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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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Cork.

29 March 2018

Project	Annual Environmental Report 2017			
Client	Rilta Environmental Ltd W0192-03			
Report No	Date	Status	Prepared By	Reviewed By
171950109	28/03/2018	Draft	Mr Neil Sandes PGeo EurGeol	Mr Jim O'Callaghan MSc
	29/03/2018	Final		

TABLE OF CONTENTS

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 Account is also taken of the AER Draft Guidance Document and AER Information Templates issued by the Agency in December 2013[2].

[1] EPA (Environmental Protection Agency) 1999 Waste Licensing – Draft Guidance on Environmental Management Systems and Reporting to the Agency

[2] EPA (Environmental Protection Agency) 2013 AER Draft Guidance Document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

Table 2.1 Waste Types and Quantities (W0192-03)

Waste Type			Maximum Allowable Annual Tonnage Note 3
Non-Hazardous Waste Notes 1,2		**Description**	
		Commercial Waste	500
		C & D Waste	500
		Industrial Sludges	1,000
		Other Industrial Waste	3,000
Non-Hazardous Waste Total			**5,000**
Hazardous Waste	**EWC Code**	**Description**	Maximum Allowable Annual Tonnage Note 3
	13 05 03*	Interceptor Sludges	10,000
	16 07 08*	Waste containing Oil	2,000
	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 containing Asbestos	8,000
	17 06 05*		
	Other Note 4		24,500
Hazardous Waste Total			**106,000**
Total Tonnage per Annum			**111,000**

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.

Table 3.1 Surface water Monitoring Results 2017: SW-1

Parameter	Units	Q1	Q2	Q3	Q4
pH	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 3.2 Surface water Monitoring Results 2017: SW-2

Parameter	Units	Q1	Q2	Q3	Q4
pH	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

Table 3.3 Surface water Monitoring Results 2017: SW-3

Parameter	Units	Q1	Q2	Q3	Q4	ELV
pH	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

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.

Table 3.4 Monthly Monitoring Results

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 3.5 Q1 Groundwater Monitoring Results

Parameter	Units	BH-1	BH-2	BH-3	IGV	TV
pH	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	*	*

* - 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.

Table 3.6 Q2 Groundwater Monitoring Results

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	*	*

* - 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.

Table 3.7 Q3 Groundwater Monitoring Results

Parameter	Units	BH-1	BH-2	BH-3	IGV	TV
pH	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	-	-

* - 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.

Table 3.8 Q4 Groundwater Monitoring Results

Parameter	Units	BH-1	BH-2	GW-3	IGV	TV
pH	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	-	-

* - 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 180m^3 and 40m^3 respectively (as set out in Schedule B.3 of the licence). The total volume of wastewater discharged during 2017 was 44,100m^3. The maximum daily and hourly waste water discharges recorded were 175m^3 and 24m^3 respectively.

Table 3.9 Wastewater Monitoring Results Q1 – Q2

		January		February		March		April		May		June		ELV Composite Sample	ELV Grab Sample
Parameter	**Unit**	**Composite**	**Grab**	**Composite**	**Grab**	**Composite**	**Grab**	**Composite**	**Grab**	**Composite**	**Grab**	**Composite**	**Grab**		
Temperature	**°C**	-	7	-	5	-	8	-	10	-	13	-	15		42
pH	**Units**	-	11.75*	-	7.35	-	7.77	-	7.83	-	7.67	-	7.88	6 – 10	6 - 10
BOD	**mg/l**	233	-	29	-	92	-	20	-	25	-	38	-	800	2,000
COD	**mg/l**	590	-	107	-	482	-	262	-	143	-	150	-	1,600	4,000
Sulphate	**mg/l**	26.5	-	32.5	-	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	-	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

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

Table 3.10 Wastewater Monitoring Results Q3 – Q4

		July		August		September		October		November		December		ELV Composite Sample	ELV Grab Sample
Parameter	**Unit**	**Composite**	**Grab**	**Composite**	**Grab**	**Composite**	**Grab**	**Composite**	**Grab**	**Composite**	**Grab**	**Composite**	**Grab**		
Temperature	**°C**	-	17	-	14	-	11	-	13	-	8	-	6		42
pH	**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

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 $L_{Aeq\ 30\ min}$ 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.

Table 3.11 Noise Data

Station	Date	Time	Wind vector	$L_{Aeq\ 30\ min}$ dB	$L_{AF10\ 30\ min}$ dB	$L_{AF90\ 30\ min}$ dB	Specific $L_{Aeq\ 30\ min}$ dB
N1	26.10.17	0815-0845	0	60	63	53	<55
	Facility: Trucks queuing through weighbridge regularly clearly audible. Operations deeper within site audible at low level repeatedly, chiefly drum centre activity. **Extraneous**: Regular traffic on industrial estate roadway outside boundary dominant. Activity at adjacent premises also clearly audible, particularly fork lift truck in regular use. **Specific $L_{Aeq\ T}$ determination**: Leq dominated by roadway traffic and offsite forklift truck. Site contribution at least 5 dB less.						
N2	26.10.17	0822-0852	0	59	61	54	<51
	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 $L_{Aeq\ T}$ determination**: Leq dominated by offsite noise. Amplitude and occurrence of yard activity insufficient to influence Leq or L90, thus <L90, with 3 dB near field correction (1.5 m separation distance to building façade.						
N3	26.10.17	0859-0929	0	57	58	57	57
	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 $L_{Aeq\ T}$ determination**: L90 representative of audible site emissions.						
N4	26.10.17	0925-0955	0	59	60	56	53
	Facility: Air extraction system emissions in adjacent building continuously quite audible, with regular blow-down/venting hiss also quite audible and impulsive. Yard operations not audible. **Extraneous**: Regular passing roadway traffic outside boundary dominant when present. **Specific $L_{Aeq\ T}$ determination**: L90 representative of continuous extraction system emissions, subject to 3 dB near field correction due to available separation distance <1.5 m.						

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/m^2/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/m^2/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.

Table 3.12 Dust Monitoring Results 2017

	May mg/m^2/day	**August / September mg/m^2/day**	**October mg/m^2/day**	**Deposition Limit mg/m^2/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

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.

Table 4.1 Resources Used On-Site in 2016 & 2017

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 m^3	39,316 m^3

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.

Table 5.1 Waste Received 2017

Waste Type			Maximum Allowable Annual Tonnage Note 3	**Waste Received 2017**
Non-Hazardous Waste Notes 1,2		**Description**		
		Commercial Waste	500	137.392
		C & D Waste	500	8,649.799
		Industrial Sludges	1,000	1,961.924
		Other Industrial Waste	3,000	25,744.198
Non-Hazardous Waste Total			**5,000**	**36,493.313**
Hazardous Waste	**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
	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 containing Asbestos	8,000	246.157
	17 06 05*			4,764.702
	Other Note 4		24,500	21,272.293
Hazardous Waste Total			**106,000**	**46,459.01**
Total Tonnage per Annum			**111,000**	**83,042.323**

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.

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.

Table 5.2 Waste Consigned 2017

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*	Waste paint and varnish containing organic solvents or other dangerous substances	264.01
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*	Packaging containing residues of or contaminated by dangerous substances	489.996
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 5.2 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 dangerous substances	13.404
16 05 06*	Laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals	187.405
16 05 07*	Discarded inorganic chemicals consisting of or containing dangerous substances	171.294
16 05 08*	Discarded organic chemicals consisting of or containing dangerous substances	259.006
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	105.519
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	301.187
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 substances	1126.15
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

Table 5.3 Waste Received & Consigned in recent years

	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%

6. ENVIRONMENTAL INCIDENTS AND COMPLAINTS

6.1 Incidents

There was 1 notifiable environmental incident in 2017.

1) 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.

Table 7.1 Raw Material Usage 2014 - 2017

	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

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

Monitoring Point Locations (to National Grid Reference)

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

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

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

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

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

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

Waste Water Monitoring Point
EFF (Proposed) E301655, N228530

Legend:
- Licence Boundary
- Surface Water Monitoring Points
- Invertebrate Kick Sampling Monitoring Points
- Dust Monitoring Points
- Noise Monitoring Points
- Waste Water Monitoring Point
- Groundwater Monitoring Points
- Underground Settlement Tank Monitoring Points
- Air Monitoring Points

KS1
SW1
D3
N3
BUNDED TANK AREA
BH3
SW3
BH2
VEHICLE WASH AREA
SW2
KS2
D2
N2
DOCK LEVELLER
GW2
GW3
EFF
RACKED STORAGE
GW1
WASTE TREATMENT CENTRE 1858 SQ.M
STATION 1859 SQ.M
HAZARDOUS WASTE TRANSFER
CONTAMINATED SOIL STORAGE
A3
A1
DRUM CENTRE 1858 SQ.M
OFFICE BLOCK 400 SQ.M
WEIGHBRIDGE
A2
DOCK LEVELLER
D4
N4
D1
N1
BH1
GATE
ELECTRICAL SWITCHROOM

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

suffix	revisions	date	by

Client

Drawing Title
SITE LAYOUT PLAN

Project
INTEGRATED WASTE MANAGEMENT FACILITY, GREENOGUE, CO. DUBLIN

Scale: 1/500		
Drawn by: MARKCONROY	Checked by:	Date: January 2007

O'Callaghan Moran & Assoicates,
Unit 15 Melbourne Business Park,
Model Farm Road,
Cork.

Drawing No.
2.1

Rev.

APPENDIX 2

European Pollutant Release and Transfer Register

Environmental Protection Agency

Guidance to completing the PRTR workbook

PRTR Returns Workbook

Version 1.1.19

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	Rathcoole
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 2002)

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

4. WASTE IMPORTED/ACCEPTED ONTO SITE

Guidance on waste imported/accepted onto site

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

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

4.1 RELEASES TO AIR Link to previous years emissions data | PRTR# : W0192 | Facility Name : Rilta Environmental Limited | Filename : W0192_03 2017(FINAL).xlsm | 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 quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used					
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

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

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

RELEASES TO AIR					Please enter all quantities in this section in KGs					
POLLUTANT		METHOD			QUANTITY					
			Method Used		A1	A2	A3			
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	Emission Point 2	Emission Point 3	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
230	TA Luft organic substances class 1	M	OTH		0.0	0.0	0.0	0.0	0.0	0.0
351	**Total Organic Carbon (as C)**	M	OTH		56.64	94.08	120.0	270.72	0.0	0.0

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

Additional Data Requested from Landfill operators

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

Landfill: Rilta Environmental Limited

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

4.2 RELEASES TO WATERS

Link to previous years emissions data

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this only concerns Releases from your facility

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

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

SECTION B : REMAINING PRTR POLLUTANTS

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

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

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

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

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

4.3 RELEASES TO WASTEWATER OR SEWER

Link to previous years emissions data

SECTION A : PRTR POLLUTANTS

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used		SE1			
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
62	**Benzene**	M			0.0	0.0	0.0	0.0
19	Chromium and compounds (as Cr)	M			0.055	0.055	0.0	0.0
20	Copper and compounds (as Cu)	M			0.118	0.118	0.0	0.0
65	Ethyl benzene	M			0.0	0.0	0.0	0.0
23	Lead and compounds (as Pb)	M			0.0	0.0	0.0	0.0
22	Nickel and compounds (as Ni)	M			0.032	0.032	0.0	0.0
73	Toluene	M			0.0	0.0	0.0	0.0
78	Xylenes	M			0.0	0.0	0.0	0.0
24	Zinc and compounds (as Zn)	M			0.22	0.22	0.0	0.0
17	Arsenic and compounds (as As)	M			0.019	0.019	0.0	0.0

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

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

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used		SE1			
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
303	BOD	M			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	M			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

SECTION A : PRTR POLLUTANTS

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

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

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

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

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

Please enter all quantities on this sheet in Tonnes

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	02 03 04	No	0.06	materials unsuitable for consumption or processing	R3	M	Weighed	Offsite in Ireland	ERAS ECO,W0211-01	Foxhole,Youghal,Co. Cork,.,Ireland		
Within the Country	02 07 04	No	16.037	materials unsuitable for consumption or processing	R3	M	Weighed	Offsite in Ireland	ERAS ECO,W0211-01	Foxhole,Youghal,Co. Cork,.,Ireland		
To Other Countries	03 02 01	Yes	4.228	non-halogenated organic wood preservatives	D10	M	Weighed	Abroad	Sava Gmbh & Co,.	1 Osterweute,Ce25541,Brunsbuttel,.,Germany	Sava Gmbh & Co,.,1 Osterweute,Ce25541,Brunsbuttel,.,Germany	1 Osterweute,Ce25541,Brunsbuttel,.,Germany
To Other Countries	03 02 05	Yes	2.078	other wood preservatives containing dangerous substances	R1	M	Weighed	Abroad	Recyfuel,.	Engis,.,.,B4480,Belgium	Recyfuel,.,Engis,.,.,B4480,Belgium	Engis,.,.,B4480,Belgium
To Other Countries	03 02 05	Yes	18.854	other wood preservatives containing dangerous substances	D10	M	Weighed	Abroad	Sava Gmbh & Co,.	1 Osterweute,Ce25541,Brunsbuttel,.,Germany	Sava Gmbh & Co,.,1 Osterweute,Ce25541,Brunsbuttel,.,Germany	1 Osterweute,Ce25541,Brunsbuttel,.,Germany
To Other Countries	06 01 01	Yes	25.718	sulphuric acid and sulphurous acid	D9	M	Weighed	Abroad	McQuillan Environmental,P0187/07A	Caulside Drive,Newpark Ind Est,Co. Antrim,BT41 2DU,United Kingdom	McQuillan Envirocare,P0187/07A,Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom	Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom
To Other Countries	06 01 02	Yes	3.251	hydrochloric acid	D9	M	Weighed	Abroad	McQuillan Environmental,P0187/07A	Caulside Drive,Newpark Ind Est,Co. Antrim,BT41 2DU,United Kingdom	McQuillan Envirocare,P0187/07A,Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom	Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom
To Other Countries	06 01 02	Yes	19.856	hydrochloric acid	R5	M	Weighed	Abroad	REVATECH SA,.	Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium	REVATECH SA,.,Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium	Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium
To Other Countries	06 01 04	Yes	0.019	phosphoric and phosphorous acid	D9	M	Weighed	Abroad	McQuillan Environmental,P0187/07A	Caulside Drive,Newpark Ind Est,Co. Antrim,BT41 2DU,United Kingdom	McQuillan Envirocare,P0187/07A,Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom	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	M	Weighed	Abroad	McQuillan Environmental,P0187/07A	Caulside Drive,Newpark Ind Est,Co. Antrim,BT41 2DU,United Kingdom	McQuillan Envirocare,P0187/07A,Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom	Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom
To Other Countries	06 01 06	Yes	130.412	other acids	D9	M	Weighed	Abroad	McQuillan Environmental,P0187/07A	Caulside Drive,Newpark Ind Est,Co. Antrim,BT41 2DU,United Kingdom	McQuillan Envirocare,P0187/07A,Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom	Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom
To Other Countries	06 01 06	Yes	164.277	other acids	R5	M	Weighed	Abroad	REVATECH SA,.	Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium	REVATECH SA,.,Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium	Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium
To Other Countries	06 01 06	Yes	8.273	other acids	D9	M	Weighed	Abroad	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
To Other Countries	06 02 04	Yes	14.049	sodium and potassium hydroxide	R5	M	Weighed	Abroad	REVATECH SA,.	Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium	REVATECH SA,.,Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium	Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium
To Other Countries	06 02 05	Yes	107.858	other bases	R5	M	Weighed	Abroad	REVATECH SA,.	Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium	REVATECH SA,.,Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium	Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium
Within the Country	06 04 04	Yes	0.008	wastes containing mercury	R4	M	Weighed	Offsite in Ireland	Irish Lamp Recycling,WFP-KE-14-0072-01	Woodstock Industrial Estate,.,Athy,Co. Kildare,Ireland	Future Industrial Services,.,Acornfield 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	4.139	spent activated carbon (except 06 07 02)	R1	M	Weighed	Abroad	Recyfuel,.	Engis,.,.,B4480,Belgium	Recyfuel,.,Engis,.,.,B4480,Belgium	Engis,.,.,B4480,Belgium
To Other Countries	07 05 13	Yes	33.386	solid wastes containing dangerous substances	R1	M	Weighed	Abroad	Recyfuel,.	Engis,.,.,B4480,Belgium	Recyfuel,.,Engis,.,.,B4480,Belgium	Engis,.,.,B4480,Belgium
To Other Countries	08 01 11	Yes	136.152	waste paint and varnish containing organic solvents or other dangerous substances	R1	M	Weighed	Abroad	ARF,.	22 Rue Jean Messager,.,St Remy Du Nord,FR59330,France	ARF,.,22 Rue Jean Messager,.,St Remy du Nord,FR53390,France	22 Rue Jean Messager,.,St Remy du Nord,FR53390,France
To Other Countries	08 01 11	Yes	2.306	waste paint and varnish containing organic solvents or other dangerous substances	R1	M	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	Industrieterrein - Seaport M152,Vlasweg 12,.,4782 PW Moerdijk,Netherlands
To Other Countries	08 01 11	Yes	16.478	waste paint and varnish containing organic solvents or other dangerous substances	R3	M	Weighed	Abroad	Nehlsen Gmbh & Co.,A-4187HH	Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany	Nehlsen Gmbh & Co.,A-4187HH,Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany	Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany
To Other Countries	08 01 11	Yes	96.721	waste paint and varnish containing organic solvents or other dangerous substances	R1	M	Weighed	Abroad	Recyfuel,.	Engis,.,.,B4480,Belgium	Recyfuel,.,Engis,.,.,B4480,Belgium	Engis,.,.,B4480,Belgium
	08 01 11	Yes	12.353	waste paint and varnish containing organic solvents or other dangerous substances	D9	M	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
To Other Countries	08 03 12	Yes	12.814	waste ink containing dangerous substances	R1	M	Weighed	Abroad	Recyfuel,.	Engis,.,.,B4480,Belgium	Recyfuel,.,Engis,.,.,B4480,Belgium	Engis,.,.,B4480,Belgium
To Other Countries	08 04 09	Yes	0.86	waste adhesives and sealants containing organic solvents or other dangerous substances	R1	M	Weighed	Abroad	ARF,.	22 Rue Jean Messager,.,St Remy Du Nord,FR59330,France	ARF,.,22 Rue Jean Messager,.,St Remy du Nord,FR53390,France	22 Rue Jean Messager,.,St Remy du Nord,FR53390,France
To Other Countries	08 04 09	Yes	3.879	waste adhesives and sealants containing organic solvents or other dangerous substances	R1	M	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	Industrieterrein - Seaport M152,Vlasweg 12,.,4782 PW Moerdijk,Netherlands
To Other Countries	08 04 09	Yes	6.179	waste adhesives and sealants containing organic solvents or other dangerous substances	R1	M	Weighed	Abroad	Recyfuel,.	Engis,.,.,B4480,Belgium	Recyfuel,.,Engis,.,.,B4480,Belgium	Engis,.,.,B4480,Belgium
To Other Countries	08 04 09	Yes	0.981	waste adhesives and sealants containing organic solvents or other dangerous substances	D9	M	Weighed	Abroad	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
To Other Countries	09 01 05	Yes	25.225	bleach solutions and bleach fixer solutions	R4	M	Weighed	Abroad	Remondis UK,.	Scott Lane Industrial Estate,Blackrod,Bolton,BL6 5SL,United Kingdom	Remondis UK Carr Lane Recycling and Treatment Facility,EPR/UP3134HY,Carr Lane,Prescott,Knowsley,LE3 41JZ,United Kingdom	Carr Lane,Prescott,Knowsley,LE3 41JZ,United Kingdom
To Other Countries	10 01 04	Yes	8.482	oil fly ash and boiler dust	R5	M	Weighed	Abroad	Zimmermann Sonderabfallentsorgung und Verwertung & Co KG Fesstoffkonditionierung,783/240406	3-7+31 Gottlieb-Daimler Strasse,DE 33334,Guterslo,.,Germany	Zimmermann Sonderabfallentsorgung und Verwertung & Co KG Fesstoffkonditionierung,783/240406,3-7+31 Gottlieb-Daimler Strasse,DE 33334,Guterslo,.,Germany	3-7+31 Gottlieb-Daimler Strasse,DE 33334,Guterslo,.,Germany
	11 01 05	Yes	42.259	pickling acids	D9	M	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
To Other Countries	11 01 09	Yes	0.688	sludges and filter cakes containing dangerous substances	R1	M	Weighed	Abroad	Recyfuel,.	Engis,.,.,B4480,Belgium	Recyfuel,.,Engis,.,.,B4480,Belgium	Engis,.,.,B4480,Belgium
To Other Countries	11 01 09	Yes	102.31	sludges and filter cakes containing dangerous substances	R5	M	Weighed	Abroad	Zimmermann Sonderabfallentsorgung und Verwertung & Co KG Fesstoffkonditionierung,783/240406	3-7+31 Gottlieb-Daimler Strasse,DE 33334,Guterslo,.,Germany	Zimmermann Sonderabfallentsorgung und Verwertung & Co KG Fesstoffkonditionierung,783/240407	3-7+31 Gottlieb-Daimler Strasse,DE 33334,Guterslo,.,Germany
To Other Countries	12 01 09	Yes	39.623	machining emulsions and solutions free of halogens	D10	M	Weighed	Abroad	ARF,.	22 Rue Jean Messager,.,St Remy Du Nord,FR59330,France	ARF,.,22 Rue Jean Messager,.,St Remy du Nord,FR53390,France	22 Rue Jean Messager,.,St Remy du Nord,FR53390,France
To Other Countries	12 01 09	Yes	35.588	machining emulsions and solutions free of halogens	R1	M	Weighed	Abroad	REVATECH SA,.	Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium	REVATECH SA,.,Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium	Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium

To Other Countries	12 01 09	Yes	328.278	machining emulsions and solutions free of halogens	D10	M	Weighed	Abroad	Sava Gmbh & Co,.	1 Osterweute,Ce25541,Brunsbuttel,.,Germany	Sava Gmbh & Co,.,1 Osterweute,Ce25541,Brunsbuttel,.,Germany	1 Osterweute,Ce25541,Brunsbuttel,.,Germany
To Other Countries	13 02 05	Yes	249.94	mineral-based non-chlorinated engine, gear and lubricating oils	R9	M	Weighed	Abroad	Puralube GmbH,291210045	Haupstrasse 30,.,Duisburg,DE06729,Germany	Puralube GmbH,291210045,Haupstrasse 30,.,Duisburg,DE06729,Germany	Haupstrasse 30,.,Duisburg,DE06729,Germany
To Other Countries	13 02 05	Yes	2.063	mineral-based non-chlorinated engine, gear and lubricating oils	R1	M	Weighed	Abroad	Recyfuel,.	Engis,.,.,B4480,Belgium	Recyfuel,.,Engis,.,.,B4480,Belgium	Engis,.,.,B4480,Belgium
To Other Countries	13 02 05	Yes	19.11	mineral-based non-chlorinated engine, gear and lubricating oils	R9	M	Weighed	Abroad	TWMA,PPC/A/1000175	Unit 12 Dales Industrial Estate,.,Peterhead,AB42 3JR,United Kingdom	TWMA,PPC/A/1000175,Unit 12 Dales Industrial Estate,.,Peterhead,AB42 3JR,United Kingdom	Unit 12 Dales Industrial Estate,.,Peterhead,AB42 3JR,United Kingdom
To Other Countries	13 02 08	Yes	13.627	other engine, gear and lubricating oils	R1	M	Weighed	Abroad	Recyfuel,.	Engis,.,.,B4480,Belgium	Recyfuel,.,Engis,.,.,B4480,Belgium	Engis,.,.,B4480,Belgium
To Other Countries	13 07 01	Yes	15.573	fuel oil and diesel	R9	M	Weighed	Abroad	Centec International,EA	The Science Park,Brooks Lane ,Middlewich,CW10 0JG,United Kingdom	Centec International,EA,Brooks Lane,.,Middlewich,CW10 0JG,United Kingdom	Brooks Lane,.,Middlewich,CW10 0JG,United Kingdom
To Other Countries	13 07 03	Yes	71.202	other fuels (including mixtures)	R9	M	Weighed	Abroad	Centec International,EA	The Science Park,Brooks Lane ,Middlewich,CW10 0JG,United Kingdom	Centec International,EA,Brooks Lane,.,Middlewich,CW10 0JG,United Kingdom	Brooks Lane,.,Middlewich,CW10 0JG,United Kingdom
To Other Countries	14 06 03	Yes	436.593	other solvents and solvent mixtures	R1	M	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	Industrieterrein - Seaport 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		
To Other Countries	15 01 10	Yes	0.943	packaging containing residues of or contaminated by dangerous substances	R1	M	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	Industrieterrein - Seaport M152,Vlasweg 12,.,4782 PW Moerdijk,Netherlands
To Other Countries	15 01 10	Yes	1.722	packaging containing residues of or contaminated by dangerous substances	R1	M	Weighed	Abroad	Nehlsen Gmbh & Co.,A-4187HH	Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany	Nehlsen Gmbh & Co.,A-4187HH,Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany	Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany
To Other Countries	15 01 10	Yes	80.547	packaging containing residues of or contaminated by dangerous substances	R1	M	Weighed	Abroad	Recyfuel,.	Engis,.,.,B4480,Belgium	Recyfuel,.,Engis,.,.,B4480,Belgium	Engis,.,.,B4480,Belgium
To Other Countries	15 01 10	Yes	1.236	packaging containing residues of or contaminated by dangerous substances	D9	M	Weighed	Abroad	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
To Other Countries	15 01 10	Yes	488.76	packaging containing residues of or contaminated by dangerous substances	R3	M	Weighed	Abroad	Delta Containers Direct Ltd,.	Preston Street,Manchester,Manchester,M188DB,United Kingdom	Delta Containers Direct Ltd,.,Preston Street,.,Manchester,M188DB,United Kingdom	Preston Street,.,Manchester,M188DB,United Kingdom
To Other Countries	15 02 02	Yes	49.036	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	R1	M	Weighed	Abroad	ARF,.	22 Rue Jean Messager,.,St Remy Du Nord,FR59330,France	ARF,.,22 Rue Jean Messager,.,St Remy du Nord,FR53390,France	22 Rue Jean Messager,.,St Remy du Nord,FR53390,France
To Other Countries	15 02 02	Yes	17.205	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	R1	M	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	Industrieterrein - Seaport M152,Vlasweg 12,.,4782 PW Moerdijk,Netherlands
To Other Countries	15 02 02	Yes	9.419	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	R3	M	Weighed	Abroad	Nehlsen Gmbh & Co.,A-4187HH	Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany	Nehlsen Gmbh & Co.,A-4187HH,Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany	Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany

To Other Countries	15 02 02	Yes	379.753	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	R1	M	Weighed	Abroad	Recyfuel,.	Engis,.,.,B4480,Belgium	Recyfuel,.,Engis,.,.,B4480,Belgium	Engis,.,.,B4480,Belgium
	15 02 02	Yes	12.312	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	D9	M	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
To Other Countries	15 02 03	No	0.297	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02	R1	M	Weighed	Abroad	Recyfuel,.	Engis,.,.,B4480,Belgium		
Within the Country	16 01 12	No	0.92	brake pads other than those mentioned in 16 01 11	R4	M	Weighed	Offsite in Ireland	A1 Metal,WMP007d	Acragar,.,Mountmellick,Co. Laois,Ireland		
To Other Countries	16 02 13	Yes	0.44	discarded equipment containing hazardous components (16) other than those mentioned in 16 02 09 to 16 02 12	R4	M	Weighed	Abroad	Celtic Recycling Ltd,.	Village Farm Industrial Estate,GB CF33 6BZ Pyle,Bridgend,.,United Kingdom	Celtic Recycling Ltd.,.,Village Farm Industrial Estate,GB CF33 6BZ,Pyle,Bridgend,United Kingdom	Village Farm Industrial Estate,GB CF33 6BZ,Pyle,Bridgend,United Kingdom
Within the Country	16 02 14	No	17.698	discarded equipment other than those mentioned in 16 02 09 to 16 02 13	R4	M	Weighed	Offsite in Ireland	Electrical Waste Ireland,Permit No. WFP-DS-09-0012-01	Jordanstown drive,Unit 648 Greenogue Business Park,Rathcoole,Co. Dublin,Ireland		
To Other Countries	16 02 14	No	3.37	discarded equipment other than those mentioned in 16 02 09 to 16 02 13	D10	M	Weighed	Abroad	SITA Decontamination,.	Westvaartdijk 97,.,Grimbergen,BE 1850,Belgium		
To Other Countries	16 03 03	Yes	3.229	inorganic wastes containing dangerous substances	D9	M	Weighed	Abroad	McQuillan Environmental,P0187/07A	Caulside Drive,Newpark Ind Est,Co. Antrim,BT41 2DU,United Kingdom	McQuillan Envirocare,P0187/07A,Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom	Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom
To Other Countries	16 03 03	Yes	6.5	inorganic wastes containing dangerous substances	R1	M	Weighed	Abroad	Recyfuel,.	Engis,.,.,B4480,Belgium	Recyfuel,.,Engis,.,.,B4480,Belgium	Engis,.,.,B4480,Belgium
To Other Countries	16 03 03	Yes	7.665	inorganic wastes containing dangerous substances	R5	M	Weighed	Abroad	REVATECH SA,.	Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium	REVATECH SA,.,Zoning 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	inorganic wastes other than those mentioned in 16 03 03	D1	M	Weighed	Offsite in Ireland	Drehid Landfill,W201-03	Carbury,.,Co. Kildare,.,Ireland		
To Other Countries	16 03 05	Yes	23.615	organic wastes containing dangerous substances	R1	M	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	Industrieterrein - Seaport M152,Vlasweg 12,.,4782 PW Moerdijk,Netherlands
To Other Countries	16 03 05	Yes	0.088	organic wastes containing dangerous substances	R1	M	Weighed	Abroad	Recyfuel,.	Engis,.,.,B4480,Belgium	Recyfuel,.,Engis,.,.,B4480,Belgium	Engis,.,.,B4480,Belgium
To Other Countries	16 05 04	Yes	10.861	gases in pressure containers (including halons) containing dangerous substances	R3	M	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 4QN,United Kingdom	140 Mallusk Road Mallusk,Newtownabbey,Co. Antrim,GB BT36 4QN,United Kingdom
To Other Countries	16 05 04	Yes	0.012	gases in pressure containers (including halons) containing dangerous substances	R1	M	Weighed	Abroad	Grundon Waste Management,.	Thames House ,Benson ,Wallingford,OX10 6LS,United Kingdom	Grundon Waste Management,.,Thames House ,Benson,Wallingford,OX10 6LS,United Kingdom	Thames House ,Benson,Wallingford,OX10 6LS,United Kingdom
To Other Countries	16 05 04	Yes	2.531	gases in pressure containers (including halons) containing dangerous substances	D10	M	Weighed	Abroad	Remondis UK,.	Scott Lane Industrial Estate,Blackrod,Bolton,BL6 5SL,United Kingdom	Remondis UK Carr Lane Recycling and Treatment Facility,EPR/UP3134HY,Carr Lane,Prescott,Knowsley,LE3 41JZ,United Kingdom	Carr Lane,Prescott,Knowsley,LE3 41JZ,United Kingdom
To Other Countries	16 05 06	Yes	133.554	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals	R1	M	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	Industrieterrein - Seaport M152,Vlasweg 12,.,4782 PW Moerdijk,Netherlands

To Other Countries	16 05 06	Yes	3.981	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals	R3	M	Weighed	Abroad	Hach Lange GmbH,.	Willstaetterstr. 11,DE 40549,Duesseldorf,.,Germany	Hach,.,Willstaetterstr. 11,40549 Duesseldorf,.,.,Germany	Willstaetterstr. 11,40549 Duesseldorf,.,.,Germany
Within the Country	16 05 06	Yes	674.0	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals	R4	M	Weighed	Offsite in Ireland	Irish Lamp Recycling,WFP-KE-14-0072-01	Woodstock Industrial Estate,.,Athy,Co. Kildare,Ireland	Future Industrial Services,.,Acornfield Road,Knowsley Industrial Park,Liverpool,L33 7UF,United Kingdom	Acornfield Road,Knowsley Industrial Park,Liverpool,L33 7UF,United Kingdom
To Other Countries	16 05 06	Yes	12.947	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals	D9	M	Weighed	Abroad	McQuillan Environmental,P0187/07A	Caulside Drive,Newpark Ind Est,Co. Antrim,BT41 2DU,United Kingdom	McQuillan Envirocare,P0187/07A,Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom	Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom
To Other Countries	16 05 06	Yes	0.027	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals	R1	M	Weighed	Abroad	Recyfuel,.	Engis,.,.,B4480,Belgium	Recyfuel,.,Engis,.,.,B4480,Belgium	Engis,.,.,B4480,Belgium
To Other Countries	16 05 06	Yes	12.033	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals	R5	M	Weighed	Abroad	REVATECH SA,.	Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium	REVATECH SA,.,Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium	Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium
To Other Countries	16 05 06	Yes	7.222	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals	D10	M	Weighed	Abroad	AGR mbh - RZR Herten,.	Im Emscherbruch 11,45699,Herten,.,Germany	AGR mbh - RZR Herten,.,Im Emscherbruch 11,45699,Herten,.,Germany	Im Emscherbruch 11,45699,Herten,.,Germany
To Other Countries	**16 05 06**	**Yes**	7.789	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals	D10	M	Weighed	Abroad	Sava Gmbh & Co,.	1 Osterweute,Ce25541,Brunsbuttel,.,Germany	Sava Gmbh & Co,.,1 Osterweute,Ce25541,Brunsbuttel,.,Germany	1 Osterweute,Ce25541,Brunsbuttel,.,Germany
Within the Country	16 05 06	**Yes**	0.041	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals	R13	M	Weighed	Offsite in Ireland	SRCL,W0054-02	Unit 1A,Allied Industrial Estate,Kylemore Rd. Ballyfermot,Dublin 10,Ireland	Remondis UK Carr Lane Recycling and Treatment Facility,EPR/UP3134HY,Carr Lane,Prescott,Knowsley,LE3 41JZ,United Kingdom	Carr Lane,Prescott,Knowsley,LE3 41JZ,United Kingdom
Within the Country	16 05 06	Yes	9.137	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of laboratory chemicals	D9	M	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,.,Ireland	402 Greenogue Business Park,Rathcoole,Dublin,.,Ireland
To Other Countries	16 05 07	Yes	17.277	discarded inorganic chemicals consisting of or containing dangerous substances	D9	M	Weighed	Abroad	McQuillan Environmental,P0187/07A	Caulside Drive,Newpark Ind Est,Co. Antrim,BT41 2DU,United Kingdom	McQuillan Envirocare,P0187/07A,Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom	Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom
To Other Countries	16 05 07	Yes	11.351	discarded inorganic chemicals consisting of or containing dangerous substances	R1	M	Weighed	Abroad	Recyfuel,.	Engis,.,.,B4480,Belgium	Recyfuel,.,Engis,.,.,B4480,Belgium	Engis,.,.,B4480,Belgium
To Other Countries	16 05 07	Yes	113.489	discarded inorganic chemicals consisting of or containing dangerous substances	R5	M	Weighed	Abroad	REVATECH SA,.	Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium	REVATECH SA,.,Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium	Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium
To Other Countries	16 05 07	Yes	29.177	discarded inorganic chemicals consisting of or containing dangerous substances	D10	M	Weighed	Abroad	Sava Gmbh & Co,.	1 Osterweute,Ce25541,Brunsbuttel,.,Germany	Sava Gmbh & Co,.,1 Osterweute,Ce25541,Brunsbuttel,.,Germany	1 Osterweute,Ce25541,Brunsbuttel,.,Germany
To Other Countries	16 05 08	Yes	0.012	discarded organic chemicals consisting of or containing dangerous substances	R1	M	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	Industrieterrein - Seaport M152,Vlasweg 12,.,4782 PW Moerdijk,Netherlands
To Other Countries	16 05 08	Yes	0.731	discarded organic chemicals consisting of or containing dangerous substances	D9	M	Weighed	Abroad	McQuillan Environmental,P0187/07A	Caulside Drive,Newpark Ind Est,Co. Antrim,BT41 2DU,United Kingdom	McQuillan Envirocare,P0187/07A,Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom	Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom
To Other Countries	16 05 08	Yes	255.425	discarded organic chemicals consisting of or containing dangerous substances	R1	M	Weighed	Abroad	Recyfuel,.	Engis,.,.,B4480,Belgium	Recyfuel,.,Engis,.,.,B4480,Belgium	Engis,.,.,B4480,Belgium

To Other Countries	16 05 08	Yes	0.797	discarded organic chemicals consisting of or containing dangerous substances	R5	M	Weighed	Abroad	REVATECH SA,.	Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium	REVATECH SA,.,Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium	Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium
To Other Countries	16 05 08	Yes	2.041	discarded organic chemicals consisting of or containing dangerous substances	D9	M	Weighed	Abroad	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
To Other Countries	16 06 01	Yes	533.604	lead batteries	R4	M	Weighed	Abroad	Exide Technologies,.	Edificio Sonalur,.,Villa Nova da Rainha,2050-522,Portugal	Exide Technologies,.,Edificio Sonalur,.,Villa Nova da Rainha,2050-522,Portugal	Edificio Sonalur,.,Villa Nova da Rainha,2050-522,Portugal
To Other Countries	16 06 01	Yes	523.494	lead batteries	R4	M	Weighed	Abroad	HJ Enthoven & Sons,BL5598	Darley Dale Smelter,South Darley,Derbyshire,DE4 2LP,United Kingdom	HJ Enthoven & Sons,.,Darley Dale Smelter,South Darley,Derbyshire,DE4 2LP,United Kingdom	Darley Dale Smelter,South Darley,Derbyshire,DE4 2LP,United Kingdom
To Other Countries	16 06 01	Yes	369.452	lead batteries	R4	M	Weighed	Abroad	Envirowales Limited,OG1070327	Plateux 1 & 2,Rassau Industrial Estate,Ebbw Vale,NP235SD,United Kingdom	Envirowales Limited,OG1070327,Plateux 1 & 2,Rassau Industrial Estate,Ebbw Vale,NP23 5SD,United Kingdom	Plateux 1 & 2,Rassau Industrial Estate,Ebbw Vale,NP23 5SD,United Kingdom
Within the Country	16 06 02	Yes	1.869	Ni-Cd batteries	R4	M	Weighed	Offsite in Ireland	KMK Metals,W0113-04	Cappincur Ind Est,Daingean Road,Tullamore,Co. Offaly,Ireland	HJ Enthoven & Sons,.,Darley Dale Smelter,South Darley,Derbyshire,DE4 2LP,United Kingdom	Darley Dale Smelter,South Darley,Derbyshire,DE4 2LP,United Kingdom
Within the Country	16 06 04	No	3.578	alkaline batteries (except 16 06 03)	R4	M	Weighed	Offsite in Ireland	KMK Metals,W0113-04	Cappincur Ind Est,Daingean Road,Tullamore,Co. Offaly,Ireland		
Within the Country	16 06 05	No	0.662	other batteries and accumulators	R4	M	Weighed	Offsite in Ireland	KMK Metals,W0113-04	Cappincur Ind Est,Daingean Road,Tullamore,Co. Offaly,Ireland		
To Other Countries	16 07 08	Yes	295.659	wastes containing oil	D9	M	Weighed	Abroad	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
To Other Countries	16 10 01	Yes	69.011	aqueous liquid wastes containing dangerous substances	D10	M	Weighed	Abroad	ARF,.	22 Rue Jean Messager,.,St Remy Du Nord,FR59330,France	ARF,.,22 Rue Jean Messager,.,St Remy du Nord,FR53390,France	22 Rue Jean Messager,.,St Remy du Nord,FR53390,France
To Other Countries	16 10 01	Yes	0.833	aqueous liquid wastes containing dangerous substances	R12	M	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	Industrieterrein - Seaport M152,Vlasweg 12,.,4782 PW Moerdijk,Netherlands
To Other Countries	16 10 01	Yes	158.342	aqueous liquid wastes containing dangerous substances	D9	M	Weighed	Abroad	McQuillan Environmental,P0187/07A	Caulside Drive,Newpark Ind Est,Co. Antrim,BT41 2DU,United Kingdom	McQuillan Envirocare,P0187/07A,Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom	Caulside Drive,Newpark Industrial Estate,Co. Antrim,BT41 2DU,United Kingdom
To Other Countries	16 10 01	Yes	1.16	aqueous liquid wastes containing dangerous substances	R1	M	Weighed	Abroad	Recyfuel,.	Engis,.,.,B4480,Belgium	Recyfuel,.,Engis,.,.,B4480,Belgium	Engis,.,.,B4480,Belgium
To Other Countries	16 10 01	Yes	68.481	aqueous liquid wastes containing dangerous substances	R1	M	Weighed	Abroad	REVATECH SA,.	Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium	REVATECH SA,.,Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium	Zoning l'Industrial D'Ehein,B 4480 ENGIS,.,.,Belgium
To Other Countries	16 10 01	Yes	511.539	aqueous liquid wastes containing dangerous substances	D10	M	Weighed	Abroad	Sava Gmbh & Co,.	1 Osterweute,Ce25541,Brunsbuttel,.,Germany	Sava Gmbh & Co,.,1 Osterweute,Ce25541,Brunsbuttel,.,Germany	1 Osterweute,Ce25541,Brunsbuttel,.,Germany
	17 01 03	No	40.001	tiles and ceramics	D1	M	Weighed		Drehid Landfill,W201-03	Carbury,.,Co. Kildare,.,Ireland		
To Other Countries	17 02 04	Yes	50.64	glass, plastic and wood containing or contaminated with dangerous substances	R1	M	Weighed	Abroad	Trackwork Limited,.	Kirk Sandall Industrial Estate,GB DN3 1RA,Doncaster,South Yorkshire,United Kingdom	Trackwork Ltd,.,Kirk Sandall Ind Estate,Doncaster,South Yorkshire,DN3 1RA,United Kingdom	Kirk Sandall Ind Estate,Doncaster,South Yorkshire,DN3 1RA,United Kingdom
To Other Countries	17 03 01	Yes	105.519	bituminous mixtures containing coal tar	R12	M	Weighed	Abroad	Afvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,., The Netherlands		
To Other Countries	**17 05 03**	**Yes**	6419.38	soil and stones containing dangerous substances	D9	M	Weighed	Abroad	NOAH,2009.121.T	Langoya,Serviceboks H,Holmestrand,3081,Norway	NOAH,2009.121.T,Langoya,Serviceboks H,Holmstrand,3081,Norway	Langoya,Serviceboks H,Holmstrand,3081,Norway
To Other Countries	17 05 03	Yes	1693.97	soil and stones containing dangerous substances	R5	M	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	Industrieterrein - Seaport M152,Vlasweg 12,.,4782 PW Moerdijk,Netherlands

To Other Countries	17 05 03	Yes	4277.76	soil and stones containing dangerous substances	D1	M	Weighed	Abroad	Buhck GmbH,eg0019	Rappenburg,.,Wiershop,21502,Germany	Buhck,eg0019,Rappenberg,.,Wiershop,21502,Germany	Rappenberg,.,Wiershop,21502,Germany
To Other Countries	17 05 04	No	4497.38	soil and stones other than those mentioned in 17 05 03	D9	M	Weighed	Abroad	NOAH,2009.121.T	Langoya,Serviceboks H,Holmestrand,3081,Norway		
To Other Countries	17 05 04	No	2599.56	soil and stones other than those mentioned in 17 05 03	R5	M	Weighed	Abroad	Afvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,., The Netherlands		
To Other Countries	17 06 01	Yes	301.187	insulation materials containing asbestos	D1	M	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 4QN,United Kingdom	140 Mallusk Road Mallusk,Newtownabbey,Co. Antrim,GB BT36 4QN,United Kingdom
To Other Countries	17 06 05	Yes	2611.865	construction materials containing asbestos (18)	D1	M	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 4QN,United Kingdom	141 Mallusk Road Mallusk,Newtownabbey,Co. Antrim,GB BT36 4QN,United Kingdom
To Other Countries	17 06 05	Yes	2336.14	construction materials containing asbestos (18)	D1	M	Weighed	Abroad	GEG mbH,EG0108	Bimohler Strasse,57a,Grossenaspe,24623,Germany	GEG mbH,EG0108,Bimohler Strasse,57a,Grossenaspe,24623,Germany	Bimohler Strasse,57a,Grossenaspe,24623,Germany
Within the Country	18 01 01	No	0.506	sharps (except 18 01 03)	R13	M	Weighed	Offsite in Ireland	SRCL,W0054-02	Unit 1A,Allied Industrial Estate,Kylemore Rd. Ballyfermot,Dublin 10,Ireland		
To Other Countries	18 01 09	No	11.148	medicines other than those mentioned in 18 01 08	R1	M	Weighed	Abroad	Afvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,., The Netherlands		
To Other Countries	18 02 08	No	61.836	medicines other than those mentioned in 18 02 07	R1	M	Weighed	Abroad	Afvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,., The Netherlands		
To Other Countries	19 01 07	Yes	23.22	solid wastes from gas treatment	R5	M	Weighed	Abroad	NOAH,2009.121.T	Langoya,Serviceboks H,Holmestrand,3081,Norway	NOAH,2009.121.T,Langoya,Serviceboks H,Holmstrand,3081,Norway	Langoya,Serviceboks H,Holmstrand,3081,Norway
To Other Countries	19 02 05	Yes	971.89	sludges from physico/chemical treatment containing dangerous substances	D5	M	Weighed	Abroad	NOAH,2009.121.T	Langoya,Serviceboks H,Holmestrand,3081,Norway	NOAH,2009.121.T,Langoya,Serviceboks H,Holmstrand,3081,Norway	Langoya,Serviceboks H,Holmstrand,3081,Norway
Within the Country	19 02 05	Yes	154.26	sludges from physico/chemical treatment containing dangerous substances	R13	M	Weighed	Offsite in Ireland	Veolia Environmental Services,W0050-02	Corrin,.,Fermoy,.,Ireland	Sedibex,.,Route Industrielle Portuaire du Harve,.,Sandouville,76430,France	Route Industrielle Portuaire du Harve,.,Sandouville,76430,France
To Other Countries	19 02 11	Yes	858.8	other wastes containing dangerous substances	R12	M	Weighed	Abroad	Afvalstoffen Terminal Moerdijk B.V.,14/12/4149	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	Industrieterrein - Seaport M152,Vlasweg 12,.,4782 PW Moerdijk,Netherlands
Within the Country	19 02 99	No	44100.0	wastes not otherwise specified	D8	M	Weighed	Offsite in Ireland	Ringsend WWTW,.	Pigeon House Road,Ringsend,.,Dublin 4,Ireland		
Within the Country	19 12 02	No	93.64	ferrous metal	R4	M	Weighed	Offsite in Ireland	Hammond Metal Recycling ,.	Pigeon House Road,Ringsend,Dublin 4,.,Ireland		
To Other Countries	19 12 11	Yes	0.628	other wastes (including mixtures of materials) from mechanical treatment of waste containing dangerous substances	R1	M	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	Industrieterrein - Seaport M152,Vlasweg 12,.,4782 PW Moerdijk,Netherlands
To Other Countries	20 01 19	Yes	13.26	pesticides	D10	M	Weighed	Abroad	Remondis UK,.	Scott Lane Industrial Estate,Blackrod,Bolton,BL6 5SL,United Kingdom	Remondis UK Carr Lane Recycling and Treatment Facility,EPR/UP3134HY,Carr Lane,Prescott,Knowsley,LE3 41JZ,United Kingdom	Carr Lane,Prescott,Knowsley,LE3 41JZ,United Kingdom
To Other Countries	20 01 19	Yes	4.652	pesticides	D10	M	Weighed	Abroad	Sava Gmbh & Co,.	1 Osterweute,Ce25541,Brunsbuttel,.,Germany	Sava Gmbh & Co,.,1 Osterweute,Ce25541,Brunsbuttel,.,Germany	1 Osterweute,Ce25541,Brunsbuttel,.,Germany
Within the Country	20 01 21	Yes	0.219	fluorescent tubes and other mercury-containing waste	R4	M	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	M	Weighed	Offsite in Ireland	Thorntons Composting,W0195-02	Kilmainhamwood,Kells,Co. Meath,.,Ireland		
To Other Countries	20 01 27	Yes	28.381	paint, inks, adhesives and resins containing dangerous substances	R1	M	Weighed	Abroad	ARF,.	22 Rue Jean Messager,.,St Remy Du Nord,FR59330,France	ARF,.,22 Rue Jean Messager,.,St Remy du Nord,FR53390,France	22 Rue Jean Messager,.,St Remy du Nord,FR53390,France

To Other Countries	20 01 27	Yes	33.985	paint, inks, adhesives and resins containing dangerous substances	R3	M	Weighed	Abroad	Nehlsen Gmbh & Co.,A-4187HH	Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany	Nehlsen Gmbh & Co.,A-4187HH,Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany	Neiderlassung Nehlsen-Plimp,Betriebsstatte Bremen,Louis-Krages Strasse 10,Bremen,Germany
To Other Countries	20 01 27	Yes	193.56	paint, inks, adhesives and resins containing dangerous substances	R1	M	Weighed	Abroad	Recyfuel,.	Engis,.,.,B4480,Belgium	Recyfuel,.,Engis,.,.,B4480,Belgium	Engis,.,.,B4480,Belgium
To Other Countries	20 01 27	Yes	6.889	paint, inks, adhesives and resins containing dangerous substances	D1	M	Weighed	Abroad	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
To Other Countries	20 01 29	Yes	20.467	detergents containing dangerous substances	R1	M	Weighed	Abroad	Recyfuel,.	Engis,.,.,B4480,Belgium	Recyfuel,.,Engis,.,.,B4480,Belgium	Engis,.,.,B4480,Belgium
To Other Countries	20 01 32	No	3.65	medicines other than those mentioned in 20 01 31	R1	M	Weighed	Abroad	Afvalstoffen Terminal Moerdijk B.V.,821780	Industrieterrein - Seaport M152,Vlasweg 12,4782 PW Moerdijk,., The Netherlands		
Within the Country	20 03 01	No	5.8	mixed municipal waste	D1	M	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

RILTA Environmental Limited

EHS MANAGEMENT PLAN
2015 - 2017

In accordance with
ISO 14001 & OHSAS18001

ENVIRONMENTAL MANAGEMENT PROGRAMME FOR THE ACHIEVEMENT OF OBJECTIVES AND TARGETS

EMP Ref.	***Objective***	***Target***	***Environmental Management Programme for the implementation of objectives.***	***Responsible Person***	***Completion Date***	***Completed (Y/N)***
1	Increase environmental awareness among RILTA staff	Develop and produce EHS diary for 2018	Find suitable producer(s) Develop content for approval Get quotes for production Print and distribute to relevant stakeholders	CH SL SL SL	Mar 17 Mar 17 Mar 17 Apr 17	17/01/2018: Draft of diary is prepared – with management for 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	CH CH CH	Apr 17 May 17 Oct 17	17/01/2018: Waste tracking system fully operations.

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)	CH CH CH	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	CH CH CH	Mar 17 Ongoing Dec 17	17/01/2018: Concrete repairs partially complete. Several large sections complete. Tanks cleaned and storm water interceptor skimmed.

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	CH CH	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	TMc TMc	Ongoing Ongoing	17/01/2018: No ELV exceedances for 2017.

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

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.

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

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 By:	Sean Lawlor	**Approved By:**	Colm Hussey	**Revision Date:**	03/01/2018

Table of Contents

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
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.

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.

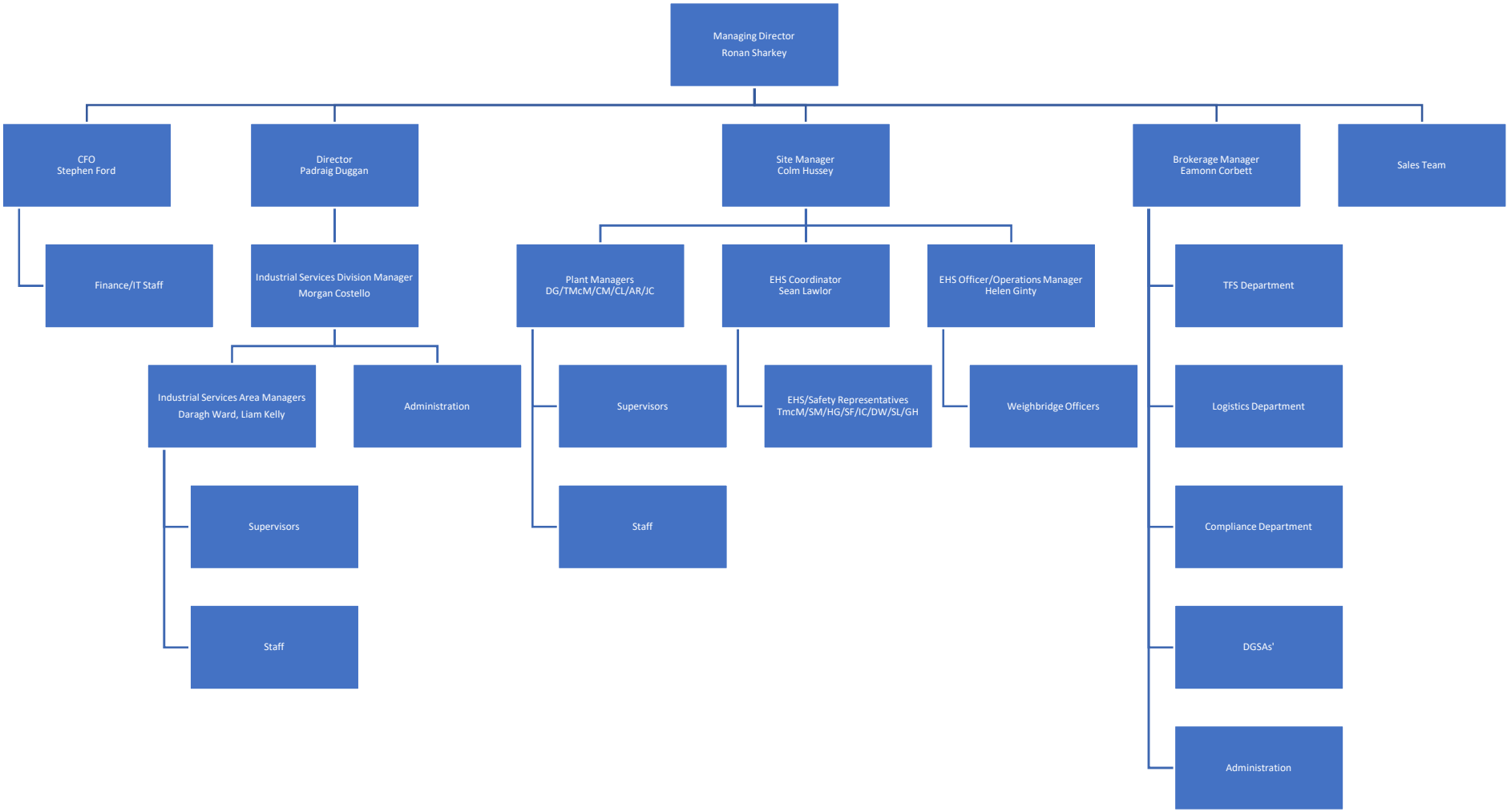
Aspect Ref. No.:	Aspect (i.e. what the issue is)	Objective (i.e. high level what needs to be done)	Target (i.e. low level what needs to be done)	Implementation Plan (i.e. how we are going to do it)	Indicators of Success
008b	Transformer processing - Production of noise and particulates, liquid and solid 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.

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.
010b	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



APPENDIX 6

Bund Integrity Test Report 2016 / 2017

Rilta Environmental Ltd.

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

May 2017

Revision: **A**

TOBIN CONSULTING ENGINEERS

TOBIN
Patrick J. Tobin & Co. Ltd.

REPORT

PROJECT:

Bund Integrity Testing

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

CLIENT:

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DOCUMENT AMENDMENT RECORD

Client: **Rilta Environmental Ltd.**

Project: **10063 – Bund Integrity Testing**

Title: **Bund Integrity Testing**

PROJECT NUMBER: 6731				DOCUMENT REF:6731/Rev A			
A	Bund Integrity Testing	FH	08/05/17	ST	09/05/17	DG	09/05/17
Revision	**Description & Rationale**	**Originated**	**Date**	**Checked**	**Date**	**Authorised**	**Date**
TOBIN Consulting Engineers							

TABLE OF CONTENTS

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 (1st April – 2nd April 2017, 5th of April – 6th of April 2017 and 8th of April – 9th of April 2017) and levels remained constant for the second monitoring period Day 2 to Day 3 (April 2nd – April 3rd 2017, April 7th – April 8th 2017 and April 8th to April 9th 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).

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

Measurement Location	Sat 1st Apr (Top of bund to water level)	Sun 2nd Apr (Top of bund to water level)	Mon 3rd Apr (Top of bund to water level)	Fluctuation	Pass / Fail
Front of bund					
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 bund					
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

Measurement Location	Wed 5th Apr (Top of bund to water level)	Thur 6th Apr (Top of bund to water level)	Fri 7th 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**
Control	13cm	13cm	13cm	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.

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

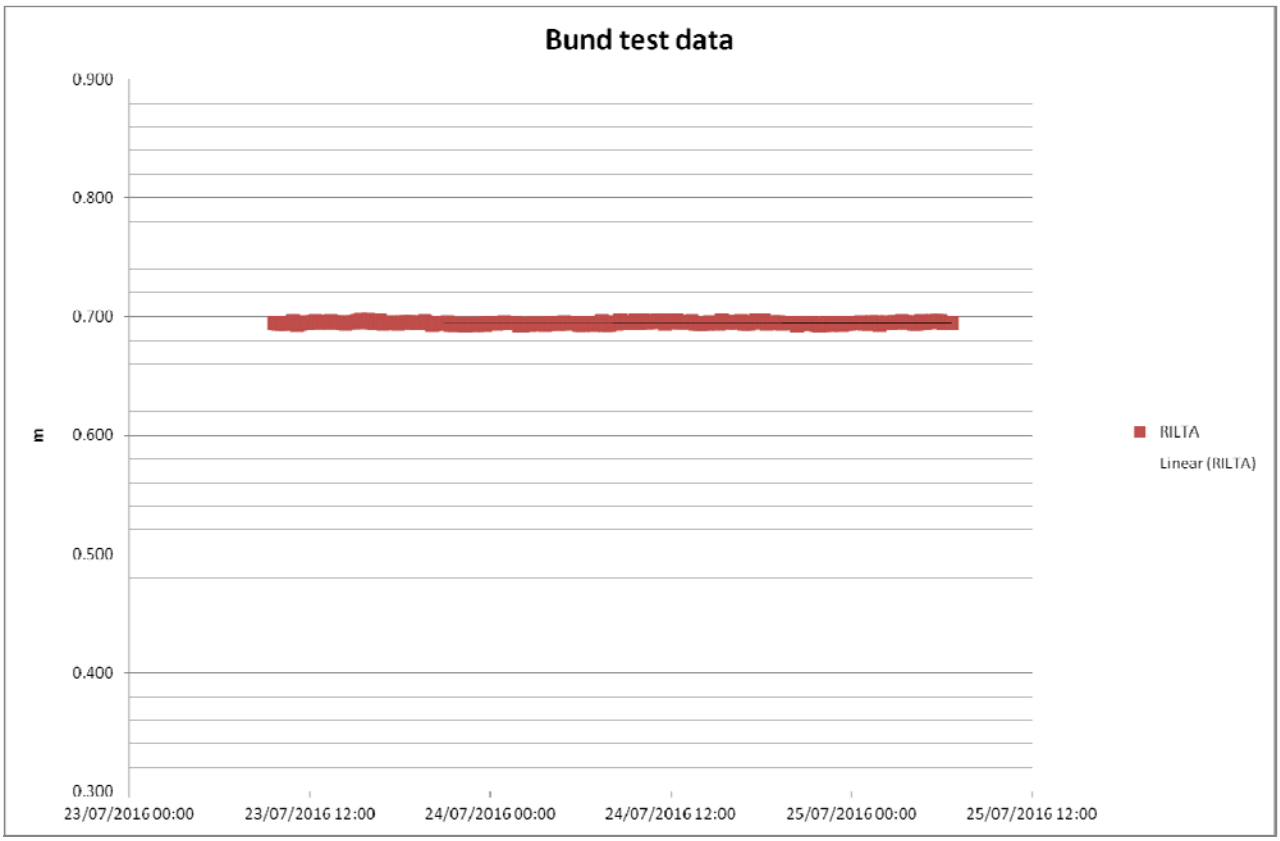
Measurement Location	Sat 8th Apr (Top of bund to water level)	Sun 9th Apr (Top of bund to water level)	Mon 10th Apr (Top of bund to water level)	Fluctuation	Pass / Fail
A, Front Left	131cm	131cm	131cm	0.0cm	**Pass**
B, Front Right	131cm	131cm	131cm	0.0cm	**Pass**
C, Rear Right	133cm	133cm	133cm	0.0cm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

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.

Table 4-15 Bund / Area No. 16 Test Result



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.

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

Bund No.	Sat 8th Apr (Top of bund to water level)	Sun 9th Apr (Top of bund to water level)	Mon 10th 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**

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:

- 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

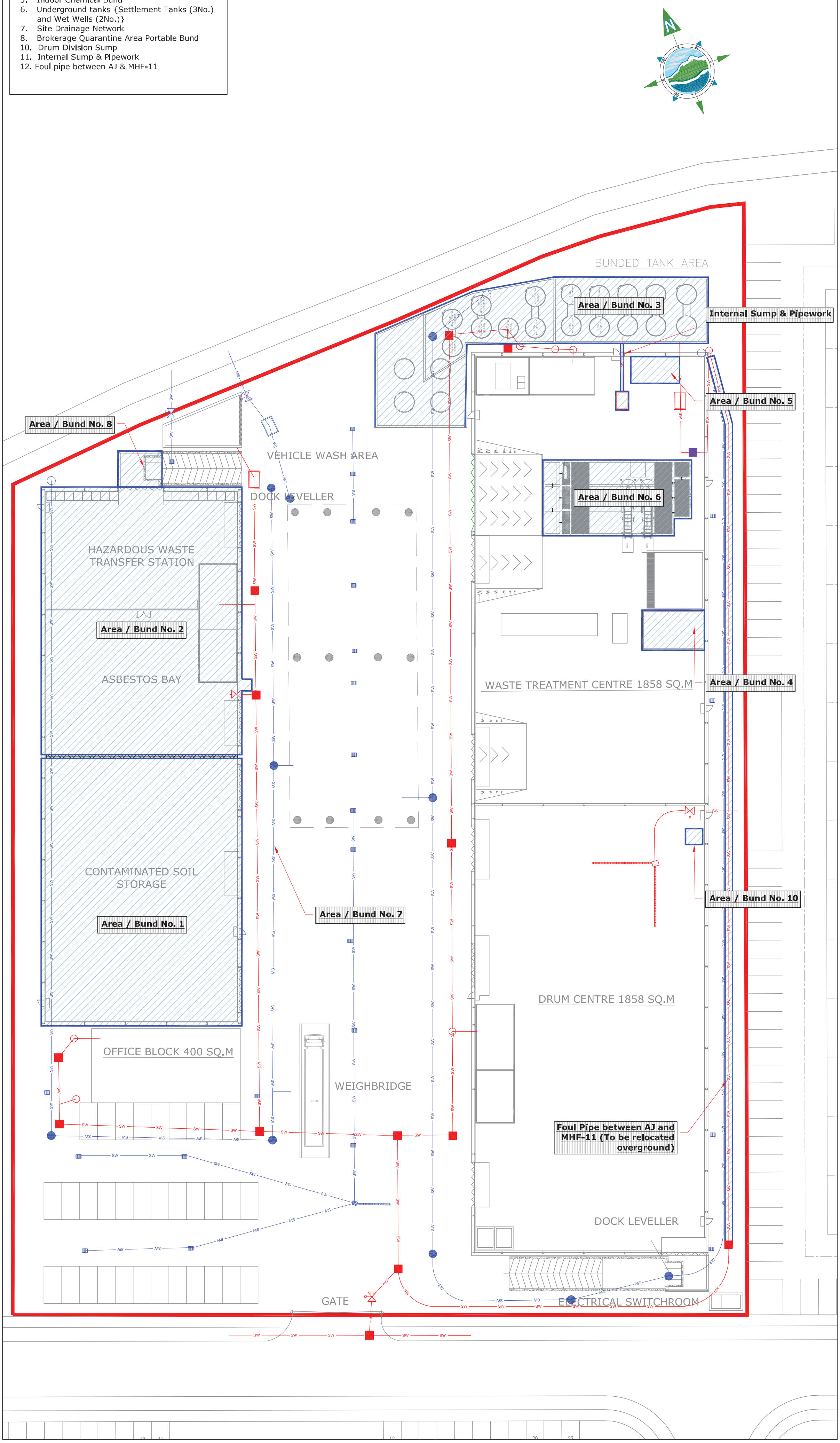
- Area / Bund No. 9: Drum Division Sump = **PASS**

APPENDIX A

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

TEST AREAS

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



GENERAL LEGEND

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

NOTES

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

Rev	Date	Description	By	Chkd.
A	May 2017	ISSUED FOR REPORT	MN	ST

Client: RILTA Environmental Limited

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

Title: BUND / TANK LOCATIONS FOR TESTING

BLOCK 402 SITE

Scale @ A1: 1:250

Prepared by: M. Nolan | Checked: S.Tinnelly | Date: May 2017

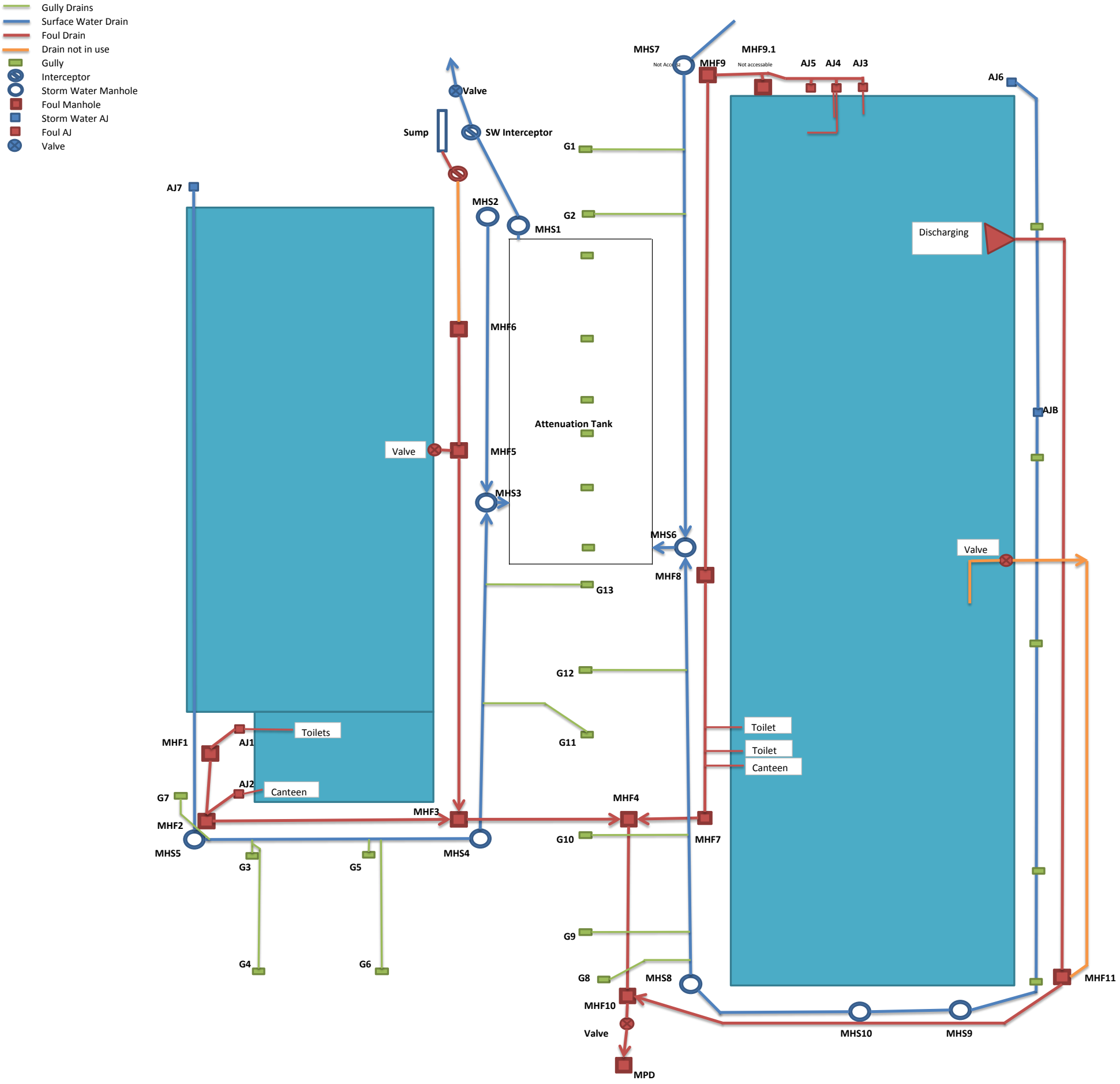
Project Director: D.Grehan

TOBIN
Patrick J. Tobin & Co. Ltd.
TOBIN Consulting Engineers,
Block 10-4, Blanchardstown Corporate Park,
Dublin 15, Ireland.
tel: +353-(0)1-8030406
fax:+353-(0)1-8030409
e-mail: dublin@tobin.ie
www.tobin.ie

Drawing No.: Figure 1 | Revision: A

APPENDIX B

Block 402 - CCTV Drainage Inspection Report


Gully Drains
Surface Water Drain
Foul Drain
Drain not in use
Gully
Interceptor
Storm Water Manhole
Foul Manhole
Storm Water AJ
Foul AJ
Valve
AJ7
MHS2
MHS1
G2
MHS7
Not Accessable
MHF9
MHF9.1
Not accessable
AJ5
AJ4
AJ3
AJ6
Valve
Sump
SW Interceptor
G1
Discharging
MHF6
Attenuation Tank
AJB
Valve
MHF5
MHS3
MHS6
MHF8
Valve
G13
G12
G11
MHF1
AJ1
Toilets
Toilet
Toilet
Canteen
AJ2
Canteen
G7
MHF2
MHF3
MHF4
MHS5
MHS4
G10
MHF7
G3
G5
G4
G6
G9
G8
MHS8
MHF11
MHF10
Valve
MHS10
MHS9
MPD

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

Project-information / Inspection: 1

Project name :	Project Number :	Contact :	Date :
Rilta Environmental Ltd.			**01/03/2017**

Client	**Rilta Environmental Ltd.**
Responsible:	**Colm Hussey**
Department:	
Street:	**Unit 402, Greenoque Business Park**
City, St Zip:	**Rathcoole**
Po Box:	**Dublin**
Telephone:	
Fax:	
Mobile:	
e-mail:	

Proj mgr	**Rilta Environmental Ltd.**
Responsible:	**Colm Hussey**
Department:	
Street:	**Unit 402, Greenoque Business Park**
City, St Zip:	**Rathcoole**
Po Box:	**Dublin**
Telephone:	
Fax:	
Mobile:	
e-mail:	

Contractor	**Rilta Environmental Ltd**
Responsible:	**Eoin Kirby, Frantisek Navratil**
Department:	**Contracts**
Street:	**Greenogue Business Park**
City, St Zip:	**Rathcoole**
Po Box:	**Dublin**
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Mobile:	**0877988574**
e-mail:	**info@rilta.ie**

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Fax:
Email: info@rilta.ie

Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
01/03/2017		**rain**	**Frantisek**	**1**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
rain	**VEHICLE 1**	**camera 1**		**no**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**MHS2**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHS3**
Inspection	**MHS3 (U/S) MHS2**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**225.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Concrete**
Total length :	**29.84 m**	Lining :	

Comment :

1:252 Position	Code	Observation	MPEG	Photo	Grade
MHS3					
0.01	MH	Start node type, manhole, reference number : MH3	00:00:00		(Constr) 0
0.02	WL	Water level, 5% of the vertical dimension			(Serv) 0
2.01	CN	Connection other than junction, at 10 o'clock, diameter 150mm	00:01:02		(Constr) 0
13.32	CN	Connection other than junction, at 10 o'clock, diameter 150mm	00:03:22		(Constr) 0
15.14	WL	Water level, 0% of the vertical dimension	00:03:40		(Serv) 0
17.04	WL	Water level, 5% of the vertical dimension	00:03:53		(Serv) 0
19.82	WL	Water level, 0% of the vertical dimension	00:04:38		(Serv) 0
29.27	CN	Connection other than junction, at 10 o'clock, diameter 150mm	00:06:28		(Constr) 0
29.84	WL	Water level, 0% of the vertical dimension	00:06:45		(Serv) 0
MHS2					
29.84	MHF	Finish node type, manhole reference number: MH2	00:06:48		(Constr) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
01/03/2017		**no rain or snow**	**Frantisek**	**2**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**MHS3**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**ET**
Inspection	**MHS3 (D/S) ET**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**225.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**1.72 m**	Lining :	

Comment :

1:50	Position	Code	Observation	MPEG	Photo	Grade
MHS3	0.00	MH	Start node type, manhole, reference number : MHS3	00:00:00		(Constr) 0
	0.01	WL	Water level, 10% of the vertical dimension			(Serv) 0
	1.67	WL	Water level, 0% of the vertical dimension	00:01:22		(Serv) 0
ET	1.72	MHF	Finish node type, manhole reference number: ET	00:02:15		(Constr) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
01/03/2017		**no rain or snow**	**Frantisek**	**3**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**MHS3**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHS4**
Inspection	**MHS3 (D/S) MHS4**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**225.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**47.52 m**	Lining :	

Comment :

1:378 Position	Code	Observation	MPEG	Photo	Grade
MHS3					
0.00	MH	Start node type, manhole, reference number : MH3	00:00:00		(Constr) 0
0.16	WL	Water level, 5% of the vertical dimension			(Serv) 0
3.11	WLC	Clear water level, 0% of the vertical dimension	00:00:46		(Serv) 0
4.14	CN	Connection other than junction, at 2 o'clock, diameter 150mm	00:01:23		(Constr) 0
7.64	CN	Connection other than junction, at 10 o'clock, diameter 150mm	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 junction, at 4 o'clock, diameter 150mm	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 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 junction, at 12 o'clock, diameter 150mm	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 vertical dimension	00:08:21		(Serv) 0
39.87	WLC	Clear water level, 10% of the vertical dimension	00:08:41		(Serv) 0
41.12	CN	Connection other than junction, at 11 o'clock, diameter 150mm	00:09:32		(Constr) 0
47.52	WL	Water level, 0% of the vertical dimension	00:10:11		(Serv) 0
47.52	MHF	Finish node type, manhole reference number: MH4	00:10:14		(Constr) 0
MHS4					

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
01/03/2017		**no rain or snow**	**Frantisek**	**4**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**MHS7**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHS6**
Inspection	**MHS6 (U/S) MHS7**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**225.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**56.13 m**	Lining :	

Comment :

1:462 Position	Code	Observation	MPEG	Photo	Grade
MHS6					
0.00	MH	Start node type, manhole, reference number : MHS6	00:00:00		(Constr) 0
0.01	WL	Water level, 0% of the vertical dimension	00:00:25		(Serv) 0
0.20	CN	Connection other than junction, at 2 o'clock, diameter 150mm Remarks: Unknown Connection	00:00:28		(Constr) 0
3.89	WLC	Clear water level, 5% of the vertical dimension	00:01:18		(Serv) 0
5.53	WL	Water level, 0% of the vertical dimension	00:01:36		(Serv) 0
11.53	CN	Connection other than junction, at 3 o'clock, diameter 150mm	00:02:38		(Constr) 0
35.60	CN	Connection other than junction, at 11 o'clock, diameter 150mm	00:07:03		(Constr) 0
38.86	CN	Connection other than junction, at 3 o'clock, diameter 150mm	00:08:00		(Constr) 0
42.41	CN	Connection other than junction, at 11 o'clock, diameter 150mm	00:08:54		(Constr) 0
42.41	WL	Water level, 5% of the vertical dimension	00:09:03		(Serv) 0
44.30	WLC	Clear water level, 0% of the vertical dimension	00:09:26		(Serv) 0
45.22	CN	Connection other than junction, at 3 o'clock, diameter 150mm	00:09:52		(Constr) 0
51.11	WL	Water level, 5% of the vertical dimension	00:11:00		(Serv) 0
56.13	WL	Water level, 0% of the vertical dimension	00:12:44		(Serv) 0
MHS7					
56.13	MHF	Finish node type, manhole reference number: MHS7	00:12:47		(Constr) 0

Structural Defects					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	0	0	0	0	1

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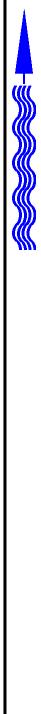
Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
01/03/2017		**no rain or snow**	**Frantisek**	**5**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**MHS8**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHS6**
Inspection	**MHS6 (U/S) MHS8**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**225.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**64.55 m**	Lining :	

Comment :



1:525 Position	Code	Observation	MPEG	Photo	Grade
MHS6					
0.00	MH	Start node type, manhole, reference number : MHS6	00:00:00		(Constr) 0
0.01	WL	Water level, 5% of the vertical dimension			(Serv) 0
0.86	WL	Water level, 0% of the vertical dimension	00:00:25		(Serv) 0
6.37	WL	Water level, 5% of the vertical dimension	00:01:23		(Serv) 0
14.17	CN	Connection other than junction, at 9 o'clock, diameter 150mm	00:02:52		(Constr) 0
19.46	WLC	Clear water level, 10% of the vertical dimension	00:03:36		(Serv) 0
22.11	CN	Connection other than junction, at 2 o'clock, diameter 150mm	00:04:21		(Constr) 0
24.55	WL	Water level, 0% of the vertical dimension	00:04:42		(Serv) 0
28.44	CN	Connection other than junction, at 9 o'clock, diameter 150mm	00:05:30		(Constr) 0
29.93	WL	Water level, 5% of the vertical dimension	00:05:48		(Serv) 0
34.12	WL	Water level, 0% of the vertical dimension	00:06:34		(Serv) 0
42.26	WL	Water level, 5% of the vertical dimension	00:07:33		(Serv) 0
43.57	WL	Water level, 0% of the vertical dimension	00:07:42		(Serv) 0
44.85	CN	Connection other than junction, at 9 o'clock, diameter 150mm	00:08:23		(Constr) 0
46.70	WL	Water level, 10% of the vertical dimension	00:08:40		(Serv) 0
50.14	CN	Connection other than junction, at 2 o'clock, diameter 150mm	00:09:25		(Constr) 0
56.64	CN	Connection other than junction, at 9 o'clock, diameter 150mm	00:10:30		(Constr) 0
57.27	CN	Connection other than junction, at 2 o'clock, diameter 150mm	00:10:57		(Constr) 0
57.73	CN	Connection other than junction, at 2 o'clock, diameter 150mm	00:11:31		(Constr) 0
64.55	WL	Water level, 0% of the vertical dimension	00:12:20		(Serv) 0
64.55	MHF	Finish node type, manhole reference number: MHS8	00:12:24		(Constr) 0
MHS8					

Structural Defects					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	0	0	0	0	1

Rilta Environmental Ltd
Greenogue Business Park
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Email: info@rilta.ie

Inspection report / Inspection: 1

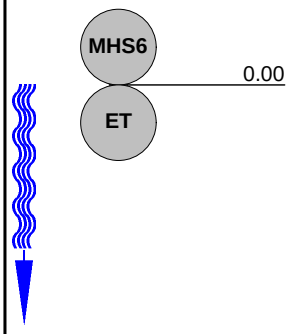
Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
01/03/2017		**no rain or snow**	**Frantisek**	**6**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**MHS6**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**ET**
Inspection	**MHS6 (D/S) ET**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**225.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**0.00 m**	Lining :	

Comment :

1:50	Position	Code	Observation	MPEG	Photo	Grade



Structural Defects					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

Rilta Environmental Ltd
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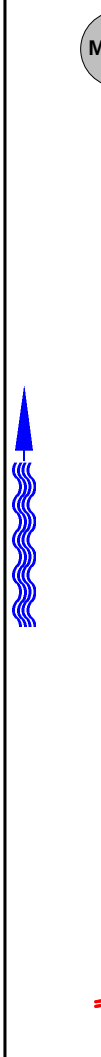
Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
03/03/2017		**no rain or snow**	**Frantisek**	**7**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**AJ**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHS5**
Inspection	**MHS5 (U/S) AJ**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**45.66 m**	Lining :	

Comment :



1:378 Position	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number : MHS5	00:00:00		(Constr) 0
0.01	WL	Water level, 5% of the vertical dimension	00:00:00		(Serv) 0
3.76	WL	Water level, 0% of the vertical dimension	00:01:20		(Serv) 0
9.12	WL	Water level, 10% of the vertical dimension	00:02:41		(Serv) 0
11.60	WL	Water level, 0% of the vertical dimension	00:03:24		(Serv) 0
19.55	CN	Connection other than junction, at 10 o'clock, diameter 100mm	00:06:01		(Constr) 0
32.63	CN	Connection other than junction, at 10 o'clock, diameter 100mm	00:09:41		(Constr) 0
32.98	WL	Water level, 5% of the vertical dimension	00:10:01		(Serv) 0
35.95	WL	Water level, 0% of the vertical dimension	00:10:36		(Serv) 0
39.11	WL	Water level, 5% of the vertical dimension	00:11:38		(Serv) 0
42.38	WL	Water level, 0% of the vertical dimension	00:12:22		(Serv) 0
45.10	CN	Connection other than junction, at 10 o'clock, diameter 100mm	00:14:16		(Constr) 0
45.10	OBX	Other obstacles, other object in invert, from 6 to 12 o'clock, 65% cross-sectional area loss Remarks: Poor workmanshi	00:14:19		(Serv) 5
45.49	CN	Connection other than junction, at 10 o'clock, diameter 100mm	00:13:29	8_14A	(Constr) 0
45.66	WL	Water level, 0% of the vertical dimension	00:14:31		(Serv) 0
45.66	SA	Survey abandoned Remarks: Survey could not be completed due to a pipe instaled cross whole diameter of t	00:14:35		(Misc) 0

Structural Defects | **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**	**1**	**10**	**0.22**	**10**	**5**

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Inspection pictures / Inspection: 1

Place :	Road :	Date :	Section number :	PLR Suffix :
Rathcoole	**Grants Drive**	**03/03/2017**	**7**	**X**

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

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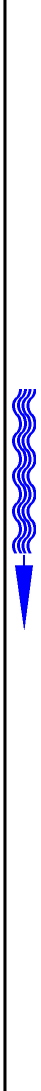
Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
11/03/2017		**no rain or snow**	**Frantisek**	**8**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**MHS5**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHS4**
Inspection	**MHS5 (D/S) MHS4**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**225.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**28.16 m**	Lining :	

Comment :



1:231 Position	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number : MHS5	00:00:02		(Constr) 0
0.01	WL	Water level, 0% of the vertical dimension	00:00:04		(Serv) 0
0.73	WL	Water level, 5% of the vertical dimension	00:00:55		(Serv) 0
2.63	CN	Connection other than junction, at 2 o'clock, diameter 100mm	00:02:28		(Constr) 0
4.72	CN	Connection other than junction, at 10 o'clock, diameter 100mm	00:03:33		(Constr) 0
13.45	WL	Water level, 5% of the vertical dimension	00:07:03		(Serv) 0
16.65	CN	Connection other than junction, at 2 o'clock, diameter 100mm	00:08:10		(Constr) 0
17.22	CN	Connection other than junction, at 2 o'clock, diameter 100mm	00:08:50		(Constr) 0
24.75	WL	Water level, 0% of the vertical dimension	00:10:57		(Serv) 0
28.16	WL	Water level, 0% of the vertical dimension	00:11:45		(Serv) 0
28.16	MHF	Finish node type, manhole reference number: MHS4	00:11:47		(Constr) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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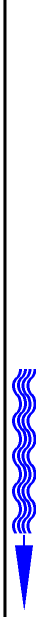
Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**9**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**AJ3**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHF9**
Inspection	**AJ3 (D/S) MHF9**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**100.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**19.71 m**	Lining :	

Comment :



1:168 Position	Code	Observation	MPEG	Photo	Grade
AJ3					
0.00	IC	Start node type, inspection chamber, reference number : AJ3	00:00:02		(Constr) 0
0.00	WL	Water level, 0% of the vertical dimension	00:00:02		(Serv) 0
0.20	LL	Line deviates left	00:00:02		(Serv) 0
2.50	CN	Connection other than junction, at 9 o'clock, diameter 100mm Remarks: From AJ4	00:00:30		(Constr) 0
3.20	CN	Connection other than junction, at 9 o'clock, diameter 100mm Remarks: From Lab	00:00:40		(Constr) 0
5.40	WL	Water level, 5% of the vertical dimension	00:01:01		(Serv) 0
6.00	DES	Settled deposits, fine, 5% cross-sectional area loss	00:01:06		(Serv) 2
6.30	WL	Water level, 10% of the vertical dimension	00:01:11		(Serv) 0
6.70	JN	Junction, at 3 o'clock, diameter 100mm Remarks: 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 vertical dimension	00:01:52		(Serv) 0
8.40	LL	Line deviates left	00:02:07		(Serv) 0
11.50	CN	Connection other than junction, at 11 o'clock, diameter 100mm Remarks: Unknown connection	00:02:32		(Constr) 0
18.00	WL	Water level, 5% of the vertical dimension	00:03:59		(Serv) 0
19.00	WLC	Clear water level, 15% of the vertical dimension	00:04:05		(Serv) 0
19.70	WL	Water level, 5% of the vertical dimension	00:04:12		(Serv) 0
MHF9					
19.71	MHF	Finish node type, manhole reference number: MHF9	00:04:17		(Constr) 0

Structural Defects					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**	**1**	**1**	**0.05**	**1**	**2**

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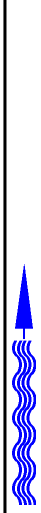
Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**10**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**no**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**US**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**AJ3**
Inspection	**AJ3 (U/S) US**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**100.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**4.42 m**	Lining :	

Comment :



1:50 Position	Code	Observation	MPEG	Photo	Grade
AJ3					
0.00	IC	Start node type, inspection chamber, reference number : AJ3	00:00:00		(Constr) 0
0.01	WL	Water level, 0% of the vertical dimension	00:00:00		(Serv) 0
2.60	CN	Connection other than junction, at 11 o'clock, diameter 100mm Remarks: From sink	00:00:39		(Constr) 0
3.50	CN	Connection other than junction, at 3 o'clock, diameter 100mm Remarks: Connection from the toilet on right hand	00:00:33		(Constr) 0
3.60	DES	Settled deposits, fine, 15% cross-sectional area loss	00:00:35	10_5A	(Serv) 3
4.40	LU	Line deviates up	00:00:51		(Serv) 0
US					
4.41	WL	Water level, 0% of the vertical dimension	00:00:51		(Serv) 0
4.42	BRF	Finish node type, major connection without manhole reference number: US Remarks: From wash machine	00:00:51		(Constr) 0

Structural Defects | **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**	**1**	**2**	**0.45**	**2**	**3**

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Inspection pictures / Inspection: 1

Place :	Road :	Date :	Section number :	PLR Suffix :
Rathcoole	**Grants Drive**	**22/03/2017**	**10**	**X**

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

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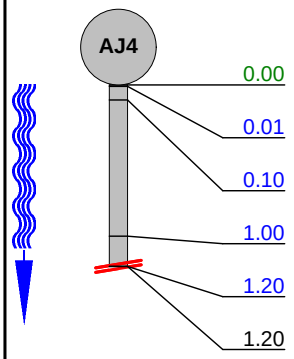
Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**11**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**no**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**AJ4**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**DS**
Inspection	**AJ4 (D/S) DS**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**100.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**1.40 m**	Lining :	

Comment :



1:50 Position	Code	Observation	MPEG	Photo	Grade
0.00	IC	Start node type, inspection chamber, reference number : AJ4	00:00:00		(Constr) 0
0.01	WL	Water level, 0% of the vertical dimension	00:00:00		(Serv) 0
0.10	LL	Line deviates left	00:00:01		(Serv) 0
1.00	LR	Line deviates right	00:00:12		(Serv) 0
1.20	WL	Water level, 0% of the vertical dimension	00:00:24		(Serv) 0
1.20	SA	Survey abandoned Remarks: Survey could not be completed due to sharp bends on this pipe.	00:00:24		(Misc) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**12**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**no**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**SINK**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**AJ4**
Inspection	**AJ4 (U/S) SINK**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**100.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**3.52 m**	Lining :	

Comment :

1:50	Position	Code	Observation	MPEG	Photo	Grade
AJ4	0.00	IC	Start node type, inspection chamber, reference number : AJ4	00:00:02		(Constr) 0
	0.01	WL	Water level, 0% of the vertical dimension	00:00:02		(Serv) 0
	3.50	LU	Line deviates up	00:00:36		(Serv) 0
SINK	3.51	WL	Water level, 0% of the vertical dimension	00:00:36		(Serv) 0
	3.52	BRF	Finish node type, major connection without manhole reference number: SINK	00:00:36		(Constr) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**13**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**no**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**TOILET**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**AJ4**
Inspection	**AJ4 (U/S) TOILET**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**100.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**7.11 m**	Lining :	

Comment :

1:63	Position	Code	Observation	MPEG	Photo	Grade
AJ4	0.00	IC	Start node type, inspection chamber, reference number : AJ4	00:00:00		(Constr) 0
	0.01	WL	Water level, 0% of the vertical dimension	00:00:00		(Serv) 0
	0.30	OJM	Open joint, medium	00:00:03	13_3A	(Struct) 1
	2.50	OJM	Open joint, medium	00:00:36	13_4A	(Struct) 1
	3.40	CN	Connection other than junction, at 11 o'clock, diameter 100mm Remarks: From Urinals	00:00:57		(Constr) 0
	4.80	CN	Connection other than junction, at 11 o'clock, diameter 100mm Remarks: From Toilet	00:01:24		(Constr) 0
	5.50	LR	Line deviates right	00:01:05		(Serv) 0
	7.10	WL	Water level, 0% of the vertical dimension	00:01:26		(Serv) 0
TOILET	7.11	BRF	Finish node type, major connection without manhole reference number: SINK Remarks: Sink beside Lab door.	00:01:26		(Constr) 0

Structural Defects | **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
2	**1**	**0.28**	**2**	**1**	**0**	**0**	**0**	**0**	**1**

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Inspection pictures / Inspection: 1

Place :	Road :	Date :	Section number :	PLR Suffix :
Rathcoole	**Grants Drive**	**22/03/2017**	**13**	**X**

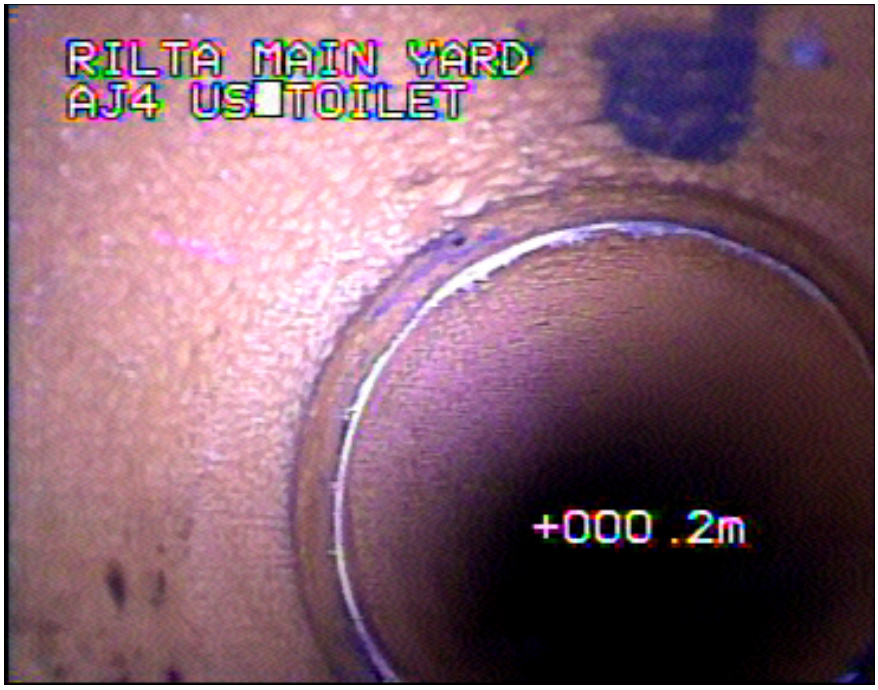

Photo: 13_3A, MPEG #: 280217_1, 00:00:03
0.3m, Open joint, medium

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

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**14**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**no**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**MHF2**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHF3**
Inspection	**MHF2 (D/S) MHF3**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**100.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**25.81 m**	Lining :	

Comment :

1:210 Position	Code	Observation	MPEG	Photo	Grade
MHF2					
0.00	MH	Start node type, manhole, reference number : MHF2	00:00:02		(Constr) 0
0.01	WL	Water level, 5% of the vertical dimension	00:00:02		(Serv) 0
8.30	WLC	Clear water level, 10% of the vertical dimension	00:01:25		(Serv) 0
10.80	WL	Water level, 5% of the vertical dimension	00:02:32		(Serv) 0
25.80	WL	Water level, 5% of the vertical dimension	00:05:23		(Serv) 0
25.81	MHF	Finish node type, manhole reference number: MHF3	00:05:23		(Constr) 0
MHF3					

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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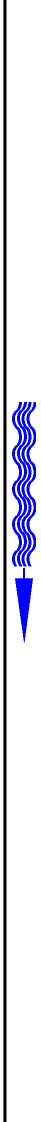
Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**15**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**no**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**MHF8**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHF7**
Inspection	**MHF8 (D/S) MHF7**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**39.51 m**	Lining :	

Comment :



1:315 Position	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number : MHF8	00:00:00		(Constr) 0
0.01	WL	Water level, 0% of the vertical dimension	00:00:00		(Serv) 0
5.30	WL	Water level, 5% of the vertical dimension	00:00:47		(Serv) 0
7.00	WL	Water level, 10% of the vertical dimension	00:01:00		(Serv) 0
14.50	WL	Water level, 5% of the vertical 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 vertical dimension	00:02:35		(Serv) 0
23.20	CN	Connection other than junction, at 10 o'clock, diameter 100mm Remarks: Toilet from Drum Division.	00:03:01		(Constr) 0
23.90	CN	Connection other than junction, at 10 o'clock, diameter 100mm Remarks: Toilet from Drum Division.	00:03:07		(Constr) 0
25.30	CN	Connection other than junction, at 10 o'clock, diameter 100mm Remarks: Toilet from Drum Division.	00:03:18		(Constr) 0
32.60	CN	Connection other than junction, at 11 o'clock, diameter 100mm Remarks: Connection from canteen	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
39.00	WL	Water level, 10% of the vertical dimension	00:05:17		(Serv) 0
39.50	WL	Water level, 5% of the vertical dimension	00:05:20		(Serv) 0
39.51	MHF	Finish node type, manhole reference number: MHF7	00:05:20		(Constr) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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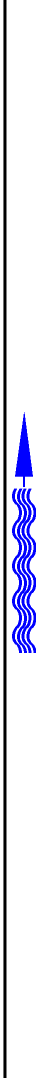
Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**16**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**no**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**MHF9**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHF8**
Inspection	**MHF8 (U/S) MHF9**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**58.61 m**	Lining :	

Comment :



1:462 Position	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number : MHF8	00:00:00		(Constr) 0
0.01	WL	Water level, 15% of the vertical dimension	00:00:00		(Serv) 0
1.90	WLC	Clear water level, 10% of the vertical dimension	00:00:24		(Serv) 0
3.00	WL	Water level, 5% of the vertical dimension	00:00:45		(Serv) 0
14.10	WLC	Clear water level, 10% of the vertical dimension	00:02:04		(Serv) 0
16.50	WL	Water level, 5% of the vertical dimension	00:02:22		(Serv) 0
18.20	WL	Water level, 10% of the vertical dimension	00:02:35		(Serv) 0
19.90	WLC	Clear water level, 5% of the vertical dimension	00:02:48		(Serv) 0
29.50	WLC	Clear water level, 10% of the vertical dimension	00:04:02		(Serv) 0
33.30	WL	Water level, 5% of the vertical dimension	00:04:35		(Serv) 0
52.20	WL	Water level, 10% of the vertical dimension	00:07:11		(Serv) 0
56.40	WL	Water level, 5% of the vertical dimension	00:07:46		(Serv) 0
58.60	WL	Water level, 5% of the vertical dimension	00:08:10		(Serv) 0
58.61	SA	Survey abandoned Remarks: Survey could not be completed due to a length of the camera rod	00:08:10		(Misc) 0

Structural Defects					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**	**0**	**0**	**0**	**0**	**1**

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**17**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**no**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**TOILET**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**AJ1**
Inspection	**AJ1 (U/S) TOILET**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**100.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**7.51 m**	Lining :	

Comment :

1:63 Position	Code	Observation	MPEG	Photo	Grade
AJ1					
0.00	IC	Start node type, inspection chamber, reference number : AJ1	00:00:03		(Constr) 0
0.01	WL	Water level, 0% of the vertical dimension	00:00:03		(Serv) 0
0.60	LL	Line deviates left	00:00:14		(Serv) 0
1.60	LR	Line deviates right	00:00:22		(Serv) 0
1.61	CN	Connection other than junction, at 12 o'clock, diameter 100mm	00:00:22		(Constr) 0
3.90	CN	Connection other than junction, at 12 o'clock, diameter 100mm	00:00:45		(Constr) 0
4.90	CN	Connection other than junction, at 12 o'clock, diameter 100mm	00:00:57		(Constr) 0
7.50	LU	Line deviates up	00:01:39		(Serv) 0
7.50	WL	Water level, 0% of the vertical dimension	00:01:39		(Serv) 0
TOILET					
7.51	BRF	Finish node type, major connection without manhole reference number: TOILET	00:01:39		(Constr) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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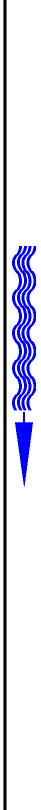
Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**18**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**no**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**AJ2**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**DS**
Inspection	**AJ2 (D/S) DS**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**100.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**4.21 m**	Lining :	

Comment :



1:50 Position	Code	Observation	MPEG	Photo	Grade
AJ2					
0.00	IC	Start node type, inspection chamber, reference number : AJ2	00:00:02		(Constr) 0
0.01	WL	Water level, 0% of the vertical dimension	00:00:02		(Serv) 0
0.60	LL	Line deviates left	00:00:09		(Serv) 0
2.60	LL	Line deviates left	00:00:31		(Serv) 0
3.90	LL	Line deviates left	00:00:42		(Serv) 0
4.20	WL	Water level, 0% of the vertical dimension	00:00:44		(Serv) 0
DS					
4.21	BRF	Finish node type, major connection without manhole reference number: DS Remarks: Connected to drain from	00:00:44		(Constr) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**19**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**SUMP**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**FIC**
Inspection	**FIC (U/S) SUMP**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**2.91 m**	Lining :	

Comment :

1:50	Position	Code	Observation	MPEG	Photo	Grade
FIC	0.00	OS	Start node type, oil separator, reference number : FIC	00:00:01		(Constr) 0
	0.01	WLC	Clear water level, 0% of the vertical dimension	00:00:01		(Serv) 0
	1.10	OJM	Open joint, medium	00:00:27	19_3A	(Struct) 1
	2.80	FC	Fracture, circumferential, from 2 to 7 o'clock	00:00:51	19_4A	(Struct) 3
SUMP	2.90	WL	Water level, 0% of the vertical dimension	00:01:36		(Serv) 0
	2.91	CPF	Finish node type, catchpit reference number: SUMP	00:01:36		(Constr) 0

Structural Defects | **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
2	**40**	**14.09**	**41**	**3**	**0**	**0**	**0**	**0**	**1**

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Inspection pictures / Inspection: 1

Place :	Road :	Date :	Section number :	PLR Suffix :
Rathcoole	**Grants Drive**	**22/03/2017**	**19**	**X**

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

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**20**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**G1**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**DS**
Inspection	**G1 (D/S) DS**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**9.91 m**	Lining :	

Comment :

1:84	Position	Code	Observation	MPEG	Photo	Grade
G1	0.00	GY	Start node type, gully, reference number : G1	00:00:02		(Constr) 0
	0.01	WLC	Clear water level, 0% of the vertical dimension	00:00:02		(Serv) 0
	9.60	LD	Line deviates down	00:01:59		(Serv) 0
	9.90	WL	Water level, 0% of the vertical dimension	00:02:07		(Serv) 0
DS	9.91	BRF	Finish node type, major connection without manhole reference number: DS Remarks: Connected to drain from	00:02:07		(Constr) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**21**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**G2**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**DS**
Inspection	**G2 (D/S) DS**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**9.91 m**	Lining :	

Comment :

1:84	Position	Code	Observation	MPEG	Photo	Grade
G2	0.00	GY	Start node type, gully, reference number : G2	00:00:02		(Constr) 0
	0.01	WL	Water level, 0% of the vertical dimension	00:00:02		(Serv) 0
	3.00	WL	Water level, 5% of the vertical dimension	00:00:30		(Serv) 0
	6.10	WL	Water level, 0% of the vertical dimension	00:00:52		(Serv) 0
	9.90	LD	Line deviates down	00:01:18		(Serv) 0
DS	9.91	BRF	Finish node type, major connection without manhole reference number: DS Remarks: Connected to drain from	00:01:24		(Constr) 0

Structural Defects					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	0	0	0	0	1

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**22**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**MHF1**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHF2**
Inspection	**MHF1 (D/S) MHF2**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**8.51 m**	Lining :	

Comment :

1:84	Position	Code	Observation	MPEG	Photo	Grade
MHF1						
	0.00	GY	Start node type, gully, reference number : MHF1	00:00:01		(Constr) 0
	0.00	WL	Water level, 0% of the vertical dimension	00:00:01		(Serv) 0
	7.70	WLC	Clear water level, 5% of the vertical dimension	00:01:19		(Serv) 0
	8.50	WL	Water level, 0% of the vertical dimension	00:01:25		(Serv) 0
MHF2	8.51	MHF	Finish node type, manhole reference number: MHF2	00:01:25		(Constr) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**23**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**MHF5**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHF3**
Inspection	**MHF5 (D/S) MHF3**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**55.51 m**	Lining :	

Comment :

1:350 Position	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number : MHF5	00:00:02		(Constr) 0
0.01	WL	Water level, 0% of the vertical dimension	00:00:02		(Serv) 0
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 vertical dimension	00:01:10		(Serv) 0
8.20	WL	Water level, 0% of the vertical dimension	00:01:22		(Serv) 0
12.90	WL	Water level, 5% of the vertical dimension	00:02:01		(Serv) 0
13.70	WL	Water level, 10% of the vertical dimension	00:02:09		(Serv) 0
14.70	DES	Settled deposits, fine, 5% cross-sectional area loss	00:02:19		(Serv) 2
23.30	WL	Water level, 5% of the vertical dimension	00:03:28		(Serv) 0
24.00	WL	Water level, 0% of the vertical dimension	00:03:34		(Serv) 0
25.10	WL	Water level, 5% of the vertical dimension	00:03:42		(Serv) 0
25.70	WL	Water level, 10% of the vertical dimension	00:03:47		(Serv) 0
27.80	WL	Water level, 5% of the vertical dimension	00:04:03		(Serv) 0
29.20	WL	Water level, 10% of the vertical dimension	00:04:14		(Serv) 0
29.70	WL	Water level, 15% of the vertical dimension	00:04:17		(Serv) 0
34.40	WL	Water level, 10% of the vertical dimension	00:04:57		(Serv) 0
35.20	WLC	Clear water level, 5% of the vertical dimension	00:05:04		(Serv) 0
37.60	WL	Water level, 0% of the vertical dimension	00:05:24		(Serv) 0
43.30	WL	Water level, 5% of the vertical dimension	00:06:08		(Serv) 0

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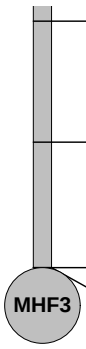
Inspection Report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR :
22/03/2017		**no rain or snow**	**Frantisek**	**23**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Grade:
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	



1:350 Position	Code	Observation	MPEG	Photo	Grade
44.10	WL	Water level, 0% of the vertical dimension	00:06:16		(Serv) 0
49.70	WL	Water level, 5% of the vertical dimension	00:07:00		(Serv) 0
55.50	WL	Water level, 0% of the vertical dimension	00:07:51		(Serv) 0
55.51	MHF	Finish node type, manhole reference number: MHF3	00:07:51		(Constr) 0

Structural Defects | **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**

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**24**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**MHF6**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHF5**
Inspection	**MHF5 (U/S) MHF6**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**17.81 m**	Lining :	

Comment :

1:147 Position	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number : MHF5	00:00:02		(Constr) 0
0.01	WL	Water level, 5% of the vertical dimension	00:00:02		(Serv) 0
5.20	WL	Water level, 10% of the vertical dimension	00:00:49		(Serv) 0
6.70	WL	Water level, 5% of the vertical dimension	00:01:10		(Serv) 0
8.40	WL	Water level, 0% of the vertical dimension	00:01:31		(Serv) 0
8.50	CN	Connection other than junction, at 10 o'clock, diameter 100mm Remarks: From toilets	00:01:30		(Constr) 0
17.80	WL	Water level, 0% of the vertical dimension	00:03:46		(Serv) 0
17.81	MHF	Finish node type, manhole reference number: MHF6	00:03:46		(Constr) 0

Structural Defects					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	0	0	0	0	1

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**25**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**VALVE**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MH5**
Inspection	**MH5 (U/S) VALVE**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**3.01 m**	Lining :	

Comment :

1:50	Position	Code	Observation	MPEG	Photo	Grade
MH5	0.00	MH	Start node type, manhole, reference number : MH5	00:00:03		(Constr) 0
	0.01	WL	Water level, 0% of the vertical dimension	00:00:03		(Serv) 0
	3.00	WL	Water level, 0% of the vertical dimension	00:00:37		(Serv) 0
VALVE	3.01	BRF	Finish node type, major connection without manhole reference number: VALVE	00:00:37		(Constr) 0

Structural Defects					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	0	0	0	0	1

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**26**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**AJ1**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHF1**
Inspection	**MHF1 (U/S) AJ1**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**3.11 m**	Lining :	

Comment :

1:50 Position	Code	Observation	MPEG	Photo	Grade
MHF1					
0.00	MH	Start node type, manhole, reference number : MHF1	00:00:02		(Constr) 0
0.01	WL	Water level, 5% of the vertical dimension	00:00:02		(Serv) 0
0.30	SCC	Shape changes to circular, 100mm high	00:00:00		0
0.40	WLC	Clear water level, 0% of the vertical dimension	00:00:15		(Serv) 0
3.10	WLC	Clear water level, 0% of the vertical dimension	00:00:39		(Serv) 0
AJ1					
3.11	ICF	Finish node type, inspection chamber reference number: AJ1	00:00:39		(Constr) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**27**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**MHS1**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**DS**
Inspection	**MHS1 (D/S) DS**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**8.01 m**	Lining :	

Comment :

1:84	Position	Code	Observation	MPEG	Photo	Grade
MHS1	0.00	MH	Start node type, manhole, reference number : MHS1	00:00:00		(Constr) 0
	0.01	WL	Water level, 0% of the vertical dimension	00:00:00		(Serv) 0
	0.40	REM	General remark Remarks: Gate Valve	00:00:16		(Misc) 0
	1.50	SR	Sealing ring intruding, from 9 to 12 o'clock	00:00:47	27_4A	(Constr) 1
	4.80	WL	Water level, 5% of the vertical dimension	00:01:41		(Serv) 0
	7.99	LD	Line deviates down	00:02:31		(Serv) 0
DS	8.00	WL	Water level, 0% of the vertical dimension	00:02:31		(Serv) 0
	8.01	OSF	Finish node type, oil separator reference number: DS	00:02:31		(Constr) 0

Structural Defects | **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
1	**5**	**0.62**	**5**	**1**	**0**	**0**	**0**	**0**	**1**

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Inspection pictures / Inspection: 1

Place :	Road :	Date :	Section number :	PLR Suffix :
Rathcoole	**Grants Drive**	**22/03/2017**	**27**	**X**

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

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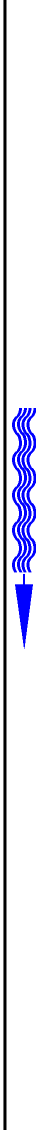
Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**28**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**MHF11**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHF10**
Inspection	**MHF11 (D/S) MHF10**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**47.81 m**	Lining :	

Comment :



1:378 Position	Code	Observation	MPEG	Photo	Grade
0.00	MH	Start node type, manhole, reference number : MHF11	00:00:00		(Constr) 0
0.01	WL	Water level, 5% of the 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 vertical dimension	00:00:35		(Serv) 0
4.90	WL	Water level, 0% of the vertical dimension	00:00:40		(Serv) 0
6.10	WL	Water level, 5% of the 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 vertical dimension	00:02:12		(Serv) 0
16.20	WL	Water level, 5% of the 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 vertical dimension	00:03:56		(Serv) 0
29.60	WL	Water level, 0% of the vertical dimension	00:04:18		(Serv) 0
39.60	WLC	Clear water level, 10% of the vertical dimension	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 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 vertical dimension	00:00:00		(Serv) 0
47.81	MHF	Finish node type, manhole reference number: MHF10	00:00:00		(Constr) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**29**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**MHF4**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHF10**
Inspection	**MHF4 (D/S) MHF10**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**18.91 m**	Lining :	

Comment :

1:168 Position	Code	Observation	MPEG	Photo	Grade
MHF4					
0.00	MH	Start node type, manhole, reference number : MHF4	00:00:01		(Constr) 0
0.01	WL	Water level, 0% of the vertical dimension	00:00:01		(Serv) 0
7.40	WL	Water level, 5% of the vertical dimension	00:00:53		(Serv) 0
11.20	WL	Water level, 10% of the vertical dimension	00:01:19		(Serv) 0
12.20	WL	Water level, 5% of the vertical dimension	00:01:25		(Serv) 0
13.30	WL	Water level, 10% of the vertical dimension	00:01:33		(Serv) 0
18.90	WL	Water level, 5% of the vertical dimension	00:02:09		(Serv) 0
MHF10					
18.91	MHF	Finish node type, manhole reference number: MHF10	00:02:09		(Constr) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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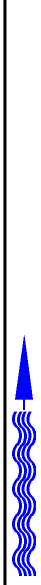
Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**30**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**MHF3**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHF4**
Inspection	**MHF4 (U/S) MHF3**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**13.51 m**	Lining :	

Comment :



1:126 Position	Code	Observation	MPEG	Photo	Grade
MHF4					
0.00	MH	Start node type, manhole, reference number : MHF4	00:00:02		(Constr) 0
0.01	WL	Water level, 0% of the vertical dimension	00:00:02		(Serv) 0
3.10	WL	Water level, 5% of the vertical dimension	00:00:38		(Serv) 0
13.50	WL	Water level, 5% of the vertical dimension	00:02:55		(Serv) 0
MHF3					
13.51	MHF	Finish node type, manhole reference number: MHF3	00:02:55		(Constr) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**31**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**MHF7**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHF4**
Inspection	**MHF4 (U/S) MHF7**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**8.21 m**	Lining :	

Comment :

1:84	Position	Code	Observation	MPEG	Photo	Grade
MHF4	0.00	MH	Start node type, manhole, reference number : MHF4	00:00:02		(Constr) 0
	0.01	WL	Water level, 10% of the vertical dimension	00:00:00		(Serv) 0
	2.00	WL	Water level, 15% of the vertical dimension	00:00:19		(Serv) 0
	3.60	WLC	Clear water level, 10% of the vertical dimension	00:00:30		(Serv) 0
	8.20	WL	Water level, 0% of the vertical dimension	00:01:03		(Serv) 0
MHF7	8.21	MHF	Finish node type, manhole reference number: MHF7	00:01:03		(Constr) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**32**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**US1**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHF11**
Inspection	**MHF11 (U/S) US1**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**52.61 m**	Lining :	

Comment :

1:420 Position	Code	Observation	MPEG	Photo	Grade
MHF11					
0.00	MH	Start node type, manhole, reference number : MHF11	00:00:01		(Constr) 0
0.01	WL	Water level, 0% of the vertical dimension	00:00:01		(Serv) 0
0.50	LL	Line deviates left	00:00:05		(Serv) 0
2.60	WL	Water level, 5% of the vertical dimension	00:00:28		(Serv) 0
8.40	WL	Water level, 0% of the vertical dimension	00:04:28		(Serv) 0
12.20	WL	Water level, 5% of the vertical dimension	00:01:36		(Serv) 0
15.40	WL	Water level, 10% of the vertical dimension	00:01:56		(Serv) 0
32.00	WLC	Clear water level, 0% of the vertical dimension	00:03:47		(Serv) 0
36.70	WL	Water level, 5% of the vertical dimension	00:04:25		(Serv) 0
37.60	WLC	Clear water level, 10% of the vertical dimension	00:04:36		(Serv) 0
39.50	WL	Water level, 15% of the vertical dimension	00:05:03		(Serv) 0
39.50	WL	Water level, 20% of the vertical dimension	00:05:09		(Serv) 0
42.00	WL	Water level, 25% of the vertical dimension	00:05:33		(Serv) 0
42.00	CUW	Loss of vision, camera under water	00:05:33		(Misc) 0
52.60	WLC	Clear water level, 25% of the vertical dimension	00:07:33		(Serv) 0
52.61	SA	Survey abandoned Remarks: Suurvey could not be completed due to length of this pipe.			(Misc) 0

Structural Defects					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	0	0	0	0	1

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**33**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**US2**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHF11**
Inspection	**MHF11 (U/S) US2**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**58.51 m**	Lining :	

Comment :

1:462 Position	Code	Observation	MPEG	Photo	Grade
MHF11					
0.00	MH	Start node type, manhole, reference number : MHF11	00:00:02		(Constr) 0
0.01	WL	Water level, 0% of the vertical dimension	00:00:02		(Serv) 0
4.40	WL	Water level, 5% of the vertical dimension	00:00:49		(Serv) 0
10.90	WL	Water level, 10% of the vertical dimension	00:01:28		(Serv) 0
16.30	WL	Water level, 15% of the vertical dimension	00:02:12		(Serv) 0
18.00	WL	Water level, 5% of the vertical dimension	00:02:32		(Serv) 0
20.80	WL	Water level, 10% of the vertical dimension	00:02:47		(Serv) 0
24.60	WL	Water level, 0% of the vertical dimension	00:03:16		(Serv) 0
33.00	WL	Water level, 5% of the vertical dimension	00:04:14		(Serv) 0
37.60	WLC	Clear water level, 10% of the vertical dimension	00:04:44		(Serv) 0
39.80	WL	Water level, 5% of the vertical dimension	00:05:02		(Serv) 0
45.10	WL	Water level, 10% of the vertical dimension	00:05:34		(Serv) 0
46.10	WLC	Clear water level, 20% of the vertical dimension	00:05:43		(Serv) 0
46.40	CUW	Loss of vision, camera under water	00:05:49		(Misc) 0
58.50	WLC	Clear water level, 25% of the vertical dimension	00:06:36		(Serv) 0
58.51	SA	Survey abandoned Remarks: Survey could not be completed due to length of this pipe.	00:06:36		(Misc) 0

Structural Defects					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	0	0	0	0	1

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**34**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**RE**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHF11**
Inspection	**RE (D/S) MHF11**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**55.81 m**	Lining :	

Comment :

1:450 Position	Code	Observation	MPEG	Photo	Grade
RE 0.00	RE	Start node type, rodding eye, reference number : RE	00:06:36		(Constr) 0
0.01	WL	Water level, 0% of the vertical dimension	00:00:00		(Serv) 0
2.80	WL	Water level, 5% of the vertical dimension	00:00:28		(Serv) 0
11.80	WL	Water level, 0% of the vertical dimension	00:01:38		(Serv) 0
14.80	WL	Water level, 5% of the vertical dimension	00:01:58		(Serv) 0
17.70	LR	Line deviates right	00:02:24		(Serv) 0
18.60	LL	Line deviates left	00:02:23		(Serv) 0
19.30	LL	Line deviates left	00:02:29		(Serv) 0
20.00	LR	Line deviates right	00:02:35		(Serv) 0
20.00	WL	Water level, 0% of the vertical dimension	00:02:35		(Serv) 0
25.00	WL	Water level, 5% of the vertical dimension	00:03:06		(Serv) 0
26.00	WL	Water level, 10% of the vertical dimension	00:03:11		(Serv) 0
30.50	WLC	Clear water level, 15% of the vertical dimension	00:04:02		(Serv) 0
33.60	WL	Water level, 5% of the vertical dimension	00:04:45		(Serv) 0
35.50	WL	Water level, 0% of the vertical dimension	00:05:03		(Serv) 0
40.90	WL	Water level, 5% of the vertical dimension	00:05:44		(Serv) 0
43.20	WL	Water level, 10% of the vertical dimension	00:06:08		(Serv) 0
46.80	WL	Water level, 15% of the vertical dimension	00:06:03		(Serv) 0
48.10	WL	Water level, 20% of the vertical dimension	00:06:21		(Serv) 0
49.20	CUW	Loss of vision, camera under water	00:06:36		(Misc) 0
54.50	WL	Water level, 10% of the vertical dimension	00:07:05		(Serv) 0

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Date :	Job number :	Weather :	Operator :	Section number :	PLR :
22/03/2017		**no rain or snow**	**Frantisek**	**34**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Grade:
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	

1:450 Position	Code	Observation	MPEG	Photo	Grade
55.80	WL	Water level, 5% of the vertical dimension	00:00:00		(Serv) 0
55.81	SA	Survey abandoned Remarks: Survey could not be completed due to length of this pipe. Survey is going to be	00:00:00		(Misc) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**35**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**US**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**RE**
Inspection	**RE (U/S) US**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**2.51 m**	Lining :	

Comment :

1:50	Position	Code	Observation	MPEG	Photo	Grade
RE	0.00	RE	Start node type, rodding eye, reference number : RE	00:00:02		(Constr) 0
	0.00	WL	Water level, 0% of the vertical dimension	00:00:02		(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
	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 reference number: US Remarks: WWTP	00:00:40		(Constr) 0

Structural Defects					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**	**0**	**0**	**0**	**0**	**1**

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
22/03/2017		**no rain or snow**	**Frantisek**	**36**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**MPD**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHF10**
Inspection	**MHF10 (U/S) MPD**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**200.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**0.00 m**	Lining :	

Comment :

1:50	Position	Code	Observation	MPEG	Photo	Grade
MHF10	0.00	SA	Survey abandoned Remarks: Survey could not be done due to high water level in the Public Main Drain	00:00:40		(Misc) 0

Structural Defects					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**	**0**	**0**	**0**	**0**	**1**

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Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
30/03/2017		**no rain or snow**	**Frantisek**	**37**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**G3**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**DS**
Inspection	**G3 (D/S) DS**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**1.81 m**	Lining :	

Comment :

1:50	Position	Code	Observation	MPEG	Photo	Grade
G3	0.00	GY	Start node type, gully, reference number : G3	00:00:01		(Constr) 0
	0.01	WL	Water level, 0% of the vertical dimension	00:00:01		(Serv) 0
	1.00	CN	Connection other than junction, at 3 o'clock, diameter 150mm Remarks: Connection from G4	00:00:13		(Constr) 0
	1.40	LD	Line deviates down	00:00:20		(Serv) 0
	1.80	WL	Water level, 0% of the vertical dimension	00:00:27		(Serv) 0
DS	1.81	BRF	Finish node type, major connection without manhole reference number: DS Remarks: This pipe is connected to	00:00:27		(Constr) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
30/03/2017		**no rain or snow**	**Frantisek**	**38**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**G4**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**DS**
Inspection	**G4 (D/S) DS**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**15.90 m**	Lining :	

Comment :

1:126 Position	Code	Observation	MPEG	Photo	Grade
G4					
0.00	GY	Start node type, gully, reference number : G4	00:00:00		(Constr) 0
0.01	WLC	Clear water level, 0% of the vertical dimension	00:00:00		(Serv) 0
2.20	OJM	Open joint, medium	00:00:12	38_3A	(Struct) 1
3.20	WL	Water level, 5% of the vertical dimension	00:00:21		(Serv) 0
4.70	SZ	Surface damage, other, from 4 to 8 o'clock Remarks: Dents	00:00:33	38_5A	(Struct) 0
5.80	WL	Water level, 10% of the vertical dimension	00:00:44		(Serv) 0
6.30	WL	Water level, 15% of the vertical dimension	00:00:49		(Serv) 0
6.90	WL	Water level, 20% of the vertical dimension	00:00:56		(Serv) 0
8.00	WLC	Clear water level, 15% of the vertical dimension	00:01:03		(Serv) 0
8.90	WL	Water level, 20% of the vertical dimension	00:01:10		(Serv) 0
11.40	WL	Water level, 10% of the vertical dimension	00:01:40		(Serv) 0
12.40	WL	Water level, 5% of the vertical dimension	00:01:47		(Serv) 0
13.00	CN	Connection other than junction, at 9 o'clock, diameter 150mm Remarks: Uknown connection	00:01:54		(Constr) 0
13.10	WL	Water level, 0% of the vertical dimension	00:01:56		(Serv) 0
15.60	LL	Line deviates left	00:02:20		(Serv) 0
15.90	WL	Water level, 0% of the vertical dimension	00:02:23		(Serv) 0
15.90	BRF	Finish node type, major connection without manhole reference number: DS Remarks: This pipe is connected to	00:02:23		(Constr) 0
DS					

Structural Defects | **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
1	**1**	**0.06**	**1**	**1**	**0**	**0**	**0**	**0**	**1**

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Place :	Road :	Date :	Section number :	PLR Suffix :
Rathcoole	**Grants Drive**	**30/03/2017**	**38**	**X**

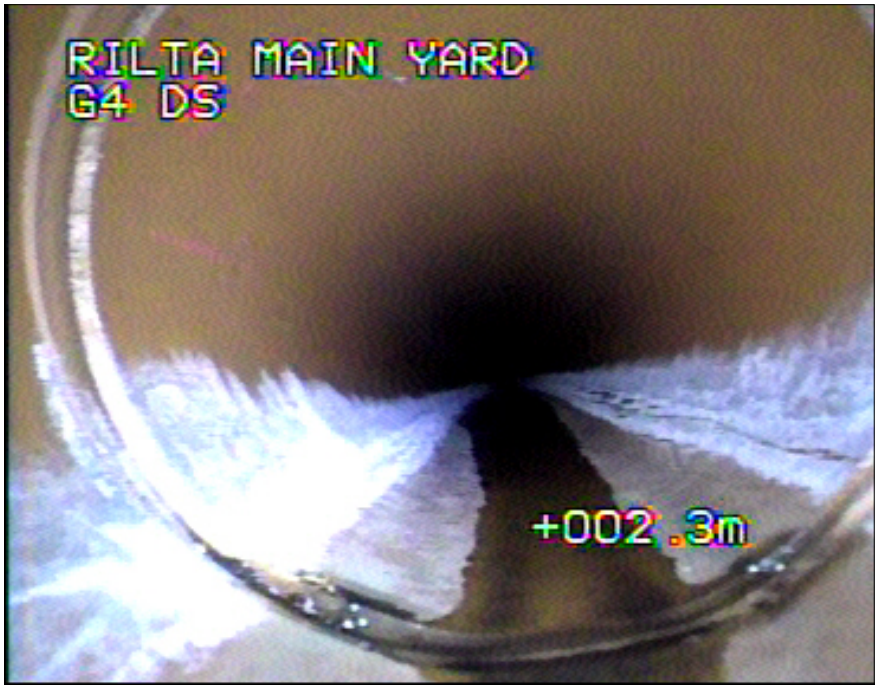

Photo: 38_3A, MPEG #: 280217_1, 00:00:12
2.2m, Open joint, medium

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

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
30/03/2017		**no rain or snow**	**Frantisek**	**39**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**G5**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**DS**
Inspection	**G5 (D/S) DS**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**1.81 m**	Lining :	

Comment :

1:50	Position	Code	Observation	MPEG	Photo	Grade
G5	0.00	GY	Start node type, gully, reference number : G5	00:00:01		(Constr) 0
	0.01	WL	Water level, 0% of the vertical dimension	00:00:01		(Serv) 0
	1.40	LD	Line deviates down	00:00:13		(Serv) 0
	1.80	WLC	Clear water level, 0% of the vertical dimension	00:00:15		(Serv) 0
DS	1.81	BRF	Finish node type, major connection without manhole reference number: DS Remarks: This drain is connected t	00:00:15		(Constr) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
30/03/2017		**no rain or snow**	**Frantisek**	**40**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**G6**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**DS**
Inspection	**G6 (D/S) DS**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**15.10 m**	Lining :	

Comment :

1:126 Position	Code	Observation	MPEG	Photo	Grade
G6					
0.00	GY	Start node type, gully, reference number : G6	00:00:01		(Constr) 0
0.01	WL	Water level, 0% of the vertical dimension	00:00:01		(Serv) 0
14.70	LD	Line deviates down	00:02:09		(Serv) 0
15.10	WL	Water level, 0% of the vertical dimension	00:02:15		(Serv) 0
DS					
15.10	BRF	Finish node type, major connection without manhole reference number: DS Remarks: This pipe is connected to	00:02:15		(Constr) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
30/03/2017		**no rain or snow**	**Frantisek**	**41**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**G7**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**DS**
Inspection	**G7 (D/S) DS**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**10.20 m**	Lining :	

Comment :

1:84 Position	Code	Observation	MPEG	Photo	Grade
G7					
0.00	GY	Start node type, gully, reference number : G7	00:00:00		(Constr) 0
0.01	WL	Water level, 0% of the vertical dimension	00:00:00		(Serv) 0
3.00	WL	Water level, 5% of the vertical dimension	00:00:27		(Serv) 0
3.80	LL	Line deviates left	00:00:34		(Serv) 0
5.90	WLC	Clear water level, 10% of the vertical dimension	00:00:50		(Serv) 0
7.30	WL	Water level, 0% of the vertical dimension	00:01:09		(Serv) 0
8.70	WL	Water level, 5% of the vertical dimension	00:01:25		(Serv) 0
10.10	WL	Water level, 0% of the vertical dimension	00:02:05		(Serv) 0
10.11	SA	Survey abandoned Remarks: Survey could not be completed due to a sharp bend on this pipe.	00:02:05		(Misc) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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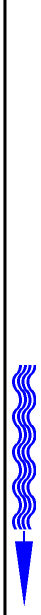
Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
30/03/2017		**no rain or snow**	**Frantisek**	**42**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**G8**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**DS**
Inspection	**G8 (D/S) DS**	Pipe Length		D/S Depth :	

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**	Lining :	

Comment :



1:105 Position	Code	Observation	MPEG	Photo	Grade
G8					
0.00	GY	Start node type, gully, reference number : G8	00:00:00		(Constr) 0
0.01	WL	Water level, 0% of the vertical dimension	00:00:00		(Serv) 0
1.40	REM	General remark Remarks: Socket of this pipe is connected against the stream.	00:00:15	42_3A	(Misc) 0
4.10	SZ	Surface damage, other, from 4 to 5 o'clock Remarks: A dent	00:00:36	42_4A	(Struct) 0
7.70	LR	Line deviates right Remarks: 45 Deg.	00:01:07		(Serv) 0
12.20	WL	Water level, 0% of the vertical dimension	00:01:39		(Serv) 0
DS					
12.20	BRF	Finish node type, major connection without manhole reference number: DS Remarks: This pipe is connected to	00:01:39		(Constr) 0

Structural Defects					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	0	0	0	0	1

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Inspection pictures / Inspection: 1

Place :	Road :	Date :	Section number :	PLR Suffix :
Rathcoole	**Grants Drive**	**30/03/2017**	**42**	**X**

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

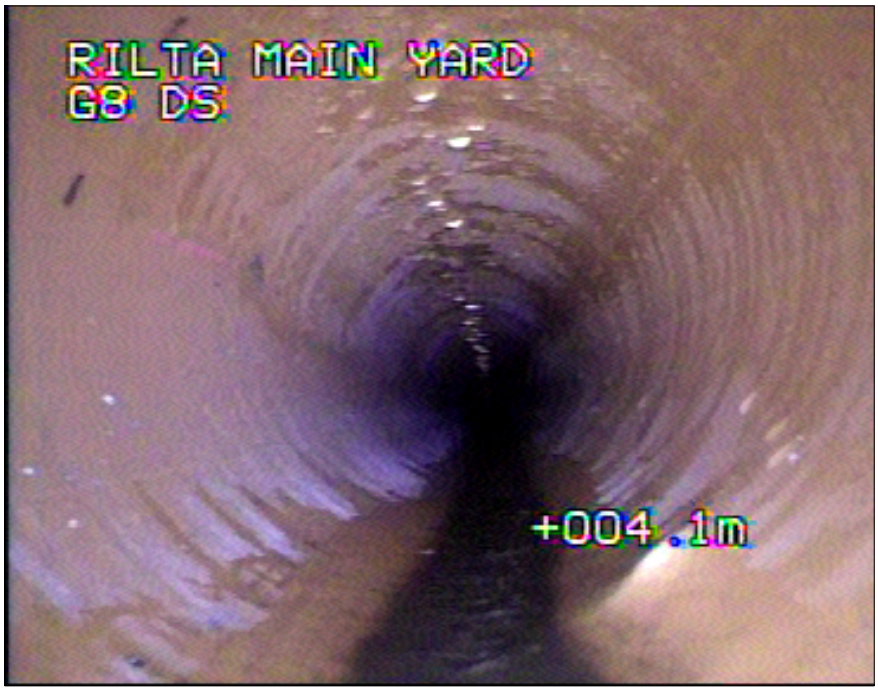

Photo: 42_4A, MPEG #: 280217_1, 00:00:36
4.1m, Surface damage, other, from 4 to 5 o'clock

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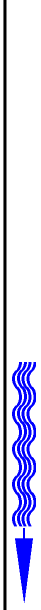
Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
30/03/2017		**no rain or snow**	**Frantisek**	**43**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**G9**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**DS**
Inspection	**G9 (D/S) DS**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**9.70 m**	Lining :	

Comment :



1:84 Position	Code	Observation	MPEG	Photo	Grade
G9					
0.00	GY	Start node type, gully, reference number : G9	00:00:00		(Constr) 0
0.01	WL	Water level, 0% of the vertical dimension	00:00:00		(Serv) 0
0.60	REM	General remark Remarks: Sockets of tihis pipe are connected against the stream.	00:00:08	43_3A	(Misc) 0
6.50	LL	Line deviates left Remarks: 45 Deg.	00:00:56		(Serv) 0
9.60	LR	Line deviates right	00:01:23		(Serv) 0
9.60	LD	Line deviates down	00:01:23		(Serv) 0
DS					
9.70	WL	Water level, 0% of the vertical dimension	00:01:27		(Serv) 0
9.70	BRF	Finish node type, major connection without manhole reference number: DS Remarks: This pipe is conneted to t	00:01:27		(Constr) 0

Structural Defects					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**	**0**	**0**	**0**	**0**	**1**

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Place :	Road :	Date :	Section number :	PLR Suffix :
Rathcoole	**Grants Drive**	**30/03/2017**	**43**	**X**

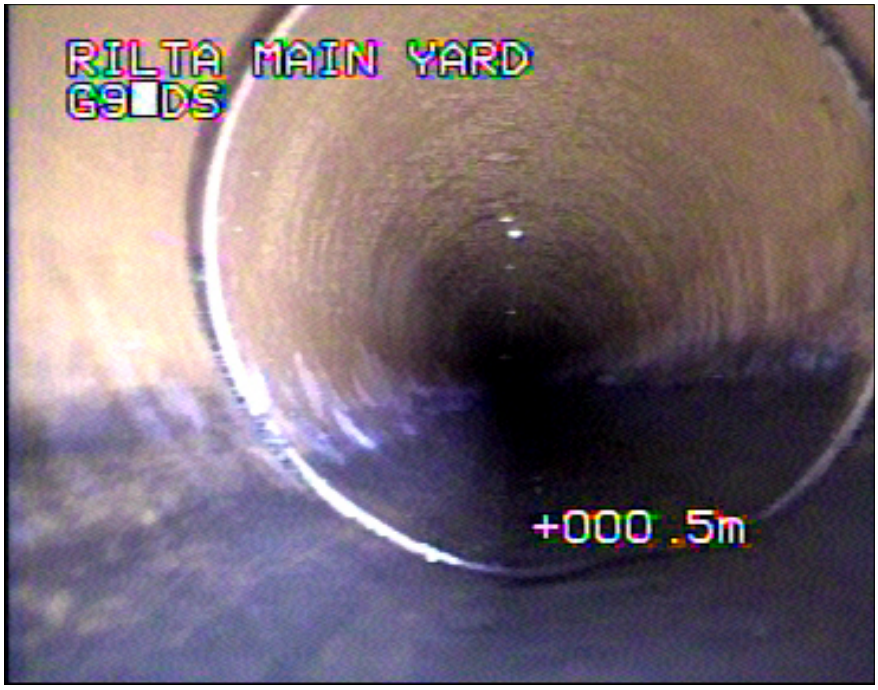

Photo: 43_3A, MPEG #: 280217_1, 00:00:08
0.6m, General remark

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
31/03/2017		**no rain or snow**	**Frantisek**	**44**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**AJ6**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHS8**
Inspection	**MHS8 (U/S) AJ6**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**225.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**41.16 m**	Lining :	

Comment :

1:336 Position	Code	Observation	MPEG	Photo	Grade
MHS8					
0.00	MH	Start node type, manhole, reference number : MHS8	00:00:00		(Constr) 0
0.01	WL	Water level, 0% of the vertical dimension			(Serv) 0
2.48	WL	Water level, 5% of the vertical dimension	00:01:25		(Serv) 0
33.84	REM	General remark Remarks: manhole	00:13:01		(Misc) 0
34.26	CN	Connection other than junction, at 11 o'clock, diameter 100mm Remarks: gully conoction	00:14:05		(Constr) 0
41.16	WL	Water level, 0% of the vertical dimension	00:17:36		(Serv) 0
41.16	SA	Survey abandoned Remarks: Survey could not be completed due to sharp bend on this pipe	00:17:36		(Misc) 0

Structural Defects					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	0	0	0	0	1

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
19/04/2017		**no rain or snow**	**Frantisek**	**45**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**AJ7**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHS5**
Inspection	**AJ7 (D/S) MHS5**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**39.61 m**	Lining :	

Comment :

1:315 Position	Code	Observation	MPEG	Photo	Grade
AJ7					
0.00	IC	Start node type, inspection chamber, reference number : AJ7	00:00:02		(Constr) 0
0.01	WL	Water level, 0% of the vertical dimension	00:00:02		(Serv) 0
3.60	WL	Water level, 5% of the vertical dimension	00:00:32		(Serv) 0
8.50	CN	Connection other than junction, at 2 o'clock, diameter 150mm	00:00:32		(Constr) 0
9.80	WLC	Clear water level, 10% of the vertical dimension	00:01:14		(Serv) 0
20.10	CN	Connection other than junction, at 2 o'clock, diameter 150mm	00:02:33		(Constr) 0
26.40	CN	Connection other than junction, at 2 o'clock, diameter 150mm	00:03:22		(Constr) 0
26.60	WL	Water level, 5% of the vertical dimension	00:03:23		(Serv) 0
39.59	OBS	Other obstacles built into structure, from 1 to 3 o'clock, 75% cross-sectional area loss Remarks: Poor workmanshi	00:00:00	45_9A	(Serv) 5
39.60	WL	Water level, 5% of the vertical dimension	00:00:00		(Serv) 0
39.61	SA	Survey abandoned Remarks: Survey could not be completed due to a pipe cross the way.	00:00:00		(Misc) 0

Structural Defects					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	0	0	0	0	1

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Place :	Road :	Date :	Section number :	PLR Suffix :
Rathcoole	**Grants Drive**	**19/04/2017**	**45**	**X**

Photo: 45_9A, MPEG #: 280217_1, 00:00:00
39.59m, Other obstacles built into structure, from 1 to 3 o'clock, 75% cross-sectional area loss

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Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
19/04/2017		**no rain or snow**	**Frantisek**	**46**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**G10**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**DS**
Inspection	**G10 (D/S) DS**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**9.81 m**	Lining :	

Comment :

1:84	Position	Code	Observation	MPEG	Photo	Grade
G10	0.00	GY	Start node type, gully, reference number : G10	00:00:00		(Constr) 0
	0.01	WL	Water level, 0% of the vertical dimension	00:00:02		(Serv) 0
	9.80	WL	Water level, 0% of the vertical dimension	00:01:43		(Serv) 0
DS	9.81	BRF	Finish node type, major connection without manhole reference number: DS Remarks: Connected to the drain b	00:01:43		(Constr) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
19/04/2017		**no rain or snow**	**Frantisek**	**47**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**G11**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**DS**
Inspection	**G11 (D/S) DS**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**12.40 m**	Lining :	

Comment :

1:105 Position	Code	Observation	MPEG	Photo	Grade
G11					
0.00	GY	Start node type, gully, reference number : G11	00:00:02		(Constr) 0
0.01	WL	Water level, 0% of the vertical dimension	00:00:19		(Serv) 0
2.20	REM	General remark Remarks: Dents.	00:00:59	47_3A	(Misc) 0
5.80	D	Deformed sewer/drain, 10%	00:01:48	47_4A	(Struct) 4
7.20	WL	Water level, 5% of the vertical dimension	00:02:05		(Serv) 0
9.00	LL	Line deviates left	00:02:25		(Serv) 0
12.00	LD	Line deviates down	00:02:52		(Serv) 0
12.30	WL	Water level, 0% of the vertical dimension	00:02:57		(Serv) 0
DS					
12.31	BRF	Finish node type, major connection without manhole reference number: DS Remarks: This drain is connected t	00:02:57		(Constr) 0

Structural Defects | **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
1	**80**	**6.45**	**80**	**4**	**0**	**0**	**0**	**0**	**1**

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Place :	Road :	Date :	Section number :	PLR Suffix :
Rathcoole	**Grants Drive**	**19/04/2017**	**47**	**X**

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

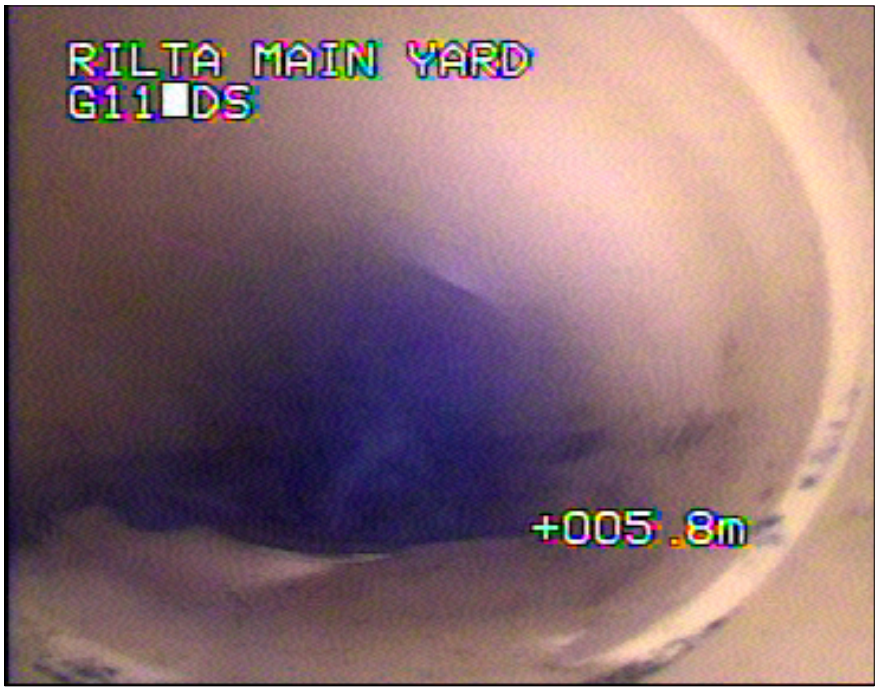

Photo: 47_4A, MPEG #: 280217_1, 00:01:48
5.8m, Deformed sewer/drain, 10%

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Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
19/04/2017		**no rain or snow**	**Frantisek**	**48**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**G12**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**DS**
Inspection	**G12 (D/S) DS**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**9.81 m**	Lining :	

Comment :

1:84	Position	Code	Observation	MPEG	Photo	Grade
G12	0.00	GY	Start node type, gully, reference number : G12	00:00:01		(Constr) 0
	0.01	WL	Water level, 0% of the vertical dimension	00:00:01		(Serv) 0
	8.50	LD	Line deviates down	00:01:37		(Serv) 0
	9.80	WL	Water level, 0% of the vertical dimension	00:00:00		(Serv) 0
DS	9.81	BRF	Finish node type, major connection without manhole reference number: DS Remarks: This drain is connected t	00:00:00		(Constr) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
19/04/2017		**no rain or snow**	**Frantisek**	**49**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**G13**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**DS**
Inspection	**G13 (D/S) DS**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**11.11 m**	Lining :	

Comment :

1:105 Position	Code	Observation	MPEG	Photo	Grade
G13					
0.00	GY	Start node type, gully, reference number : G13	00:00:01		(Constr) 0
0.01	WL	Water level, 0% of the vertical dimension	00:00:01		(Serv) 0
11.10	WL	Water level, 0% of the vertical dimension	00:01:54		(Serv) 0
DS					
11.11	BRF	Finish node type, major connection without manhole reference number: DS Remarks: This pipe is connected to	00:01:54		(Constr) 0

Structural Defects					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**	**0**	**0**	**0**	**0**	**1**

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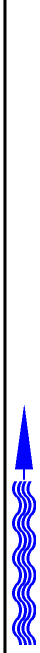
Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
19/04/2017		**no rain or snow**	**Frantisek**	**50**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**MHF9**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MHF8**
Inspection	**MHF8 (U/S) MHF9**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**58.01 m**	Lining :	

Comment :



1:462 Position	Code	Observation	MPEG	Photo	Grade
MHF8					
0.00	MH	Start node type, manhole, reference number : MHF8	00:00:00		(Constr) 0
0.01	WL	Water level, 10% of the vertical dimension	00:00:00		(Serv) 0
3.00	WL	Water level, 5% of the vertical dimension	00:00:33		(Serv) 0
27.90	WL	Water level, 10% of the vertical dimension	00:03:59		(Serv) 0
29.70	WL	Water level, 5% of the vertical dimension	00:05:12		(Serv) 0
33.20	WLC	Clear water level, 10% of the vertical dimension	00:06:24		(Serv) 0
34.30	WL	Water level, 5% of the vertical dimension	00:06:52		(Serv) 0
43.40	WL	Water level, 10% of the vertical dimension	00:07:43		(Serv) 0
44.30	WL	Water level, 20% of the vertical dimension	00:07:48		(Serv) 0
48.80	WL	Water level, 10% of the vertical dimension	00:08:26		(Serv) 0
51.80	WLC	Clear water level, 15% of the vertical dimension	00:08:57		(Serv) 0
52.80	WLC	Clear water level, 20% of the vertical dimension	00:09:07		(Serv) 0
54.90	WLC	Clear water level, 10% of the vertical dimension	00:10:07		(Serv) 0
58.00	WLC	Clear water level, 10% of the vertical dimension	00:00:00		(Serv) 0
58.01	SA	Survey abandoned Remarks: Survey could not be completed due to cameras rod.	00:00:00		(Misc) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
19/04/2017		**no rain or snow**	**Frantisek**	**51**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**PD**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**OV**
Inspection	**PD (D/S) OV**	Pipe Length		D/S Depth :	

Use:	**Foul**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**100.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**5.30 m**	Lining :	

Comment :

1:50	Position	Code	Observation	MPEG	Photo	Grade
PD	0.00	MH	Start node type, manhole, reference number : PD	00:00:01		(Constr) 0
	0.01	WL	Water level, 5% of the vertical dimension	00:00:01		(Serv) 0
	0.90	WL	Water level, 0% of the vertical dimension	00:00:14		(Serv) 0
	1.70	LR	Line deviates right	00:00:22		(Serv) 0
	3.00	WL	Water level, 5% of the vertical dimension	00:00:35		(Serv) 0
	4.00	WL	Water level, 10% of the vertical dimension	00:00:45		(Serv) 0
	5.00	WL	Water level, 20% of the vertical dimension	00:00:53		(Serv) 0
OV	5.30	LR	Line deviates right	00:01:00		(Serv) 0

Structural Defects | **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

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Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
19/04/2017		**no rain or snow**	**Frantisek**	**52**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**MHS6**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**ET**
Inspection	**MHS6 (D/S) ET**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**225.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**9.30 m**	Lining :	

Comment :

1:84	Position	Code	Observation	MPEG	Photo	Grade
MHS6						
	0.42	WL	Water level, 5% of the vertical dimension	00:01:11		(Serv) 0
	0.42	CPF	Finish node type, catchpit reference number: ET	00:01:12		(Constr) 0
	9.24	MH	Start node type, manhole, reference number : MHS6	00:00:00		(Constr) 0
ET	9.24	WL	Water level, 0% of the vertical dimension	00:00:01		(Serv) 0
	9.30	WL	Water level, 5% of the vertical dimension	00:00:14		(Serv) 0

Structural Defects | **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**	**0**	**0**	**0**	**0**	**1**

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Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
19/04/2017		**no rain or snow**	**Frantisek**	**53**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**AJ6**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**AJB**
Inspection	**AJ6 (D/S) AJB**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**48.91 m**	Lining :	

Comment :

1:399 Position	Code	Observation	MPEG	Photo	Grade
AJ6					
0.00	IC	Start node type, inspection chamber, reference number : AJ6	00:00:00		(Constr) 0
0.40	WLC	Clear water level, 25% of the vertical dimension	00:00:10		(Serv) 0
0.40	CUW	Loss of vision, camera under water	00:00:35		(Misc) 0
3.60	WL	Water level, 10% of the vertical dimension	00:00:56		(Serv) 0
4.20	WL	Water level, 5% of the vertical dimension	00:01:05		(Serv) 0
11.20	WL	Water level, 5% of the vertical dimension	00:02:29		(Serv) 0
17.90	WLC	Clear water level, 10% of the vertical dimension	00:03:17		(Serv) 0
21.70	WL	Water level, 15% of the vertical dimension	00:03:44		(Serv) 0
23.70	WLC	Clear water level, 20% of the vertical dimension	00:04:01		(Serv) 0
24.70	WL	Water level, 15% of the vertical dimension	00:04:09		(Serv) 0
25.30	WL	Water level, 10% of the vertical dimension	00:04:16		(Serv) 0
27.00	WL	Water level, 5% of the vertical dimension	00:04:30		(Serv) 0
30.00	WLC	Clear water level, 0% of the vertical dimension	00:04:49		(Serv) 0
31.30	WL	Water level, 5% of the vertical dimension	00:05:00		(Serv) 0
33.00	WL	Water level, 10% of the vertical dimension	00:05:14		(Serv) 0
35.00	WL	Water level, 5% of the vertical dimension	00:05:31		(Serv) 0
48.50	SR	Sealing ring intruding, from 11 to 2 o'clock Remarks: Just beside AJB	00:07:29	53_17A	(Constr) 1
48.90	WL	Water level, 5% of the vertical dimension	00:07:43		(Serv) 0
48.91	ICF	Finish node type, inspection chamber reference number: AJB	00:07:43		(Constr) 0
AJB					

Structural Defects | **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
1	**5**	**0.1**	**5**	**1**	**0**	**0**	**0**	**0**	**1**

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

Inspection pictures / Inspection: 1

Place :	Road :	Date :	Section number :	PLR Suffix :
Rathcoole	**Grants Drive**	**19/04/2017**	**53**	**X**

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

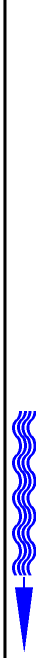
Inspection report / Inspection: 1

Date :	Job number :	Weather :	Operator :	Section number :	PLR SUFFIX:
19/04/2017		**no rain or snow**	**Frantisek**	**54**	**X**
Weather	Vehicle :	Camera :	Preset :	Cleaned :	Operator :
no rain or snow	**VEHICLE 1**	**camera 1**		**yes**	**Frantisek**

Place :	**Rathcoole**	Location details:		U/S MH :	**AJB**
Road :	**Grants Drive**	Catchment:		U/S Depth :	
Location	**Property with buildings**	Tape number :	**280217_1**	D/S MH :	**MH8**
Inspection	**AJB (D/S) MH8**	Pipe Length		D/S Depth :	

Use:	**Surface water**	Pipe shape :	**Circular**
Year laid :		Pipe size :	**150.00 mm**
Purpose :	**Routine inspection of condition**	Pipe material :	**Polyvinyl chloride**
Total length :	**37.31 m**	Lining :	

Comment :



1:294 Position	Code	Observation	MPEG	Photo	Grade
AJB					
0.00	IC	Start node type, inspection chamber, reference number : AJB	00:00:02		(Constr) 0
0.01	WL	Water level, 5% of the vertical dimension	00:00:02		(Serv) 0
0.60	WL	Water level, 10% of the vertical dimension	00:00:07		(Serv) 0
5.10	WL	Water level, 5% of the vertical dimension	00:00:51		(Serv) 0
13.30	WLC	Clear water level, 10% of the vertical dimension	00:01:56		(Serv) 0
13.30	CN	Connection other than junction, at 1 o'clock, diameter 100mm	00:01:56		(Constr) 0
14.40	WL	Water level, 15% of the vertical dimension	00:02:06		(Serv) 0
20.90	WL	Water level, 10% of the vertical dimension	00:03:12		(Serv) 0
23.00	WL	Water level, 20% of the vertical dimension	00:03:37		(Serv) 0
23.30	WL	Water level, 20% of the vertical dimension	00:03:47		(Serv) 0
24.80	WL	Water level, 25% of the vertical dimension	00:04:17		(Serv) 0
24.80	CUW	Loss of vision, camera under water	00:04:17		(Misc) 0
37.30	WL	Water level, 25% of the vertical dimension	00:05:23		(Serv) 0
37.31	SA	Survey abandoned Remarks: Survey could not be completed due to level of water in the pipe.	00:05:23		(Misc) 0

Structural Defects					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	0	0	0	0	1