Rilta Environmental Ltd. Block 402, Greenogue Business Park, Rathcoole, County Dublin

ANNUAL ENVIRONMENTAL REPORT FOR THE YEAR ENDING 31ST OF DECEMBER 2007

Compiled March 2008

EPA WASTE LICENCE No. 192-1



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1. Introduction

In accordance with condition 11.4 of waste licence 192-1, the following Annual Environmental Report includes all information specified in Schedule F: Content of Annual Environmental Report and has been compiled with the aid of the Waste licensing draft guidance notes 19.04.99.

2. Reporting Period

Rilta Environmental Ltd (then trading as Sita Environmental) was issued with Waste Licence No: 192-1 by the EPA on December 3rd 2004. This AER covers the period from January 1st 2007 to December 31st 2007.

3. Waste Activities carried out at the Facility

The licensed activities carried out at the RILTA facility as per Waste Licence No: 192-1 are as follows:

Third Schedule of the Waste Management Act, 1996 to 2003. West

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 100 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.

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.

Fourth Schedule of the Waste Management Acts 1996 to 2003.

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.



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.

4. Waste Quantities (1st January 2007 – 31st December 2007).

The following table summarises the types and quantities of waste handled over the period 1st January 2007 to 31st December 2007, at RILTA's facility.

Table.1 Waste Throughput Handled at RILTA's facility (01/01/07 to 31/12/07)

Table.1 Waste Inroughput Handled at RIL1A's facility (01/01/07 to 31/12/07)				
Waste Type	EWC Code	Hazardous	Wt./Kg	Disposal Type
Treated Waste (D9)				
Stonewash	01 04 13	No	230.32	D9 - Physico chemical treatment
Drilling Waste	01 05 05*	Yes	1,278.60	D9 - Physico chemical treatment
On-site Treatment Sludges	03 03 11	No	19.10	•
Oil Spill Waste	05 01 05*	Yes	500 10 101.84	D9 - Physico chemical treatment
Acidic Washings	06 01 01*	Yes con	or icolaire 11.82	D9 - Physico chemical treatment
Acidic Washings	06 01 02*	Fordistrio	25.42	D9 - Physico chemical treatment
Acidic Washings	06 01 05*	ent of Yes	10.12	D9 - Physico chemical treatment
Acidic Washings	06 01 06*	Yes	2.00	D9 - Physico chemical treatment
Aqueous Line Wash	06 02 05*	No	25.24	D9 - Physico chemical treatment
Aqueous Wash	07 01 01*	No	0.36	D9 - Physico chemical treatment
Concrete Additive	07 01 99	No	3.80	D9 - Physico chemical treatment
Aqueous Washings	07 05 01*	No	22.42	D9 - Physico chemical treatment
Effluent Waste	10 01 21	No	34.22	D9 - Physico chemical treatment
Boiler Wash	10 01 22*	No	24.04	D9 - Physico chemical treatment
Boiler Wash	10 01 23	No	17.68	D9 - Physico chemical treatment
Cooling Waste	10 02 11*	No	1,900.66	D9 - Physico chemical treatment



Waste Type	EWC Code	Hazardous	Wt./Kg	Disposal Type	
Continued below Treated Waste (D9)					
Metal Sludges	11 01 10	No	47.76	D9 - Physico chemical treatment	
Machining Oils	12 01 07*	No	23.76	D9 - Physico chemical treatment	
Coolant	12 01 09*	No	1,513.67	D9 - Physico chemical treatment	
Hydraulic Oil	13 01 10*	Yes	5.26	D9 - Physico chemical treatment	
Hydraulic Oil	13 01 11*	Yes	1.62	D9 - Physico chemical treatment	
Hydraulic Oil	13 01 13*	Yes	0.54	D9 - Physico chemical treatment	
Engine Oil	13 02 06*	Yes	120.43	D9 - Physico chemical treatment	
Engine Oil	13 02 07*	Yes	0.46	99 - Physico chemical treatment	
Mixed Waste Oil	13 02 08*	Yes	782,57	D9 - Physico chemical treatment	
Bilge Oil	13 04 03*	Yes	hito etited 607.49	D9 - Physico chemical treatment	
Interceptor Grit / Sludge	13 05 01*	No perion	84.10	D9 - Physico chemical treatment	
Interceptor Waste	13 05 03*	FOR STREET	9,149.70	D9 - Physico chemical treatment	
Interceptor Waste	13 05 07*	No No	42.96	D9 - Physico chemical treatment	
Interceptor Waste	13 05 08*	No	6.37	D9 - Physico chemical treatment	
Fuel Waste	13 07 01*	Yes	160.52	D9 - Physico chemical treatment	
Petrol	13 07 02*	Yes	2.20	D9 - Physico chemical treatment	
Oil Emulsions	13 08 02*	No	4.86	D9 - Physico chemical treatment	
Caustic Wash	16 05 07*	Yes	0.26	D9 - Physico chemical treatment	
Glycole Wash	16 05 08*	No	1.12	D9 - Physico chemical treatment	
Tank Cleaning Waste	16 07 08*	Yes	2,745.93	D9 - Physico chemical treatment	
Tank Cleaning Waste	16 07 09*	No	928.80	D9 - Physico chemical treatment	



Waste Type	EWC Code	Hazardous	Wt./Kg	Disposal Type	
Treated Waste (D9)					
Bund Area Waste	16 07 99	No	622.23	D9 - Physico chemical treatment	
Aqueous Washings	16 10 01*	No	437.25	D9 - Physico chemical treatment	
Aqueous Washings	16 10 02	No	940.76	D9 - Physico chemical treatment	
On-site Treatment Sludges	19 02 05*	No	7.52	D9 - Physico chemical treatment	
MRF Leachate	19 12 12	No	167.60	D9 - Physico chemical treatment	
Treatment Sludges	19 08 13*	No	4.52	D9 - Physico chemical treatment	
Treatment Waste	19 08 99	Yes	766.26	D9 - Physico chemical treatment	
Waste oils	20 01 26*	No	0.88	, No.	
Paint Washings	20 01 27*	No	210,12 011/210,12	D9 - Physico chemical treatment	
Drain Clearing	20 03 03	No	Jurgo 112.26	D9 - Physico chemical treatment	
Drain Clearing	20 03 99	100 × 0°	16.56	D9 - Physico chemical treatment	
Waste Drums	15 01 10*	FOR WOOD	711.30	R4 - Recycling/reclamation of metals and metal compounds	

Waste Type	EWC Code	Wt./Kg	
Brokered Waste (D13)			
Edible oil and fat	20 01 25	14.84	
Waste oil	13 00 00	29.38	
Oil filters	16 01 07*	0.36	
Lead batteries	16 06 01*	0.51	
Ni-Cd batteries	16 06 02*	0.09	
Alkaline batteries	16 06 04	0.12	
Mixed batteries from municipal sources	20 01 33*	0.48	
Fridges and freezers	20 01 23*	1.10	



Waste Type	EWC Code	Wt./Kg	
Continued below Brokered Waste (D13)			
TVs and PC monitors	20 01 35*	0.10	
Fluorescent tubes and lighting equipment	20 01 21*	0.05	
Other metal packaging	15 01 04	16.55	
Drilling Mud	01 05 05*	434.00	
Drlling Muds	01 05 07	213.00	
Agrochemical Waste	02 01 08*	0.02	
Food Processing Waste	02 02 99	0.38	
Confectionary Waste	02 06 99	0.23	
Food Flavourings	02 07 99	4.59	
Wood Preservatives	03 02 01*	0.42 other?	
Wood Preservatives	03 02 05*	es of 10.35	
Aqueous Process Waste	04 01 99 OT PUT	Wife 0.44	
Dry Cleaning Waste	03 02 01* 03 02 05* 04 01 99 04 02 14* 05 01 05* 00 04 60* 0	12.94	
Oil Spill Waste	05 01 05* colytil	1.34	
Sulphuric Acid	06 01:01*	6.30	
Hydrochloric Acid	06 01 02*	21.40	
Hydrochloric Acid	06 01 03*	0.05	
Phosphoric Acid	06 01 04*	0.38	
Nitric Acid	06 01 05*	0.18	
Acidic Waste	06 01 06*	47.54	
Acidic Waste	06 01 99	25.85	
Na/k Hydroxide	06 02 04*	12.80	
Other Bases	06 02 05*	0.65	
Other MFSU of Bases Waste	06 02 99	0.40	
Gypsum	06 03 14	639.80	



Waste Type	EWC Code	Wt./Kg
Continued below Brokered Was	te (D13)	
Mercury Waste	06 04 04*	0.48
Rubber Cont.Waste	07 01 01*	18.72
Epoxy Resin	07 01 10*	1.48
MFSU Chemicals Waste	07 01 99	3.31
Hydrogenated Solvents	07 05 03*	1.70
Organic Solvents	07 05 04*	449.50
Grease	07 06 08*	2.24
Spent Cosmetics	07 06 99	28.02
Paint Rel Waste	08 01 11*	395.02
Varnish	08 01 12	21.10 ther
Paint Sludge	08 01 13*	0148.63
Paint Rel Waste	08 01 99 puri	gifed 3.82
Coating Waste	08 01 99 08 02 99 08 03 08 to the period what for the period when the period	0.23
Aqueous Waste Inc.Ink	08 03 08 For High	0.12
Ink Waste	08 03 12	320.72
Ink Powder	08 03 13	0.08
Adhesive Waste	08 04 09*	243.28
Adhesive Waste	08 04 10	116.72
Adhesive Waste	08 04 11*	3.73
Resin Waste	08 04 99	2.76
Photo Development Waste	09 01 01*	61.88
Photo Development Waste	09 01 03*	1.55
Photo Fixer Waste	09 01 04*	0.91
Fly Ash	10 01 04*	12.00
Lead Foil Strips	09 01 09	0.26
Ferrous Sulphide	10 01 18*	0.22



Waste Type	EWC Code	Wt./Kg
Continued below Brokered Waste	∍ (D13)	
Cation Resin	10 01 99	0.18
Waste Fibrefrax	10 12 08	0.08
Filtercake	11 01 09*	27.74
Filtercake	11 01 10	21.66
Aqueous Waste	11 01 12	1.07
Metallic Surface Treatment Wash	11 01 98*	4.30
Filter Dust	11 01 99	0.31
Process Dust	11 05 99	39.50
Glycol	12 01 09*	18.91
Surface Blasting Waste	12 01 17	6.80 ther
Surface Treatment Waste	12 01 99	on 5.20 V
Waste Oil	13 01 11* Purt	quired 0.26
Waste Oil	13 01 11* 13 02 08* 13 05 03**** 13 07 0***	29.12
Interceptor Waste	13 05 03*Corriging	20.46
Fuel Waste	13 07 04	3.52
Oil Booms	13 08 99*	0.02
Aerosols	14 06 01*	0.63
Solvent Waste	14 06 02*	64.27
Solvent Waste	14 06 03*	275.86
Solvent Sludge	14 06 05*	1.72
METAL PACKAGING	15 01 04	16.55
Mixed Packaging	15 01 06	0.16
Contaminated Packaging	15 01 10*	42.97
Absorbent Material	15 02 02*	305.18
Absorbent Material	15 02 03	12.04
Oil Filters	16 01 07*	0.36



Waste Type	EWC Code	Wt./Kg
Continued below Brokered Waste (D13)		
Mercury Waste	16 01 08*	0.00
Antifreeze	16 01 14*	1.00
Antifreeze	16 01 15	0.10
Glass	16 01 20	0.36
Bund Area Waste	16 01 99	4.42
WEEE	16 02 11*	1.10
Capacitors	16 02 13*	0.30
WEEE	16 02 15*	0.08
Phosphor Powder	16 02 16	9.78
Of Spec Products	16 03 03*	21.54 Not 1
Of Spec Products	16 03 04	Soli 1:804
Of Spec Products	16 03 05*	quited 6.14
Of Spec Products	16 03 05* 16 03 06 16 05 04*Colorbidit Hills (16 05 05 05)	1.21
Aerosols	16 05 04*For High	2.99
Aerosols	16 05 05	1.63
Lab Waste	16 05 06*	35.52
Discarded Inorganic Chems	16 05 07*	71.93
Discarded Inorganic Chems	16 05 08*	2.48
Discarded Chemicals	16 05 09	0.14
Lead Acid Batteries	16 06 01*	0.51
Nicol Batteries	16 06 02*	0.09
Alkaline batteries	16 06 04	0.12
Tank Cleaning Waste	16 07 08*	40.20
Tank Cleaning Waste	16 07 08*	33.94
Bund Area Waste	16 07 99	24.00
Spent Catalysts	16 08 07*	0.40



Waste Type	EWC Code	Wt./Kg
Continued below Brokered Waste (D13)		
Peroxides	16 09 03*	26.64
Oxidizing Substances	16 09 04*	4.01
Aqueous Waste	16 10 01*	231.78
Aqueous Concentrates	16 10 04	4.89
Lead	17 04 03	0.20
Insulation Material	17 06 04	0.40
Cement	17 09 04	0.04
Sharps	18 01 01	3.93
Clinical Waste	18 01 03*	0.44
Spent Medicines	18 01 06*	31.36 ₁₁₁ 21
Clinical Waste	18 01 09	50rl 0: 144
Dental Amalgam	18 01 10* Puri	gifted 1.09
Karron Oil	18 02 02* Rection to the second of the secon	0.01
Waste Meds	18 02 05*You Wilde	0.02
Waste Meds	18 01 96*	4.77
Stabilised Waste	19 03 05	21.00
Spent Achvated Carbon	19 09 04	17.34
Waste Acids	20 01 14*	0.21
Ammonia	20 01 15*	0.20
Waste Pesticides	20 01 19*	2.89
Flourescent Tubes	20 01 21*	0.05
Aerosols	20 01 23*	3.01
Grease	20 01 25	14.84
Oil Grease	20 01 26*	11.82
Paint Waste	20 01 27*	121.82
Ink Cartridges	20 01 28	1.65



Waste Type	EWC Code	Wt./Kg	
Continued below Brokered Waste (D13)			
Detergents	20 01 29*	3.66	
Waste Meds	20 01 31*	0.36	
Waste Batteries	20 01 33*	0.48	
WEEE	20 01 35*	0.10	
Waste Metals	20 01 40	0.02	
Asbestos Insulation	17 06 01*	693.63	
Asbestos C+D	17 06 05*	5,199.15	
Contaminated Soil	17 05 03*	36,271.41	

Condition 1.4 of Waste Licence No: 192-1 allows RILTA to accept up to 62,500 tonnes/year of waste consisting of hazardous waste, commercial waste, construction and demolition waste, industrial sludges and industrial waste at the facility.

The above table shows that the total volume of waste accepted by RILTA from January 1st 2007 to

The above table shows that the total volume of waste accepted by RILTA from January 1st 2007 to December 31st 2007 was 70,994 tonnes year. Rilta Environmental Ltd. is currently requesting an increase in this limit to reflect an increase in the quantity of soil that is being stored and transferred from the site.

5. Summary Report on Emissions

Schedule C of Waste Licence 192-1 requires RILTA to carry out noise, air, dust, surface water, groundwater and wastewater emissions monitoring. The locations of these monitoring points are shown on Drawing 1250/01/1002, as submitted to the Environmental Protection Agency on the 28th of February, 2005.

Monthly, Quarterly and Annual monitoring was carried out during the period from 01/01/07 to 31/12/07. All monitoring results and reports have been submitted to the agency as required by Schedule E of the licence. The following is a summary of the results and findings of the 2007 monitoring period.



5.1 Groundwater Emissions

5.1.1 Groundwater monitoring point 1 (BH1)

Location: E301555 N228440

pH: The pH of the analysed groundwater from BH1 ranged from 7.4 in February 2006 to 8.16 in November 2007. The values are within the normal range and reflect the natural conditions of this groundwater.

Conductivity:

The conductivity was ranging from $595\mu S/cm$ in November 2007 to $684\mu S/cm$ in August 2007. This range of values is considerably lower than the Drinking Water Regulations and reflect normal background levels.

Heavy metals:

Concentrations of Arsenic and Mercury in BH1 were below the respective detection limits, of 0.01ug/l and 0.05 ug/l, for all monitoring events.

Copper, Chromium, Cadmium, Nickel and Zinc were all analysed as part of the annual groundwater set of parameters for BH1. All were below the regulatory limits set by the Drinking Water Regulation standards and the EPA Guideline Values.

Inorganic:

The following inorganic parameters were analysised as part of the annual groundwater set: total alkalinity, chloride, sulphate, potassium, sodium, calcium and magnesium. The results were within the limits set by the Drinking Water Regulation standards and the EPA Guideline Values.

List 1/11 Organic Substances, Mineral Oil, BTEX:

For all groundwater sampled at BH1 from January to December 2007, List1/11 Organic Substances, Mineral Oil, BTEX were all found to be below the detection limit.



5.1.2 **Groundwater monitoring point 2 (BH2)**

Location: E301600 N228550

pH:

The pH of the analysed groundwater from BH2 ranged from 10.51 in August 2006 to 11.14 in May

2007. These values are elevated in comparison to the Drinking Water Standards which have a pH

range of >6.5 and <9.5. A comprehensive review of all groundwater monitoring results from BH2 and

BH3 was completed by TOBIN Consulting Engineers in January 2008 in order to establish a possible

cause for the elevated pH levels recorded at these locations. It is suggested that the high pH levels to

the north of the site may be attributable to the construction underground tanks to the north of the site,

where significant alkaline cements and construction fill would have been placed in close environs to

the boreholes displaying high pH values.

Conductivity:

The conductivity was ranging from 476μS/cm in August 2007 661μS/cm in May 2007. These

values are considerably lower than the Drinking Water Regulations and EPA Guideline Values.

Heavy metals:

Arsenic at BH2 was recorded within the range to bug/l and this is well within the limit of 50µg/l set in

the Drinking Water Regulations. Similar to 2006, all groundwater sampled from BH2 was found to

contain a value of Mercury below the detection limit.

Concentrations of Copper, and Lead were <1 ug/l when sampled in August 2007. Chromium and

Cadmium were less than the laboratory limits of detection, <0.4 and <0.05 ug/l respectively. Nickel

was detected in low concentrations (4 ug/l) when compared to the result for 2006 (32µg/l) and the

EPA Guideline Value of 20µg/l.

Inorganic:

Potassium levels in BH2 (11.1 mg/l) were slightly elevated compared to the Drinking Water

Regulations MAC value of 12 mg/l and the EPA Guideline Value of 5mg/l. Chloride levels were less

than the EPA Guideline value of 30 mg/l and were significantly lower than levels recorded in 2006 (69

mgl). Sodium concentrations were 25.5 mg/l in BH2 compared to 210 mg/l in 2006.

List 1/11 Organic Substances, Mineral Oil, BTEX:

Similar to 2006, all groundwater sampled at BH2 from January to December 2007, List1/11 Organic

Substances, Mineral Oil and BTEX were found to be below the detection limit with the exception of

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Mineral Oil (144 ug/l) in November. The List1/11 substances recorded a value of 86 ug/l tert-butyl methyl ether which is a petrol additive suggestive of the presence of trace amounts of petrol. The results for BH2 will be closely monitored to ensure that the presence of mineral oils was an isolated incident.

5.1.3 Groundwater monitoring point 3 (BH3)

Location: E301630 N228555

pH:

The pH of the analysed groundwater from BH3 ranged from 11.67 in November 2007 to 12.19 in May 2007. The values are elevated in comparison to the Drinking Water Standards which have a pH range of >6.5 and <9.5. The pH levels at this borehole are slightly higher on average than those measured at BH2 indicating that this borehole is closer to the underground tanks or fill material.

Conductivity:

The conductivity was ranging from $792\mu S/cm$ in November 2007 to $1627\mu S/cm$ in February 2007. These values are elevated in comparison to the EPA Guideline values. However, all values are within the S.I. No. 439 of 2000 Drinking Water Regulation limit which is $2500\mu S/cm$.

Heavy metals:

Arsenic at BH3 was recorded within the range 2.8 µg/l and this is well within the limit of 50µg/l set in the Drinking Water Regulations. All groundwater sampled from BH3 was also found to contain a value of Mercury below the detection limit.

Concentrations of cadmium, chromium and lead were all below the limit of detection when sampled in August 2007. Levels of zinc, copper and nickel were 14 ug/l, 2 ug/l and 9 ug/l respectively all less than the MAC values quoted in the 1988 Drinking Water Regulations. Heavy metal concentrations were similar to those recorded in 2006, with the exception of decreases in copper (40 ug/l) and chromium (13 ug/l) concentrations.

Inorganic:

All inorganic parameters were within the limits set by the Drinking Water Regulation standards and the EPA Guideline Values with the exception potassium (14.0 mg/l), which were slightly higher than levels recorded in 2006 (9.6 mg/l). Concentrations of chloride (22 mg/l) and sulphate (75 mg/l) have decreased significantly compared to 2006, when respective levels of 67 mg/l and 408 mg/l were reported.

List 1/11 Organic Substances, Mineral Oil, BTEX:

Mineral oils reported for BH3 in November 2007 (126 ug/l) were in excess of the EPA Guideline



Value of 10 ug/l. Water levels were recorded for BH2 and BH3 using an oil interface detector in December 2007 following the reporting of mineral oil in the boreholes. Hydrocarbon contamination was not detected in either borehole in December 2007.

Volatile Organic Compounds were not reported due to a matrix interference problem with the sample. Confirmation of the presence of MTBE, indicating gasoline contamination, was not possible. However, due to similar concentrations of mineral oil reported for BH2 in November 2007, it is likely that gasoline is also the likely contaminant in BH3. The results for BH3 will be closely monitored to ensure that the presence of mineral oils was an isolated incident.

5.2 Surface Water Emission

The quarterly reports in respect of Surface Water Emissions have been submitted to the EPA in April, July and October 2007 and January 2008 as required by Schedule E of the licence. The following is a summary of the values recorded for each parameter.

5.2.1 Surface Water Monitoring Point 1: (SW1)

Location: E301670 N228562

pH:

The pH of the analysed groundwater from \$100 1 ranged from 7.59 in February 2007 to 8.04 in May 2007. The values are within the normal range and reflect the natural conditions of this surface water.

Chemical Oxygen Demand:

Similar to 2006, the chemical oxygen demand for SW1 was below the level of detection (15 mg/l) for all monitoring events.

Suspended Solids:

The level of suspended solids in the samples taken for SW1 were below the level of detection (<10 mg/l) for all monitoring events in 2007.

Mineral Oils:

Similar to 2006, the level of Mineral Oil recorded for SW1 was below the level of detection (10ug/l) for all monitoring events.



5.2.2 **Surface Water Monitoring Point 2: (SW2)**

Location: E301565 N228555

pH:

The pH of the analysed groundwater from SW2 ranged from 7.88 in November 2007 to 8.25 in February 2007. The values are within the normal range and reflect the natural conditions of this

surface water.

Chemical Oxygen Demand:

Similar to 2006, the chemical oxygen demand for SW2 was below the level of detection for all

monitoring events in 2007.

Suspended Solids:

The level of suspended solids for SW2 were below the level of detection (10 mg/l) for all monitoring

events, with the exception of the February. This sample recorded 60 mg/l suspended solids, above the

MAC limits, due to entrainment of sediment from the bed of this fast flowing section of the River

Griffeen.

Mineral Oils:

Similar to 2006, the level of Mineral Oils recorded for SW2 was below the level of detection (10 ug/l)

for all monitoring events in 2007.

Surface Water Monitoring Point 3: (SW3)

Location: E301558 N228560

pH:

The pH of the analysed groundwater from SW3 ranged from 7.76 in November 2007 to 8.25 in

February 2007. The values are within the normal range and reflect the natural conditions of this

surface water.

Chemical Oxygen Demand:

Similar to 2006, the chemical oxygen demand for SW3 was below the level of detection (15 mg/l) for

all monitoring events.

Suspended Solids:

The level of suspended solids in the samples taken for SW3 were below the level of detection (10

mg/l) for all monitoring events.



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Mineral Oils:

Similar to 2006, the level of Mineral Oils recorded for SW3 was below the level of detection (10 ug/l) for all monitoring events.

5.3 **Waste Water Emissions**

Location: E301655 N228530

The quarterly reports in respect of "Wastewater Emissions to Sewer" have been submitted to the EPA in April, July and October 2007 and January 2008 as required by Schedule E of the licence. The following is a summary of the values recorded for each parameter.

Volume Emitted:

The total volume emitted during the reporting period was 22,360 m³.

A new tank has been set up to reuse some of the water used in the centrifuge process. It is anticipated that another tank will be linked to the system in 2008 to re-use waste water.

BOD:
The average value for BOD during the reporting period, was 629mg/l, with a maximum and minimum value of 1513mg/l and 26mg/l respectively. The values were well within the limit emission value of 1000mg/l for all events, with the exception of January and May 2007 when BOD values of 1083mg/l, and 1513mg/l were recorded respectively.

COD:

The average value for COD during the reporting period was 1275mg/l, with a maximum and minimum value of 3399mg/l and 52mg/l respectively. The values were well within the limit emission value of 3000mg/l for all events, with the exception of August 2007 when a COD value of 3399mg/l was recorded.

Mineral Oils:

The average value for Mineral Oils during the reporting period was 123µg/l, with a maximum and minimum value of 13671µg/l and <10µg/l respectively. The values were well within the limit emission value of 10,000µg/l for all monitoring events, with only the June mineral oil results above the detection limit of $<10\mu g/l$.

Suspended Solids:

The average value for Suspended Solids during the reporting period was 42mg/l, with a maximum and minimum value of 140mg/l and <10mg/l respectively. The values were well within the limit emission



value of 500mg/l for all monitoring events.

Sulphates:

The average value for Sulphates during the reporting period was 379mg/l, with a maximum and minimum value of 1809mg/l and 35mg/l respectively. The values were well within the emission limit value of 1000mg/l for all monitoring events, with the exception of the value in April 2007 –1809 mg/l.

pH:

The average pH value during the reporting period was 6.99 with maximum and minimum values of 7.91 and 5.89 respectively. All pH values are within the emission limit band of pH 6-10 With the exception of August when a pH of 5.89 was reported.

Temperature:

The average temperature of effluent discharged to the foul sewer during the reporting period was 13.8°C. This value is dependent solely on ambient temperature as there is no heat generated during the chemical treatment process and therefore no ELV breaches.

Surfactants:

The average value for sufactants during the reporting period was 1.97mg/l, with a maximum value of 6.9mg/l and a minimum value of 0.5mg/l. These values are significantly lower than the emission limit of 100mg/l, with all below 10mg/l.

Toluene:

The average value for Toluene during the reporting period was $154\mu g/l$, with a maximum and minimum value of $409\mu g/l$ and $<10\mu g/l$ respectively. The values were well within the limit emission value of $1000\mu g/l$ for all monitoring events.

Benzene:

The average value for Benzene during the reporting period was $68\mu g/l$, with a maximum value of $144\mu g/l$ and a minimum value of $<10\mu g/l$. These values are significantly lower than the emission limit of $1000\mu g/l$.

Ethylbenzene:

The average value for Ethylbenzene during the reporting period was $16\mu g/l$, with a maximum value of $46\mu g/l$ and a minimum value of $<10\mu g/l$. These values are significantly lower than the emission limit of $1000\mu g/l$.



Total Xylene:

The average value for Xylene during the reporting period was $54\mu g/l$, with a maximum value of $166\mu g/l$ and a minimum value of $<10\mu g/l$. These values are significantly lower than the emission limit of $1000\mu g/l$.

Zinc (as Zn):

The average value for Zinc during the reporting period was $730\mu g/l$, with a maximum value of $2284\mu g/l$ and a minimum value of $7\mu g/l$. These values are significantly lower than the emission limit of $5000\mu g/l$.

Copper (as Cu):

The average value for Copper during the reporting period was $126\mu g/l$, with a maximum value of $595\mu g/l$ and a minimum value of $1\mu g/l$. These values are significantly lower than the emission limit of $5000\mu g/l$.

Metals Screen:

A number of metals were analysed quarterly according to Schedule D of the waste licence. The metals included Lead, Nickel, Selenium, Cadmium, Chromium, Mercury, Boron and Arsenic.

Arsenic levels were less than 5 ug/l from February to August before increasing to 54 ug/l in November while results for Mercury were 0.05 ug/log below for 2007.

Chromium concentrations were 28 ug/l on average with a maximum value of 54 ug/l recorded in August. Cadmium levels were below the detection limit of 0.04 ug/l on each sampling event in 2007.

Nickel recorded an average value of $185\mu g/l$, with a maximum and minimum value of $416\mu g/l$ and $47\mu g/l$ respectively. No wastewater emission limits for Nickel are available in the waste licence.

Boron recorded an average value of $5790\mu g/l$, with a maximum and minimum value of $14,550\mu g/l$ and $1126\mu g/l$ respectively. No wastewater emission limits for Boron are available in the waste licence.

5.4 Air Emissions

Locations: A1: E301630, N228465 A2: E301620, N228440

A3: E301335, N228445

Odour Monitoring Ireland (OMI) carried out the annual air emission monitoring for T.A. Luft



Organics Class 1 and Characterisation of the VOC emission. OMI also carried out the bi-annual Total organic carbon (as C) monitoring.

The reports are attached in Appendix A.

The report concludes that all emissions to air are within the limits of Section C3.1, C3.2 and C3.3 of Waste Licence 192-1 with some exceptions:

For both Round 1 – Monitoring and Round 2 – Monitoring

- The mass emission rate of VOCs (as Carbon) from monitoring locations A1 and A3 were found to be in compliance with the emission limit values stated in Schedule C.3.1 to C.3.3 of Waste Licence No. 192-1. Monitoring location A2 was not in compliance due to the non-compliant airflow rate. If the airflow rate was in compliance then VOC's as Carbon should not be compliant with the regulatory agency requirements.
- The volumetric flows from monitoring locations A1 and A3 was found to be in compliance with the emission limit value stated in Schedule C.3 of Waste Licence (No. 192-1). Monitoring location A2 was not in compliance with Schedule C.3. of Waste Licence No. 192-1. According to OMI, this monitoring point was in excess of the regulatory requirement due to the large airflow rate.

Action is being taken to assess the air flow rates at the site in order to facilitate balancing of the extraction system.

5.5 Dust Emissions

Locations: D1: E301630, N228450 D2: E301580, N228550

D3: E301670, N228555 D4: E301630, N228420

According to Schedule D of the waste licence, dust monitoring is required within three times a year (twice between May and September). Dust monitoring was carried out at four separate locations along the northern boundaries of the subject site. The samples were delivered to Alcontrol Laboratories for analysis.

The results for each sample location, DI, D2, D3 and D4 are included in Appendix B. In summary the air quality at the monitoring points was generally good, with a number of exceptions (highlighted in Bold below). Dust levels were highest at D3, in the north-eastern corner of the site, where the dust



deposition limit of 350 mg/m²/day was exceeded for September and October. The limit was also exceeded at D2 in May during an extended period of dry weather. An organic/inorganic spilt of the total dust values was carried out to reveal that inorganic dust comprised over 80% of the total dust. Vechicular traffic movement and spray from the truck washing operations accounts for a large proportion of the dust deposited at D3. and D2.

Table 2: Dust Monitoring Results

Monitori	ing Period	D 1	D2	D3	D4	Source of Dust
From	То	mg/m².d	mg/m².d	mg/m².d	mg/m ² .d	
14-05-07	15-06-07	87	557	112	265	Dust and spray from neighbouring industry truck wash.
10-09-07	11-10-07	81	107	517	131	Dust from road and construction adjacent to boundary of subject site.
11-10-07	09-11-07	236	46	619	any diffice.	
	11-10-07 09-11-07 236 46 619 offer the state of the state					

5.6 **Noise Emissions**

TOBIN Consulting Engineers carried out a noise survey as required by Schedule D of the waste licence. Both day-time and night-time noise was monitored in December 2007. A copy of the report is attached in Appendix C.

The analysis concludes that there is no significant noise impact caused by the facility. Noise levels recorded at all EPA agreed noise monitoring locations contain noise emissions from RILTA, noise emissions from adjacent sites and from traffic on the road network of Greenogue Business Park. These levels are typical of noise levels resulting from industrial activities. The levels are typical of noise levels resulting from industrial activities and are within the site and therefore not a reflection of emissions at noise sensitive locations.

There were no impulsive noise emissions audible at any of the monitoring locations. With regard to tonal emissions, Figures 1-4 indicate that no tonal components were present during the daytime or



night time frequency analysis at any location.

6. Resource and Energy Consumption Summary

The main energy use at RILTA includes:

- Gas
- Electricity
- Water

A review of electricity and gas bills for the period from 01/01/07 to 31/12/07 shows that RILTA used the following quantities.

Energy	Figures for 2007
Gas	977,260 KwH
Electricity	320,000 KwH
Water	7,100 m³
Diesel	8,470 L

7. Development/ Infrastructural Works

A number of infrastructural developments, to of place in 2007. These included the addition of 1.8m in height to the dig-out area to prevent spray and fugitive odours, the drum division effluent waste tank has been decommissioned to prevent rigitive emissions. Two No.water tanks were installed to reuse water in the waste water treatment ank.

The only infrastructural work planned for 2008 include the installation of extra oil processing tanks and a pH neutralisation plant. All the above works have been notified to the Agency.



8. Environmental Management System

The Environmental Management System has been detailed in the letter forwarded to the Environmental Protection Agency (EPA), 24th February 2005.

9. Schedule of Environmental Objectives and Targets

The Schedule of Environmental Objectives and Targets has been detailed in the letter forwarded to the Environmental Protection Agency (EPA), 24th February 2005. The schedule and associated Environmental Management Program was reviewed and updated periodically during the year. The majority of objectives and targets during this year were achieved and the main projects completed involved the following:

- A complete review and update of waste segregation in the Haz-Waste brokerage area.
- Review and update of storage procedures outside drum division.
- Review and update of all procedures, method statements and risk assessments pertaining to asbestos.

An updated log of objectives and targets is included as Appendix D

10. Written Procedures

There were no procedures developed pertaining to new activities on site for 2007.

However, a complete review of asbestos acceptance/processing/disposal procedures was undertaken and a number of procedures were updated and two new procedures developed to reflect safer working practices.

A copy of RILTA's Environmental Management Systems Manual is included in Appendix E. It may be noted that Eftim Ivanoff joined the company in 2007 as operations director in 2007.

11. Tank, Pipeline and Bund Testing and Inspection Report

The Tank, Pipeline and bund testing and inspection report was lodged with the Environmental Protection Agency (EPA) in February 2005.

12. Calibration Certificate on Oil Heating Temperature Cut Off Detection Unit

The certificates for 2007 are included in Appendix F.



13. Boiler Efficiency

RILTA commission an independent boiler engineer (Renick Engineering Limited) to carry out an annual assessment of the efficiency of the natural gas boiler at the facility.

The results of the boiler test on February 18th 2008 are shown below.

A copy of the test certificate is attached in Appendix G.

Parameter	Result 18/02/08
Oxygen	3.7%
Carbon Monoxide	0PPM
Efficiency	77%

14. Reported Incidents

There have been a small number of incidents regarding breaches of ELVs (mostly BOD and COD), however these are being dealt with as part of the ongoing Licence Review. The annual intake limit was also breached in 2007 but this is also being considered as part of the Licence Review.

15. Complaints Summary

An industrial neighbour lodged two complaints via the Agency in 2007. A number of changes have been made to improve the situation and these have been notified to the Agency.

16. Review of Nuisance Controls

The nuisance controls in operation at the site by RILTA are outlined in Section 3.6 of the Environmental Impact Statement. Reviews of nuisance control are outlined and updated as part of the Environmental Management Program. A review of fugitive emissions began in 2007 and a full odour assessment is due to take place in early 2008.

17. Financial Provision

A proposal in respect of the financial provision was submitted to the Environmental Protection Agency for agreement, in June 2005.

18. Solvent Management Plan



A solvent management plan was prepared in 2005 with a view to reduce both solvent raw material usage and VOC emissions.

There was a significant increase in the amount of VOC solvents used (2,640 Kgs of VOC) in the drum division in 2007. This was due to a new product stream coming online early in 2007. Rilta continues to use high solid content paint, which keeps the VOC levels low. However, due to the new waste stream it would be difficult to assess the efficiency of usage until a comparable result is attained for 2008.

The volume of solvent used in the maintenance of the drum division vents over the last three years is as follows:

Year	Waste Throughput (Kg)
2005	1742
2006	1386
2007	2,640

19. Waste Recovery Report

The details for waste recovered in the period of 107 - 31/12/07 has been furnished to the Agency as part of the 2007 Waste Survey.

20. Report on Staff Training

It may be noted that Eftim Ivanoff joined the company in 2007 as operations director in 2007.

Rilta Environmental's training program also included two training days for all Rilta staff based on the 2005 legislation on Health, Safety & Welfare in the workplace. A list of all training undertaken from is as follows:

- Dangerous Goods Safety Advisors
- Jetting training
- Counter Balance Forklift training
- **Tanker Training**
- Manual Handling
- Fire Safety
- Safe Pass



- Chemical Handling
- **Confined Space Entry Training**
- Hazardous Chemical Training

Two of Riltas staff, Colm Hussey and Gareth Reville have completed the FAS Waste Management Course.

21. Volume of Wastewater Produced and Volume of Wastewater Transported Off-Site

The waste treatment department is effectively the sole producer of wastewater on site. Other procedures may produces miniscule amounts of wastewater but these would be put through the waste treatment system so the trade effluent figures accurately reflect the wastewater produced on-site from 01/01/07 to 31/12/07, which amounts to 22, 360, 000 litres.

It may be noted that water is used to mix process polymer for both the effluent and sludge treatment processes, which therefore uses small volumes of water additional to that above.

The fraction of treated waste comprised of dried sludge and clean oil is as follows:

• Dried Sludge 5.62% Dried Sludge 5.62%
 Clean Oil Product 6.27%

This gives a non-aqueous total of 11.89%, the exact same figure as 2007.



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APPENDIX C

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APPENDIX D

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