pb) M 0.003 0.017 Nickel and compounds (as Ni) M 0.002 0.002 Toluene M 0.002 0.012 Zhreenic and compounds (as Zn) M 0.022 0.022 Arsenic and compounds (as As) M 0.012 0.012	OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER Please enter all quantities in this section in KGs POLLUTANT Method SE1 T	OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER Please enter all quantities in this section in KGs POLLUTANT Method Used SE1 CUANTITY Name MC/E Method Used SE1 T (Total) KG/Year A (Accidental) KG/Year Benzene M 0.0 0.0 0.0 0.0 0.0 Chromium and compounds (as Cr) M 0.05 0.00 0.0				

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

SECTION B : REMAINING POLLUTANT EM	SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)											
OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER						Please enter all quantities in this section in KGs						
POLLUTANT			METHOD				QUANTITY					
				Method	Used	SE1						
Pollutant No.	Name	M/C/E	Method Code	Des	signation or Description	Emission Point 1		T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year		
303	BOD	М					76135.0	76135.0	0.0	0.0		
306	COD	M					441.245	441.245	0.0	0.0		
308	Detergents (as MBAS)	M					0.0	0.0	0.0	0.0		
324	Mineral oils	M					0.0	0.0	0.0	0.0		
343	Sulphate	M					47985.0	47985.0	0.0	0.0		
240	Suspended Solids	М					12.782	12.782	0.0	0.0		

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

4.4 RELEASES TO LAND

Link to previous years emissions data

03/04/2018 11:30

SECTION A : PRTR POLLUTANTS

	RELEASES TO LAND					in this section in KGs		
POLLUTANT			METHO	D	QUANTITY			
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	
					0.0	(0.0 0.0	

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

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

	RELEASES TO LAND				Please enter all quantities		
POLLUTANT			METHO	D			QUANTITY
			Meth	nod Used			
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year
					0.0		0.0

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

5. ONSITE TREATM	IENT & OFFSITE TRA	ANSFERS O	WASTE	PRTR# : W0192 Facility Name : Rilta Environmen	ntal Limited Filen	ame : W0	192_03 2017(FINAL).xlsn	m Return Year : 2017				03/04/2018 11:3
			Quantity (Tonnes per Year)		Waste		Method Used		Haz Waste : Name and Licence/Permit No of Next Destinatic Facility <u>Non Haz Waste</u> Name and Licence/Permit No of Recover/Disposer	n E <u>Haz Waste</u> : Address of Next Destination Facility <u>Non H</u> <u>Waste</u> : Address of Recover/Disposer	Name and License / Permit No. and Iz Address of Final Recoverer / Dispose (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination r Le. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
Transfer Destination	European waste Code	Hazardous		Description of Waste	Operation	M/C/E	Method Used	Treatment				
Within the Country	02 03 04	No	0.06	materials unsuitable for consumption or processing materials unsuitable for consumption or	R3	м	Weighed	Offsite in Ireland	ERAS ECO,W0211-01	Foxhole,Youghal,Co. Cork,.,Ireland		
Within the Country	02 07 04	No	16.037	processing	R3	М	Weighed	Offsite in Ireland	ERAS ECO,W0211-01	Foxhole, Youghal, Co. Cork,., Ireland	Sava Gmbh & Co,.,1	1
To Other Countries	03 02 01	Yes	4.228	non-halogenated organic wood preservatives other wood preservatives containing	D10	м	Weighed	Abroad	Sava Gmbh & Co,.	1 Osterweute, Ce25541, Brunsbuttel,., Germany	Osterweute,Ce25541,Brunsk uttel,.,Germany Becyfuel Engis B4480 B	OSterweute,Ce25541,Brunst uttel,.,Germany
To Other Countries	03 02 05	Yes	2.078	dangerous substances	R1	М	Weighed	Abroad	Recyfuel,.	Engis,,B4480,Belgium	elgium Sava Gmbh & Co,.,1	Engis,.,.,B4480,Belgium
To Other Countries	03 02 05	Yes	18.854	other wood preservatives containing dangerous substances	D10	м	Weighed	Abroad	Sava Gmbh & Co,.	1 Osterweute, Ce25541, Brunsbuttel,., Germany	Osterweute,Ce25541,Brunst uttel,.,Germany	 Osterweute, Ce25541, Brunst uttel,., Germany
To Other Countries	06 01 01	Yes	25.718	sulphuric acid and sulphurous acid	D9	м	Weighed	Abroad	McQuillan Environmental,P0187/07A	Caulside Drive,Newpark Ind Est,Co. Antrim,BT41 2DU,United Kingdom	McQuillan Envirocare,P0187/07A,Caul: ide Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom	s Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom
To Other Countries	06 01 02	Yes	3.251	hydrochloric acid	D9	м	Weighed	Abroad	McQuillan Environmental,P0187/07A	Caulside Drive,Newpark Ind Est,Co. Antrim,BT41 2DU,United Kingdom	McQuillan Envirocare,P0187/07A,Caul: ide Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom REVATECH SA,Zoning I'Industrial D'Ehein,B 4480	s Caulside Drive, Newpark Industrial Estate, Co. Antrim, BT41 2DU, United Kingdom Zoning l'Industrial D'Ehein, B
To Other Countries	06 01 02	Yes	19.856	hydrochloric acid	R5	М	Weighed	Abroad	REVATECH SA,.	Zoning l'Industrial D'Ehein, B 4480 ENGIS,, Belgium	ENGIS,.,.,Belgium	4480 ENGIS,.,.,Belgium
To Other Countries	06 01 04	Yes	0.019	phosphoric and phosphorous acid	D9	м	Weighed	Abroad	McQuillan Environmental,P0187/07A	Caulside Drive,Newpark Ind Est,Co. Antrim,BT41 2DU,United Kingdom	McQuillan Envirocare,P0187/07A,Caul: ide Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom	s Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom
To Other Countries	06 01 05	Yes	0.32	nitric acid and nitrous acid	D9	м	Weighed	Abroad	McQuillan Environmental,P0187/07A	Caulside Drive,Newpark Ind Est,Co. Antrim,BT41 2DU,United Kingdom	McQuillan Envirocare,P0187/07A,Caul- ide Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom	s Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom
To Other Countries	06 01 06	Yes	130.412	other acids	D9	м	Weighed	Abroad	McQuillan Environmental,P0187/07A	Caulside Drive,Newpark Ind Est,Co. Antrim,BT41 2DU,United Kingdom	McQuillan Envirocare,P0187/07A,Caul: ide Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom REVATECH SA,.,Zoning	s Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom
To Other Countries	06 01 06	Yes	164.277	other acids	R5	м	Weighed	Abroad	REVATECH SA,.	Zoning l'Industrial D'Ehein, B 4480 ENGIS,, Belgium	l'Industrial D'Ehein,B 4480 ENGIS,,Belgium	Zoning l'Industrial D'Ehein,B 4480 ENGIS,,Belgium Bua Cabeco de
To Other Countries	06 01 06	Yes	8.273	other acids	D9	М	Weighed	Abroad	SISAV,.	Rua Cabeco do Seixo,PT 2140-671,Eco Parque do Relvao,Chamusca,Portugal	Seixo,.,Chamusca,2140- 671,Portugal BEVATECH SAZoning	Seixo,.,Chamusca,2140- 671,Portugal
To Other Countries	06 02 04	Yes	14.049	sodium and potassium hydroxide	R5	М	Weighed	Abroad	REVATECH SA,.	Zoning l'Industrial D'Ehein, B 4480 ENGIS,,,,,Belgium	l'Industrial D'Ehein,B 4480 ENGIS,,Belgium BEVATECH SAZoning	Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium
To Other Countries	06 02 05	Yes	107.858	other bases	R5	М	Weighed	Abroad	REVATECH SA,.	Zoning l'Industrial D'Ehein, B 4480 ENGIS,, Belgium	l'Industrial D'Ehein,B 4480 ENGIS,,Belgium Future Industrial Services,.,Acornfield	Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium
Within the Country	06 04 04	Yes	0.008	wastes containing mercury	R4	М	Weighed	Offsite in Ireland	Irish Lamp Recycling,WFP- KE-14-0072-01	Woodstock Industrial Estate,.,Athy,Co. Kildare,Ireland	Road,Knowsley Industrial Park,Liverpool,L33 7UF,United Kingdom	Acornfield Road, Knowsley Industrial Park, Liverpool, L33 7UF, United Kingdom

To Other Countries	06 13 02	Yes	spent activated carbon (except 06 07 4.139 02)	R1	м	Weighed	Abroad	Recyfuel,.	Engis,,B4480,Belgium	Recyfuel,.,Engis,.,.,B4480,B elgium	Engis,.,,,B4480,Belgium
To Other Countries	07 05 13	Yes	solid wastes containing dangerous 33.386 substances	R1	м	Weighed	Abroad	Recyfuel,.	Engis,,B4480,Belgium	Recyfuel,.,Engis,.,.,B4480,B elgium	Engis,,B4480,Belgium
To Other Countries	08 01 11	Yes	waste paint and varnish containing organic solvents or other dangerous 136.152 substances	R1	М	Weighed	Abroad	ARF,.	22 Rue Jean Messager,.,St Remy Du Nord,FR59330,France	ARF,.,22 Rue Jean Messager,.,St Remy du Nord,FR53390,France Afvalstoffen Terminal	22 Rue Jean Messager,.,St Remy du Nord,FR53390,France
To Other Countries	08 01 11	Yes	waste paint and varnish containing organic solvents or other dangerous 2.306 substances	R1	м	Weighed	Abroad	Afvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,., The Netherlands	Moerdijk B.V,821780,Industrieterrein Seaport M152,Vlasweg 12,4782 PW Moerdijk,.,Netherlands	Industrieterrein - Seaport M152,Vlasweg 12,.,4782 PW Moerdijk,Netherlands
To Other Countries	09.01.11	Van	waste paint and varnish containing organic solvents or other dangerous	PO		Weiched	Abroad	Nehlsen Gmbh & Co.,A-	Neiderlassung Nehlsen-Plimp,Betriebsstatte	Nehlsen Gmbh & Co.,A- 4187HH,Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse, 10 Bremen German	Neiderlassung Nehlsen- e Plimp,Betriebsstatte Bremen,Louis-Krages
To Other Countries	08 01 11	Tes	waste paint and varnish containing organic solvents or other dangerous	no	IVI	weighed	Abroau	410/1111	Diemen, Louis-Mages Grasse To, Diemen, Germany	Recyfuel,.,Engis,.,,B4480,B	Strasse To, Dremen, Germany
To Other Countries	08 01 11	Yes	96.721 substances waste paint and varnish containing	R1	М	Weighed	Abroad	Recyfuel,.	Engis,,B4480,Belgium	elgium SISAV,.,Rua Cabeco de	Engis,.,,,B4480,Belgium Rua Cabeco de
	08 01 11	Yes	organic solvents or other dangerous 12.353 substances waste ink containing dangerous	D9	м	Weighed		SISAV,.	Rua Cabeco do Seixo,PT 2140-671,Eco Parque do Relvao,Chamusca,Portugal	Seixo,.,Chamusca,2140- 671,Portugal	Seixo,.,Chamusca,2140- 671,Portugal
To Other Countries	08 03 12	Yes	12.814 substances waste adhesives and sealants	R1	М	Weighed	Abroad	Recyfuel,.	Engis,,B4480,Belgium	elgium ARF,.,22 Rue Jean	Engis,,B4480,Belgium 22 Rue Jean Messager,.,St
To Other Countries	08 04 09	Yes	containing organic solvents or other 0.86 dangerous substances	R1	М	Weighed	Abroad	ARF,.	22 Rue Jean Messager,St Remy Du Nord,FR59330,France	Messager,.,St Remy du Nord,FR53390,France Afvalstoffen Terminal	Remy du Nord,FR53390,France
To Other Countries	08 04 09	Yes	waste adhesives and sealants containing organic solvents or other 3.879 dangerous substances	R1	м	Weighed	Abroad	Afvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk, The Netherlands	B.V.821780,Industrieterrein Seaport M152,Vlasweg 12,4782 PW Moerdijk,.,Netherlands	Industrieterrein - Seaport M152,Vlasweg 12,.,4782 PW Moerdijk,Netherlands
To Other Countries	08 04 09	Voc	waste adhesives and sealants containing organic solvents or other 6 179 dangarous substances	D1	м	Woighod	Abroad	Populual	Engie B//80 Balaium	Recyfuel,.,Engis,.,.,B4480,B	Engis B4480 Bolgium
To other obtaines	00 04 00	103	waste adhesives and sealants containing organic solvents or other		101	Weigheu	Abroad	nooyidei,.	Rua Cabeco do Seixo,PT 2140-671,Eco Parque do	SISAV,.,Rua Cabeco de Seixo,.,Chamusca,2140-	Rua Cabeco de Seixo,.,Chamusca,2140-
To Other Countries	08 04 09	Yes	0.981 dangerous substances	D9	м	Weighed	Abroad	SISAV,.	Relvao, Chamusca, Portugal	671,Portugal	671,Portugal
To Other Countries	09 01 05	Yes	bleach solutions and bleach fixer 25.225 solutions	R4	м	Weighed	Abroad	Remondis UK,.	Scott Lane Industrial Estate,Blackrod,Bolton,BL6 5SL,United Kingdom	Remonals UK Carr Lane Recycling and Treatment Facility,EPR/UP3134HY,Car Lane,Prescott,Knowsley,LE3 41JZ,United Kingdom Zimmermann	r Carr Lane,Prescott,Knowsley,LE3 41JZ,United Kingdom
								Zimmermann Sonderabfallentsorgung und Verwertung & Co KG	,	Sonderabfallentsorgung und Verwertung & Co KG Fesstoffkonditionierung,783/ 240406,3-7+31 Gottlieb-	3-7+31 Gottlieb-Daimler
To Other Countries	10 01 04	Yes	8.482 oil fly ash and boiler dust	R5	М	Weighed	Abroad	Fesstoffkonditionierung,783/ 240406	 / 3-7+31 Gottlieb-Daimler Strasse, DE 33334, Guterslo,.,Germany 	Daimler Strasse,DE 33334,Guterslo,.,Germany SISAV,.,Rua Cabeco de	Strasse,DE 33334,Guterslo,.,Germany Rua Cabeco de
	11 01 05	Yes	42.259 pickling acids	D9	М	Weighed		SISAV,.	Rua Cabeco do Seixo,PT 2140-671,Eco Parque do Relvao,Chamusca,Portugal	Seixo,.,Chamusca,2140- 671,Portugal Becyfuel Engis B4480 B	Seixo,.,Chamusca,2140- 671,Portugal
To Other Countries	11 01 09	Yes	0.688 dangerous substances	R1	М	Weighed	Abroad	Recyfuel,. Zimmermann Sonderabfallentsorgung und	Engis,,B4480,Belgium	elgium Zimmermann Sonderabfallentsorgung und	Engis,,B4480,Belgium
To Other Countries	11 01 09	Yes	sludges and filter cakes containing 102.31 dangerous substances	R5	м	Weighed	Abroad	Verwertung & Co KG Fesstoffkonditionierung,783/ 240406	/ 3-7+31 Gottlieb-Daimler Strasse,DE 33334, Guterslo,.,Germany	Fesstoffkonditionierung,783/ 240407 ABE 22 Bue Jean	3-7+31 Gottileb-Daimier Strasse,DE 33334, Guterslo,Germany 22 Bue Jean Messager St
To Other Countries	12 01 09	Yes	machining emulsions and solutions free 39.623 of halogens	D10	М	Weighed	Abroad	ARF,.	22 Rue Jean Messager,.,St Remy Du Nord,FR59330,France	Messager,,St Remy du Nord,FR53390,France REVATECH SA,.,Zoning	Remy du Nord,FR53390,France
To Other Countries	12 01 09	Yes	machining emulsions and solutions free 35.588 of halogens	R1	м	Weighed	Abroad	REVATECH SA,.	Zoning l'Industrial D'Ehein, B 4480 ENGIS,, Belgium	l'Industrial D'Ehein, B 4480 ENGIS,, Belgium	Zoning l'Industrial D'Ehein,B 4480 ENGIS,,Belgium

			marking any drive and ask time for							Sava Gmbh & Co,.,1	1 October CoOFE 41 Develo
To Other Countries	12 01 09	Yes	328.278 of halogens	D10	м	Weighed	Abroad	Sava Gmbh & Co,.	1 Osterweute, Ce25541, Brunsbuttel,, Germany	uttel,.,Germany	uttel,Germany
										Puralube	
										GmbH,291210045,Haupstras	Haupstrasse
			mineral-based non-chlorinated engine,							30,.,Duisburg,DE06729,Ger	30,.,Duisburg,DE06729,Ger
To Other Countries	13 02 05	Yes	249.94 gear and lubricating oils	R9	М	Weighed	Abroad	Puralube GmbH,291210045	Haupstrasse 30,.,Duisburg,DE06729,Germany	many Recyfuel Engis B4480 B	many
To Other Countries	13 02 05	Yes	2.063 gear and lubricating oils	R1	М	Weighed	Abroad	Recyfuel,.	Engis,,B4480,Belgium	elgium	Engis,.,.,B4480,Belgium
										TWMA, PPC/A/1000175, Unit	Unit 10 Deles Industrial
			mineral-based non-chlorinated engine,						Unit 12 Dales Industrial Estate,,Peterhead,AB42	Estate,,Peterhead,AB42	Estate,Peterhead,AB42
To Other Countries	13 02 05	Yes	19.11 gear and lubricating oils	R9	М	Weighed	Abroad	TWMA,PPC/A/1000175	3JR,United Kingdom	3JR,United Kingdom	3JR, United Kingdom
To Other Countries	13 02 08	Yes	13 627 other engine, gear and lubricating oils	B1	м	Weighed	Abroad	Recyfuel	Engis B4480 Belgium	Recyfuel,.,Engis,.,.,B4480,B elgium	Engis B4480 Belgium
To other obtainings	10 02 00	103	10.027 other engine, gear and tubricating ons			Weighed	horoda	necyraei,.		Centec	Engl3,.,.,D++00,Deigium
									The Calence Dark Director Land, Middlewich OW10	International, EA, Brooks	Brooks
To Other Countries	13 07 01	Yes	15,573 fuel oil and diesel	R9	м	Weighed	Abroad	Centec International,EA	0JG,United Kingdom	0JG,United Kingdom	0JG,United Kingdom
										Centec	
									The Science Park Brooks Lane, Middlewich CW10	International, EA, Brooks	Brooks Lane Middlewich CW10
To Other Countries	13 07 03	Yes	71.202 other fuels (including mixtures)	R9	М	Weighed	Abroad	Centec International,EA	0JG,United Kingdom	0JG,United Kingdom	0JG,United Kingdom
										Afvalstoffen Terminal	
										B.V.821780.Industrieterrein -	
										Seaport M152, Vlasweg	Industrieterrein - Seaport
To Other Countries	14.06.03	Ves	436 593 other solvents and solvent mixtures	B1	м	Weighed	Abroad	Afvalstoffen Terminal Moerdijk B.V. 821780	Industrieterrein - Seaport M152, Vlasweg 12,4782 PW Moerdijk The Netherlands	12,4782 PW Moerdijk Netherlands	M152, Vlasweg 12,.,4782 PW Moerdijk Netherlands
Within the Country	15 01 04	No	1098.438 metallic packaging	R4	M	Weighed	Offsite in Ireland	A1 Metal,WMP007d	Acragar,.,Mountmellick,Co. Laois,Ireland	woordijk, , womentando	Moerdijk, Nethenando
										Afvalstoffen Terminal	
										B.V,821780,Industrieterrein -	
										Seaport M152, Vlasweg	Industrieterrein - Seaport
To Other Countries	15 01 10	Yes	packaging containing residues of or 0.943 contaminated by dangerous substances	B1	м	Weighed	Abroad	Atvalstotten Terminal Moerdijk B V 821780	Industrieterrein - Seaport M152, Vlasweg 12,4782 PW Moerdijk The Netherlands	12,4782 PW Moerdijk Netherlands	M152, Vlasweg 12,.,4782 PW Moerdijk Netherlands
	10 01 10					Tronginou	horoda	incorații Briti, ez 1766		incorolyn, ,, tothonando	
										Noblean Cmbb 8 Co. A	
										4187HH,Neiderlassung	Neiderlassung Nehlsen-
									Note to see Million Plan Battle state	Nehlsen-Plimp,Betriebsstatte	Plimp,Betriebsstatte
To Other Countries	15 01 10	Yes	1.722 contaminated by dangerous substances	B1	м	Weighed	Abroad	ATTENDED A CO.,A-	Reiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany	Strasse 10 Bremen Germany	Strasse 10.Bremen.Germany
			···						,,,,,,,,,,,_,,,,		
To Other Countries	15 01 10	Voc	packaging containing residues of or	D1	м	Wojahod	Abroad	Roovfuel	Engis B1180 Bolgium	Recyfuel,.,Engis,.,,B4480,B	Engis B4480 Bolgium
To Other Countries	13 01 10	165	00.047 containinated by dangerous substances		IVI	Weighed	Abioau	necytuel,.	Ligis,,D4400,Deigium	SISAV,.,Rua Cabeco de	Rua Cabeco de
T. OIL O. L'A	15 01 10	Mar	packaging containing residues of or	50		Address of the second	Alterna d	CICAV	Rua Cabeco do Seixo,PT 2140-671,Eco Parque do	Seixo,.,Chamusca,2140-	Seixo,.,Chamusca,2140-
To Other Countries	15 01 10	Yes	1.236 contaminated by dangerous substances	D9	M	weigned	Abroad	515AV,.	Reivao, Chamusca, Ponugai	Delta Containers Direct	671,Portugal
										Ltd,.,Preston	Preston
To Other Countries	15 01 10	Yes	packaging containing residues of or 488 76 contaminated by dangerous substances	B3	м	Weighed	Abroad	Delta Containers Direct I td	Preston Street, Manchester, Manchester, M188DB, United Kingdom	Street,.,Manchester,M188DB	Street,.,Manchester,M188DB
								2 sing bornamore birott Eld,		,	, e
			absorbents, filter materials (including oil filters not otherwise appeilied) visite							APE 22 Puo loop	22 Ruo Joan Monagor Ch
			cloths, protective clothing contaminated						22 Rue Jean Messager,,St Remy Du	Messager,.,St Remy du	Remy du
To Other Countries	15 02 02	Yes	49.036 by dangerous substances	R1	М	Weighed	Abroad	ARF,.	Nord,FR59330,France	Nord,FR53390,France	Nord, FR53390, France
										Atvalstoffen Terminal Moerdijk	
			absorbents, filter materials (including oil							B.V,821780,Industrieterrein -	
			filters not otherwise specified), wiping					Afvalstoffon Torminal	Industriatorrain - Saaport M152 Vlaswog 12 4792 BW	Seaport M152, Vlasweg	Industrieterrein - Seaport
To Other Countries	15 02 02	Yes	17.205 by dangerous substances	R1	М	Weighed	Abroad	Moerdijk B.V.,821780	Moerdijk,., The Netherlands	Moerdijk,.,Netherlands	Moerdijk,Netherlands
										Nehlsen Gmbh & Co. A-	
			absorbents, filter materials (including oil							4187HH, Neiderlassung	Neiderlassung Nehlsen-
			filters not otherwise specified), wiping					Neblsen Gmbh & Co. A-	Neiderlassung Nehlsen-Plimp Betriebsstatto	Nehlsen-Plimp,Betriebsstatte Bremen Louis-Krages	Plimp,Betriebsstatte Bremen Louis-Krages
To Other Countries	15 02 02	Yes	9.419 by dangerous substances	R3	М	Weighed	Abroad	4187HH	Bremen,Louis-Krages Strasse 10,Bremen,Germany	Strasse 10,Bremen,Germany	Strasse 10,Bremen,Germany
			absorbents, filter materials (including oi filters not otherwise specified), wiping cloths, protective clothing contaminated	il d						RecvfuelEnaisB4480.B	
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To Other Countries	15 02 02	Yes	379.753 by dangerous substances	R1	М	Weighed	Abroad	Recyfuel,.	Engis,,B4480,Belgium	elgium	Engis,.,,,B4480,Belgium
	15 02 02	Yes	absorbents, filter materials (including o filters not otherwise specified), wiping cloths, protective clothing contaminated 12.312 by dangerous substances	il d D9	М	Weighed		SISAV,.	Rua Cabeco do Seixo,PT 2140-671,Eco Parque do Relvao,Chamusca,Portugal	SISAV,Rua Cabeco de Seixo,Chamusca,2140- 671,Portugal	Rua Cabeco de Seixo,.,Chamusca,2140- 671,Portugal
			cloths and protective clothing other that	In							
To Other Countries	15 02 03	No	0.297 those mentioned in 15 02 02 brake pads other than those mentioned	R1	М	Weighed	Abroad	Recyfuel,.	Engis,,B4480,Belgium		
Within the Country	16 01 12	No	0.92 in 16 01 11	R4	М	Weighed	Offsite in Ireland	A1 Metal,WMP007d	Acragar,.,Mountmellick,Co. Laois,Ireland	O IN D I I I	
To Other Countries	16.02.12	Vec	discarded equipment containing hazardous components (16) other than those mentioned in 16 02 09 to 16 02 0 44 12	D4	м	Weighod	Abroad	Coltic Providing Ltd	Village Farm Industrial Estate,GB CF33 6BZ	Ltd.,,,Village Farm Industrial Estate,GB CF33 6BZ,Pyle,Bridgend,United Kingdom	Village Farm Industrial Estate,GB CF33 6BZ,Pyle,Bridgend,United
To Other Countries	10 02 13	Tes	0.44 12	N4	IVI	weighed	Abroau	Electrical Waste	r yie, bridgerid,, onited Kingdom	Kingdom	Kingdom
Within the Country	16 02 14	No	discarded equipment other than those 17.698 mentioned in 16 02 09 to 16 02 13	R4	м	Weighed	Offsite in Ireland	Ireland,Permit No. WFP-DS 09-0012-01	- Jordanstown drive, Unit 648 Greenogue Business Park, Rathcoole, Co. Dublin, Ireland		-
To Other Countries	16 02 14	No	3.37 mentioned in 16 02 09 to 16 02 13	D10	м	Weighed	Abroad	SITA Decontamination,.	Westvaartdijk 97,.,Grimbergen,BE 1850,Belgium		
			inorganic wastes containing dangerous					McQuillan	Caulside Drive,Newpark Ind Est,Co. Antrim,BT41	McQuillan Envirocare,P0187/07A,Cauls ide Drive,Newpark Industrial Estate,Co. Antrim,BT41	S Caulside Drive, Newpark Industrial Estate, Co. Antrim, BT41 2DU, United
To Other Countries	16 03 03	Yes	3.229 substances	D9	М	Weighed	Abroad	Environmental,P0187/07A	2DU, United Kingdom	2DU,United Kingdom Becyfuel Engis B4480 B	Kingdom
To Other Countries	16 03 03	Yes	6.5 substances	R1	М	Weighed	Abroad	Recyfuel,.	Engis,,B4480,Belgium	elgium REVATECH SA,.,Zoning	Engis,.,.,B4480,Belgium
To Other Countries	16 03 03	Yes	inorganic wastes containing dangerous 7.665 substances	R5	м	Weighed	Abroad	REVATECH SA,.	Zoning l'Industrial D'Ehein, B 4480 ENGIS,.,., Belgium	l'Industrial D'Ehein,B 4480 ENGIS,,Belgium	Zoning l'Industrial D'Ehein,B 4480 ENGIS,,Belgium
Within the Country	16 03 04	No	31.1 mentioned in 16 03 03	D1	м	Weighed	Offsite in Ireland	Drehid Landfill,W201-03	Carbury,.,Co. Kildare,.,Ireland		
To Other Countries	16 03 05	Yes	organic wastes containing dangerous 23.615 substances organic wastes containing dangerous	R1	м	Weighed	Abroad	Afvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,, The Netherlands	Afvalstoffen Terminal Moerdijk B.V,821780,Industrieterrein · Seaport M152,Vlasweg 12,4782 PW Moerdijk,Netherlands RecytuelEngisB4480,B	- Industrieterrein - Seaport M152,Vlasweg 12,,,4782 PW Moerdijk,Netherlands
To Other Countries	16 03 05	Yes	0.088 substances	R1	М	Weighed	Abroad	Recyfuel,.	Engis,,B4480,Belgium	elgium Biffa Waste Management (Cottonmount Landfill),.,140 Mallusk Road	Engis,,B4480,Belgium
To Other Countries	16 05 04	Yes	gases in pressure containers (including halons) containing dangerous 10.861 substances	R3	М	Weighed	Abroad	Biffa Waste Management (Cottonmount Landfill),.	140 Mallusk Rd. Mallusk,Newtownabbey,Co.Antrim,GB BT36 4QN,United Kingdom	Mallusk,Newtownabbey,Co. Antrim,GB BT36 4QN,United Kingdom Grundon Waste Management,.,Thames	Mallusk,Newtownabbey,Co. d Antrim,GB BT36 4QN,United Kingdom
To Other Countries	16 05 04	Yes	gases in pressure containers (including halons) containing dangerous 0.012 substances	R1	М	Weighed	Abroad	Grundon Waste Management,.	Thames House, Benson , Wallingford, OX10 6LS, United Kingdom	House ,Benson,Wallingford,OX10 6LS,United Kingdom	Thames House ,Benson,Wallingford,OX10 6LS,United Kingdom
To Other Countries	16 05 04	Yes	gases in pressure containers (including halons) containing dangerous 2.531 substances	D10	м	Weighed	Abroad	Remondis UK,.	Scott Lane Industrial Estate,Blackrod,Bolton,BL6 5SL,United Kingdom	Remondis UK Carr Lane Recycling and Treatment Facility,EPR/UP3134HY,Car Lane,Prescott,Knowsley,LE3 41JZ,United Kingdom Afvalstoffen Terminal Moerdiik	r Carr Lane,Prescott,Knowsley,LE3 41JZ,United Kingdom
To Other Countries	16 05 06	Yes	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory 133.554 chemicals	B1	м	Weighed	Abroad	Afvalstoffen Terminal Moerdiik B. V. 821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdiik The Netherlands	B.V,821780,Industrieterrein Seaport M152,Vlasweg 12,4782 PW MoerdijkNetherlands	- Industrieterrein - Seaport M152,Vlasweg 12,.,4782 PW Moerdiik Netherlands

To Other Countries	10.05.00	Yee	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory	Da		Maintend	Abused	Hash Lanza Cashili		Hach,.,Willstaetterstr. 11,40549	Willstaetterstr. 11,40549
To Other Countries	16 05 06	Yes	laboratory chemicals, consisting of or	нз	IVI	weigned	Abroad	Hach Lange GmbH,.	Willstaetterstr. 11,DE 40549,DuesseldorfGermany	Future Industrial Services,.,Acornfield	Duesseidorr,,Germany
Within the Country	16 05 06	Yes	containing dangerous substances, including mixtures of laboratory 674.0 chemicals	R4	м	Weighed	Offsite in Ireland	Irish Lamp Recycling,WFP- KE-14-0072-01	Woodstock Industrial Estate,.,Athy,Co. Kildare,Ireland	Road,Knowsley Industrial Park,Liverpool,L33 7UF,United Kingdom	Acornfield Road, Knowsley Industrial Park, Liverpool, L33 7UF, United Kingdom
			laboratory chemicals, consisting of or							McQuillan Envirocare,P0187/07A,Caul: ido Drivo Nowpark Industrial	s Caulside Drive, Newpark
To Other Countries	16 05 06	Yes	12.947 chemicals laboratory chemicals. consisting of or	D9	м	Weighed	Abroad	McQuillan Environmental,P0187/07A	Caulside Drive,Newpark Ind Est,Co. Antrim,BT41 2DU,United Kingdom	Estate,Co. Antrim,BT41 2DU,United Kingdom	Antrim,BT41 2DU,United Kingdom
To Other Countries	16.05.06	Yes	containing dangerous substances, including mixtures of laboratory 0.027 chemicals	B1	м	Weighed	Abroad	Becvfuel	Engis B4480 Belgium	Recyfuel,.,Engis,.,,,B4480,B	Engis B4480 Belgium
To Other Obuntiles	10 00 00	103	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory			Weighted	horodo			REVATECH SA,.,Zoning	Zoping l'Industrial D'Eboin B
To Other Countries	16 05 06	Yes	12.033 chemicals laboratory chemicals, consisting of or	R5	м	Weighed	Abroad	REVATECH SA,.	Zoning l'Industrial D'Ehein, B 4480 ENGIS,.,., Belgium	ENGIS,,Belgium	4480 ENGIS,.,.,Belgium
To Other Countries	16 05 06	Yes	7.222 chemicals	D10	м	Weighed	Abroad	AGR mbh - RZR Herten,.	Im Emscherbruch 11,45699,Herten,.,Germany	Emscherbruch 11,45699,Herten,,Germany	Im Emscherbruch 11,45699,Herten,.,Germany
			containing dangerous substances, including mixtures of laboratory							Sava Gmbh & Co,.,1 Osterweute,Ce25541,Brunst	1 Osterweute,Ce25541,Brunsb
To Other Countries	16 05 06	Yes	7.789 chemicals	D10	м	Weighed	Abroad	Sava Gmbh & Co,.	1 Osterweute,Ce25541,Brunsbuttel,.,Germany	Remondis UK Carr Lane	uttel,.,Germany
			laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory						Unit 1A, Allied Industrial Estate, Kylemore Rd.	Recycling and Treatment Facility,EPR/UP3134HY,Car Lane,Prescott,Knowsley,LE3	rr Carr 3 Lane,Prescott,Knowsley,LE3
Within the Country	16 05 06	Yes	0.041 chemicals	R13	М	Weighed	Offsite in Ireland	SRCL,W0054-02	Ballyfermot,Dublin 10,Ireland	41JZ,United Kingdom	41JZ, United Kingdom
Within the Country	16 05 06	Yes	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory 9.137 chemicals	D9	м	Weighed	Offsite in Ireland	Rilta Environmental Ltd,.	402 Grants Drive, Greenogue, Greenogue Business Park, Dublin, Ireland	Rilta Environmental ,W0192 03,402 Greenogue Business Park,Rathcoole,Dublin,.,Irela nd	- 402 Greenogue Business Park,Rathcoole,Dublin,.,Irela nd
						, in the second s			_	McQuillan	
			discarded inorganic chemicals consisting of or containing dangerous					McQuillan	Caulside Drive,Newpark Ind Est,Co. Antrim,BT41	Envirocare,P0187/07A,Caul ide Drive,Newpark Industrial Estate,Co. Antrim,BT41	s Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United
To Other Countries	16 05 07	Yes	17.277 substances discarded inorganic chemicals consisting of or containing dangerous	D9	М	Weighed	Abroad	Environmental,P0187/07A	2DU,United Kingdom	2DU,United Kingdom Becyfuel., Engis, B4480,B	Kingdom
To Other Countries	16 05 07	Yes	11.351 substances discarded inorganic chemicals consisting of or containing dangerous	R1	М	Weighed	Abroad	Recyfuel,.	Engis,.,.,B4480,Belgium	elgium REVATECH SA,.,Zoning	Engis,.,.,B4480,Belgium
To Other Countries	16 05 07	Yes	113.489 substances discarded inorganic chemicals consisting of or containing dangerous	R5	М	Weighed	Abroad	REVATECH SA,.	Zoning l'Industrial D'Ehein, B 4480 ENGIS,.,., Belgium	ENGIS,,Belgium Sava Gmbh & Co,.,1	4480 ENGIS,,Belgium 1
To Other Countries	16 05 07	Yes	29.177 substances	D10	м	Weighed	Abroad	Sava Gmbh & Co,.	1 Osterweute, Ce25541, Brunsbuttel,., Germany	uttel,Germany Afvalstoffen Terminal	uttel,.,Germany
To Other Countries	16.05.09	Vec	discarded organic chemicals consisting	I D1	м	Weighed	Abroad	Afvalstoffen Terminal	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW	B.V,821780,Industrieterrein Seaport M152,Vlasweg 12,4782 PW	- Industrieterrein - Seaport M152,Vlasweg 12,.,4782 PW
To Other Countries	10 00 00	185	0.012 of or containing dangerous substances		IVI	vv eigi ieu	Abroau	WOERUIJK D. V.,021700		McQuillan	woerdijk,ivetriendnus
			discarded organic chemicals consisting					McQuillan	Caulside Drive Newpark Ind Est Co. Antrim RT41	Envirocare,P0187/07A,Caul ide Drive,Newpark Industrial Estate.Co. Antrim.BT41	s Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU.United
To Other Countries	16 05 08	Yes	0.731 of or containing dangerous substances	D9	М	Weighed	Abroad	Environmental,P0187/07A	2DU,United Kingdom	2DU,United Kingdom	Kingdom
To Other Countries	16 05 08	Yes	discarded organic chemicals consisting 255.425 of or containing dangerous substances	R1	М	Weighed	Abroad	Recyfuel,.	Engis,,B4480,Belgium	Recyfuel,.,Engis,.,,B4480,B elgium	Engis,.,,,B4480,Belgium

										REVATECH SA,.,Zoning	
To Other Countri	10.05.00	Vee	discarded organic chemicals consisting)		Mainhad	Abused		Zaning Illaduatrial D'Ebain R 4480 ENCIS - Balaium	l'Industrial D'Ehein,B 4480	Zoning l'Industrial D'Ehein,B
To Other Countri	es 16.05.06	res	0.797 of of containing dangerous substances	HO	IVI	weighed	Abroad	REVATEOR SA,	Zoning Industrial D Enem, B 4460 ENGIS,, Belgium	SISAV,Rua Cabeco de	Rua Cabeco de
			discarded organic chemicals consisting	,				0.044	Rua Cabeco do Seixo,PT 2140-671,Eco Parque do	Seixo,.,Chamusca,2140-	Seixo,.,Chamusca,2140-
To Other Countrie	es 16 05 08	Yes	2.041 of or containing dangerous substances	D9	м	Weighed	Abroad	SISAV,.	Relvao, Chamusca, Portugal	6/1,Portugal	671,Portugal
										Exide Technologies,.,Edificio	o Edificio Sonalur,.,Villa Nova
T. OIL O. I.		N	500 004 level have dee			144-1-1-1	Alexand	E M. E. Martin	Edificite Occurrence Mills Name de Deinke 2050 500 Destaur	Sonalur,.,Villa Nova da	da Rainha,2050-
To Other Countrie	es 16.06.01	Yes	533.604 lead batteries	H4	M	vveigned	Abroad	Exide Technologies,.	Edificio Sonaiur,., Villa Nova da Rainna,2050-522,Portuga	ai Rainna,2050-522,Portugai	522,Portugal
										HJ Enthoven & Sons,.,Darley	у
									Darlay Dala Craaltas Cayth Darlay Darbyshira DE4	Dale Smelter, South	Darley Dale Smelter, South
To Other Countri	es 16 06 01	Yes	523.494 lead batteries	R4	м	Weighed	Abroad	HJ Enthoven & Sons.BL559	8 2LP.United Kingdom	2LP.United Kingdom	2LP.United Kingdom
						Ŭ			· · · · · · · · · · · · · · · · · · ·	Envirowales	
										Limited,OG1070327,Plateux	Plateux 1 & 2,Rassau
								Envirowales	Plateux 1 & 2, Rassau Industrial Estate, Ebbw	Estate,Ebbw Vale,NP23	Vale,NP23 5SD,United
To Other Countrie	es 16 06 01	Yes	369.452 lead batteries	R4	М	Weighed	Abroad	Limited,OG1070327	Vale,NP235SD,United Kingdom	5SD,United Kingdom	Kingdom
										HJ Enthoven & SonsDarle	v
										Dale Smelter,South	Darley Dale Smelter, South
Within the Count		Vee	1 PCO Ni Cd bottorioo	D4		Mainhad	Offeite in Instand	KMK Motolo W0112 04	Cappincur Ind Est, Daingean Road, Tullamore, Co.	Darley, Derbyshire, DE4	Darley, Derbyshire, DE4
within the Count	y 16.06.02	Yes	1.869 NI-Co balleries	H4	M	vveignea	Offsite in Ireland	KINK Metals, WUT13-04	Cappincur Ind Est.Daingean Road.Tullamore.Co.	2LP, United Kingdom	2LP, United Kingdom
Within the Count	y 16 06 04	No	3.578 alkaline batteries (except 16 06 03)	R4	М	Weighed	Offsite in Ireland	KMK Metals,W0113-04	Offaly, Ireland		
Within the Count	16.06.05	No	0.662 other batteries and accumulators	P/	м	Woighod	Offsite in Ireland	KMK Motols W0113-04	Cappincur Ind Est, Daingean Road, Tullamore, Co.		
within the count	y 10 00 03	NO	0.002 other batteries and accumulators	114	IVI	Weighed	Onsite in heidric	NWIX WE123, W0113-04	Unaly, ireland	SISAV,.,Rua Cabeco de	Rua Cabeco de
									Rua Cabeco do Seixo, PT 2140-671, Eco Parque do	Seixo,.,Chamusca,2140-	Seixo,.,Chamusca,2140-
To Other Countrie	es 160708	Yes	295.659 wastes containing oil	D9	м	Weighed	Abroad	SISAV,.	Relvao, Chamusca, Portugal	6/1,Portugal ABE 22 Bue Jean	6/1,Portugal 22 Rue Jean Messager St
			aqueous liquid wastes containing						22 Rue Jean Messager,.,St Remy Du	Messager,.,St Remy du	Remy du
To Other Countrie	es 16 10 01	Yes	69.011 dangerous substances	D10	м	Weighed	Abroad	ARF,.	Nord,FR59330,France	Nord,FR53390,France	Nord,FR53390,France
										Moerdiik	
										B.V,821780,Industrieterrein	
			ogucous liquid westes containing					Africiatoffon Terminal	Industriatorrain Coopert M152 Vienues 12 4792 BW	Seaport M152, Vlasweg	Industrieterrein - Seaport
To Other Countri	es 16 10 01	Yes	0.833 dangerous substances	R12	м	Weighed	Abroad	Moerdijk B.V.,821780	Moerdijk The Netherlands	MoerdijkNetherlands	Moerdijk,Netherlands
			Ŭ			Ŭ					
										McQuillan Envirocare P0187/074 Cauls	s Caulside Drive Newpark
										ide Drive,Newpark Industrial	Industrial Estate,Co.
T. OIL O. I.		N	aqueous liquid wastes containing	D0		144-1-1-1	Alexand	McQuillan	Caulside Drive,Newpark Ind Est,Co. Antrim,BT41	Estate,Co. Antrim,BT41	Antrim, BT41 2DU, United
To Other Countrie	es 161001	Yes	agueous liguid wastes containing	D9	M	vveignea	Abroad	Environmental,P0187/07A	2DU, United Kingdom	RecvfuelEnaisB4480.B	Kingdom
To Other Countrie	es 16 10 01	Yes	1.16 dangerous substances	R1	М	Weighed	Abroad	Recyfuel,.	Engis,,B4480,Belgium	elgium	Engis,.,.,B4480,Belgium
			aqueous liquid wastes containing							REVATECH SA,.,Zoning	Zoning l'Industrial D'Ebois P
To Other Countri	es 16 10 01	Yes	68.481 dangerous substances	R1	м	Weighed	Abroad	REVATECH SA,.	Zoning l'Industrial D'Ehein, B 4480 ENGIS,.,., Belgium	ENGIS,,Belgium	4480 ENGIS,,Belgium
									··· •	Sava Gmbh & Co,.,1	1
To Other Countri	es 16 10 01	Yes	aqueous liquid wastes containing 511,539 dangerous substances	D10	м	Weighed	Abroad	Sava Gmbh & Co	1 Osterweute Ce25541 Brunsbuttel Germany	Usterweute,Ce25541,Brunst uttelGermany	Usterweute,Ce25541,Brunsb uttelGermany
	17 01 03	No	40.001 tiles and ceramics	D1	м	Weighed	, lorodd	Drehid Landfill,W201-03	Carbury,.,Co. Kildare,.,Ireland	anon,,, domany	anon,n, cionnany
										Trookwork Ltd. Kirk Condell	Kirk Sandall Ind
			glass, plastic and wood containing or							Ind Estate,Doncaster,South	Estate, Doncaster, South
			contaminated with dangerous						Kirk Sandall Industrial Estate, GB DN3	Yorkshire, DN3 1RA, United	Yorkshire, DN3 1RA, United
To Other Countrie	es 17 02 04	Yes	50.64 substances	R1	М	Weighed	Abroad	Trackwork Limited,. Afvalstoffen Terminal	1RA,Doncaster,South Yorkshire,United Kingdom	Kingdom	Kingdom
To Other Countri	es 17 03 01	Yes	105.519 bituminous mixtures containing coal tai	r R12	М	Weighed	Abroad	Moerdijk B.V.,821780	Moerdijk,., The Netherlands		
										NOAH,2009.121.T,Langoya,	
To Other Count	ies 17 05 03	Yes	soil and stones containing dangerous 6419.38 substances	D9	м	Weighed	Abroad	NOAH 2009 121 T	Langova, Serviceboks H. Holmestrand 3081 Norway	Serviceboks H.Holmstrand 3081 Norway	Langoya, Serviceboks H.Holmstrand 3081 Norway
o chiết count				20			, 10, 044			Afvalstoffen Terminal	
										Moerdijk	
										Seaport M152, Vlasweg	- Industrieterrein - Seaport
			soil and stones containing dangerous					Afvalstoffen Terminal	Industrieterrein - Seaport M152, Vlasweg 12,4782 PW	12,4782 PW	M152, Vlasweg 12,.,4782 PW
To Other Countrie	es 17 05 03	Yes	1693.97 substances	R5	М	Weighed	Abroad	Moerdijk B.V.,821780	Moerdijk,., The Netherlands	Moerdijk,.,Netherlands	Moerdijk,Netherlands

			soil and stones containing dangerous							Buhck,eg0019,Rappenberg,	., Rappenberg,.,Wiershop,215
To Other Countries	17 05 03	Yes	4277.76 substances	D1	м	Weighed	Abroad	Buhck GmbH,eg0019	Rappenburg,,,Wiershop,21502,Germany	Wiershop,21502,Germany	02,Germany
To Other Countries	17 05 04	No	4497.38 mentioned in 17 05 03	D9	М	Weighed	Abroad	NOAH,2009.121.T	Langoya, Serviceboks H, Holmestrand, 3081, Norway		
To Other Countries	17 05 04	No	2599.56 mentioned in 17 05 03	R5	м	Weighed	Abroad	Moerdijk B.V.,821780	Moerdijk,., The Netherlands		
To Other Countries	17 06 01	Yes	301.187 insulation materials containing asbesto	s D1	М	Weighed	Abroad	Biffa Waste Management (Cottonmount Landfill),.	140 Mallusk Rd. Mallusk Newtownabbey, Co. Antrim, GB BT36 4QN, United Kingdom	Biffa Waste Management (Cottonmount Landfill),140 Mallusk Road Mallusk, Newtownabbey.Co. Antrim, GB BT36 40N,Uniter Kingdom Biffa Waste Management (Cottonmount Landfill),140 Mallusk Road Mallusk Road	140 Mallusk Road Mallusk, Newtownabbey, Co. d Antrim, GB BT36 4QN, United Kingdom 141 Mallusk Road Mallusk Newtownabbey Co.
To Other Countries	17.06.05	Yes	construction materials containing 2611 865 asbestos (18)	D1	м	Weighed	Abroad	Biffa Waste Management	140 Mallusk Rd. Mallusk, Newtownabbey, Co. Antrim, GB BT36 4ON United Kingdom	Antrim, GB BT36 4QN, United	d Antrim,GB BT36 4QN,United
To other obuilties	17 00 05	165	2011.003 83063(05 (10)	DI	101	Weigheu	Abidau	(Contoniniount Landini),.		GEG mbH.EG0108.Bimohle	r Bimohler
			construction materials containing					050	Dia 14 01 01 07 0	Strasse,57a,Grossenaspe,24	4 Strasse, 57a, Grossenaspe, 24
To Other Countries	17 06 05	Yes	2336.14 aspestos (18)	DI	м	Weighed	Abroad	GEG MDH,EGU108	Unit 1A,Allied Industrial Estate,Kylemore Rd.	623,Germany	623,Germany
Within the Country	18 01 01	No	0.506 sharps (except 18 01 03)	R13	М	Weighed	Offsite in Ireland	SRCL,W0054-02	Ballyfermot, Dublin 10, Ireland		
To Other Countries	18 01 09	No	11.148 in 18 01 08	R1	М	Weighed	Abroad	Moerdijk B.V.,821780	Moerdijk,., The Netherlands		
To Other Countries	18 02 08	No	medicines other than those mentioned 61.836 in 18 02 07	B1	м	Weighed	Abroad	Afvalstoffen Terminal Moerdiik B.V821780	Industrieterrein - Seaport M152, Vlasweg 12,4782 PW Moerdiik The Netherlands		
										NOAH,2009.121.T,Langoya,	,
To Other Countries	19 01 07	Yes	23.22 solid wastes from gas treatment sludges from physico/chemical	R5	М	Weighed	Abroad	NOAH,2009.121.T	Langoya,Serviceboks H,Holmestrand,3081,Norway	H,Holmstrand,3081,Norway NOAH,2009.121.T,Langoya.	Langoya,Serviceboks H,Holmstrand,3081,Norway
To Other Countries	19 02 05	Yes	treatment containing dangerous 971.89 substances	D5	м	Weighed	Abroad	NOAH,2009.121.T	Langoya, Serviceboks H, Holmestrand, 3081, Norway	Serviceboks H,Holmstrand,3081,Norway	Langoya,Serviceboks H,Holmstrand,3081,Norway
Within the Country	19 02 05	Yes	sludges from physico/chemical treatment containing dangerous 154.26 substances	R13	М	Weighed	Offsite in Ireland	Veolia Environmental Services,W0050-02	Corrin,,Fermoy,,Ireland	Sedibex.,.Route Industrielle Portuaire du Harve,,Sandouville,76430,F rance Afvalstoffen Terminal Moerdijk B.V.,821780,Industrieterrein Seaport M152,Vlasweg	Route Industrielle Portuaire du = Harve,Sandouville,76430,F rance - Industrieterrein - Seaport
T. O.I	10.00.11	Mar	other wastes containing dangerous	D40		147-1-1-1	Alexand	Afvalstoffen Terminal	Industrieterrein - Seaport M152, Vlasweg 12,4782 PW	12,4782 PW	M152, Vlasweg 12,.,4782 PW
Within the Country	19 02 11	Yes No	44100.0 wastes not otherwise specified	D8	M	Weighed Weighed	Abroad Offsite in Ireland	Ringsend WWTW,.	Moeraljk., The Netherlands Pigeon House Road,Ringsend,.,Dublin 4,Ireland	Moeraljk,.,Netherlands	moerdijk, Netherlands
Within the Country	19 12 02	No	93.64 ferrous metal	R4	м	Weighed	Offsite in Ireland	Hammond Metal Recycling	,. Pigeon House Road, Ringsend, Dublin 4,., Ireland	Afueleteffen Terminel	
To Other Countries	19 12 11	Yes	other wastes (including mixtures of materials) from mechanical treatment of waste containing dangerous 0.628 substances	R1	м	Weighed	Abroad	Afvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152 Vlasweg 12,4782 PW Moerdijk,., The Netherlands	Arvaistotten Lerminal Moerdijk B.V,821780,Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,.,Netherlands	- Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,Netherlands
To Other Countries	20 01 19	Yes	13.26 pesticides	D10	М	Weighed	Abroad	Remondis UK,.	Scott Lane Industrial Estate, Blackrod, Bolton, BL6 5SL, United Kingdom	Remondis UK Carr Lane Recycling and Treatment Facility, EPR/UP3134HY, Car Lane, Prescott, Knowsley, LE3 41JZ, United Kingdom Sava Gmbh & Co., 1 Osterweite, Ce25541 Brund	rr Carr 3 Lane, Prescott, Knowsley, LE3 41 JZ, United Kingdom 1 0 Osterweute, Ce25541, Brunsh
To Other Countries	20 01 19	Yes	4.652 pesticides	D10	М	Weighed	Abroad	Sava Gmbh & Co,.	1 Osterweute, Ce25541, Brunsbuttel,., Germany	uttel,Germany	uttel,.,Germany
Within the Country	20 01 21	Yes	fluorescent tubes and other mercury- 0.219 containing waste	R4	м	Weighed	Offsite in Ireland	Irish Lamp Recycling,WFP- KE-14-0072-01	Woodstock Industrial Estate,.,Athy,Co. Kildare,Ireland		
Within the Country	20 01 25	No	7.145 edible oil and fat	R3	м	Weighed	Offsite in Ireland	Composting,W0195-02	Kilmainhamwood, Kells, Co. Meath, ., Ireland		
To Other Countries	20 01 27	Yes	paint, inks, adhesives and resins 28.381 containing dangerous substances	R1	м	Weighed	Abroad	ARF,.	22 Rue Jean Messager,.,St Remy Du Nord,FR59330,France	Messager,.,St Remy du Nord,FR53390,France	Remy du Nord, FR53390, France

									Nehlsen Gmbh & Co.,A-	N. de la como N. de la co
									418/HH,Neiderlassung	Neiderlassung Nehlsen-
		paint, inks, adhesives and resins					Nehlsen Gmbh & Co. A-	Neiderlassung Nehlsen-Plimp Betriebsstatte	Bremen Louis-Krages	Bremen Louis-Krages
To Other Countries 20 01 27	Yes	33.985 containing dangerous substances	R3	М	Weighed	Abroad	4187HH	Bremen, Louis-Krages Strasse 10, Bremen, Germany	Strasse 10,Bremen,German	y Strasse 10, Bremen, Germany
		paint, inks, adhesives and resins			, in the second s				Recyfuel,.,Engis,.,,B4480,E	i i i i
To Other Countries 20 01 27	Yes	193.56 containing dangerous substances	R1	М	Weighed	Abroad	Recyfuel,.	Engis,,B4480,Belgium	elgium	Engis,.,,,B4480,Belgium
									SISAV,.,Rua Cabeco de	Rua Cabeco de
		paint, inks, adhesives and resins						Rua Cabeco do Seixo, PT 2140-671, Eco Parque do	Seixo,.,Chamusca,2140-	Seixo,.,Chamusca,2140-
To Other Countries 20 01 27	Yes	6.889 containing dangerous substances	D1	M	Weighed	Abroad	SISAV,.	Relvao,Chamusca,Portugal	671,Portugal	671,Portugal
		detergents containing dangerous							Recyfuel,.,Engis,.,,B4480,B	
To Other Countries 20 01 29	Yes	20.467 substances	R1	М	Weighed	Abroad	Recyfuel,.	Engis,.,,,B4480,Belgium	elgium	Engis,.,,,B4480,Belgium
		medicines other than those mentioned					Afvalstoffen Terminal	Industrieterrein - Seaport M152, Vlasweg 12, 4782 PW		
To Other Countries 20 01 32	No	3.65 in 20 01 31	R1	М	Weighed	Abroad	Moerdijk B.V.,821780	Moerdijk,., The Netherlands		
Within the Country 20 03 01	No	5.8 mixed municipal waste	D1	М	Weighed	Offsite in Ireland	Drehid Landfill,W201-03	Carbury,.,Co. Kildare,.,Ireland		

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

Link to previous years waste data Link to previous years waste summary data & percentage change Link to Waste Guidance

APPENDIX 3

Schedule of 2017 Targets and Objectives

RILTA ENVIRONMENTAL Ltd.

EHS MANAGEMENT SYSTEM



EHS MANAGEMENT PLAN 2015 - 2017

In accordance with ISO 14001 & OHSAS18001

RILTA ENVIRONMENTAL	Issue No. 014
ENVIRONMENTAL MANAGEMENT SYSTEM	Date: Jan 2018
Environmental Management Programme	Page 1 of 6

ENVIRONMENTAL MANAGEMENT PROGRAMME FOR THE ACHIEVEMENT OF OBJECTIVES AND <u>TARGETS</u>

EMP Ref.	Objective	Target	Environmental Management Programme for the implementation of objectives.	Responsible Person	Completion Date	Completed (Y/N)	
	_		Find suitable producer(s)	СН	Mar 17		
1	Increase environmental	Develop and produce EHS	Develop content for approval	SL	Mar 17	17/01/2018: Draft of	
	awareness among RILTA	diary for 2018	Get quotes for production	SL	Mar 17	diary is prepared – with management for	
	staff		Print and distribute to relevant stakeholders	SL	Apr 17	review.	
2	Optimize waste tracking from cradle to grave	Develop integrated system for managing all data	Sign off on suitable reports on electronic tracking system Amend 'incoming waste records' to accommodate tracking reports Develop live mass balance monthly update	СН СН СН	Apr 17 May 17 Oct 17	17/01/2018: Waste tracking system fully operations.	

Issue No.	013	Compiled by:	Colm Hussey
		Name/Position	Facility & Environmental Manager
Date:	Feb 2017	Reviewed by:	Sean Cotter
		Name/Position	General manager

RILTA ENVIRONMENTAL	Issue No. 014
ENVIRONMENTAL MANAGEMENT SYSTEM	Date: Jan 2018
Environmental Management Plan	Page 2 of 6

EMP Ref.	Objective	Target	Environmental Management Programme for the implementation of objectives.	Responsible Person	Completion Date	Completed (Y/N)
3	Ensure quality drainage system	No leaks	Re-coat the settlement tank (1) Re-coat the settlement tank (2) Re-coat the settlement tank (3)	СН СН СН	June 17 August 17 October 17	Yet to complete.
4	Ensure only clean water released to the river	No ELV breaches	Empty and clean attenuation tank Skim storm water interceptor on a monthly basis Replace/Repair damaged concrete on a rota basis to ensure no damaged areas by 2017	СН СН СН	Mar 17 Ongoing Dec 17	17/01/2018: Concrete repairs partially complete. Several large sections complete. Tanks cleaned and storm water interceptor skimmed.

Issue No.	013	Compiled by:	Colm Hussey
		Name/Position	Facility & Environmental Manager
Date:	Feb 2017	Reviewed by:	Sean Cotter
		Name/Position	General manager

RILTA ENVIRONMENTAL	Issue No. 014
ENVIRONMENTAL MANAGEMENT SYSTEM	Date: Jan 2018
Environmental Management Plan	Page 3 of 6

EMP Ref.	Objective	Target	Environmental Management Programme for the implementation of objectives.	Responsible Person	Completion Date	Completed (Y/N)
5	Reduce use of hazardous raw materials used on site	Employ solvent free paint	Source suitable paints Assess suitability of existing paint systems	СН СН	Mar 17 April 17	17/01/2018: Solvent free paint purchased and trialed.
6	Optimize the quality of trade effluent	No ELV breaches	Clean 'wet wells' twice a year Clean DAF system twice a year	ТМс ТМс	Ongoing Ongoing	17/01/2018: No ELV exceedances for 2017.

Issue No.	013	Compiled by:	Colm Hussey	
		Name/Position	Facility & Environmental Manager	
Date:	Feb 2017	Reviewed by:	Sean Cotter	
		Name/Position	General manager	

RILTA ENVIRONMENTAL	Issue No. 014
ENVIRONMENTAL MANAGEMENT SYSTEM	Date: Jan 2018
Environmental Management Plan	Page 4 of 6

EMP Ref.	Objective	Target	Environmental Management Programme for the implementation of objectives.	Responsible Person	Completion Date	Completed (Y/N)
			Complete noise monitoring.	СН	Ongoing	
			Monitor adjoining river on a quarterly basis.	СН	Ongoing	
7	To be a good and		Implement 'closed door' policy system when unloading liquid waste tankers where possible	CM/DG	Ongoing	17/01/2018: Noise monitoring complete. Good relationship
	considerate neighbor	No complaints	Cold cutting at the cedar site to take place inside with doors close	DG	Ongoing	established with neighboring businesses. No complaints received.
			Make contact with immediate neighbors on a quarterly basis	СН	Ongoing	

Issue No.	013	Compiled by:	Colm Hussey	
		Name/Position	Facility & Environmental Manager	
Date:	Feb 2017	Reviewed by:	Sean Cotter	
		Name/Position	General manager	

RILTA ENVIRONMENTAL	Issue No. 014
ENVIRONMENTAL MANAGEMENT SYSTEM	Date: Jan 2018
Environmental Management Plan	Page 5 of 6

EMP Ref.	Objective	Target	Environmental Management Programme for the implementation of objectives.	Responsible Person	Completion Date	Completed (Y/N)
8	To Be Energy Efficient	Reduce electricity usage by 5%	Assess findings of 2016 audit. Implement findings of audit if economically and practically feasible.	CH/SC CH/SC	Apr 17 June 17	 17/01/2018: Overall the energy usage for 2017 when compared for 2016 increased by 115,336KWH. Energy efficient lighting system planned for install in Operations office in Jan 2018 – warehouses to follow.
9	Reduce Process Waste	Reduce filter cake volumes	Optimize the volume of 'dig-out' waste that can be dried.	DG	June 17	17/01/2018: Dig-out system now in place. Drying system for filter cake trialed – expected to begin full operation in Q1 2018.

Issue No.	013	Compiled by:	Colm Hussey	
		Name/Position	Facility & Environmental Manager	
Date:	Feb 2017	Reviewed by:	Sean Cotter	
		Name/Position	General manager	

RILTA ENVIRONMENTAL	Issue No. 014
ENVIRONMENTAL MANAGEMENT SYSTEM	Date: Jan 2018
Environmental Management Plan	Page 6 of 6

EMP Ref.	Objective	Target	Environmental Management Programme for the implementation of objectives.	Responsible Person	Completion Date	Completed (Y/N)
	Reduce the		Tailor Manual Handling Training to emphasize the need to cut out 'reaching and lifting'	SL	Ongoing	17/01/2018: Improved reporting system for all accidents and nearmisses.36% increase in the
10	Number of Lost Time AccidentsAim for Zero Lost Time Accidents	Aim for Zero Lost Time Accidents	Aim for 100% Manual and Chemical handling	SL	Dec 17	number of near-misses reported between 2016 and 2017.
			Develop app for recording 'area of concern/near-miss' data	SL	Apr 17	No further work carried on near-miss app. Number of near
			Aim for 75 near misses	SL	Dec 17	misses for 2017 is 11.
11	Reduce Detergent use on Tank	Reduce Detergent use by	Eliminate neat detergent/road bio use	EK	Dec 17	17/01/2018: waiting on data from
	Cleaning Work	10%	Do not exceed recommended usage	EK	Dec 17	Contracts Division.

Issue No.	013	Compiled by:	Colm Hussey	
		Name/Position	Facility & Environmental Manager	
Date:	Feb 2017	Reviewed by:	Sean Cotter	
		Name/Position	General manager	

APPENDIX 4

Schedule of 2018 proposed Targets and Objectives



RILTA ENVIRONMENTAL LTD.

ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)

ENVIRONMENTAL MANAGEMENT PLAN (EMP) OBJECTIVES AND TARGETS REGISTER 2018 to 2020

In accordance with

ISO 14001:2015

Revised	Soon Lowlor	Approved	Colm Hussov	Revision	02/01/2019
By:	Seall Lawioi	By:	Collin Hussey	Date:	03/01/2018



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	Ne S	RILTA ENVIRONMENTAL LTD Significant Environmer	ntal Objectives and Targets Register 20	18 Rev.01-18	
Aspect	Aspect	Objective	Target	Implementation Plan	Indicators of
Ref. No.:	(i.e. what the issue is)	(i.e. high level what needs to be done)	(i.e. low level what needs to be done)	(i.e. how we are going to do it)	Success
005c	Painting and drying - Chemical consumption	Convert over to water-based paints, 100% by end of year.	 Complete trials with the water- based paints. Determine the required drying times and temperatures. 	 Source and purchase suitable water-based paints. Carry out painting and drying trials with various temperatures and times and identify optimum conditions. Document the optimum conditions in an SOP which details the painting and drying process. 	 Completed trials. Documented SOP. Cessation of purchases of high VOC content paints.
005d	Shot blasting - Material consumption	Resolve the issue with internal dust release from the shot blast unit and rectify by end of year.	 Identify the source(s) of the dust leaks and eliminate. 	 Identify where the dust leaks are originating from through visual observation and communication with operative. Determine if the process needs to be altered (e.g. later door opening times, stronger extraction, etc.) and if so, what alterations are required. Determine if physical repairs are required and if they are, implement the repairs. Determine the amount of shot blast material that is used for 1 month and compare when repairs/refit is complete. 	 Dust releases eliminated. Volume of blast material used reduces when compared to similar processing events.



		RILTA ENVIRONMENTAL LTD Significant Environment	ntal Objectives and Targets Register 20	18 Rev.01-18	
Aspect Ref. No.:	Aspect (i.e. what the issue is)	Objective (i.e. high level what needs to be done)	Target (i.e. low level what needs to be done)	Implementation Plan (i.e. how we are going to do it)	Indicators of Success
005e	Container recycling - Utility consumption	Define the volume of waste that is recycled in both the plastics and metal recycling processes.	 Identify the weight of plastics recycled per month. Identify the weight of metals recycled per month. Determine if more efficient recycling/processing techniques/equipment are available to increase recycling rate or to reduce the current energy consumption. 	 Consult supervisor and operator and request a log to be kept of the volumes of plastics and metals produced per month. Research new plastics shredding technologies and new drum crushing technologies – cost appropriate systems. 	 Log established of volumes of plastics and metals produced each month for recycling. CAPEX request made for new appropriate equipment.
005f	Container processing - Utility consumption	Carry out two compressed air leak surveys per year and implement maintenance programme to eliminate identified compressed air leakages.	 Complete two compressed air leak surveys. Implement maintenance programme to repair the identified leaks. Estimate the cost of lost air. 	 Source a leak testing company and contract to carry out leak test surveys. Source repair company and implement repairs. Determine electricity costs before and after repairs. 	 All identified air leaks repaired. Data generated on cost of identified compressed air leaks.
006a	Vehicle collections - Production of noise, exhaust gases and particulates, liquid and solid chemicals and debris	Confirm the maintenance schedule for the Site Services Division vehicle fleet. Complete quarterly audits of the vehicles.	 Establish vehicle audit template. Contact site services manager and arrange to carry out a minimum of four vehicle audits. 	 Create a vehicle audit template form. Implement the vehicle audits in conjunction with site services manager/supervisor. 	 Vehicle audit template created. Minimum of four vehicle audits completed per year.
006b	Cleaning works – Chemicals	Carry out 6 audits of the cleaning works that the Site Services team carries out at customer premises.	 Establish site services audit template. Contact site services manager and arrange to carry out a minimum of six audits. 	 Create a site services audit template form. Implement the site services audits in conjunction with site services manager/supervisor. 	 Site services audit template created. Minimum of six site services audits completed per year.



	Ne S	ENVIRONMENTAL LTD Significant Environmer	ntal Objectives and Targets Register 20	18 Rev.01-18	
Aspect Ref. No.:	Aspect (i.e. what the issue is)	Objective (i.e. high level what needs to be done)	Target (i.e. low level what needs to be done)	Implementation Plan (i.e. how we are going to do it)	Indicators of Success
008b	Transformer processing - Production of noise and particulates, liquid and solid chemicals and debris	Complete weekly checks of the warehouse areas to ensure correct storage techniques.	 Carry out weekly checks of the warehouse area. Rectify issues raised in a timely manner. 	 Consult with transformer division manager and implement weekly checks of the warehouse area. 	 Weekly checks completed. Identified issues rectified within 1 month of notification.
009a	Use of offices, canteens, toilet facilities, warehouses and yards - Utilities (gas, water, electricity)	Decrease lighting, heating and water consumption by 15% each based on 2017 consumption figures.	 Reduce water consumption by 15% from 2017 figures. Reduce gas consumption by 15% from 2017 figures. Reduce electricity consumption by 15% from 2017 figures. 	 Carry out water survey and identify high consumption areas. Carry out gas survey and identify high consumption areas. Carry out electricity survey and identify high consumption areas. Target the identified high consumption areas with projects to minimise consumption (e.g. awareness campaign, timers, low energy lighting, etc.). 	 Utility consumption reduction of 15% Water surveys completed. Gas surveys completed. Electricity surveys completed.



	Ne S	ENVIRONMENTAL LTD Significant Environmer	ntal Objectives and Targets Register 20	18 Rev.01-18	
Aspect Ref. No.:	Aspect (i.e. what the issue is)	Objective (i.e. high level what needs to be done)	Target (i.e. low level what needs to be done)	Implementation Plan (i.e. how we are going to do it)	Indicators of Success
009b	Use of offices and warehouses - Waste material	Determine the volume of waste generated by the Operations building and reduce volume by 10%.	 Determine areas where waste is generated in the operations building. Quantify this waste volume. Reduce this volume by 10%. 	 Identify the volume/weight of waste material generated by each office. Identify high volume waste streams. Identify the cost for disposal/recycling of this waste. Inform staff of costs and options and task staff with waste minimisation project. 	 Staff buy-in to waste reduction programme(s). 10% decrease in volume/weight of waste generated from the operations building.
010Ь	Dispensing - Chemicals	Determine the volume of fuel consumed by each vehicle that utilises the diesel fuel pump.	 Determine the volume of diesel that each site vehicle consumes. Identify high consuming vehicles and assess if more regular servicing or replacement is required. Determine the cost of this fuel. Determine the cost of a more efficient alternative vehicle. 	 Identify how the dispensing system works. Track each user and vehicle to identify consumption pattern. Determine servicing schedule for high consuming vehicles. Determine if an alternative vehicle is a valid option. 	 Reduction in fuel consumption without affecting work volumes.

APPENDIX 5

Rilta Environmental Management Structure



Rilta Environmental Organisational Chart 2018



Revision Date: 12/02/2018

APPENDIX 6

Bund Integrity Test Report 2016 / 2017



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

May 2017 Revision: **A**

TOBIN CONSULTING ENGINEERS







REPORT

PROJECT:	Bund Integrity Testing
	Block 402, Greenogue Business Park, Rathcoole, Co. Dublin
CLIENT	Rilta Environmental I td
	RILTA Environmental Limited,
	Block 402,
	Greenogue Business Park,
	Rathcoole,
	Co. Dublin
	Tel: + 353 1 401 8000
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COMPANY:

TOBIN Consulting Engineers

Block 10 - 4 Blanchardstown Corporate Park, Blanchardstown, Dublin 15

www.tobin.ie

Email: info@rilta.ie



DOCUMENT AMENDMENT RECORD

Client: Rilta Environmental Ltd.

Project: 10063 – Bund Integrity Testing

Title: Bund Integrity Testing

PROJECT	NUMBER: 6731			DOCUME	NT REF:	6731/Rev A	
А	Bund Integrity Testing	FH	08/05/17	ST	09/05/17	DG	09/05/17
Revision	Description & Rationale	Originated	Date	Checked	Date	Authorised	Date
	TO	BIN Consu	Iting Eng	ineers			





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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





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 1/03/2017. A structural survey of the buildings outlined for assessment at the site was carried out by a TOBIN Engineer on Monday, 19th December 2016.

Hydrostatic testing of a number of bunded areas and underground settlement tanks commenced on Saturday, April 1st and concluded on Monday, 10th April 2017, The underground settlement tanks were tested in July 2016.

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, No.7 Portable 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 Monday, 19th December 2016, 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.

This area is generally used to store contaminated soil and at the time of the inspection had mainly been emptied out. The construction of the ground floor slab is a typical industrial ground floor construction with 6m x 6m concrete bays. There is a concrete upstand approx 100mm high around the perimeter of the area with block walls above.

The floor slab and up-stand was generally found to be in good structural condition with no obvious defects.

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.

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, on Saturday, 1st of April 2017, 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, on Wednesday, 5th of April 2017, 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, Saturday, 8th of April 2017, 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, that a data logger would be placed in each of the underground settlement tanks to increase measurement accuracy. The loggers 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.

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 recorded over the weekend and the loggers were removed, prior to the recommencement of work at the facility on the Monday morning.



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 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 treated on site.

3.3 PROGRAMME FOR TESTING (BLOCK 402)

It was proposed that all testing would be carried out for Block 402 over a series of 5-day period (ie. from Saturday April 1st – Monday April 3rd 2017).

- Day 1: TOBIN staff attended Block 402 on Thursday, 30th March 2017, 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, 1st April, Sunday, 2nd April and Monday, 3rd April 2017 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 Monday, 19th December 2016.



4 **RESULTS**

4.1 HYDROSTATIC SURVEY RESULTS

Hydrostatic testing was carried out on the Bunded areas & Underground Storage Tanks from Saturday April 1st to Monday April 3rd 2017, Wednesday April 5th to Friday April 7th 2017 and Saturday April 8th to Monday April 10th 2017.

No fluctuation in liquid level was noted in the bunds or tanks during the first monitoring period Day 1 to Day 2 (1^{st} April – 2^{nd} April 2017, 5^{th} of April – 6^{th} of April 2017 and 8^{th} of April – 9^{th} of April 2017) and levels remained constant for the second monitoring period Day 2 to Day 3 (April 2^{nd} – April 3^{rd} 2017, April 7^{th} – April 8^{th} 2017 and April 8^{th} to April 9^{th} 2017). 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 April 1st 2017 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 at Block 402, on Monday, 19th December 2016, 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.

This area is generally used to store contaminated soil and at the time of the inspection had mainly been emptied out. The construction of the ground floor slab is a typical industrial ground floor construction with 6m x 6m concrete bays. There is a concrete upstand approx 100mm high around the perimeter of the area with block walls above.



The floor slab and up-stand was generally found to be in good structural condition with no obvious defects.

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

As per methodology 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.

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 31st of March 2017. A >24hr absorption period was observed (due to weekend period) to allow the bund walls to become saturated. The test commenced on Saturday 1st of April. 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).

Measurement Location	Sat 1 st Apr (Top of bund to water level)	Sun 2 nd Apr (Top of bund to water level)	Mon 3 rd Apr (Top of bund to water level)	Fluctuation	Pass / Fail
		Front of bun	d		
A, Front Left	75cm	75cm	75cm	0.0cm	Pass
B, Front Right	76cm	76cm	76cm	0.0cm	Pass
C, Rear Left	75cm	75cm	75cm	0.0cm	Pass
D, Rear Right	76cm	76cm	76cm	0.0cm	Pass
	•	Middle of bur	nd		
E, Front Left	76cm	76cm	76cm	0.0cm	Pass


F, Front Right	76cm	76cm	76cm	0.0cm	Pass					
G, Rear Left	76cm	76cm	76cm	0.0cm	Pass					
H, Rear Right 76cm		76cm	76cm	0.0cm	Pass					
	Rear of bund									
I, Front Left	72cm	72cm	72cm	0.0cm	Pass					
J, Front Right	72cm	72cm	72cm	0.0cm	Pass					
Control	21cm	21cm	21cm	0.0cm	Pass					

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 Tuesday 4th of April 2017. A >24hr absorption period was observed (due to weekend period) to allow the bund walls to become saturated. The test commenced on Wednesday 5th April. 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
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Measurement Location	Wed 5 th Apr (Top of bund to water level)	Thur 6 th Apr (Top of bund to water level)	Fri 7 th Apr (Top of bund to water level)	Fluctuation	Pass / Fail
A, Front Left	76cm	76cm	76cm	0.0cm	Pass
B, Front Right	77cm	77cm	77cm	0.0cm	Pass
C, Left Centre	77cm	77cm	7cm	0.0cm	Pass

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 7th April 2017. A >24hr absorption period was observed (due to weekend period) to allow the bund walls to become saturated. The test commenced on Saturday 8th April. 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.



Measurement Location	Sat 8 th Apr (Top of bund to water level)	Sun 9 th Apr (Top of bund to water level)	Mon 10 th Apr (Top of bund to water level)	Fluctuation	Pass / Fail
A, Front Left	131cm	131cm	131cm	0.0cm	Pass
B, Front Right	131cm	131cm	131cm	0.0cm	Pass
C, Rear Right	133cm	133cm	133cm	0.0cm	Pass
D, Rear Left	133cm	133cm	133cm	0.0cm	Pass
Control	11cm	11cm	11cm	0.0cm	Pass

Table 4-3 Bund / Area No. 5 Test Resu

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 Area / Bund No. 6 was filled with water to an appropriate level (110% tank volume) on Friday 22rd July 2016. A >24hr absorption period was observed (due to weekend period) to allow the bund walls to become saturated, a data logger was then placed in the underground concrete bund. The test commenced on Saturday April 1st 2017. Table 4-15 below represents recorded change in water levels within the bund and control over the test period.





Testing at this location was not impacted by facility operations.

No fluctuation in liquid levels was noted in the bunds or tanks during the first monitoring period Day 1 to Day 2 (July 23rd to July 24th 2017) and levels remained constant for the second monitoring period Day 2 to Day 3 (July 24th to July 25th 2017) 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

4.2.7 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 were filled with water to an appropriate level (110% tank volume) on Friday 7th of April 2017. A >24hr absorption period was observed (due to weekend period) to allow the bund walls to become saturated. The test commenced on Saturday 8th April. 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.

Bund No.	Sat 8 th Apr (Top of bund to water level)	Sun 9 th Apr (Top of bund to water level)	Mon 10 th Apr (Top of bund to water level)	Fluctuation	Pass / Fail
1	L: 34.2cm R:34.2cm	L: 34.2cm R:34.2cm	L: 34.2cm R:34.2cm	0.0cm	Pass
2	L: 31.1cm R:33.4cm	L: 31.1cm R:33.4cm	L: 31.1cm R:33.4cm	0.0cm	Pass
3	L: 36.8cm R:33.3cm	L: 36.8cm R:33.3cm	L: 36.8cm R:33.3cm	0.0cm	Pass
4	L: 41cm R:38.4cm	L: 41cm R:38.4cm	L: 41cm R:38.4cm	0.0cm	Pass
5	L: 17.4cm R:17.1cm	L: 17.4cm R:17.1cm	L: 17.4cm R:17.1cm	0.0cm	Pass
6	L: 5.7cm R:5.2cm	L: 5.7cm R:5.2cm	L: 5.7cm R:5.2cm	0.0cm	Pass
7	L: 5.7cm R:5.2cm	L: 5.7cm R:5.2cm	L: 5.7cm R:5.2cm	0.0cm	Pass

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

Testing at this location was not impacted by facility operations.

4.2.9 Drum Division Sump (Area / Bund No. 9)

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.

5 CCTV

5.1 CCTV SURVEY

A CCTV drainage inspection was carried out on 1st of March 2017, 3rd of March 2017, 11th of March 2017, 22nd of March 2017, 30th of March 2017, 31st March 2017 and 19th of April 2017, on behalf of Rilta Environmental Ltd. The Inspection Report is included in Appendix B attached.

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:

٠	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

Remedial Works recommended

•	Area / Bund No. 9: Drum Division Sump	= F	PASS
•			700

APPENDIX A

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



APPENDIX B

Block 402 - CCTV Drainage Inspection Report







Project-information / Inspection: 1							
Project name : Rilta Environmental Ltd.	Project Number :	Contact :	Date : 01/03/2017				
Client	Rilta Enviro	nmental Ltd.					
Responsible:	Colm Husse	ey early and a second se					
Department:		-					
Street:	Unit 402, Gr	eenoque Business F	Park				
City, St Zip:	Rathcoole						
Po Box:	Dublin						
Telephone:							
Fax:							
Mobile:							
e-mail:							
Proi mar	Rilta Enviro	nmental I td					
Responsible:							
Department:		, <u>,</u>					
Street:	Unit 402. Gr	eenoque Business F	Park				
City. St Zip:	Rathcoole						
Po Box:	Dublin						
Telephone:							
Fax:							
Mobile:							
e-mail:							
Contractor	Rilta Enviro	nmental I td					
Responsible:		Frantisek Navratil					
Department:	Contracts						
Street:	Greenoque	Business Park					
City, St Zip:	Rathcoole						
Po Box:	Dublin						
Telephone:	01 4018000						
Fax:							
Mobile:	0877988574						
e-mail:	info@rilta.ie						



Rilta Environmental Ltd Greenogue Business Park Street : Rathcoole Tel: 01 4018000 Fax: Email: info@rilta.ie

Inspection report / Inspection: 1										
Date 01/03/2	e : 2017	Job number :		Weather : rain	Operato Frantis	or: ek	Section number	:	PLR S	SUFFIX:
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Place : Road :	Ratho	coole	Locatio	on details:		U/	S MH : S Denth :	MHS2		
Location	Prope MHS3	erty with buildings	Tape r	number : 2802	217_1	D/	S MH :	MHS3		
Use:		Surface water		Pipe shape :	Ci	rcular				
Purpose : Total length :		Routine inspectio 29.84 m	on of condition		Pipe size : Pipe material : Lining :	Co	oncrete			
Comment :					•					
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		<u>0.02</u> W	L Water I	evel, 5% of the v	ertical dimensi	on				(Serv) 0
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	1	<u>5.14</u> W	L Water l	evel, 0% of the v	ertical dimensi	on	00	:03:40		(Serv) 0
	1	<u>7.04</u> W	L Water l	evel, 5% of the v	ertical dimensi	on	00	:03:53		(Serv) 0
	1	<u>9.82</u> W	/L Water l	evel, 0% of the v	ertical dimensi	on	00	:04:38		(Serv) 0
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Rilta Environmental Ltd. // Page: 2



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	R	4.14	CN	Connection other than junction, at 2 o'clock, diameter			00:01:23		(Constr) 0
		7.64	CN	Connection other than j	unction, at 10 o'clock,	diameter	00:02:46		(Constr) 0
		11.87	WL	Water level, 5% of the vertical dimension			00:03:37		(Serv) 0
		14.45	WL	Water level, 10% of the	vertical dimension		00:03:51		(Serv) 0
		15.94	CN	Connection other than j	unction, at 4 o'clock, d	iameter	00:04:34		(Constr) 0
		21.11	WL	Water level, 15% of the	vertical dimension		00:05:35		(Serv) 0
		26.29	WL	Water level, 5% of the v	vertical dimension		00:06:47		(Serv) 0
'		28.75	WL	Water level, 10% of the	vertical dimension		00:07:04		(Serv) 0
		28.75	CN	Connection other than j	unction, at 12 o'clock,	diameter	00:07:24		(Constr) 0
		29.84	WL	Water level, 15% of the	vertical dimension		00:07:37		(Serv) 0
		35.64	WL	Water level, 5% of the v	vertical dimension		00:08:21		(Serv) 0
		39.87	WLC	Clear water level, 10%	of the vertical dimension	on	00:08:41		(Serv) 0
·		41.12	CN	Connection other than j 150mm	unction, at 11 o'clock,	diameter	00:09:32		(Constr) 0
		47.52	WL	Water level, 0% of the v	vertical dimension		00:10:11		(Serv) 0
M	HS4	47.52	MHF	Finish node type, manh	ole reference number:	MH4	00:10:14		(Constr) 0
Structural D	efects				Constructional Features				

Structural Defec	ts				Constructional	Features			
Service Defects					Miscellaneous F	eaturess			
STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	0	0	0	1	0	0	0	0	1
			D .1			4			



Rita Environmental Ltd Greenogue Business Park Street : Rathcoole Tel: 01 4018000 Fax: Email: info@rilta.ie

			Ins	spection repo	rt / Inspectio	n: 1	2	indiro	
	Date : 01/03/2017	Job	number :	Weather : no rain or snow	Operator : Frantisek	Section nun 4	nber :	PLR \$	SUFFIX: X
no	Weather rain or sno	w VE	ehicle : HICLE 1	Camera : camera 1	Preset :	Cleaned yes	:	Ope Fra	erator : ntisek
Place Road : Locatio	: on stion	Rathcoole Grants Drive Property with t MHS6 (U/S) MH	ouildings IS7	Location details: Catchment: Tape number : 280 Pipe Length	217_1	U/S MH : U/S Depth : D/S MH : D/S Depth :	MHS7 MHS6		
Use: Year la Purpos Total la Comm	aid : se : ength : ient :	Surface Routine 56.13 m	water	condition	Pipe shape : Pipe size : Pipe material : Lining :	Circular 225.00 mm Polyvinyl chlo	ride		
	1:462	Position	Code	Observation			MPEG	Photo	Grade
	MHS6								
		0.00	MH	Start node type, manho	le, reference number : l	MHS6	00:00:00		(Constr) 0
		0.01	WL	Water level, 0% of the v	vertical dimension		00:00:25		(Serv) 0
		0.20	CN	Connection other than j 150mm Remarks: Unkr	unction, at 2 o'clock, dia	ameter	00:00:28		(Constr) 0
		3.89	WLC	Clear water level, 5% o	f the vertical dimension		00:01:18		(Serv) 0
		5.53	WL	Water level, 0% of the v	vertical dimension		00:01:36		(Serv) 0
		11.53	CN	Connection other than j 150mm	unction, at 3 o'clock, dia	ameter	00:02:38		(Constr) 0
		35.60	CN	Connection other than j	unction, at 11 o'clock, c	liameter	00:07:03		(Constr) 0
iiii		38.86	CN	150mm Connection other than j	unction, at 3 o'clock, dia	ameter	00:08:00		(Constr) 0
		42.41	CN	150mm Connection other than j	unction, at 11 o'clock, c	liameter	00:08:54		(Constr) 0
		42.41	WL	Water level, 5% of the v	vertical dimension		00:09:03		(Serv) 0
	\mathbb{A}	44.30	WLC	Clear water level, 0% o	f the vertical dimension		00:09:26		(Serv) 0
		45.22	CN	Connection other than j	unction, at 3 o'clock, dia	ameter	00:09:52		(Constr) 0
		51.11	WL	Water level, 5% of the v	vertical dimension		00:11:00		(Serv) 0
		56.13	WL	Water level, 0% of the v	vertical dimension		00:12:44		(Serv) 0
	MHS7	56.13	MHF	Finish node type, manh	ole reference number: l	MHS7	00:12:47		(Constr) 0
Chryster					Constructional Engineer				

Structural Defec	:ts				Constructional Features					
Service Defects					Miscellaneous F	eaturess				
STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade	
0	0	0	0	1	0	0	0	0	1	
						-				



Service Defects

STR peak

0

STR mean

0

STR total

0

STR no def

0

Rilta Environmental Ltd Greenogue Business Park Street : Rathcoole Tel: 01 4018000 Fax: Email: info@rilta.ie

			Ins	pection repo	ort / Inspectio	n: 1			
	Date : 01/03/2017	Jol	b number :	Weather : no rain or snow	Operator : Frantisek	Section num 5	iber :	PLR \$	SUFFIX: X
no	Weather rain or sno	w VI	/ehicle : E HICLE 1	Camera : camera 1	Preset :	Cleaned yes	:	Ope Fra	erator : ntisek
Place Road Location	: : on ction	Rathcoole Grants Drive Property with MHS6 (U/S) M	buildings HS8	Location details: Catchment: Tape number : 280 Pipe Length	217_1	U/S MH : U/S Depth : D/S MH : D/S Depth :	MHS8 MHS6		
Use: Year la Purpo Total l Comm	aid : se : ength : nent :	Surface Routine 64.55 m	water	ondition	Pipe shape : Pipe size : Pipe material : Lining :	Circular 225.00 mm Polyvinyl chlor	ride		
	1:525	Position	Code	Observation			MPEG	Photo	Grade
		0.00	MH	Start node type, manho	le, reference number : N	/HS6	00:00:00		(Constr) 0
	MHS6	0.01	WL	Water level, 5% of the v	vertical dimension				(Serv) 0
	\mathbf{H}	0.86	WL	Water level, 0% of the v	vertical dimension		00:00:25		(Serv) 0
		6.37	WL	Water level, 5% of the v	vertical dimension		00:01:23		(Serv) 0
		14.17	CN	Connection other than j 150mm	unction, at 9 o'clock, dia	meter	00:02:52		(Constr) 0
		<u>19.46</u>	WLC	Clear water level, 10%	of the vertical dimension	1	00:03:36		(Serv) 0
	K	22.11	CN	Connection other than j 150mm	unction, at 2 o'clock, dia	meter	00:04:21		(Constr) 0
		24.55	WL	Water level, 0% of the v	vertical dimension		00:04:42		(Serv) 0
1		28.44	CN	Connection other than j 150mm	unction, at 9 o'clock, dia	meter	00:05:30		(Constr) 0
		<u>29.93</u>	WL	Water level, 5% of the v	vertical dimension		00:05:48		(Serv) 0
《		34.12	WL	Water level, 0% of the v	vertical dimension		00:06:34		(Serv) 0
8		42.26	WL	Water level, 5% of the v	vertical dimension		00:07:33		(Serv) 0
X		43.57	WL	Water level, 0% of the v	vertical dimension		00:07:42		(Serv) 0
		44.85	CN	Connection other than j 150mm	unction, at 9 o'clock, dia	meter	00:08:23		(Constr) 0
	K	46.70	WL	Water level, 10% of the	vertical dimension		00:08:40		(Serv) 0
		50.14	CN	Connection other than j 150mm	unction, at 2 o'clock, dia	meter	00:09:25		(Constr) 0
	4	<u>56.64</u>	CN	Connection other than j 150mm	unction, at 9 o'clock, dia	meter	00:10:30		(Constr) 0
		57.27	CN	Connection other than j 150mm	unction, at 2 o'clock, dia	meter	00:10:57		(Constr) 0
		57.73	CN	Connection other than j 150mm	unction, at 2 o'clock, dia	meter	00:11:31		(Constr) 0
		64.55	WL	Water level, 0% of the v	vertical dimension		00:12:20		(Serv) 0
	MHS8	64.55	MHF	Finish node type, manh	ole reference number: N	/HS8	00:12:24		(Constr) 0

Rilta Environmental Ltd. // Page: 6

STR grade

1

Miscellaneous Featuress

SER peak

0

SER mean

0

SER total

0

SER grade

1

SER no def

0



	Inspection report / Inspection: 1													
Date : 01/03/20	Date : Job number : Weather : Operator : Section number : PLR SUFFIX: 01/03/2017 no rain or snow Frantisek 6 X													
Weathe no rain or	er snow	V VE	éhicle : HICLE 1	C	amera : amera 1	Preset	:	Cleaned : yes		Operator : Frantisek				
Place : Road : Location	Rath Gran Prop MHS	coole ts Drive erty with I S (D/S) ET	buildings	Location Catchme Tape nu Pipe Len	details: ent: mber : 2802 oth	217_1	U/S U/S D/S D/S	G MH : G Depth : G MH : G Depth :	MHS6 ET					
Use: Year laid : Purpose : Total length :		Surface Routine 0.00 m	water inspection	of condition	g	Pipe shape : Pipe size : Pipe material : Lining :	Circ 225 Pol	cular 5.00 mm yvinyl chloride						
Comment :														
1:50	Positi	on	Code	e Observ	ation			MF	PEG Phot	to Grade				
		0.00				Constructional	Features							
Service Defects						Miscellaneous F	eaturess							
STR no def	STR pea	s S	TR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade				



Rilta Environmental Ltd Greenogue Business Park Street : Rathcoole Tel: 01 4018000 Fax: Email: info@rilta.ie

			Ins	pection report	rt / Inspectio	on: 1			
C 03/0	Date : 03/2017	Job numb	er :	Weather : no rain or snow	Operator : Frantisek	Section nur	mber :	PLR S	SUFFIX: X
We no raii	eather n or snow	Vehicle VEHICLE	: 1	Camera : camera 1	Preset :	Cleaned yes	d :	Ope Fra i	rator : ntisek
Place : Road : Location Inspection	Rati Grai Proj MHS	ncoole nts Drive perty with buildir S5 (U/S) AJ	ıgs	Location details: Catchment: Tape number : 2802 Pipe Length	17_1	U/S MH : U/S Depth : D/S MH : D/S Depth :	AJ MHS5		
Use: Year laid :	:	Surface water	tion of a	andision	Pipe shape : Pipe size :	Circular 150.00 mm	vrido		
Total leng	th :	45.66 m		onation	Lining :	Polyvinyi chic	nde		
Comment	:								
1	:378 Posit	ion	Code	Observation			MPEG	Photo	Grade
M	IHS5								
	\leftarrow	0.00	MH	Start node type, manhole	e, reference number :	MHS5	00:00:00		(Constr) 0
		0.01	WL	Water level, 5% of the ve	ertical dimension		00:00:00		(Serv) 0
		3.76	WL	Water level, 0% of the ve	ertical dimension		00:01:20		(Serv) 0
		9.12	WL	Water level, 10% of the	vertical dimension		00:02:41		(Serv) 0
	-	<u>11.60</u>	WL	Water level, 0% of the ve	ertical dimension		00:03:24		(Serv) 0
		<u>19.55</u>	CN	Connection other than ju 100mm	inction, at 10 o'clock, c	diameter	00:06:01		(Constr) 0
		32.63	CN	Connection other than ju	inction, at 10 o'clock, c	diameter	00:09:41		(Constr) 0
		<u>32.98</u>	WL	Water level, 5% of the ve	ertical dimension		00:10:01		(Serv) 0
		<u>35.95</u>	WL	Water level, 0% of the ve	ertical dimension		00:10:36		(Serv) 0
		<u>39.11</u>	WL	Water level, 5% of the ve	ertical dimension		00:11:38		(Serv) 0
	\mathbf{P}/\mathbf{r}	42.38	WL	Water level, 0% of the ve	ertical dimension		00:12:22		(Serv) 0
	 / / _r	<u>45.10</u>	CN	Connection other than ju 100mm	inction, at 10 o'clock, c	diameter	00:14:16		(Constr) 0
		<u>45.10</u>	OBX	Other obstacles, other ol 65% cross-sectional area	bject in invert, from 6 to a loss Remarks: Poor	o 12 o'clock, workmanshi	00:14:19		(Serv) 5
	$\parallel // $	<u>45.49</u>	CN	Connection other than ju	inction, at 10 o'clock, o	diameter	00:13:29	8_14A	(Constr) 0
=		<u>45.66</u>	WL	Water level, 0% of the ve	ertical dimension		00:14:31		(Serv) 0
	B	<u>45.66</u>	SA	Survey abandoned Rem completed due to a pipe	arks: Survey could not instaled cross whole of	t be diameter of t	00:14:35		(Misc) 0
Structural	Defects				Constructional Features				
STR no de	fects		n	STR total STR grade	Miscellaneous Featuress	neak SER mo	an SER	total	SER grade

Rilta Environmental Ltd. // Page: 8

0.22



Photo: 8_14A, MPEG #: 280217_1, 00:13:29 45.49m, Connection other than junction, at 10 o'clock, diameter 100mm





			Ir	spection	on repoi	rt / Inspe	ection: [•]	1			
	Date : 11/03/201	7	Job number :	W no ra	eather : in or snow	Operator Frantise	r: ek	Section number	:	PLR	SUFFIX:
n	Weather o rain or s	now	Vehicle : VEHICLE 1	Ca	amera : I mera 1	Preset	:	Cleaned : yes		Ope Fra	erator : ntisek
Place Road Loca	e : I : tion ection	Rathcool Grants D Property MHS5 (D/	e 'ive with buildings S) MHS4	Location Catchme Tape nun Pipe Len	details: nt: nber : 2802 gth	17_1	U/S U/S D/S	S MH : S Depth : S MH : S Depth :	MHS5 MHS4		
Use: Year Purp Total	laid : ose : length : ment :	Sur Roi 28.	face water utine inspection c 16 m	f condition		Pipe shape : Pipe size : Pipe material : Lining :	Cir 225 Po	cular 5.00 mm Iyvinyl chloride			
	1:231	Position	Code	Observ	ation			MP	EG	Photo	Grade
	MHS5)	<u>0</u> MH	Start node	e type, manhol	e, reference nu	mber : MHS5	00:	00:02		(Constr) 0
		0.0	<u>1</u> WL	Water lev	el, 0% of the ve	ertical dimensio	n	00:	00:04		(Serv) 0
		0.7	<u>3</u> WL	Water lev	el, 5% of the ve	ertical dimensio	n	00:	00:55		(Serv) 0
		2.6	<u>3</u> CN	Connectio	on other than ju	inction, at 2 o'c	lock, diamete	r 00:0	02:28		(Constr) 0
		4.7	<u>2</u> CN	Connection 100mm	on other than ju	inction, at 10 o	clock, diamet	er 00:	03:33		(Constr) 0
		13.4 16.6 17.2	5 WL 5 CN 2 CN	Water lev Connectio 100mm Connectio 100mm	el, 5% of the ve on other than ju on other than ju	ertical dimension Inction, at 2 o'c	on lock, diamete lock, diamete	00:1 r 00:1 r 00:1	07:03 08:10 08:50		(Serv) 0 (Constr) 0 (Constr) 0
		24.7	<u>5</u> WL <u>6</u> WL	Water lev Water lev	el, 0% of the ve el, 0% of the ve	ertical dimensic ertical dimensic	ิวท วท	00: 00:	10:57 11:45		(Serv) 0 (Serv) 0
	MHS4	28.1	<u>6</u> MHF	Finish noo	de type, manho	ble reference nu	umber: MHS4	00:	11:47		(Constr) 0
Cherry	turol Defect					Construction of	ooture -				
Servi	ce Defects	s				Miscellaneous F	eatures				
STF	no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER	total	SER grade
	v	v		Rilt	a Environmenta	ILtd. // Page:	10				·



Service Defects

STR peak

0

STR no def

0

STR mean

0

STR total

0

Rilta Environmental Ltd Greenogue Business Park Street : Rathcoole Tel: 01 4018000 Fax: Email: info@rilta.ie

			Ins	pection repo	rt / Inspectio	n: 1			
	Date : 22/03/2017	Jol	o number :	Weather : no rain or snow	Operator : Frantisek	Section nur 9	nber :	PLR \$	SUFFIX: X
no	Weather o rain or sno	w VE	/ehicle : E HICLE 1	Camera : camera 1	Preset :	Cleaned yes	:	Ope Fra i	erator : n tisek
Place Road Locat Inspe	: : ion ction	Rathcoole Grants Drive Property with AJ3 (D/S) MHI	buildings F9	Location details: Catchment: Tape number : 280 Pipe Length	217_1	U/S MH : U/S Depth : D/S MH : D/S Depth :	AJ3 MHF9		
Use: Year Purpo Total Comr	laid : ose : length : nent :	Foul Routine 19.71 m	inspection of c	ondition	Pipe shape : Pipe size : Pipe material : Lining :	Circular 100.00 mm Polyvinyl chlo	ride		
	1:168	Position	Code	Observation			MPEG	Photo	Grade
	AJ3	0.00	IC	Start node type, inspect	ion chamber, reference	number :	00:00:02		(Constr) 0
		0.00	WL	Water level, 0% of the v	vertical dimension		00:00:02		(Serv) 0
		0.20	LL	Line deviates left			00:00:02		(Serv) 0
		2.50	CN	Connection other than j	unction, at 9 o'clock, dia	meter	00:00:30		(Constr) 0
		3.20	CN	Connection other than j	unction, at 9 o'clock, dia	meter	00:00:40		(Constr) 0
		5.40	WL	Water level, 5% of the v	ertical dimension		00:01:01		(Serv) 0
《		6.00	DES	Settled deposits, fine, 5	% cross-sectional area	loss	00:01:06		(Serv) 2
8		6.30	WL	Water level, 10% of the	vertical dimension		00:01:11		(Serv) 0
《		6.70	JN	Junction, at 3 o'clock, d	iameter 100mm Remarl	ks: AJ5	00:01:21		(Constr) 0
		7.20	LR	Line deviates right			00:01:48		(Serv) 0
		7.40	WL	Water level, 0% of the v	vertical dimension		00:01:52		(Serv) 0
		8.40	LL	Line deviates left			00:02:07		(Serv) 0
		11.50	CN	Connection other than j 100mm Remarks: Unkn	unction, at 11 o'clock, d own connection	iameter	00:02:32		(Constr) 0
		18.00	WL	Water level, 5% of the v	rertical dimension		00:03:59		(Serv) 0
		19.00	WLC	Clear water level, 15%	of the vertical dimensior	ı	00:04:05		(Serv) 0
	MHEQ	19.70	WL	Water level, 5% of the v	vertical dimension		00:04:12		(Serv) 0
		<u>19.71</u>	MHF	Finish node type, manh	ole reference number: N	/IHF9	00:04:17		(Constr) 0
Struct	ural Defects				Constructional Features				

Rilta Environmental Ltd. // Page: 11

STR grade

1

Miscellaneous Featuress

SER peak

1

SER no def

1

SER mean

0.05

SER grade

2

SER total

1



			l	nspecti	on repo	rt / Insp	ectior	า: 1	2110			
	Date : 22/03/201	7	Job number :	- W no ra	eather : in or snow	Operato Frantis	or: ek	Section r	number : 0		PLR	SUFFIX:
n	Weather o rain or si	now	Vehicle : VEHICLE 1	C	amera : amera 1	Preset	:	Clear n	ned : o		Op Fra	erator : ntisek
Place Road Loca	e : I : tion	Rathcoo Grants Propert	ole Drive y with buildings	Location Catchme Tape nur	details: nt: nber : 2802	217_1		U/S MH : U/S Depth : D/S MH :		US AJ3		
Inspe Use:	ection	AJ3 (U/3	S) US oul	Pipe Len	gth	Pipe shape :		D/S Depth : Circular				
Year Purp Total	laid : ose : length :	R 4.	outine inspection 42 m	of condition		Pipe size : Pipe material : Lining :		100.00 mm Polyvinyl cl	hloride			
Com	ment :											
	1:50	Position	Cod	e Observ	ation				MP	EG	Photo	Grade
	AJ3)										
	\mathbf{H}	0.	<u>00</u> IC	Start nod AJ3	e type, inspecti	ion chamber, r	eference r	number :	00:0	00:00		(Constr) 0
		0.	<u>01</u> WL	. Water lev	el, 0% of the v	ertical dimensi	on		00:0	00:00		(Serv) 0
		2.	<u>60</u> CN	Connecti 100mm F	on other than ju emarks: From	unction, at 11 c sink	o'clock, dia	meter	00:C	00:39		(Constr) 0
		3.	<u>50</u> CN	Connection	on other than ju emarks: Conn	unction, at 3 o'd	clock, dian	neter right hand	00:0	0:33		(Constr) 0
		3.	<u>60</u> DES	S Settled de	eposits, fine, 15	5% cross-section	onal area l	loss	00:0	0:35	10_5A	(Serv) 3
		4.	<u>40</u> LU	Line devi	ates up				00:0	0:51		(Serv) 0
	US	4.	<u>41</u> WL	Water lev	el, 0% of the v	ertical dimensi	on		00:0	0:51		(Serv) 0
	\bigcirc	4.	<u>42</u> BRF	F Finish no reference	de type, major number: US R	connection wit Remarks: From	hout manh wash mao	nole chine	00:0	0:51		(Constr) 0
Strue	tural Defects	3				Constructional	Features					
Servi	ce Defects		a=-	or		Miscellaneous F	eaturess					
STR	t no def	STR peak	STR mean 0	STR total	STR grade	SER no def 1	SER pea	ak SER 1	mean 45	SER	total	SER grade

I Rilta Environmental Ltd. // Page: 12





Photo: 10_5A, MPEG #: 280217_1, 00:00:35 3.6m, Settled deposits, fine, 15% cross-sectional area loss



Rilta Environmental Ltd Greenogue Business Park Street : Rathcoole Tel: 01 4018000 Fax:

ENVIRONMENTAL LIMITE	D 🥓					Email: info@i	rilta.ie	
		Ins	pection repo	rt / Inspectio	n: 1			
Date : 22/03/2017	,	Job number :	Weather : no rain or snow	Operator : Frantisek	Section num	nber :	PLR \$	SUFFIX: X
Weather no rain or sn	ow	Vehicle : VEHICLE 1	Camera : camera 1	Preset :	Cleaned no	: t	Ope Fra i	erator : ntisek
Place : Road : Location Inspection	Rathcoo Grants D Property AJ4 (D/S	ole Drive / with buildings 5) DS	Location details: Catchment: Tape number : 280 Pipe Length	217_1	U/S MH : U/S Depth : D/S MH : D/S Depth :	AJ4 DS		
Use: Year laid : Purpose : Total length :	Fo Rc 1.4	oul outine inspection of c 40 m	ondition	Pipe shape : Pipe size : Pipe material : Lining :	Circular 100.00 mm Polyvinyl chlo	ride		
Comment :								
1:50	Position	Code	Observation			MPEG	Photo	Grade
	0.0 0.0 0.1 1.2 1.2	200 IC 21 WL 10 LL 200 KR 220 VVL 220 SA	Start node type, inspect AJ4 Water level, 0% of the v Line deviates left Line deviates right Water level, 0% of the v Survey abandoned Ren completed due to sharp	tion chamber, reference vertical dimension vertical dimension marks: Survey could not i bends on this pipe.	number : be	00:00:00 00:00:01 00:00:12 00:00:24 00:00:24		(Constr) 0 (Serv) 0 (Serv) 0 (Serv) 0 (Misc) 0

Structural Defec	ts				Constructional	Features			
Service Defects			-		Miscellaneous F	eaturess	_		
STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	0	0	0	1	0	0	0	0	1



			Inspect	ion repo	rt / Inspe	ection:	1			
Date : 22/03/20	17	Job number :	no r	Weather : rain or snow	Operato Frantise	r: 9 k	Section number	:	PLR \$	SUFFIX: X
Weathe no rain or	er snow	Vehicle : VEHICLE 1	(Camera : camera 1	Preset	:	Cleaned : no		Ope Fra	erator : ntisek
Place : Road : Location Inspection	Rathco Grants Proper AJ4 (U	ole Drive ty with buildings 'S) SINK	Location Catchm Tape nu Pipe Le	n details: ient: umber : 2802 ngth	217_1	U/ U/ D/ D/	S MH : S Depth : S MH : S Depth :	SINK AJ4		
Use: Year laid : Purpose : Total length :	F F 3	oul Coutine inspection 52 m	n of condition		Pipe shape : Pipe size : Pipe material : Lining :	Ci 10 Pc	rcular 10.00 mm blyvinyl chloride			
Comment :										
1:50	Position	n Coo	le Obser	vation			MP	PEG F	Photo	Grade
AJ4)0	<u>.00</u> IC	Start noo AJ4	de type, inspect	ion chamber, re	eference num	ber : 00:	00:02		(Constr) 0
	0	. <u>01</u> WI	Water le	vel, 0% of the v	ertical dimensio	on	00:	00:02		(Serv) 0
	3	.50 LL	Line dev	riates up			00:	00:36		(Serv) 0
SINK	3	. <u>51</u> WI	Water le	evel, 0% of the v	ertical dimensio	on	00:	00:36		(Serv) 0
	3	<u>.52</u> BR	F Finish no referenc	ode type, major e number: SINk	connection with	nout manhole	e 00:1	00:36		(Constr) 0
Structural Defec	ts				Constructional F	- eatures				
Service Defects	STR peak	STR mean	STR total	STR grade	Miscellaneous F	eaturess SER peak	SER mean	SER to	tal	SER grade
0	0	0	0	1	0	0_11 peak	0	0		1
			Ri	ilta Environmenta	al Ltd. // Page:	15				



		In	spection rep	ort / Inspe	ection: [•]	1				
Date 22/03/20	17	Job number :	Weather :	Operato	or: ek	Section number :	: PL	R SUFFIX:		
Weath	er	Vehicle :	Camera :	Preset		Cleaned :		Operator :		
no rain or Place : Road : Location Inspection	Rathcool Grants D Property AJ4 (U/S	VEHICLE 1 le rive with buildings) TOILET	camera 1 Location details: Catchment: Tape number : 28 Pipe Length	30217_1	U/S U/S D/S D/S	no 6 MH : 6 Depth : 6 MH : 6 Depth :	TOILET AJ4			
Use: Year laid : Purpose : Total length : Comment :	Fo Ro 7.1	ul utine inspection o 1 m	f condition	Pipe shape : Pipe size : Pipe material : Lining :	Cir 100 Pol	cular).00 mm yvinyl chloride				
1:63	Position	Code	Observation			MP	PEG Phote	o Grade		
AJ4	0.0	<u>0</u> IC <u>1</u> WL	Start node type, inspe AJ4 Water level, 0% of the	ection chamber, re	eference numb	ber: 00:0	00:00 00:00	(Constr) 0 (Serv) 0		
	0.3	<u>0</u> OJM	Open joint, medium			00:0	00:03 13_3	BA (Struct) 1		
	<u>2.5</u> 3.4	<u>0</u> ОЈМ 0 СN	Open joint, medium Connection other than 100mm Remarks: Fro	i junction, at 11 c m Urinals	'clock, diamet	00:0 er 00:0	00:36 13_4 00:57	A (Struct) 1 (Constr) 0		
	4.8	<u>0</u> CN	Connection other thar 100mm Remarks: Fro	n junction, at 11 c m Toilet	o'clock, diamet	er 00:(01:24	(Constr) 0		
	5.5	<u>0</u> LR	Line deviates right			00:0	01:05	(Serv) 0		
TOILE	7.1 7.1	<u>0</u> WL <u>1</u> BRF	Water level, 0% of the Finish node type, maj reference number: SII	e vertical dimension or connection wit NK Remarks: Sin	on hout manhole k beside Lab o	00:(00:(door.	01:26 01:26	(Serv) 0 (Constr) 0		
Structural Defe	cts			Constructional	Features					
Service Detects STR no def	STR peak	STR mean	STR total STR grade	SER no def	SER peak	SER mean	SER total	SER grade		
2	1	0.28	2 1	0	0	0	0	1		
			Rilta Environme	ntal Ltd. // Page:	: 16					





Photo: 13_3A, MPEG #: 280217_1, 00:00:03 0.3m, Open joint, medium



Photo: 13_4A, MPEG #: 280217_1, 00:00:36 2.5m, Open joint, medium



		ļ	Inspecti	on repo	rt / Inspe	ection: [•]	1			
Date : 22/03/20	17	Job number :	M no ra	/eather : iin or snow	Operato Frantise	r: ek	Section number 14	:	PLR S	SUFFIX:
Weathe no rain or	er snow	Vehicle : VEHICLE 1	C c:	amera : amera 1	Preset	:	Cleaned : no	Cleaned : Operator : no Frantisek		
Place : Road : Location Inspection	Rathco Grants Propert MHF2 (ole Drive y with buildings D/S) MHF3	Location Catchme Tape nu Pipe Len	details: ent: mber : 2802 gth	217_1	U/S U/S D/S D/S	S MH : S Depth : S MH : S Depth :	MHF2 MHF3		
Use: Year laid : Purpose : Total length :	F R 2	oul outine inspectior 5.81 m	n of condition		Pipe shape : Pipe size : Pipe material : Lining :	Cir 100 Pol	cular).00 mm lyvinyl chloride			
Comment :										
1:210	Position	Coc	le Observ	ation			MF	PEG I	Photo	Grade
MHF2		00 MF	H Start nod	e tvpe, manhol	e. reference nu	mber : MHF2	00:	00:02		(Constr) 0
		01 WI	Water lev	vel 5% of the v	ertical dimensio		001	00.02		(Serv) 0
	8.	<u>30</u> WL	C Clear wa	ter level, 10% c	of the vertical di	mension	00:	01:25		(Serv) 0
%				·						× ,
	<u> 10</u>	<u>80</u> WI	- Water lev	rel, 5% of the v	ertical dimensio	n	00:	02:32		(Serv) 0 (Serv) 0
MHF	25.	<u>81</u> MH	F Finish no	de type, manho	ole reference n	umber: MHF3	00:	05:23		(Constr) 0
Structural Defect	ts				Constructional F	eatures				
STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER to	otal	SER grade
0	0	0	0	1	0	0	0	0		1
			Ril	ta Environmenta	al Ltd. // Page:	18				



			Ins	pection repo	rt / Inspectio	n: 1			
[22/	Date : /03/2017	Job nur	nber :	Weather : no rain or snow	Operator : Frantisek	Section numb	ber :	PLR S	SUFFIX:
W no rai	/eather in or snow	Vehic VEHIC	cle : LE 1	Camera : camera 1	Preset :	Cleaned : no		Ope Fra	erator : n tisek
Place : Road : Location Inspectior	Rati Gra Pro n MHI	hcoole nts Drive perty with buil F8 (D/S) MHF7	dings	Location details: Catchment: Tape number : 2802 Pipe Length	U/S MH : U/S Depth : D/S MH : D/S Depth :	MHF8 MHF7			
Use: Year laid Purpose : Total leng Comment	: : gth : t :	Foul Routine ins _i 39.51 m	pection of c	ondition	Pipe shape : Pipe size : Pipe material : Lining :	Circular 150.00 mm Polyvinyl chlori	de		
1	1:315 Posit	tion	Code	Observation			MPEG	Photo	Grade
ſ	ИНГВ	0.00	MH	Start node type, manhol	e, reference number : N ertical dimension	/HF8 (00:00:00		(Constr) 0
		5.30	WI	Water level 5% of the v	ertical dimension		0.00.47		(Serv) 0
		7.00	WL	Water level, 10% of the	vertical dimension	(00:01:00		(Serv) 0
%		<u>14.50</u>	WL	Water level, 5% of the v	ertical dimension	(00:01:53		(Serv) 0
%		18.50	WL	Water level, 10% of the	vertical dimension	(00:02:29		(Serv) 0
		19.40	WL	Water level, 5% of the ve	ertical dimension	C	00:02:35		(Serv) 0
		23.20	CN	Connection other than ju 100mm Remarks: Toilet	unction, at 10 o'clock, di from Drum Division.	ameter (00:03:01		(Constr) 0
		23.90	CN	Connection other than ju 100mm Remarks: Toilet	unction, at 10 o'clock, di from Drum Division.	ameter (00:03:07		(Constr) 0
		25.30	CN	Connection other than ju 100mm Remarks: Toilet	unction, at 10 o'clock, di from Drum Division.	ameter (00:03:18		(Constr) 0
		32.60	CN	Connection other than ju 100mm Remarks: Conne	unction, at 11 o'clock, di ection from canteen	ameter (00:04:25		(Constr) 0
		36.40	WL	Water level, 10% of the	vertical dimension	(00:04:56		(Serv) 0
		37.10	WL	Water level, 15% of the	vertical dimension	(00:05:01		(Serv) 0
		<u>39.00</u>	WL	Water level, 10% of the	vertical dimension	(00:05:17		(Serv) 0
		<u>39.50</u>	WL	Water level, 5% of the ve	ertical dimension	(00:05:20		(Serv) 0
N	WHF7	<u>39.51</u>	MHF	Finish node type, manho	ble reference number: N	/HF7 (00:05:20		(Constr) 0
Structural	Defects				Constructional Features				

Structural Defe	cts				Constructional Features							
Service Defects			-		Miscellaneous Featuress							
STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade			
0	0 0 0 0 1 0 0 0 1											
	Rilta Environmental Ltd. // Page: 19											



			I	nspecti	on repo	rt / Inspe	ection:	1			
Date	: 017		Job number :	N no ra	/eather :	Operato	or:	Section number :	:	PLR	SUFFIX:
Weath	ier		Vehicle :		amera :	Preset	:	Cleaned :		Ope	erator :
no rain oi	snow		VEHICLE 1	C	camera 1			no		Fra	ntisek
Place : Road : Location Inspection	Rath Grar Prop MHF	nts Dr nts Dr perty 1 78 (U/S	e ive with buildings S) MHF9	Location Catchme Tape nu Pipe Ler	Location details: U/S MH : Catchment: U/S Depti Tape number : 280217_1 Pipe Length D/S Depti			S MH : S Depth : S MH : S Depth :	MHF9 MHF8		
Use: Year laid : Purpose : Total length :		Fou Rou 58.6	l Itine inspection 1 m	of condition	Pipe shape : Circular Pipe size : 150.00 mm condition Pipe material : Polyvinyl cl Lining : Pipe material : Polyvinyl cl			rcular 0.00 mm Iyvinyl chloride			
Comment :											
1:46	2 Posit	ion	Cod	e Observ	ation			MP	EG	Photo	Grade
MHF	8										
	$\langle -$	0.00	<u>)</u> MH	Start nod	e type, manhol	le, reference nu	umber : MHF8	00:0	00:00		(Constr) 0
	$\backslash $	0.01	WL	Water lev	el, 15% of the	vertical dimens	sion	00:0	00:00		(Serv) 0
		1.90	<u>)</u> WLO	C Clear wa	ter level, 10% o	of the vertical d	imension	00:0	00:24		(Serv) 0
		3.00	<u>)</u> WL	Water lev	vel, 5% of the v	ertical dimension	on	00:0	00:45		(Serv) 0
-		14.10	<u>)</u> WLO	C Clear wa	ter level, 10% o	of the vertical d	imension	00:0	02:04		(Serv) 0
		16.50	<u>)</u> WL	Water lev	el, 5% of the v	ertical dimensi	on	00:0	02:22		(Serv) 0
		18.20	<u>)</u> WL	Water lev	el, 10% of the	vertical dimens	sion	00:0	02:35		(Serv) 0
\$		<u>19.90</u>	<u>)</u> WLO	C Clear wa	ter level, 5% of	the vertical dir	nension	00:0	02:48		(Serv) 0
		29.50	<u>)</u> WLO	C Clear wa	ter level, 10% o	of the vertical d	imension	00:0	04:02		(Serv) 0
		33.30	<u>)</u> WL	. Water lev	vel, 5% of the v	ertical dimensi	on	00:0	04:35		(Serv) 0
		52.20 56.40 58.60 58.61	2 WL 2 WL 2 WL L SA	Water lev Water lev Water lev Survey a complete	rel, 10% of the rel, 5% of the v rel, 5% of the v bandoned Rem d due to a leng	vertical dimensi ertical dimensi ertical dimensi narks: Survey c th of the came	sion on on ould not be ra rod	00:0 00:0 00:0	07:11 07:46 08:10 08:10		(Serv) 0 (Serv) 0 (Serv) 0 (Misc) 0
Structural Defe	cts					Constructional I	Features				
Service Defect STR no def	STR pea	ak	STR mean	STR total	STR grade	Miscellaneous F SER no def	SER peak	SER mean	SER t	otal	SER grade
0	0		0	0	1	0	0	0	0		1



		l	nspecti	on repo	rt / Inspe	ection: ²	1			
Date 22/03/20	017	Job number :	W no ra	/eather : in or snow	Operato Frantise	r: ek	Section number : 17	:	PLR S	SUFFIX:
Weath	er	Vehicle :	C	amera :	Preset	:	Cleaned :		Ope	erator :
Place : Road : Location Inspection	Rathco Grants Propert AJ1 (U/	Drive y with buildings S) TOILET	Location Catchme Tape nu Pipe Len	details: ent: mber : 2802	217_1	U/S U/S D/S D/S	6 MH : 6 Depth : 6 MH : 6 MH : 6 Depth :	TOILET AJ1		ILISER
Use: Year laid : Purpose : Total length :	F R 7	oul outine inspection 51 m	n of condition	condition Pipe shape : Circular Pipe size : 100.00 m Pipe material : Polyviny Lining :			cular).00 mm Iyvinyl chloride			
Comment :										
1:63	Position	Coc	le Observ	ation			MP	PEG P	hoto	Grade
AJ1)	00 IC	Start nod	e tvpe, inspect	ion chamber, re	eference numb	per: 00:	00:03		(Constr) 0
		01 WI	AJ1 Water lev	vel 0% of the v	ertical dimensio	ממ	00:0	00.03		(Serv) 0
	0	60 II	Line devi	ates left			00:0	00.14		(Serv) 0
							00.	00.14		
	1.	<u>60</u> LR	Line devi	ates right			00:0	00:22		(Serv) 0
	1.	<u>61</u> CN	I Connection 100mm	on other than ju	unction, at 12 o	clock, diamete	er 00:0	00:22		(Constr) 0
	3.	<u>90</u> CN	I Connecti 100mm	on other than ju	unction, at 12 o	clock, diamet	er 00:0	00:45		(Constr) 0
0	4.	<u>90</u> CN	I Connection 100mm	on other than ju	unction, at 12 o	clock, diamet	er 00:(00:57		(Constr) 0
TOILE	7. 7. 7.	<u>50</u> LL <u>50</u> WI <u>51</u> BR	Line devi Water lev F Finish no reference	ates up rel, 0% of the v de type, major e number: TOIL	ertical dimensio connection with ET	on hout manhole	00:(00:(00:(01:39 01:39 01:39		(Serv) 0 (Serv) 0 (Constr) 0
Structural Defe					Constructional	Castures				
Service Defects	,ıə 				Miscellaneous F	eaturess				
STR no def 0	STR peak	STR mean 0	STR total	STR grade	SER no def 0	SER peak 0	SER mean 0	SER tot	al	SER grade
			Ril	ta Environmenta	al Ltd. // Page:	21				



		l	nspecti	on repo	rt / Insp	ection: [•]	1			
Date : 22/03/20	17	Job number :	W no ra	eather : in or snow	Operato Frantis	or : ek	Section number 18	:	PLR	SUFFIX: X
Weathe no rain or	er snow	Vehicle : VEHICLE 1	C Ca	Camera : Preset : Clea camera 1			Cleaned : no	leaned : Operator : no Frantisek		
Place : Road : Location Inspection	Rathcool Grants D Property AJ2 (D/S	e rive with buildings) DS	Location Catchme Tape nur Pipe Len	details: nt: nber : 2802 gth	217_1	U/S U/S D/S D/S	S MH : S Depth : S MH : S Depth :	AJ2 DS		
Use: Year laid : Purpose : Total length :	Fo Ro 4.2	ul utine inspection 1 m	of condition		Pipe shape : Pipe size : Pipe material : Lining :	Cir 100 Po	cular D.00 mm Iyvinyl chloride			
1:50	Position	Code	e Observ	ation			MF	ÈG	Photo	Grade
AJ2										
	0.0	<u>0</u> IC	Start nod AJ2	e type, inspecti	ion chamber, r	eference num	ber: 00:	00:02		(Constr) 0
	0.0	<u>1</u> WL	Water lev	el, 0% of the v	ertical dimensi	on	00:	00:02		(Serv) 0
	0.6	<u>o</u> LL	Line devia	ates left			00:	00:09		(Serv) 0
	2.6	<u>0</u> LL	Line devia	ates left			00:	00:31		(Serv) 0
	3.9	<u>0</u> LL	Line devia	ates left			00:	00:42		(Serv) 0
	4.2	<u>0</u> WL	Water lev	el, 0% of the v	ertical dimensi	on	00:	00:44		(Serv) 0
DS	4.2	<u>1</u> BRF	Finish no	de type, major number: DS R	connection wit Remarks: Conn	hout manhole ected to drain	00: from	00:44		(Constr) 0
Structural Defects	ets				Constructional Miscellaneous	Features Featuress				
STR no def	STR peak	STR mean 0	STR total	STR grade	SER no def	SER peak 0	SER mean 0	SER 0	total	SER grade 1



			Ins	pection repo	rt / Inspe	ection:	1			
Date 22/03/2	: 017	Jc	b number :	Weather : no rain or snow	Operato Frantise	r: ek	Section number 19	:	PLR \$	SUFFIX:
Weath no rain or	er snow	v	Vehicle : EHICLE 1	Camera : camera 1	Preset	:	Cleaned : yes		Ope Fra	erator : ntisek
Place : Road : Location Inspection	Rath Gran Prop FIC (coole ts Drive erty with U/S) SUI	n buildings MP	Location details: Catchment: Tape number : 280 Pipe Length	S MH : S Depth : S MH : S Depth :	SUMP FIC				
Use: Year laid : Purpose : Total length :		Foul Routine 2.91 m	e inspection of c	Pipe shape : Circular Pipe size : 150.00 mm Pipe material : Polyvinyl chloride Lining : Polyvinyl chloride						
Comment :										
1:50	Positi	on	Code	Observation			MF	PEG	Photo	Grade
FIC		0.00	OS	Start node type, oil sepa	arator referenc	e number : Fl	C 00'	00:01		(Constr) 0
		0.00					00:	00:01		
		0.01	WLC	Clear water level, 0% of	r the vertical dir	nension	00:	00:01		(Serv) 0
		1.10	OJM	Open joint, meatum			00.	00.27	19_3A	
		2.80	FC	Fracture, circumferentia	II, from 2 to 7 o	clock	00:	00:51	19_4A	(Struct) 3
SUM	P	2.90	WL	Water level, 0% of the v	ertical dimension	on	00:	01:36		(Serv) 0
		2.91	CPF	Finish node type, catch	pit reference nu	mber: SUMP	00:	01:36		(Constr) 0
Structural Defense	cts				Constructional I Miscellaneous F	Features Featuress				
STR no def	STR pea	k	STR mean S	STR total STR grade	SER no def	SER peak	SER mean	SER t	otal	SER grade
2	40		14.09	41 3 Rilta Environment	al Ltd. // Page:	0 23	0	0		1





Photo: 19_3A, MPEG #: 280217_1, 00:00:27 1.1m, Open joint, medium



Photo: 19_4A, MPEG #: 280217_1, 00:00:51 2.8m, Fracture, circumferential, from 2 to 7 o'clock



Rilta Environmental Ltd Greenogue Business Park

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			Ins	pection rep	ort / Ins	pection	: 1		
Date : 22/03/20	17	Jo	b number :	Weather : no rain or snow	Ope Fra	erator : ntisek	Section number 21	:	PLR SUFFIX: X
Weathe no rain or s	er snow	v	Vehicle : EHICLE 1	Camera : camera 1	Pr	eset :	Cleaned : yes		Operator : Frantisek
Place : Road : Location Inspection	Rath Gran Prop G2 (E	coole ts Drive erty with D/S) DS	n buildings	Location details: Catchment: Tape number : 2 Pipe Length	80217_1		U/S MH : U/S Depth : D/S MH : D/S Depth :	G2 DS	
Use: Year laid : Purpose : Total length :		Surfac Routin 9.91 m	e water e inspection of c	ondition	Pipe shape Pipe size : Pipe mater Lining :	ə: ial:	Circular 150.00 mm Polyvinyl chloride		
Comment :									
1:84	Positi	on	Code	Observation			MF	PEG Pho	oto Grade
G2)	0.00	GY	Start node type, gully	v, reference nu	mber : G2	00:	00:02	(Constr) 0
		3.00	WL	Water level, 5% of th	e vertical dime	nsion	00:	00:30	(Serv) 0
		<u>6.10</u>	WL	Water level, 0% of th	e vertical dime	ension	00:	00:52	(Serv) 0
DS		<u>9.90</u> 9.91	LD BRF	Line deviates down Finish node type, ma reference number: D	jor connection S Remarks: C	without manhonnected to dr	00: ole 00: ain from	01:18 01:24	(Serv) 0 (Constr) 0
Structural Defects	ts				Constructio	nal Features			
STR no def	STR pea	k	STR mean	STR total STR grade	SER no de	f SER peak	SER mean	SER total	SER grade
0	0		0	0 1 Rilta Environme	o ental Ltd. // P	0 age: 26	0	0	1



Rilta Environmental Ltd Greenogue Business Park

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				Ins	pection report	rt / Inspectio	n: 1			
22	Date : 2/03/2017		Job	number :	Weather : no rain or snow	Operator : Frantisek	Section num	iber :	PLR	SUFFIX:
۷ no ra	Neather ain or sno	w	V VE	ehicle : HICLE 1	Camera : camera 1	Preset :	Cleaned yes	:	Ope Fra	erator : ntisek
Place : Road : Location Inspectio	n	Ratho Gran Prop MHF	coole ts Drive erty with I 5 (D/S) MH	buildings IF3	Location details: Catchment: Tape number : 2802 Pipe Length	217_1	U/S MH : U/S Depth : D/S MH : D/S Depth :	MHF5 MHF3		
Use: Year laic Purpose Total len Commei	1 : ; ;gth : nt :		Foul Routine 55.51 m	inspection of co	ondition	Pipe shape : Pipe size : Pipe material : Lining :	Circular 150.00 mm Polyvinyl chlor	ride		
	1:350	Positi	on	Code	Observation			MPEG	Photo	Grade
		_	0.00	MH	Start node type, manhol	e, reference number : I	MHF5	00:00:02		(Constr) 0
(MHF5	/_	0.01	WL	Water level, 0% of the v	ertical dimension		00:00:02		(Serv) 0
	\square		3.20	WLC	Clear water level, 5% of	the vertical dimension		00:00:35		(Serv) 0
		/	3.20	DES	Settled deposits, fine, 5°	% cross-sectional area	loss	00:00:35		(Serv) 2
			5.90	WLC	Clear water level, 0% of	the vertical dimension		00:01:01		(Serv) 0
			7.00	WL	Water level, 5% of the v	ertical dimension		00:01:10		(Serv) 0
		$\overline{}$	8.20	WL	Water level, 0% of the v	ertical dimension		00:01:22		(Serv) 0
		1	<u>12.90</u>	WL	Water level, 5% of the v	ertical dimension		00:02:01		(Serv) 0
///		1	<u>13.70</u>	WL	Water level, 10% of the	vertical dimension		00:02:09		(Serv) 0
\$ \$			<u>14.70</u>	DES	Settled deposits, fine, 5°	% cross-sectional area	loss	00:02:19		(Serv) 2
		2	<u>23.30</u>	WL	Water level, 5% of the v	ertical dimension		00:03:28		(Serv) 0
		/ 2	<u>24.00</u>	WL	Water level, 0% of the v	ertical dimension		00:03:34		(Serv) 0
V		2	<u>25.10</u>	WL	Water level, 5% of the v	ertical dimension		00:03:42		(Serv) 0
		2	<u>25.70</u>	WL	Water level, 10% of the	vertical dimension		00:03:47		(Serv) 0
		2	27.80	WL	Water level, 5% of the v	ertical dimension		00:04:03		(Serv) 0
		2	<u>29.20</u>	WL	Water level, 10% of the	vertical dimension		00:04:14		(Serv) 0
		2	<u>29.70</u>	WL	Water level, 15% of the	vertical dimension		00:04:17		(Serv) 0
			<u>34.40</u>	WL	Water level, 10% of the	vertical dimension		00:04:57		(Serv) 0
			<u>35.20</u>	WLC	Clear water level, 5% of	the vertical dimension		00:05:04		(Serv) 0
		2	<u>37.60</u>	WL	Water level, 0% of the v	ertical dimension		00:05:24		(Serv) 0
			<u>43.30</u>	WL	Water level, 5% of the v	ertical dimension		00:06:08		(Serv) 0



Inspection Report / Inspection: 1

		111,	spection repu	nt / mspection		
Date : 22/03/2017		Job number :	Weather : no rain or snow	Operator : Frantisek	Section number : 23	PLR : X
Weather no rain or sno	w	Vehicle : VEHICLE 1	Camera : camera 1	Preset :	Cleaned : yes	Grade:
1:350	Position	Code	Observation		MPEG	Photo Grade
	44.1	<u>10</u> WL	Water level, 0% of the v	vertical dimension	00:06:16	(Serv) 0
	49.	7 <u>0</u> WL	Water level, 5% of the v	vertical dimension	00:07:00	(Serv) 0
	55.	5 <u>0</u> WL	Water level, 0% of the v	vertical dimension	00:07:51	(Serv) 0
(MHF3)	55.	5 <u>1</u> MHF	Finish node type, manh	ole reference number: MH	IF3 00:07:51	(Constr) 0

Structural Defect	ts				Constructional Features					
Service Defects					Miscellaneous Featuress					
STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade	
0	0	0	0	1	2	1	0.04	2	2	



			li li	nspection	on repo	rt / Inspe	ection:	1			
Date 22/03/2	:	PLR	SUFFIX:								
Weath	er		Vehicle :	C	amera :	Preset	:	Cleaned :		Op	erator :
no rain or	snow		VEHICLE 1	ca	imera 1			yes		Fra	ntisek
Place : Road :	Rath Gran	coole ts Dri	ve	Location Catchme	details: nt:		U/S U/S	S MH : S Depth :	MHF6		
Location	Prop	erty v	vith buildings	Tape nun	nber : 2802	17_1	D/S	S MH :	MHF5		
Use:		Foul) IVIEFO	Pipe Len	gm	Pipe shape :	Cir	cular			
Year laid :		Rou	tine inspection	of condition		Pipe size : Pipe material :	150 Po	0.00 mm hwinyl chloride			
Total length :		17.8	1 m			Lining :		ly villy i chioride			
Comment :											
1:14	7 Positi	on	Code	e Observa	ation			MF	EG	Photo	Grade
	-)										
	·	0.00	MH	Start node	e type, manhol	e, reference nu	umber : MHF5	00:	00:02		(Constr) 0
		0.01	WL	Water lev	el, 5% of the v	ertical dimensi	on	00:	00:02		(Serv) 0
		5 20	VV/I	Water lev	el 10% of the	vertical dimensi	sion	00-	00.40		(Sep)) 0
		0.20		Water lev				00.	00.40		
		6.70	WL	Water lev	el, 5% of the v	ertical dimensi	on	00:	01:10		(Serv) 0
	<u> </u>	8.40	WL	Water lev	el, 0% of the ve	ertical dimensi	on	00:	01:31		(Serv) 0
		8.50	CN	Connection 100mm R	on other than ju emarks: From	inction, at 10 c toilets	'clock, diamet	er 00:	01:30		(Constr) 0
MHF	6	<u>17.80</u> 17.81	. WL . MHF	Water lev	el, 0% of the vo	ertical dimensi	on umber: MHF6	00: 00:	03:46 03:46		(Serv) 0 (Constr) 0
Structural Defe	cts					Constructional	Features				
STR no def	STR pea	k	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER	total	SER grade
0	0		0	0	1	0	0	0	C)	1

Rilta Environmental Ltd. // Page: 30



			Ins	spection repo	ort / Inspe	ection:	1			
Date : 22/03/20	17	Job	number :	Weather : no rain or snow	Operato Frantise	r: ek	Section number 25	:	PLR	SUFFIX: X
Weathe no rain or	er snow	۷ ۷	ehicle : HICLE 1	Camera : camera 1	Preset	:	Cleaned : yes		Ope Fra	erator : ntisek
Place : Road : Location Inspection	Rathc Grant Prope MH5 (oole s Drive erty with k U/S) VAL	ouildings VE	Location details: Catchment: Tape number : 280 Pipe Length	0217_1	U/ U/ D/	S MH : S Depth : S MH : S Depth :	VALVE MH5		
Use: Year laid : Purpose : Total length :		Foul Routine i 3.01 m	inspection of c	ondition	Pipe shape : Pipe size : Pipe material : Lining :	Ci 15 Pc	rcular 0.00 mm olyvinyl chloride			
Comment .										
1:50	Positio	on	Code	Observation			MF	EG	Photo	Grade
MH5		0.00	МН	Start node type, manho	ble. reference nu	ımber : MH5	00:	00:03		(Constr) 0
		<u>0.01</u>	WL	Water level, 0% of the	vertical dimensio	on	00:	00:03		(Serv) 0
	E	<u>3.00</u>	WL	Water level, 0% of the	vertical dimensio	on 	00:	00:37		(Serv) 0
VALV		<u>3.01</u>	BRF	Finish node type, majo reference number: VAI	r connection with	hout manhole	• OO:	00:37		(Constr) 0
Structural Defects	:ts				Constructional F Miscellaneous F	Features Teaturess				
STR no def	STR peak	ST	R mean	STR total STR grade	SER no def	SER peak	SER mean	SER	total	SER grade
U	U		v	Rilta Environmen	tal Ltd. // Page:	31		I	-	1



			Inspecti	on repo	rt / Inspe	ection:	1			
Date : 22/03/20	17	Job number :	M no ra	/eather : ain or snow	Operato Frantise	r: ek	Section number 26	:	PLR \$	SUFFIX:
Weathe	er	Vehicle :	C	amera :	Preset	:	Cleaned :		Ope	erator :
Place : Road : Location Inspection	Rathc Grants Prope MHF1	oole s Drive rty with buildings (U/S) AJ1	Location Catchme Tape nu Pipe Ler	details: ent: mber : 280 gth	217_1	U/ U/ D/ D/	S MH : S Depth : S MH : S Depth : S Depth :	AJ1 MHF1		ntisek
Use: Year laid : Purpose : Total length :		Foul Routine inspectic 3.11 m	n of condition		Pipe shape : Pipe size : Pipe material : Lining :	Ci 15 Po	rcular i0.00 mm blyvinyl chloride			
Comment :										
1:50	Positic	on Co	de Observ	ation			MF	РЕG	Photo	Grade
MHF1	I)									
		<u>0.00</u> M	H Start nod	e type, manho	le, reference nu	imber : MHF	1 00:	00:02		(Constr) 0
		<u>0.01</u> W	L Water lev	vel, 5% of the v	vertical dimensio	on	00:	00:02		(Serv) 0
		<u>0.30</u> SC	C Shape ch	anges to circu	ılar, 100mm higi	h	00:	00:00		0
		<u>0.40</u> Wi		lei level, 0 % 0			00.	00.13		
		3.10 WI	.C Clear wa	ter level. 0% o	f the vertical din	nension	00:	00:39		(Serv) 0
AJ1		3.11 IC	F Finish no	de type, inspe	ction chamber r	eference nur	nber: 00:	00:39		(Constr) 0
			AJ1							() -
Structural Defec	ts				Constructional F	eatures				
Service Defects STR no def	STR peak	STR mean	STR total	STR grade	Miscellaneous F SER no def	eaturess SER peak	SER mean	SER	total	SER grade
0	0	0	0	1 ta Environment	0 al Ltd. // Page:	0	0	()	1



			Inspecti	on repo	rt / Inspe	ection:	1			
Date : 22/03/20	17	Job number :	۷۷ no ra	/eather : in or snow	Operato Frantise	r: ek	Section number : 27		PLR S	SUFFIX: X
Weathe no rain or	er snow	Vehicle : VEHICLE 1	C C	amera : amera 1	Preset	:	Cleaned : yes		Ope Frar	rator : I tisek
Place : Road : Location Inspection	Rathco Grants Proper MHS1	oole 5 Drive rty with buildings (D/S) DS	Location Catchme Tape nu Pipe Len	details: nt: nber : 280 gth	217_1	U/S U/S D/S D/S	S MH : S Depth : S MH : S Depth :	MHS1 DS		
Use: Year laid : Purpose : Total length :	5 	Surface water Routine inspection 3.01 m	n of condition		Pipe shape : Pipe size : Pipe material : Lining :	Cir 150 Po	cular 0.00 mm Iyvinyl chloride			
1:84	Positio	n Coo	le Observ	ation			MP	EG Ph	oto	Grade
	X									
MHS1) <u>.00</u> Mł	I Start nod	e type, manho	le, reference nu	ımber : MHS1	00:0	00:00		(Constr) 0
) <u>.01</u> WI	Water lev	el, 0% of the v	vertical dimension	on	00:0	00:00		(Serv) 0
) <u>.40</u> RE	M General r	emark Remar	ks: Gate Valve		00:0	00:16		(Misc) 0
	1	1 <u>.50</u> SF	Sealing ri	ng intruding, f	rom 9 to 12 o'clo	ock	00:0	00:47 2	7_4A	(Constr) 1
	4	<u>I.80</u> ₩I	- Water lev	rel, 5% of the v	vertical dimensio	on	00:0	01:41		(Serv) 0
DS		<u>7.99</u> LE <u>3.00</u> Wi 3 <u>.01</u> OS	 Line devi Water lev F Finish no 	ates down rel, 0% of the v de type, oil se	vertical dimension	on e number: D\$	00:(00:(\$ 00:(02:31 02:31 02:31		(Serv) 0 (Serv) 0 (Constr) 0
Structural Defect	ts				Constructional F	- eatures				
STR no def	STR neak	STR mean	STR total	STR grade	Miscellaneous F	SER neak	SER mean	SFR tota		SER grade
1	5	0.62	5	1	0	0 0	0		•	1
			Ril	ta Environment	al Ltd. // Page:	33				



+001 .3m

Photo: 27_4A, MPEG #: 280217_1, 00:00:47 1.5m, Sealing ring intruding, from 9 to 12 o'clock



			Ins	pection repo	rt / Inspectio	on: 1	
	Date : 22/03/2017	Job	o number :	Weather : no rain or snow	Operator : Frantisek	Section number : 28	PLR SUFFIX:
nc	Weather rain or sno	w VE	/ehicle : E HICLE 1	Camera : camera 1	Preset :	Cleaned : yes	Operator : Frantisek
Place Road Locat	: : ion ction	Rathcoole Grants Drive Property with MHF11 (D/S) M	buildings MHF10	Location details: Catchment: Tape number : 280 Pipe Length	217_1	U/S MH : M U/S Depth : D/S MH : M D/S Depth :	HF11 HF10
Use: Year I Purpo Total Comm	aid : ise : length : nent :	Surface Routine 47.81 m	water inspection of c	ondition	Pipe shape : Pipe size : Pipe material : Lining :	Circular 150.00 mm Polyvinyl chloride	
	1:378	Position	Code	Observation		МРЕС	3 Photo Grade
	MHF11	0.00	MH	Start node type, manho	le, reference number : l	MHF11 00:00:	:00 (Constr) 0
	K	0.01	WL	Water level, 5% of the v	vertical dimension	00:00:	00 (Serv) 0
		0.90	WL	Water level, 10% of the	vertical dimension	00:00:	11 (Serv) 0
		4.40	WL	Water level, 5% of the v	vertical dimension	00:00:	35 (Serv) 0
		4.90	WL	Water level, 0% of the v	vertical dimension	00:00:	40 (Serv) 0
		6.10	WL	Water level, 5% of the v	vertical dimension	00:00:	52 (Serv) 0
		9.00	LR	Line deviates right		00:01:	35 (Serv) 0
《《		14.50	WL	Water level, 0% of the v	vertical dimension	00:02:	.12 (Serv) 0
%		16.20	WL	Water level, 5% of the v	vertical dimension	00:02:	25 (Serv) 0
		25.00	WL	Water level, 10% of the	vertical dimension	00:03:	43 (Serv) 0
		26.70	WL	Water level, 5% of the v	ertical dimension	00:03:	56 (Serv) 0
		29.60	WL	Water level, 0% of the v	vertical dimension	00:04:	18 (Serv) 0
		39.60	WLC	Clear water level, 10%	of the vertical dimension	n 00:05:	39 (Serv) 0
		40.30	WL	Water level, 15% of the	vertical dimension	00:05:	46 (Serv) 0
		41.50	WL	Water level, 10% of the	vertical dimension	00:05:	.58 (Serv) 0
		42.30	WL	Water level, 0% of the v	vertical dimension	00:06:	.04 (Serv) 0
		46.50	LD	Line deviates down		00:06:	.36 (Serv) 0
		47.50	LU	Line deviates up		00:06:	.59 (Serv) 0
		47.80	WL	Water level, 0% of the v	vertical dimension	00:00:	.00 (Serv) 0
	K	47.81	MHF	Finish node type, manh	ole reference number: l	MHF10 00:00:	.00 (Constr) 0
	MHF10						
Struct	ural Defects				Constructional Features		

Structural Defec	ts				Constructional Features						
Service Defects					Miscellaneous F	eaturess					
STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade		
0	0	0	0	1	0	0	0	0	1		
			D.14		1141 // B	05					

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			In	spection	on repoi	rt / Inspe	ection: [•]	1			
Dat 22/03/	e : 2017		Job number :	W no rai	eather : i n or snow	Operato Frantise	r: ek	Section number : 29	:	PLR :	SUFFIX: X
Weat no rain o	ther or snov	v	Vehicle : VEHICLE 1	C: ca	amera : mera 1	Preset	:	Cleaned : yes		Ope Fra	erator : ntisek
Place : Road : Location Inspection		Rathcoole Grants Dr Property MHF4 (D/S	e ive with buildings S) MHF10	Location Catchme Tape nun Pipe Leng	details: nt: nber : 2802 gth	17_1	U/S U/S D/S D/S	6 MH : 6 Depth : 6 MH : 6 Depth :	MHF4 MHF10		
Use: Year laid : Purpose : Total length :	:	Fou Rou 18.9	l Itine inspection o 11 m	f condition		Pipe shape : Pipe size : Pipe material : Lining :	Cir 150 Pol	cular).00 mm yvinyl chloride			
Comment :											
1:10	68	Position	Code	Observa	ation			MP	EG	Photo	Grade
МН	F4	0.00) МН	Start node	type manbol	a reference n	mber · MHF4	00.1	00.01		(Constr) 0
	\bigwedge	0.01	<u>,</u> wi	Water lev	el. 0% of the ve	ertical dimensio		00:0	00:01		(Serv) 0
		7.4(<u>)</u> WL	Water lev	el, 5% of the ve	ertical dimensio	'n	00:0	00:53		(Serv) 0
		11.20	<u>)</u> WL	Water lev	el, 10% of the	vertical dimens	ion	00:0	01:19		(Serv) 0
		12.20	<u>)</u> WL	Water lev	el, 5% of the ve	ertical dimensio	n	00:0	01:25		(Serv) 0
		13.30	<u>)</u> WL	Water lev	el, 10% of the v	vertical dimens	ion	00:(01:33		(Serv) 0
	Ļ	18.90	<u>)</u> WL	Water lev	el, 5% of the ve	ertical dimensio	on	00:0	02:09		(Serv) 0
MHF	=10	18.91	<u>I</u> MHF	Finish noo	de type, manho	ole reference n	umber: MHF1	0 00:0	02:09		(Constr) 0
Structural Def	fects					Constructional F	eatures eaturess				
STR no def	5	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER t	otal	SER grade
0		0	0	0 Rilt	1 a Environmenta	0 I Ltd. // Page:	0	0	0		1



		I	nspecti	on repo	rt / Inspe	ection: 1	1		
Date : 22/03/20	17	Job number :	W no ra	eather : in or snow	Operator Frantise	r: •k	Section number : 30	F	PLR SUFFIX:
Weathe no rain or s	r snow	Vehicle : VEHICLE 1	C. Ca	amera : amera 1	Preset		Cleaned : yes		Operator : Frantisek
Place : Road : Location Inspection	Rathcoo Grants I Propert MHF4 (U	ble Drive y with buildings J/S) MHF3	Location Catchme Tape nur Pipe Len	details: nt: nber : 2802 gth	217_1	U/S U/S D/S D/S	MH : Depth : MH : Depth :	MHF3 MHF4	
Use: Year laid : Purpose : Total length : Comment :	Fe Ri 13	oul outine inspection 3.51 m	of condition		Pipe shape : Pipe size : Pipe material : Lining :	Ciro 150 Pol	cular 0.00 mm yvinyl chloride		
4.400	Desition	Cad	Ohaamu	-41			MD		ta Orada
1:126	Position	Cod	e Observ	ation			MP	EG Pho	oto Grade
MHF4		00 MH	Start pad		o roforonco nu	mbor · MHE4	00.0	00.02	(Constr) 0
\square	0.	01 WI	Water lev	el 0% of the v	e, reference nu		00:0	0.02	
	3.	<u>10</u> WL	Water lev	el, 5% of the v	ertical dimensic	'n	00:0	00:38	(Serv) 0
MHF3	<u>13.</u> 13.	<u>50</u> WL 51 MHF	Water lev Finish nor	el, 5% of the v de type, manho	ertical dimensic	on umber: MHF3	00:0 00:0	02:55	(Serv) 0 (Constr) 0
Structural Defec	ts				Constructional F Miscellaneous F	eatures eaturess			
STR no def 0	STR peak	STR mean 0	STR total	STR grade	SER no def 0	SER peak 0	SER mean 0	SER total	SER grade
~	v	Ĭ	Rilt	a Environmenta	al Ltd. // Page:	37	· · ·	, ,	·



			Ins	pection rep	ort / In	spe	ction: 1	l			
Date 22/03/2	: 017	Job number	:	Weather : no rain or snow	O F	perator : rantisek		Section number : 31	:	PLR	SUFFIX: X
Weath no rain or	er snow	Vehicle : VEHICLE 1	l	Camera : camera 1	I	Preset :		Cleaned : yes		Ope Fra	erator : ntisek
Place : Road : Location Inspection	Rathco Grants Proper MHF4	oole 5 Drive rty with building (U/S) MHF7	s	Location details: Catchment: Tape number : 2 Pipe Length	80217_1		U/S U/S D/S D/S	MH : Depth : MH : Depth :	MHF7 MHF4		
Use: Year laid : Purpose : Total length :		Foul Routine inspect 8.21 m	ion of co	ndition	Pipe sha Pipe size Pipe ma Lining :	pe : e : terial :	Circ 150 Poly	cular .00 mm yvinyl chloride			
Comment :											
1:84	Positio	n C	ode	Observation				MP	EG	Photo	Grade
MHF	4)										
		<u>).00</u> N	NH S	Start node type, man	hole, referer	nce num	ber : MHF4	00:0	00:02		(Constr) 0
).0 <u>1</u> \	NL V	Nater level, 10% of th	he vertical d	imensio	n	00:(00:00		(Serv) 0
	2	2 <u>.00</u> \	NL V	Nater level, 15% of the	he vertical d	imensio	n	00:0	00:19		(Serv) 0
	3	<u>3.60</u> W	/LC (Clear water level, 109	% of the vert	ical dim	ension	00:(00:30		(Serv) 0
MHF	7 8	<u>3.20</u> N 3.21 M	WL N	Water level, 0% of the ≂inish node type, ma	e vertical dir nhole refere	nension nce nun	nber: MHF7	00:0 00:0	01:03 01:03		(Serv) 0 (Constr) 0
Structural Defe	cts				Construc	tional Fea	atures				
STP no dof	S OTP pool	STD more			Miscellar	eous Fea	SER pock	SED moon	0ED	total	SER grade
0	0	0		OO I	0 SEK 10		0				1
				Rilta Environme	ental Ltd. //	Page: 3	8				



			I	nspecti	on repo	rt / Insp	ection:	1			
Da 22/03	ate : 3/2017		Job number :	W no ra	eather : in or snow	Operato Frantis	or: ek	Section number 32	:	PLR SUFFIX:	
Wea no rain	ather or sno	w	Vehicle : VEHICLE 1	C	amera : I mera 1	Preset	:	Cleaned : yes		Operator : Frantisek	
Place : Road : Location Inspection		Rathcook Grants Dr Property MHF11 (U	e rive with buildings I/S) US1	Location Catchme Tape nur Pipe Len	details: nt: nber : 2802 gth	217_1	U/ U/ D/ D/	S MH : S Depth : S MH : S Depth :	US1 MHF11		
Use: Year laid : Purpose : Total length Comment :	ו :	Fou Roi 52.0	II utine inspection 61 m	of condition		Pipe shape : Pipe size : Pipe material : Lining :	Ci 15 Pc	rcular 0.00 mm Ilyvinyl chloride			
1:	420	Position	Code	e Observ	ation			MF	PEG Pr	noto Grad	le
МН	IF11	0.00	2 MH 1 WL 2 LL	Start node Water lev Line devia	e type, manhol el, 0% of the v ates left	e, reference ni ertical dimensi	umber : MHF1 on	1 00: 00: 00:	00:01 00:01 00:05	(Cons (Sen (Sen	str) 0 v) 0 v) 0
-		<u>2.6</u>	<u>)</u> VVL	Water lev	el, 5% of the v	ertical dimensi	on	00:	00:28	(Serv	√) O
		8.4	<u>)</u> WL	Water lev	el, 0% of the v	ertical dimensi	on	00:	04:28	(Serv	v) 0
-		12.20	<u>0</u> WL	Water lev	el, 5% of the v	ertical dimensi	on	00:	01:36	(Serv	v) 0
		32.00	<u>)</u> WLC	C Clear wat	er level, 0% of	the vertical dir	nension	00:	03:47	(Serv	v) 0
-		36.7	<u>)</u> WL	Water lev	el, 5% of the v	ertical dimensi	on	00:	04:25	(Serv	v) 0
		37.60	<u>)</u> WLC	C Clear wat	er level, 10% c	of the vertical d	imension	00:	04:36	(Serv	v) 0
		39.50	<u>)</u> WL	Water lev	el, 15% of the	vertical dimens	sion	00:	05:03	(Serv	v) 0
		39.50	<u>o</u> WL	Water lev	el, 20% of the	vertical dimens	sion	00:	05:09	(Serv	v) 0
		42.00	<u>o</u> WL	Water lev	el, 25% of the	vertical dimens	sion	00:	05:33	(Serv	v) 0
		42.00	<u>o</u> CUV	V Loss of vi	sion, camera u	Inder water		00:	05:33	(Misc	c) 0
		52.60	<u>o</u> wlo	C Clear wat	er level, 25% c	of the vertical d	imension	00:	07:33	(Serv	v) 0
		52.6	<u>1</u> SA	Survey al complete	pandoned Rem d due to length	narks: Suurvey of this pipe.	could not be			(Miso	c) 0
Structural D	efects					Constructional	Features				
Service Defe	ects	CTD non	OTD marrie	CTD total	OTD and -	Miscellaneous I	eaturess	0ED		050	rode
		0	0	0	1		0	0		, ЗЕК <u>g</u> 1	aue

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			I	nspecti	on repo	rt / Insp	ection:	1		
2	Date : 22/03/201	7	Job number :	W no ra	'eather : in or snow	Operato Frantis	or : ek	Section number : 33	PLI	R SUFFIX:
no	Weather rain or s	now	Vehicle : VEHICLE 1	C Ca	amera : amera 1	Preset	:	Cleaned : yes	C F	perator : rantisek
Place : Road : Locatic Inspect	on tion	Rathcool Grants D Property MHF11 (U	e rive with buildings J/S) US2	Location Catchme Tape nur Pipe Len	details: nt: nber : 2802 gth	217_1	U/S U/S D/S D/S	S MH : S Depth : S MH : S Depth :	US2 MHF11	
Use: Year la Purpos Total le	iid : se : ength :	Fo Ro 58.	ul utine inspection 51 m	of condition		Pipe shape : Pipe size : Pipe material : Lining :	Cir 150 Po	cular 0.00 mm Iyvinyl chloride		
	1:462	Position	Cod	e Observ	ation			MP	EG Photo	> Grade
		١								
		0.0	<u>0</u> MH	Start nod	e type, manhol	e, reference nu	umber : MHF1	1 00:0	00:02	(Constr) 0
		0.0	<u>1</u> WL	. Water lev	el, 0% of the v	ertical dimensi	on	00:0	00:02	(Serv) 0
		4.4	<u>0</u> WL	. Water lev	el, 5% of the v	ertical dimensi	on	00:0	00:49	(Serv) 0
		10.9	<u>o</u> WL	. Water lev	el, 10% of the	vertical dimens	sion	00:0	01:28	(Serv) 0
		16.3	<u>o</u> WL	. Water lev	el, 15% of the	vertical dimens	sion	00:0)2:12	(Serv) 0
		18.0	<u>o</u> WL	. Water lev	el, 5% of the v	ertical dimensi	on	00:0	02:32	(Serv) 0
		20.8	<u>o</u> WL	. Water lev	el, 10% of the	vertical dimens	sion	00:0	02:47	(Serv) 0
*		24.6	<u>o</u> wl	. Water lev	el, 0% of the v	ertical dimensi	on	00:0	03:16	(Serv) 0
		33.0	<u>0</u> WL	. Water lev	el, 5% of the v	ertical dimensi	on	00:0	04:14	(Serv) 0
		37.6	<u>o</u> wLo	C Clear wat	er level, 10% c	of the vertical d	imension	00:0	04:44	(Serv) 0
		39.8	<u>o</u> WL	. Water lev	el, 5% of the v	ertical dimensi	on	00:0	05:02	(Serv) 0
		45.1	<u>o</u> WL	. Water lev	el, 10% of the	vertical dimens	sion	00:0	05:34	(Serv) 0
		46.1	<u>o</u> wLo	C Clear wat	er level, 20% o	of the vertical d	imension	00:0	05:43	(Serv) 0
		46.4	<u>o</u> CUV	V Loss of vi	sion, camera ι	inder water		00:0	05:49	(Misc) 0
		58.5	<u>o</u> wLo	C Clear wat	er level, 25% o	of the vertical d	imension	00:0	06:36	(Serv) 0
		58.5	<u>1</u> SA	Survey al complete	bandoned Rem d due to length	narks: Survey o of this pipe.	ould not be	00:0	06:36	(Misc) 0
Structu	ral Defects	5				Constructional	Features			
STR n	o def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0		0	0	0	1	0	0	0	0	1

I Rilta Environmental Ltd. // Page: 40



				Ins	spection repo	rt / Inspectior	n: 1			
2	Date : 22/03/2017		Job nu	mber :	Weather : no rain or snow	Operator : Frantisek	Section nun 34	nber :	PLR	SUFFIX: X
no	Weather rain or sn	ow	Vehi VEHIC	cle : CLE 1	Camera : camera 1	Preset :	Cleanec yes	1:	Ope Fra	erator : ntisek
Place : Road : Locatio	on tion	Rathc Grants Prope RE (D	oole s Drive rty with bui /S) MHF11	ldings	Location details: Catchment: Tape number : 2802 Pipe Length	217_1	U/S MH : U/S Depth : D/S MH : D/S Depth :	RE MHF1 [,]	1	
Use: Year la Purpos Total le Comme	id : ee : ength : ent :		Foul Routine ins 55.81 m	pection of c	ondition	Pipe shape : Pipe size : Pipe material : Lining :	Circular 150.00 mm Polyvinyl chlo	ride		
	1:450	Positio	on	Code	Observation			MPEG	Photo	Grade
			0.00	RE	Start node type, rodding	g eye, reference number :	RE	00:06:36		(Constr) 0
	RE		<u>0.01</u>	WL	Water level, 0% of the v	ertical dimension		00:00:00		(Serv) 0
	\bigvee		2.80	WL	Water level, 5% of the v	ertical dimension		00:00:28		(Serv) 0
			<u>1.80</u>	WL	Water level, 0% of the v	ertical dimension		00:01:38		(Serv) 0
		1.	<u>4.80</u>	WL	Water level, 5% of the v	ertical dimension		00:01:58		(Serv) 0
		<u>1</u>	7.70	LR	Line deviates right			00:02:24		(Serv) 0
		11	<u>8.60</u>	LL	Line deviates left			00:02:23		(Serv) 0
		1	<u>9.30</u>	LL	Line deviates left			00:02:29		(Serv) 0
%		2	0.00	LR	Line deviates right			00:02:35		(Serv) 0
		2	0.00	WL	Water level, 0% of the v	ertical dimension		00:02:35		(Serv) 0
%		2	<u>5.00</u>	WL	Water level, 5% of the v	ertical dimension		00:03:06		(Serv) 0
		2	<u>6.00</u>	WL	Water level, 10% of the	vertical dimension		00:03:11		(Serv) 0
		3	<u>0.50</u>	WLC	Clear water level, 15% of	of the vertical dimension		00:04:02		(Serv) 0
		3	<u>3.60</u>	WL	Water level, 5% of the v	ertical dimension		00:04:45		(Serv) 0
		3	<u>5.50</u>	WL	Water level, 0% of the v	ertical dimension		00:05:03		(Serv) 0
		4	<u>0.90</u>	WL	Water level, 5% of the v	ertical dimension		00:05:44		(Serv) 0
		43	<u>3.20</u>	WL	Water level, 10% of the	vertical dimension		00:06:08		(Serv) 0
		4	<u>6.80</u>	WL	Water level, 15% of the	vertical dimension		00:06:03		(Serv) 0
		4	<u>8.10</u>	WL	Water level, 20% of the	vertical dimension		00:06:21		(Serv) 0
		4	9.20	CUW	Loss of vision, camera u	under water		00:06:36		(Misc) 0
		5,	<u>4.50</u>	WL	Water level, 10% of the	vertical dimension		00:07:05		(Serv) 0



			l	nspecti	on Repo	ort / Insp	ection:	1			
Date : 22/03/20	17		Job number :	V no ra	Weather : ain or snow	Operato Frantiso	or: ek	Section number 34	:	PL	.R : X
Weather no rain or s	er snow		Vehicle : VEHICLE 1	(c	Camera : camera 1	Preset	:	Cleaned : yes		Gra	ade:
1:450	Posit	tion	Cod	e Observ	vation			М	PEG	Photo	Grade
🌒 💻		55.80	WL	Water le	vel, 5% of the	vertical dimension	on	00:	00:00		(Serv) 0
		<u>55.80</u>	WL SA	Water let	vel, 5% of the v abandoned Rer ed due to lengt	vertical dimension	on could not be urvey is going	00: to be	00:00		(Serv) 0 (Misc) 0
Structural Defec	ts					Constructional I	Features				
STP no dof	QTD po	ak I	STP moon	STP total	STP grode	Miscellaneous F	Featuress	SED moon	SED 14	tal	SED grada
0	51R pe 0	ак	0	0	STR grade	SER no det	SER peak	0	SER to	nai	ਤ⊨ਲ grade 1
				Ri	Ita Environment	tal Ltd. // Page:	42		•	I	



Due: Job varies: Weather: Operator: Statum unchar: PL SUFFX: 2825/2017 Job varies: Camora: Practice: Statum unchar: Practice: US NH1: US Proce: Grants Drive Location defail: US NH1: US Dotter: Practice: DS NH1: US Location defail: Tape nunchar: 280217_1 DS NH1: US DS NH1: US Location defail: Tape nunchar: 280217_1 DS NH1: US DS NH1: <th></th> <th></th> <th></th> <th>Ir</th> <th>nspecti</th> <th>on repo</th> <th>ort / Inspe</th> <th>ection:</th> <th>: 1</th> <th></th> <th></th> <th></th>				Ir	nspecti	on repo	ort / Inspe	ection:	: 1			
Wather no rain or show Vehicle: Commer: Preset: Cleaned i: Operative: Place : Read: Grants Drive Grants Drive Read: Location details: Cation entrie: Location details: Cation entrie: US MF:: US Depin: Displace US US Depin: Displace US US Depin: Displace US US Depin: Displace Vehicle: Vehicle:<	Date 22/03/2	: 017		Job number :	W no ra	/eather : ain or snow	Operato Frantis	r: ek	Section numb 35	er:	PLR	SUFFIX:
Discoverse Returned Location Location Location Location US Mile Mile <thmile< th=""> Mile Mile<td>Weath</td><td>er</td><td></td><td>Vehicle :</td><td>C</td><td>amera :</td><td>Preset</td><td>:</td><td>Cleaned :</td><td></td><td>Ope</td><td>erator : ntisek</td></thmile<>	Weath	er		Vehicle :	C	amera :	Preset	:	Cleaned :		Ope	erator : ntisek
Use: Poul Provide Provide Provide Provide Circular Provide State	Place : Road : Location	Rath Grai Prop RE (ncoole nts Dri perty w	ve /ith buildings S	Location Catchme Tape nur Pipe Len	details: ent: mber : 28(adh)217_1		J/S MH : J/S Depth : D/S MH : D/S Depth :	US RE		
T:50 Position Code Observation MPES Photo Grade RE 0.00 RE Start node type, rodding eye, reference number : RE 00:00:02 (Const) 0 0.00 VL Water level, 0% of the vertical dimension 00:00:02 (Serv) 0 1.20 VL Water level, 0% of the vertical dimension 00:00:05 (Serv) 0 1.20 VL Water level, 0% of the vertical dimension 00:00:01 (Serv) 0 2.10 LU Line deviates up 00:00:19 (Serv) 0 0 2.50 WLC Clear water level, 0% of the vertical dimension 00:00:40 (Serv) 0 0 2.50 WLC Clear water level, 0% of the vertical dimension 00:00:40 (Const) 0 0 2.51 BRF Finish node type, major connection without manhole 00:00:40 (Const) 0 vertice befores Constructional Features Service before Service before 0 0 0 0 0 0 0	Use: Year laid : Purpose : Total length :		Foul Rout 2.51	tine inspection o	of condition		Pipe shape : Pipe size : Pipe material : Lining :	(1 F	Circular 150.00 mm Polyvinyl chlorid	le		
RE Start node type, rodding eye, reference number : RE 00:00:02 (Constr) 0 0.00 WL Water level, 0% of the vertical dimension 00:00:05 (Serv) 0 0.30 WL Water level, 5% of the vertical dimension 00:00:05 (Serv) 0 1.20 WL Water level, 0% of the vertical dimension 00:00:10 (Serv) 0 2.10 LU Line deviates up 00:00:19 (Serv) 0 0 2.50 WLC Clear water level, 0% of the vertical dimension 00:00:40 (Serv) 0 0 2.51 BRF Finish node type, major connection without manhole 00:00:40 (Constr) 0 0 0.51 BRF Finish node type, major connection without manhole 00:00:40 (Constr) 0 visco block WILP WILP 0:0:0:40 (Constr) 0	1:50	Posit	ion	Code	Observ	ation			r	MPEG	Photo	Grade
Structural Defects Constructional Features Structural Defects Strip peak Strip meak Strip peak Stripeak Strip peak Strip peak Stripeak Strip peak Stri	RE		0.00	RE	Start nod	e type, roddin	g eve, reference	e number : R	RE 0	0:00:02		(Constr) 0
Structural Detects Constructional Features Structural Detects Strip roads Strip road Strip roads Original Strip roads Strip roads Strip roads Strip roads O 0 O 0			0.00	WL	Water lev	vel. 0% of the	vertical dimension	on	0	0:00:02		(Serv) 0
1.20 WL Water level, 0% of the vertical dimension 00:00:10 (Serv) 0 2.10 LU Line deviates up 00:00:19 (Serv) 0 0.00 2.50 WLC Clear water level, 0% of the vertical dimension 00:00:40 (Serv) 0 0.00 2.51 BRF Finish node type, major connection without manhole 00:00:40 (Constr) 0 reference number: US Remarks: WWTP 00:00:40 (Constr) 0 Strictural Defects Constructional Features Miscellaneous Features Stricto Defects Miscellaneous Features SER node SER node 0 0 0 0 0 0 1			0.30	WL	Water lev	vel, 5% of the	vertical dimension	วท	0	0:00:05		(Serv) 0
Structural Defects Constructional Features Structural Defects Constructional Features Structural Defects Miscellaneous Features Structural Defects Miscellaneous Features Structural Defects Miscellaneous Features Structured Defects Nite View of the			1.20	WL	Water lev	vel, 0% of the	vertical dimension	ิก	0	0:00:10		(Serv) 0
2.50 WLC Clear water level, 0% of the vertical dimension 00:00:40 (Serv) 0 US 2.51 BRF Finish node type, major connection without manhole 00:00:40 (Constr) 0 reference number: US Remarks: WWTP WWTP 00:00:40 (Constr) 0 Structural Defects Constructional Features. Service Defects Service Defects Structural Defects Miscellaneous Features. Service Defects Service Defects Structural Defects Miscellaneous Features. SER not def SER not def Structural Defects 1 0 0 0 1	```		2.10	LU	Line devi	ates up			0	0:00:19		(Serv) 0
US 2.51 BRF Finish node type, major connection without manhole 00:00:40 (Constr) 0 reference number: US Remarks: WWTP Structural Defects 0 0 0 Service Defects Miscellaneous Featuress Structural Defects Miscellaneous Features Service Defects Miscellaneous Features Structural Defects Discription Structural Defects Miscellaneous Features Service Defects Miscellaneous Features Defects Discription			2.50	WLC	Clear wat	ter level, 0% c	of the vertical dir	nension	0	0:00:40		(Serv) 0
Structural Defects Constructional Features Service Defects Miscellaneous Featuress STR no def STR peak STR total STR grade 0 0 0 0 0 0 Plit Environment 11 of 11 00 0 Plit Environment 11 of 11 00 0	US		2.51	BRF	Finish no reference	de type, majo e number: US	r connection wit Remarks: WWT	hout manho P	le 0	0:00:40		(Constr) 0
Service Defects Miscellaneous Featuress STR no def STR peak STR mean STR total STR grade SER no def SER peak SER mean SER total SER grade 0 0 0 0 1 0 0 0 1	Structural Defe	cts					Constructional	−eatures				
On the design of the peak One peak One the peak One	Service Defects	CTP nor	_{ak}	STR moon	STP total	STD grada	Miscellaneous F	eaturess	SED more	000	total	SEP grade
Rita Environmental I tel // Degos 42	0	0 0	an	0	0 				0	SER	0	



		I	nspection	on repo	rt / Inspe	ection: '	1			
Date : 22/03/20	17	Job number :	W no rai	eather : in or snow	Operato Frantise	ek	Section number 36		PLR \$	SUFFIX:
Weathe no rain or s	r	Vehicle : VEHICLE 1	Ca	amera : I mera 1	Preset	:	Cleaned : yes		Ope Fra	erator : ntisek
Place : Road : Location Inspection	Rathco Grants Propert MHF10	ole Drive ty with buildings (U/S) MPD	Location Catchme Tape nun Pipe Leng	details: nt: nber : 2802 gth	217_1	U/S U/S D/S D/S	6 MH : 6 Depth : 6 MH : 6 Depth :	MPD MHF10	1	
Use: Year laid : Purpose : Total length :	F R O	oul coutine inspection .00 m	of condition		Pipe shape : Pipe size : Pipe material : Lining :	Cir 200 Pol	cular).00 mm yvinyl chloride			
1.50	Position		o Obcorru	ation					Photo	Grada
1:50	Position	i Cod	e Observa	ation			IVI	PEG	Photo	Grade
MHF10	0	<u>.00</u> SA	Survey ab due to hig	pandoned Rem h water level i	narks: Survey c n the Public Ma	ould not be do ain Drain	one 00	:00:40		(Misc) 0
Structural Defect	ts				Constructional F Miscellaneous F	Features Featuress				
STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER	total	SER grade
0	0	0	0 Rilt	1 a Environmenta	⁰ al Ltd. // Page:	0 : 44	0	1 (,	1



LINVIN		.0						Email: info@i	rilta.ie	
				Ins	spection repo	rt / Inspectio	on: 1			
	Date : 30/03/2017	7	Job n	umber :	Weather : no rain or snow	Operator : Frantisek	Section nut	mber :	PLR	SUFFIX: X
	Weather no rain or sn	iow	Veł VEH	nicle : ICLE 1	Camera : camera 1	Preset :	Cleane yes	d :	Ope Fra	erator : ntisek
Plac Roa Loc Insp	ce : ad : ation pection	Rath Gran Prop G3 (I	coole Its Drive Ierty with bu	ildings	Location details: Catchment: Tape number : 2802 Pipe Length	217_1	U/S MH : U/S Depth : D/S MH : D/S Depth :	G3 DS		
Use Yea Pur Tota	e: ar laid : pose : al length :		Surface wa Routine in 1.81 m	ater spection of c	ondition	Pipe shape : Pipe size : Pipe material : Lining :	Circular 150.00 mm Polyvinyl chlo	oride		
001	innent .									
	1:50	Positi	on	Code	Observation			MPEG	Photo	Grade
	63		0.00 0.01 1.00	GY WL CN	Start node type, gully, re Water level, 0% of the v	eference number : G3 rertical dimension unction, at 3 o'clock, d	iameter	00:00:01 00:00:01 00:00:13		(Constr) 0 (Serv) 0 (Constr) 0
Ĭ.			1.40	LD	Line deviates down	lection from G4		00:00:20		(Serv) 0
1			1.80	WL	Water level, 0% of the v	vertical dimension		00:00:27		(Serv) 0
	DS		1.81	BRF	Finish node type, major reference number: DS F	connection without ma Remarks: This pipe is c	anhole connected to	00:00:27		(Constr) 0

Structural Defects **Constructional Features** Service Defects Miscellaneous Featuress STR no def STR peak STR mean STR total SER peak SER mean SER total SER grade STR grade SER no def 0 0 0 0 0 1 0 0 0 1

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			I	nspecti	on repo	rt / Inspe	ection:	1			
30	Date :	7	Job number :	W no ra	eather : in or snow	Operato Frantis	r: ek	Section number : 38	:	PLR S	SUFFIX: X
v no ra	Veather	now	Vehicle : VEHICLE 1	C	amera : I mera 1	Preset	:	Cleaned : ves		Ope Frar	rator : ntisek
Place : Road : Location	on	Rathcoole Grants Dr Property G4 (D/S) I	venice i ive with buildings OS	Location Catchme Tape nur Pipe Len	details: nt: nber : 2802 gth	17_1	U/S U/S D/S	S MH : S Depth : S MH : S Depth :	G4 DS		
Use: Year laid Purpose Total len	I: : gth:	Sur Rou 15.9	face water Itine inspection 00 m	of condition	Pipe Length Dis Deput Pipe shape : Circular Pipe size : 150.00 m Pipe material : Polyvinyl Lining : Polyvinyl			rcular 0.00 mm Iyvinyl chloride			
Commer											
	1:126	Position	Cod	e Observ	ation			MP	'EG Ph	oto	Grade
(G4	0.00	<u>)</u> GY <u>I</u> WLC	Start node	e type, gully, re er level, 0% of	ference numb	er : G4 nension	00:0 00:0	00:00 00:00		(Constr) 0 (Serv) 0
		2.20	<u>) OJN</u>	1 Open join	t, medium			00:0	00:12 38	8_3A	(Struct) 1
		3.20	<u>)</u> WL	Water lev	el, 5% of the v	ertical dimensi	วท	00:0	00:21		(Serv) 0
		4.70	<u>)</u> SZ	Surface d Dents	amage, other,	from 4 to 8 o'c	lock Remarks	: 00:0	00:33 38	8_5A	(Struct) 0
《《		5.80	<u>)</u> WL	Water lev	el, 10% of the	vertical dimens	sion	00:0	00:44		(Serv) 0
8		6.30	<u>)</u> WL	Water lev	el, 15% of the	vertical dimens	sion	00:0	00:49		(Serv) 0
		6.90	<u>)</u> WL	Water lev	el, 20% of the	vertical dimens	sion	00:0	00:56		(Serv) 0
		8.00	<u>)</u> wLo	C Clear wat	er level, 15% c	of the vertical d	imension	00:0	01:03		(Serv) 0
		8.90	<u>)</u> WL	Water lev	el, 20% of the	vertical dimens	sion	00:0	01:10		(Serv) 0
		11.40	<u>)</u> WL	Water lev	el, 10% of the	vertical dimens	sion	00:0	01:40		(Serv) 0
		12.40	<u>)</u> WL	Water lev	el, 5% of the ve	ertical dimensi	on	00:0	01:47		(Serv) 0
		13.00	<u>)</u> CN	Connection 150mm R	on other than ju emarks: Uknov	Inction, at 9 o'd	clock, diamete	er 00:0	01:54		(Constr) 0
	Z	13.10	<u>)</u> WL	Water lev	el, 0% of the ve	ertical dimensi	on	00:0	01:56		(Serv) 0
		15.60	<u>)</u> LL	Line devia	ates left			00:0	02:20		(Serv) 0
		15.90	<u>)</u> WL	Water lev	el, 0% of the v	ertical dimensi	on	00:0	02:23		(Serv) 0
(DS	15.90	<u>)</u> BRF	Finish noo reference	de type, major number: DS R	connection wit emarks: This p	hout manhole bipe is connec	00:0	02:23		(Constr) 0
Structura	I Defect	S				Constructional	Features				
STR no	def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER tota	1	SER grade
1		1	0.06	1	1	0	0	0	0		1

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Photo: 38_5A, MPEG #: 280217_1, 00:00:33 4.7m, Surface damage, other, from 4 to 8 o'clock



			nspecti	on repoi	rt / Inspe	ection	: 1			
Date : 30/03/20	17	Job number :	W no ra	eather : i n or snow	Operato Frantiso	er: ek	Section nur 39	nber :	PLR	SUFFIX: X
Weathe no rain or s	r snow	Vehicle : VEHICLE 1	C. Ca	amera : mera 1	Preset	:	Cleaned yes	: 1	Op Fra	erator : Intisek
Place : Road : Location	Rathcoo Grants I Property G5 (D/S	ole Drive y with buildings) DS	Location Catchme Tape nur Pipe Len	details: nt: nber : 2802 ath	17_1		U/S MH : U/S Depth : D/S MH : D/S Depth :	G5 DS		
Use: Year laid : Purpose :	Si	urface water	of condition		Pipe shape : Pipe size : Pipe material :		Circular 150.00 mm Polyvinyl chlo	ride		
Total length :	1.	81 m			Lining :					
Comment :										
1:50	Position	Cod	e Observ	ation				MPEG	Photo	Grade
G5		00 GY	Start nod	atvoe gully re	ference numb	er : G5		00:00:01		(Constr) 0
		01 WI	Water lev	0% of the y	ertical dimensio			00.00.01		(Serv) 0
				,						
	1.	<u>40</u> LD	Line devia	ates down				00:00:13		(Serv) 0
	<u>1.</u>	<u>80</u> WL	C Clear wat	er level, 0% of	the vertical dir	nension		00:00:15		(Serv) 0
DS)	<u>81</u> BRI	Finish not reference	le type, major number: DS R	connection wit emarks: This o	hout manh drain is cor	ole inected t	00:00:15		(Constr) 0
Structural Defec					Constructional	Footureo				
Service Defects	STR peak	STR mean	STR total	STR grade	Miscellaneous F	eaturess SER peak	SFR me	an SFI	R total	SER grade
0	0	0	0	1	0	0	0		0	1

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Rilta Environmental Ltd Greenogue Business Park

Street : Rathcoole Tel: 01 4018000

Fax: Email: info@rilta.ie





		lr	nspection	on repo	rt / Inspe	ection:	1			
Date 30/03/20	: 017	Job number :	W no ra	eather : in or snow	Operato Frantise	r: ek	Section number 41	:	PLR \$	SUFFIX: X
Weath no rain or	er snow	Vehicle : VEHICLE 1	C: ca	amera : I mera 1	Preset	:	Cleaned : yes		Ope Fra	erator : ntisek
Place : Road : Location Inspection	Rathcool Grants D Property G7 (D/S)	e rive with buildings DS	Location Catchme Tape nun Pipe Len	details: nt: nber : 2802 gth	217_1	U/3 U/3 D/3 D/3	S MH : S Depth : S MH : S Depth :	G7 DS		
Use: Year laid : Purpose : Total length : Comment :	Su Ro 10.	rface water utine inspection c 20 m	of condition		Pipe shape : Pipe size : Pipe material : Lining :	Cir 15 Po	rcular 0.00 mm Ilyvinyl chloride			
1:84	Position	Code	Observa	ation			MF	PEG	Photo	Grade
G7										
	0.0	<u>0</u> GY	Start node	e type, gully, re	eference numbe	er : G7	00:	00:00		(Constr) 0
	0.0	<u>1</u> WL	Water lev	el, 0% of the v	ertical dimensio	n	00:	00:00		(Serv) 0
	3.0	<u>o</u> WL <u>o</u> LL	Water lev	el, 5% of the v ates left	ertical dimensio	on	00: 00:	00:27 00:34		(Serv) 0 (Serv) 0
	5.9	<u>0</u> WLC	Clear wat	er level, 10% c	of the vertical di	mension	00:	00:50		(Serv) 0
	7.3	<u>o</u> WL	Water lev	el, 0% of the v	ertical dimensio	on	00:	01:09		(Serv) 0
	8.7	<u>o</u> WL	Water lev	el, 5% of the v	ertical dimensio	n	00:	01:25		(Serv) 0
	. 10.1	0 WL	Water lev	el, 0% of the v	ertical dimensio	on	00:	02:05		(Serv) 0
	10.1	<u>1</u> SA	Survey at completed	andoned Rem d due to a shar	narks: Survey corr p bend on this	ould not be pipe.	00:	02:05		(Misc) 0
Structural Defec	cts				Constructional F	eatures				
SERvice Defects	STR neak	STR mean	STR total	STR grade	SER no def	SER neak	SFR mean	SEP	total	SFR grade
0	0 0 0	0	0	1	0	0 year	0			1
	•	• I	Rilt	a Environmenta	al Ltd. // Page:	50	•		I	



Date: Job number: Weather: Operator: Section number: PLR SUFFIX: 30032017 Vehicle : Camera : Preset: Cleaned : yes Yes no rain or snow VEHICLE 1 Camera : Preset: Cleaned : yes Yes Preset: Yes	
Weather no rain or snow Vehicle: Camera : camera : Preset : (Samera : (Samera :)yes Cleaned : yes Operator : Frantisek Pice : Read : Location Property with buildings Location details: Catchment: Location Property with buildings Location details: Catchment: Tape number : Pipe Length U/S ME : Dis Depth : Dis Dis Depth : Dis Dis Depth : Dis Depth : Dis Dis Depth : Dis Dis Depth : Dis Dis Depth : Dis Depth : Dis Depth : Dis Dis Dis Dis Dis Dis Dis Dis Depth : Dis Dis Dis Dis Dis Dis Dis Dis Dis Dis	
Place : Read : Location details: Location details: Location details: Location details: Catchment: Tape number : 280217_1 U/S MH : U/S MH : D/S Depth : D/S D/S Depth : D/S D/S D/S D/S D/S D/S D/S D/S D/S D/S	
Use: Surface water Pipe shape : Circular Year laid : Pipe size : 150.00 mm Purpose: Routine inspection of condition Pipe material : Polyvinyl chloride Total length : 12.20 m Uning : Ining : Comment : Ining : Ining : Ining :	
Comment : 1:105 Position Code Observation MPEG Photo Grade 68 0.00 GY Start node type, gully, reference number : G8 00:00:00 (Constr) 0.01 WL Water level, 0% of the vertical dimension 00:00:00 (Serv) (1.40 REM General remark Remarks: Socket of this pipe is connected 00:00:15 42_3A 4.10 SZ Surface damage, other, from 4 to 5 o'clock Remarks: A 00:00:36 42_4A 4.10 SZ Surface damage, other, from 4 to 5 o'clock Remarks: A 00:00:36 42_4A 7.70 LR Line deviates right Remarks: 45 Deg. 00:01:07 (Serv) (
1:105 Position Code Observation MPEG Photo Grade G8 0.00 GY Start node type, gully, reference number : G8 00:00:00 (Constr) 0.01 WL Water level, 0% of the vertical dimension 00:00:00 (Serv) (1.40 REM General remark Remarks: Socket of this pipe is connected against the stream. 00:00:15 42_3A (Misc) (4.10 SZ Surface damage, other, from 4 to 5 o'clock Remarks: A 00:00:36 42_4A (Struct) 7.70 LR Line deviates right Remarks: 45 Deg. 00:01:07 (Serv) (
68 0.00 GY Start node type, gully, reference number : G8 00:00:00 (Constr) 0.01 WL Water level, 0% of the vertical dimension 00:00:00 (Serv) (Constr) 1.40 REM General remark Remarks: Socket of this pipe is connected 00:00:15 42_3A (Misc) (Constr) 4.10 SZ Surface damage, other, from 4 to 5 o'clock Remarks: A 00:00:36 42_4A (Struct) 0 T.70 LR Line deviates right Remarks: 45 Deg. 00:01:07 (Serv) (Constr)	
0.00 G1 Start Hode type, guily, Herefende Humber . GS 00:00:00 (Const) 0.01 WL Water level, 0% of the vertical dimension 00:00:00 (Serv) (1.40 REM General remark Remarks: Socket of this pipe is connected against the stream. 00:00:15 42_3A (Misc) (4.10 SZ Surface damage, other, from 4 to 5 o'clock Remarks: A 00:00:36 42_4A (Struct) dent 7.70 LR Line deviates right Remarks: 45 Deg. 00:01:07 (Serv) (
1.40 REM General remark Remarks: Socket of this pipe is connected 00:00:15 42_3A (Misc) i 4.10 SZ Surface damage, other, from 4 to 5 o'clock Remarks: A 00:00:36 42_4A (Struct) dent 7.70 LR Line deviates right Remarks: 45 Deg. 00:01:07 (Serv) f	0
4.10 SZ Surface damage, other, from 4 to 5 o'clock Remarks: A 00:00:36 42_4A (Struct) dent 7.70 LR Line deviates right Remarks: 45 Deg. 00:01:07 (Serv) 0	0
4.10 SZ Surface damage, other, from 4 to 5 o'clock Remarks: A 00:00:36 42_4A (Struct) 7.70 LR Line deviates right Remarks: 45 Deg. 00:01:07 (Serv)	0
7.70 LR Line deviates right Remarks: 45 Deg. 00:01:07 (Serv)	0
	0
12.20 WL Water level, 0% of the vertical dimension 00:01:39 (Serv) (Serv	0)0
Structural Defects Constructional Features	
STR no def STR mean STR total STR grade SER no def SER peak SER mean SER total SER grade	de
0 0 0 0 1 0 0 0 1 Rilta Environmental Ltd // Page: 51	





Photo: 42_3A, MPEG #: 280217_1, 00:00:15 1.4m, General remark



Photo: 42_4A, MPEG #: 280217_1, 00:00:36 4.1m, Surface damage, other, from 4 to 5 o'clock



			In	specti	on repo	ort / Inspe	ection:	1			
Date : 30/03/20	17		Job number :	W no ra	/eather : in or snow	Operato Frantise	r: ek	Section number 43	:	PLR S	SUFFIX: X
Weathe no rain or s	er snow		Vehicle : VEHICLE 1	C Ca	amera : a mera 1	Preset	:	Cleaned : yes		Ope Frar	rator : h tisek
Place : Road : Location Inspection	Ratho Grant Prope G9 (D	coole ts Driv erty wi D/S) DS	e th buildings	Location Catchme Tape nur Pipe Len	details: nt: nber : 280 gth	0217_1	U/5 U/5 D/5	S MH : S Depth : S MH : S Depth :	G9 DS		
Use: Year laid : Purpose : Total length :		Surfa Routi 9.70 r	ce water ne inspection of n	f condition		Pipe shape : Pipe size : Pipe material : Lining :	Cir 15 Po	rcular 0.00 mm Iyvinyl chloride			
Comment :											
1:84	Positio	on	Code	Observ	ation			MF	PEG PI	noto	Grade
G9											
	<u>/</u>	0.00	GY	Start nod	e type, gully, i	reference numbe	er : G9	00:	00:00		(Constr) 0
		0.01	WL	Water lev	el, 0% of the	vertical dimension	on	00:	00:00		(Serv) 0
		0.60	REM	General r connecte	emark Remai d against the	rks: Sockets of ti stream.	his pipe are	00:	00:08 4	3_3A	(Misc) 0
		<u>6.50</u>	LL	Line devia	ates left Rema	arks: 45 Deg.		00:	00:56		(Serv) 0
	_	<u>9.60</u>	LR	Line devi	ates right			00:	01:23		(Serv) 0
		9.60	LD	Line devi	ates down			00:	01:23		(Serv) 0
DS		<u>9.70</u>	WL	Water lev	el, 0% of the	vertical dimension	on	00:	01:27		(Serv) 0
		9.70	BRF	Finish no reference	de type, majo number: DS	r connection with Remarks: This p	nout manhole pipe is connet	00: ed to t	01:27		(Constr) 0
Structural Defects	τs					Miscellaneous F	eatures eaturess				
STR no def	STR peal	k	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER tota	al	SER grade
U	0		U	U Rilt	l 1 ta Environmen	tal Ltd. // Page:	53	0	0		1



+000 .5m

Photo: 43_3A, MPEG #: 280217_1, 00:00:08

0.6m, General remark



Inspection report / Inspection: 1											
Date : Job numbe 31/03/2017			Job number :	W no ra	eather : in or snow	Operato Frantis	or: ek	Section number 44	: PL	R SUFFIX:	
Weath no rain or	er snow		Vehicle : VEHICLE 1	C. Ca	amera : I mera 1	Preset	t:	Cleaned : yes	Cleaned : C yes F		
Place : Rathcoole Road : Grants Drive Location Property with buildings Inspection MHS8 (U/S) AJ6				Location Catchme Tape nur Pipe Len	Location details: U/S Catchment: U/S Tape number : 280217_1 Pipe Length D/S			S MH : S Depth : S MH : S Depth :	MH : AJ6 Depth : MH : MHS8 Depth :		
Use: Year laid : Purpose : Total length :		Surf Rou 41.1	ace water tine inspection 6 m	of condition		Pipe shape : Pipe size : Pipe material : Lining :	Cir 22 Po	cular 5.00 mm lyvinyl chloride			
1.33	6 Positi	ion	Code	e Observ	ation			ме	FG Phot	o Grade	
1.55	o rosiu		Cou	e Observ	ation			IVIE	EG Fliot	Glade	
мнз	8	0.00	мн	Start node	e type manhol	e, reference n	umber · MHS8	00.	00.00	(Constr) 0	
		0.01	WL	Water lev	el. 0% of the v	ertical dimensi	on			(Serv) 0	
	$\overline{}$	2.48	WL	Water lev	el. 5% of the v	ertical dimensi	on	00:	01:25	(Serv) 0	
		33.84	<u>.</u> REM	1 General r	emark Remark	s: manhole		00:	13:01	(Misc) 0	
		34.26	CN	Connection 100mm R	on other than ju emarks: gully (unction, at 11 c	o'clock, diamet	er 00:	14:05	(Constr) 0	
		<u>41.16</u>	<u>w</u> L	Water lev	el, 0% of the v	ertical dimensi	on	00:	17:36	(Serv) 0	
		<u>41.16</u>	SA SA	Survey at completed	andoned Rem d due to sharp	arks: Survey o bend on this p	00:	00:17:36 (Mis			
Structural Defe	cts					Constructional	Features				
STR no def	STR Dea	ak T	STR mean	STR total	STR grade	Miscellaneous I SER no def	SER peak	SER mean	SER total	SER grade	
0	0		0	0	1	0	0	0	0	1	

Rilta Environmental Ltd. // Page: 55



Inspection report / Inspection: 1											
Date :			Job number :	W no ra	Weather : no rain or snow		Operator : S Frantisek		: F	PLR SUFFIX:	
	Weather no rain or sr	ow	Vehicle : VEHICLE 1	C Ca	Camera : Preset : camera 1		:	Cleaned : yes		Operator : Frantisek	
Plac Roa Loca Insp	Place : Rathcoole Road : Grants Driv Location Property wi Inspection AJ7 (D/S) M		e rive with buildings) MHS5	Location Catchme Tape nur Pipe Len	Location details: Catchment: Tape number : 2802 Pipe Length		U/5 U/5 D/5	U/S MH : AJ7 U/S Depth : D/S MH : D/S MH : MHS D/S Depth : D/S Depth :			
Use: Surfa Year laid : Purpose : Purpose : Routi Total length : 39.61 Comment :		rface water utine inspection 61 m	of condition	Pipe shape : Circular Pipe size : 150.00 mm ondition Pipe material : Polyvinyl cl Lining : Pipe material : Polyvinyl cl			rcular 0.00 mm Iyvinyl chloride				
	1:315	Position	Cod	e Observ	ation			MP	PEG Pho	oto Grade	
	AJ7	0.0	<u>0</u> IC	Start nod AJ7	e type, inspecti	ion chamber, r	eference num	ber : 00:0	00:02	(Constr) 0	
		0.0	<u>1</u> WL	. Water lev	el, 0% of the v	ertical dimensi	on	00:	00:02	(Serv) 0	
		3.6	00:0	00:32	(Serv) 0						
		8.5	<u>0</u> CN	Connectio	on other than ju	unction, at 2 o'	clock, diamete	er 00:0	00:32	(Constr) 0	
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		9.8	<u>o</u> wLo	150mm C Clear wat	er level, 10% c	of the vertical d	imension	00:	01:14	(Serv) 0	
		20.1	<u>0</u> CN	Connectio 150mm	on other than ju	unction, at 2 o'	clock, diamete	er 00:0	02:33	(Constr) 0	
	5	26.4	0 CN	Connectio	on other than ju	unction, at 2 o'	clock, diamete	er 00:1	03:22	(Constr) 0	
		26.6	- 0 WI	150mm Water lev	150mm Water level, 5% of the vertical dimension					(Serv) 0	
			_							· · ·	
	39.59 OBS Other obstacles built into structure, from 1 to 3 o'clock, 75% cross-sectional area loss Remarks: Poor workmanshi								00:00 45 <u>.</u>	_9A (Serv) 5	
<u>39.60</u> WL Water level, 5% of the vertical dimension								00:0	00:00	(Serv) 0	
	39.61 SA Survey abandoned Remarks: Survey could not be 00:00:00 (Mis completed due to a pipe cross the way.										
Stru Serv	ctural Defects				Constructional Features Miscellaneous Featuress						
ST	R no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade	
1	0	0	0	0	1	0	0	0	0	1	

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Rilta Environmental Ltd Greenogue Business Park

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Inspection report / Inspection: 1										
Date : 19/04/20	17	Job number :	We no rai	eather : n or snow	Operato Frantise	r: ek	Section number	:	PLR S	BUFFIX: X
Weathe no rain or	er snow	Vehicle : VEHICLE 1	Ca ca	Camera : camera 1		:	Cleaned : yes		Operator : Frantisek	
Place : Rathcoole Road : Grants Driv Location Property wit Inspection G11 (D/S) D		e ive with buildings DS	Location of Catchmer Tape num Pipe Leng	Location details: Catchment: Tape number : 280217_1 Pipe Length		U/S U/S D/S D/S	S MH : S Depth : S MH : S Depth :	G11 DS		
Use: Surf Year laid : Purpose : Rou Total length : 12.4		uce water ine inspection of condition) m			Pipe shape : Pipe size : Pipe material : Lining :	Cir 15 Po	rcular 0.00 mm Iyvinyl chloride			
Comment .										
1:105	Position	Code	Observa	ation			MP	PEG P	hoto	Grade
G11			Chart and	to a configuration of the second	6		00-	00.00		(Consta) 0
		<u>)</u> GY	Start node	type, guily, re	rerence numbe	er : G11	00:0	00:02		(Constr) 0
	0.0			Water level, 0% of the vertical dimension						
	2.20	<u>)</u> REM	General re	emark Remark	s: Dents.		00:0	00:59 4	47_3A	(Misc) 0
	5.80	<u>)</u> D	Deformed	sewer/drain, 1	0%		00:1	01:48 4	47_4A	(Struct) 4
	7.20	<u>)</u> WL	Water leve	el, 5% of the ve	ertical dimensio	วท	00:0	02:05		(Serv) 0
	9.00	<u>)</u> LL	Line devia	tes left			00:	02:25		(Serv) 0
	12.00	<u>)</u> LD	Line devia	tes down	ortical dimonsi		00:	02:52		(Serv) 0
DS	12.30		Finish nos				00:1	02:57		
	/ 12.3		reference	number: DS R	emarks: This c	Irain is conne	cted t	02.01		
Structural Defec	ts				Constructional F	eatures				
STR po dof	STR pook	STR moon	STR total	STR grado	Miscellaneous F	SER pook	SER moon			SER grado
1	80	6.45	80	4		оск реак 0	0		aı	o⊏n grade 1
		I	Rilta	a Environmenta	ILtd. // Page:	59				





Photo: 47_3A, MPEG #: 280217_1, 00:00:59 2.2m, General remark



Photo: 47_4A, MPEG #: 280217_1, 00:01:48 5.8m, Deformed sewer/drain, 10%



Inspection report / Inspection: 1											
Date : Job number : 19/04/2017			Job number :	Weather : no rain or snow	Operato Frantise	r: ek	Section number	Imber : PLR		SUFFIX:	
Weathe no rain or s	er snow		Vehicle : VEHICLE 1	Camera : camera 1	Preset :		Cleaned : yes		Operator : Frantisek		
Place : Road : Location Inspection	Rath Gran Prop G12	coole ts Driv erty wi (D/S) I	e ith buildings DS	Location details: Catchment: Tape number : 280: Pipe Length	217_1	U/S MH : U/S Dept D/S MH : D/S Dept		G12 DS			
Use: Year laid : Purpose : Total length :		Surfa Routi 9.81 i	ce water ne inspection of c n	condition Pipe shape : Circul Pipe size : 150.00 Pipe material : Polyv Lining :			ircular 50.00 mm olyvinyl chloride	9			
4.04	Positi		Codo	Observation			M	DEC	Photo	Grada	
1:84	Positi	on	Code	Observation			M	PEG	Photo	Grade	
G12)										
	/	0.00	GY	Start node type, gully, re	eference numbe	er : G12	00):00:01		(Constr) 0	
		0.01	WL	Water level, 0% of the v	ertical dimensio	on	00	0:00:01		(Serv) 0	
		8 50	ID	Line deviates down			00	₩01-37		(Serv) 0	
		8.50	LD	Line deviates down			UU	1:01:37		(Serv) 0	
	<u></u>	9.80	WL	Water level, 0% of the v	ertical dimension	n	00	0:00:00		(Serv) 0	
DS)	9.81	BRF	Finish node type, major reference number: DS F	connection with Remarks: This c	nout manhole Irain is conne	e 00 ected t):00:00		(Constr) 0	
Structural Defect	ts				Constructional F Miscellaneous F	eatures eaturess	-1	-			
STR no def 0	STR pea 0	k	STR mean S	STR total STR grade 0 1	SER no def 0	SER peak 0	SER mean 0	SER	total	SER grade 1	
			I	Rilta Environmenta	al Ltd. // Page:	61	-				



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Inspection report / Inspection: 1										
1	Date : 9/04/2017		Job number :	Weather : no rain or snow	Operator : Frantisek	Section numbe	er:	PLR SUFFIX:		
	Weather		Vehicle :	Camera :	Preset :	Cleaned :		Operator : Frantisek		
Place : Rathcoole Road : Grants Dri Location Property v Inspection MHF8 (U/S		venicie i ive vith buildings 6) MHF9	Location details: Catchment: Tape number : 280 Pipe Length	217_1	U/S MH : U/S Depth : D/S MH : D/S Depth :	MHF9 MHF8		IIISEK		
Use: Foul Year laid : Purpose : Rou Total length : 58.0			l tine inspection o 1 m	f condition	Pipe shape : Pipe size : Pipe material : Lining :	Circular 150.00 mm Polyvinyl chlorid	e			
	1:462	Position	Code	Observation		M	IPEG	Photo	Grade	
(MHF8	0.00	MH WL	Start node type, manho Water level, 10% of the	le, reference number : N vertical dimension	MHF8 00):00:00):00:00		(Constr) 0 (Serv) 0	
		3.00	<u>w</u> L	Water level, 5% of the v	vertical dimension	00	0:00:33		(Serv) 0	
		<u>27.90</u> 29 70	<u>v</u> WL	Water level, 10% of the	vertical dimension	00	0:03:59		(Serv) 0	
%		33.20	WIC	Clear water level 10%	of the vertical dimension	n 0(0.06.24		(Serv) 0	
8		34.30	wL	Water level, 5% of the v	vertical dimension	00):06:52		(Serv) 0	
////		43.40	WL	Water level, 10% of the	vertical dimension	00	0:07:43		(Serv) 0	
		44.30	WL	Water level, 20% of the	vertical dimension	00	0:07:48		(Serv) 0	
		48.80	<u>WL</u>	Water level, 10% of the	vertical dimension	00):08:26		(Serv) 0	
		<u>51.80</u>	WLC	Clear water level, 15%	of the vertical dimensior	n 0():08:57		(Serv) 0	
		<u>52.80</u>	WLC	Clear water level, 20%	of the vertical dimensior	n 00):09:07		(Serv) 0	
		<u>54.90</u>	WLC	Clear water level, 10%	of the vertical dimensior	n 00):10:07		(Serv) 0	
		58.00	WLC	Clear water level, 10%	of the vertical dimensior	n 00	0:00:00		(Serv) 0	
		58.01	SA SA	Survey abandoned Ren completed due to came	narks: Survey could not ras rod.	be 00):00:00		(Misc) 0	
Characte	al Defecti				Construction of France					
Structur Service	Defects		·	1	Miscellaneous Features			•		
STR no	o def	STR peak	STR mean	STR total STR grade	SER no def SER n	eak SFR mean	SER.	total	SER grade	

Rilta Environmental Ltd. // Page: 63


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Inspection report / Inspection: 1											
Date : Job number : 19/04/2017			W no ra	Weather : Operator : no rain or snow Frantisek		r: ek	Section number : 51		PLR SUFFIX: X		
Weather Vehicle : no rain or snow VEHICLE 1			C Ca	Camera : Preset : camera 1			Cleaned : yes			Operator : Frantisek	
Place : Rathcoole Road : Grants Drive Location Property with buildings Inspection PD (D/S) OV			Location Catchme Tape nur Pipe Len	Location details: Catchment: Tape number : 280217_1 Pipe Length			U/S MH : U/S Depth : D/S MH : D/S Depth :	PD OV			
Use: Foul Year laid : Purpose : Routine inspection of co Total length : 5.30 m			of condition	Pipe shape : C Pipe size : 10 condition Pipe material : P Lining : P			Circular 100.00 mm Polyvinyl chloride	•			
Comment :											
1:50	Position	Cod	e Observ	ation			М	PEG	Photo	Grade	
PD											
	0.0	0 <u>0</u> MH	Start nod	e type, manho	le, reference nu	00	:00:01		(Constr) 0		
	<u></u>	<u>01</u> VVL	vvater lev	Water level, 5% of the vertical dimension 00:00:01							
	0.9	9 <u>0</u> WL	Water lev	el, 0% of the v	00	:00:14		(Serv) 0			
	1.	<u>70</u> LR	Line devi	Line deviates right						(Serv) 0	
	3.	<u>00</u> WL	Water lev	el, 5% of the v	00	00:00:35					
	4.	0 <u>0</u> WL	Water lev	el, 10% of the	00	00:00:45					
	5.	<u>00</u> WL	Water lev	el, 20% of the	iion	00:00:53			(Serv) 0		
	<u>30</u> LR			00	:01:00		(Serv) 0				
OV Structural Defec	ts				Constructional	Features					
Service Defects					Miscellaneous F	eaturess SFR neak	SER mean	SER	total	SER grade	
	- The peak	erre moan		E		o Liv podk	CERMIGAN	J		SELL GIAGE	
			Ril	a Environment	ai Ltd. // Page:	64					



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Rita Environmental Ltd Greenogue Business Park Street : Rathcoole Tel: 01 4018000 Fax: Email: info@rilta.ie

Inspection report / Inspection: 1											
Date : Job number 19/04/2017			no r	Weather : ain or snow	Operato Frantise	or: ek	Section number	PLR SUFF		SUFFIX: X	
Weather Vehicle : no rain or snow VEHICLE 1			Camera : Preset : camera 1		Cleaned : yes		Operator : Frantisek				
Place : Rathcoole Road : Grants Drive Location Property with buildings Inspection AJ6 (D/S) AJB			Location Catchm Tape nu Pipe Le	Location details: U/S MH : Catchment: U/S Depth : Tape number : 280217_1 Pipe Length D/S Depth			/S MH : /S Depth : /S MH : /S Depth :	AJ6 AJB			
Use:	Su	irface water		-	Pipe shape :	ircular					
Year laid : Purpose : Routine inspection of co Total length : 48.91 m			of condition		Pipe size : Pipe material : Lining :	P	olyvinyl chloride				
Comment :											
1:39	9 Position	Cod	e Obser	vation			MP	PEG	Photo	Grade	
A 16											
	0.0	<u>)0</u> IC	Start no	de type, inspec	ction chamber, re	eference nun	nber: 00:0	00:00		(Constr) 0	
	0.4	<u>10</u> WLC	C Clear wa	ater level, 25%	of the vertical d	imension	00:	00:10		(Serv) 0	
	0.4	1 <u>0</u> CUV	V Loss of	vision, camera	00:	00:35		(Misc) 0			
	3.6	<u>60</u> WL	. Water le	evel, 10% of the	00:	00:56		(Serv) 0			
	4.2	2 <u>0</u> WL	. Water le	evel, 5% of the	00:0	01:05		(Serv) 0			
	11.2	2 <u>0</u> WL	. Water le	evel, 5% of the	vertical dimension	00:	02:29		(Serv) 0		
«	17.9	<u>90</u> WLO	C Clear wa	ater level, 10%	of the vertical d	00:0	03:17		(Serv) 0		
%	21.7	7 <u>0</u> WL	. Water le	evel, 15% of the	e vertical dimens	00:	03:44		(Serv) 0		
	23.7	<u>70</u> WLO	C Clear wa	ater level, 20%	of the vertical d	00:	04:01		(Serv) 0		
	24.7	7 <u>0</u> WL	. Water le	evel, 15% of the	e vertical dimens	00:	04:09		(Serv) 0		
	25.3	<u>30</u> WL	. Water le	Water level, 10% of the vertical dimension						(Serv) 0	
	27.0	<u>)o</u> WL	. Water le	Water level, 5% of the vertical dimension						(Serv) 0	
	30.0	<u>00</u> WLO	C Clear wa	Clear water level, 0% of the vertical dimension						(Serv) 0	
	31.3	<u>30</u> WL	. Water le	Water level, 5% of the vertical dimension						(Serv) 0	
	33.0	<u>)o</u> WL	. Water le	Water level, 10% of the vertical dimension						(Serv) 0	
	35.0	<u>)0</u> WL	. Water le	Water level, 5% of the vertical dimension						(Serv) 0	
	48.5	50 SR	Sealing	Sealing ring intruding, from 11 to 2 o'clock Remarks: Just					53_17A	(Constr) 1	
	48.9	<u>90</u> WL	. Water le	Water level, 5% of the vertical dimension						(Serv) 0	
AJB	48.9	9 <u>1</u> ICF	Finish ne AJB	ode type, inspe	ection chamber r	eference nui	mber: 00:0	07:43		(Constr) 0	
Characterized Dect	oto				Construction	Footuree					
Service Defects	ບເຮ				Miscellaneous F	Miscellaneous Features					
STR no def 1	STR peak	STR mean	STR total 5	STR grade	SER no def	SER peak 0	SER mean 0	SER to	otal	SER grade	

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Photo: 53_17A, MPEG #: 280217_1, 00:07:29 48.5m, Sealing ring intruding, from 11 to 2 o'clock



Rilta Environmental Ltd Greenogue Business Park Street : Rathcoole Tel: 01 4018000 Fax: Email: info@rilta.ie

Inspection report / Inspection: 1										
Date : Job number : 19/04/2017			V no ra	Veather : ain or snow	Operator : Frantisek		Section number : 54		PLR SUFFIX: X	
Weather Vehicle : no rain or snow VEHICLE 1			(c	Camera : Preset : camera 1			Cleaned : yes		Operator : Frantisek	
Place : Rathcoole Road : Grants Drive Location Property with buildings Inspection AJB (D/S) MH8			Location Catchme Tape nu Pipe Ler	Location details: Catchment: Tape number : 280217_1 Pipe Length			/S MH : /S Depth : /S MH : /S Depth :	AJB MH8		
Use: Surface water Year laid : Purpose : Purpose : Routine inspection of cc Total length : 37.31 m				ondition Pipe shape : Circ Pipe size : 150. Pipe material : Poly Lining :				9		
Comment :										
1:2	94 Positio	n Code	e Observ	vation			Μ	PEG	Photo	Grade
AJ		0.00 IC 0.01 WL 0.60 WL 5.10 WL	Start noc AJB Water lev Water lev Water lev	le type, inspect vel, 5% of the v vel, 10% of the vel, 5% of the v	ion chamber, r rertical dimensi vertical dimensi rertical dimensi	eference nun on sion on	nber : OC OC OC):00:02):00:02):00:07):00:51		(Constr) 0 (Serv) 0 (Serv) 0 (Serv) 0
		3.30 WLC 3.30 CN 4.40 WL	Clear wa Connecti 100mm Water lev	ter level, 10% (on other than j vel, 15% of the	of the vertical d unction, at 1 o'd vertical dimens	limension clock, diamet sion	OC er OC OC):01:56):01:56):02:06		(Serv) 0 (Constr) 0 (Serv) 0
–	20). <u>90</u> WL	Water lev	vel, 10% of the	vertical dimens	00):03:12		(Serv) 0	
	2	<u>3.00</u> WL	Water lev	vel, 20% of the	vertical dimens	sion	00	0:03:37		(Serv) 0
		<u>3.30</u> VVL	Water lev	Water level, 20% of the vertical dimension						(Serv) 0
	24	<u>4.80</u> WL 4 <u>.80</u> CUW	Loss of v	Loss of vision, camera under water						(Misc) 0
	3	7 <u>.30</u> WL 7 <u>.31</u> SA	Water lev Survey a complete	vel, 25% of the bandoned Ren ed due to level o	00:05:23 00:05:23			(Serv) 0 (Misc) 0		
Structural De	fects				Constructional	Features				
STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER	total	SER grade

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