

## Annual performance report for: Tradebe Fawley Limited

Permit Number: **EPR/ FP3935KL**

Year: **2018**

This report is required under the Industrial Emissions Directive's Article 55(2) requirements on reporting and public information on waste incineration plants and co-incineration plants, which require the operator to produce an annual report on the functioning and monitoring of the plant and make it available to the public.

### 1. Introduction

Name and address of plant	Tradebe Fawley Charleston Road Industrial Estate Hardley Hythe SO45 3NX
Description of waste input	High Temperature Incineration of Hazardous wastes
Operator contact details if members of the public have any questions	Mr A Devall SHEQ Manager Address (As Above)

### 2. Plant description

Tradebe Fawley is a High Temperature Incineration plant engaged with the incineration of hazardous wastes. The facility operates on a 24/7 basis and is permitted to dispose of 48 000te per annum. The facility is a Rotary Kiln which is capable of handling a wide range of wastes, there are two primary waste streams from the process, a slag ash generated from the incineration process and a filter cake extracted from the water used in the flue gas cleaning process. The site employs 66 personnel engaged with the operation and management of the process.

### 3. Summary of Plant Operation

Hazardous waste received	34900 tonnes
Clinical waste received	2800 tonnes
Other waste received (Radioactive )	2028 tonnes
Total waste received	39 728 tonnes

Total plant operational hours	7144 hours
Total hours of “abnormal operation” (see permit for definition)	10.5 hours
Total quantity of incinerator bottom ash (IBA) produced	6008 tonnes
Disposal or recovery route for IBA	Hazardous and Non hazardous Landfill
Did any batches of IBA test as hazardous? If yes, state quantity	103/442
Disposal or recovery route for APC residues	Landfill
Total quantity filter cake residues produced	1712 te

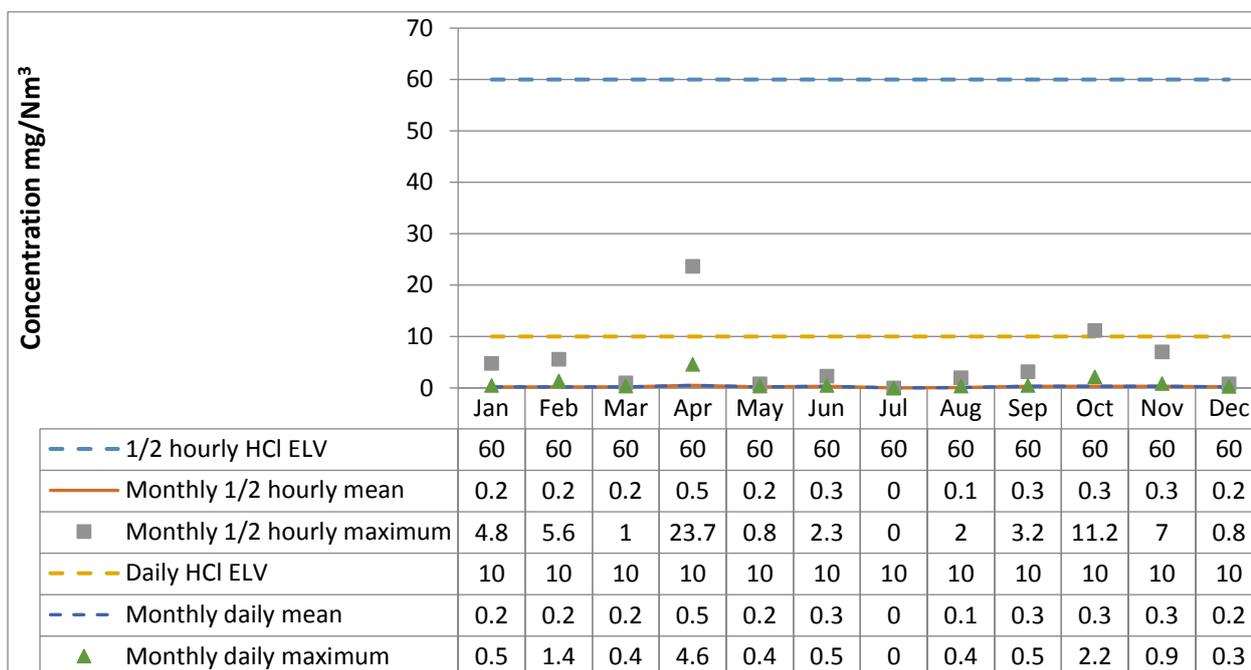
## 4. Summary of Plant Emissions

### 4.1 Summary of continuous emissions monitoring results for emissions to air

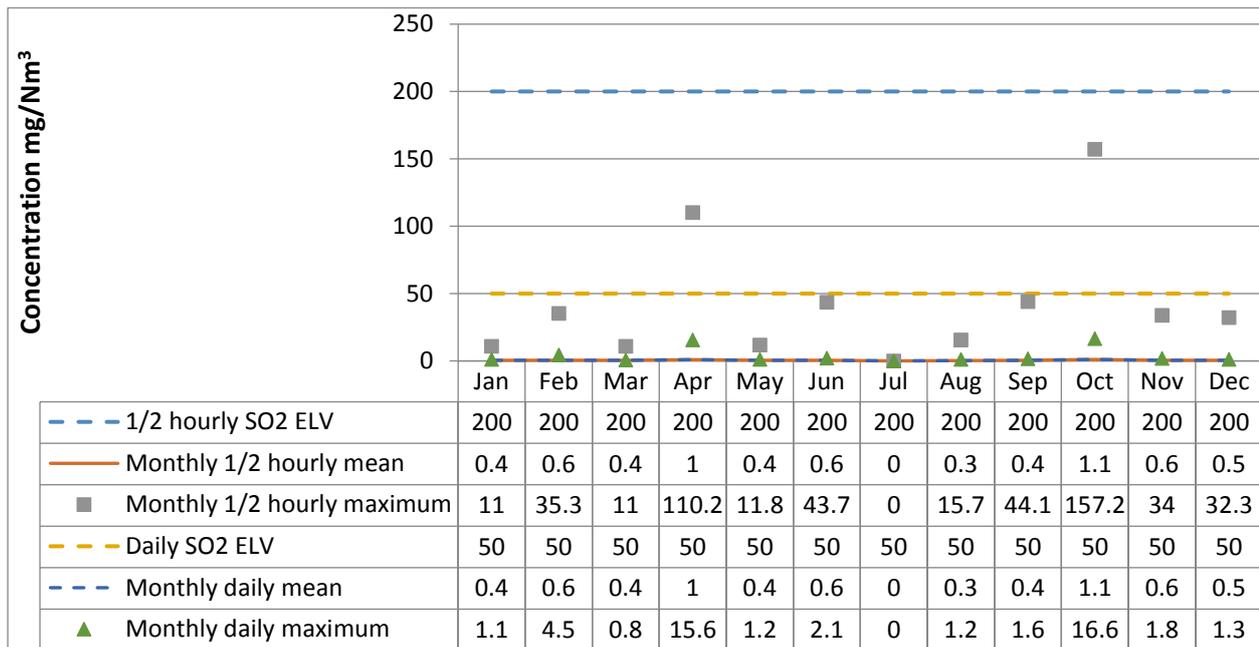
The following charts show the performance of the plant against its emission limit values (ELVs) for substances that are continuously monitored.



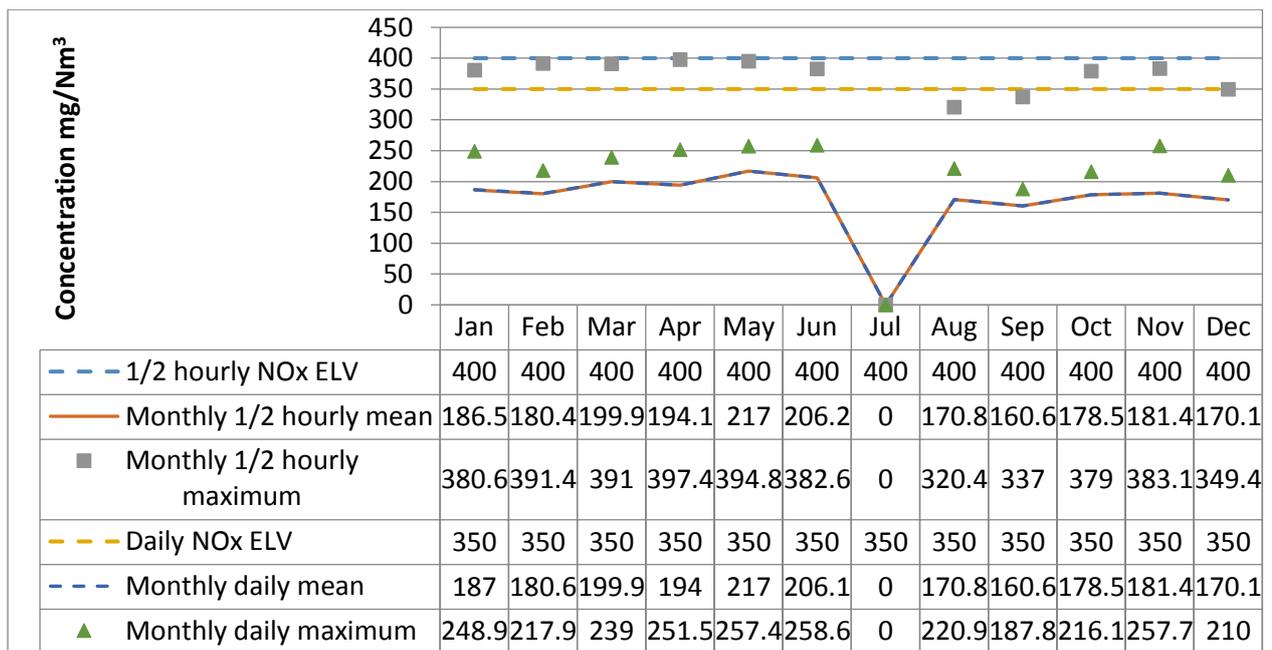
#### Line 1 - Hydrogen chloride



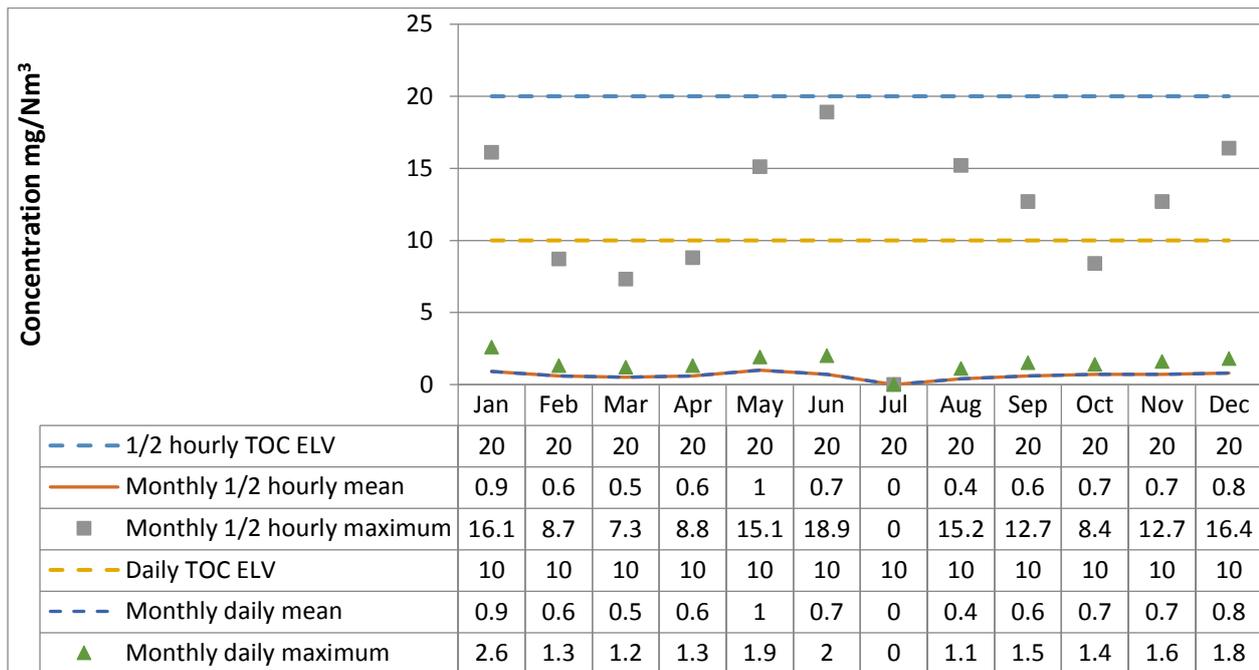
## Line 1 – Sulphur dioxide



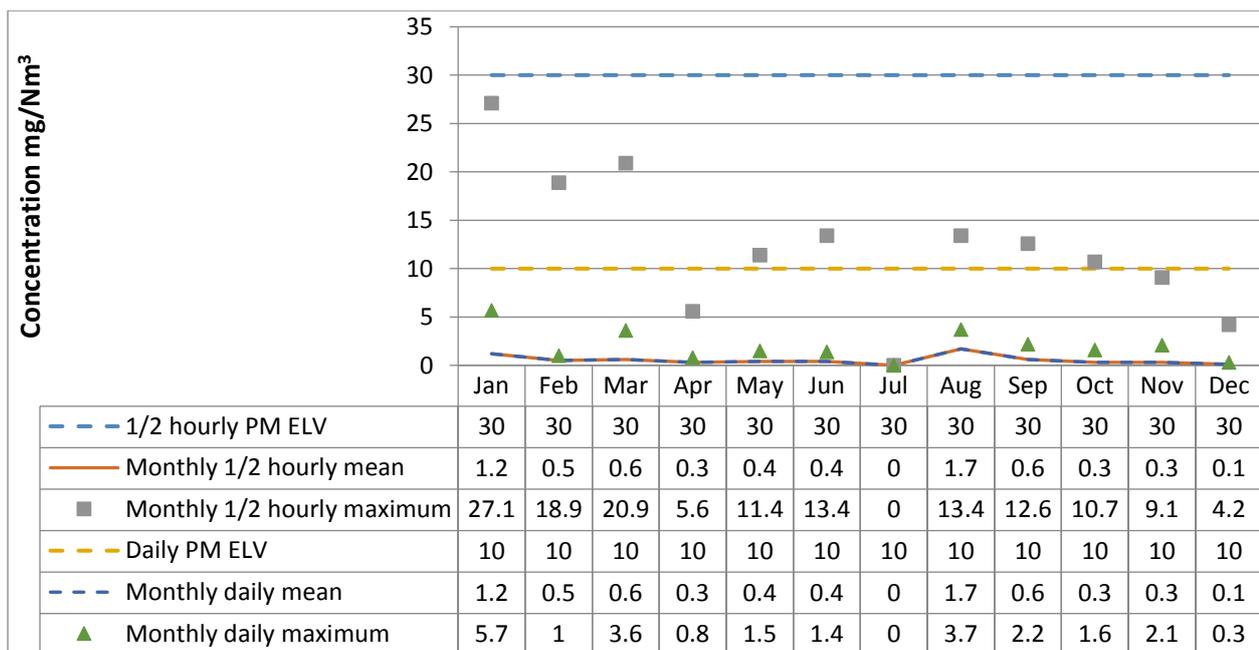
## Line 1 – Oxides of nitrogen



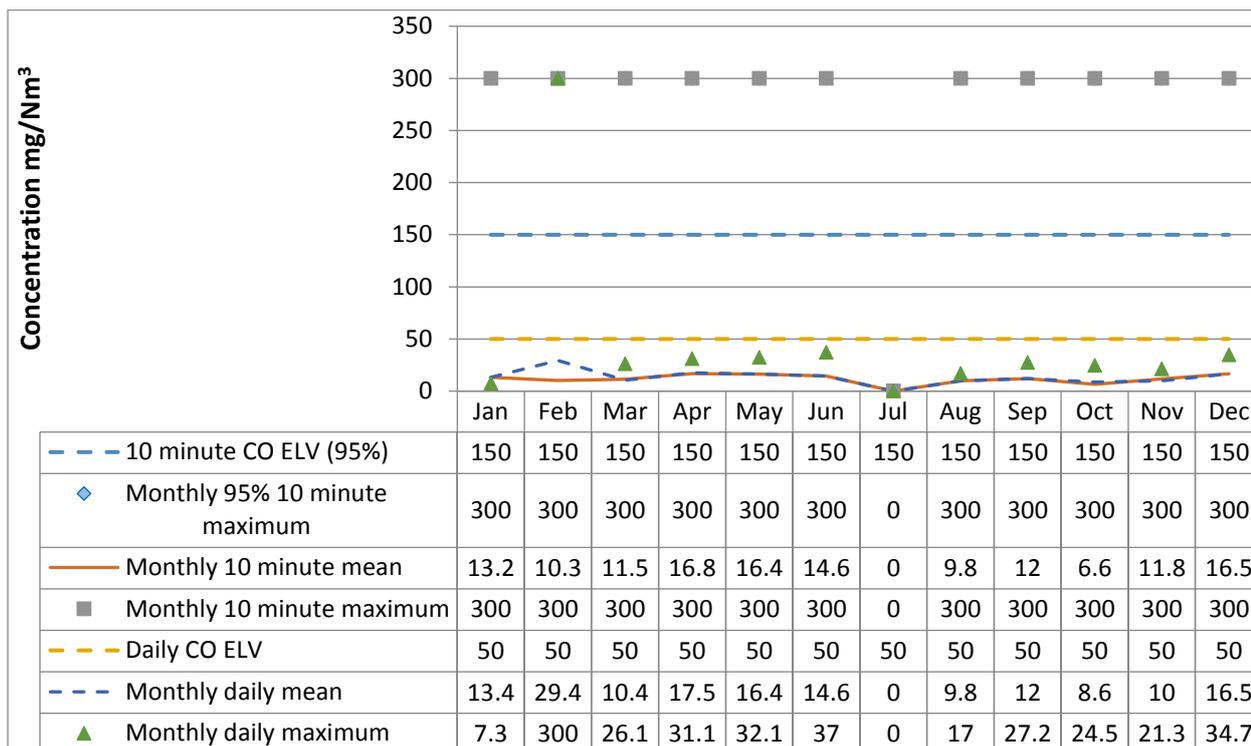
### Line 1 – Total organic carbon



### Line 1 – Particulates



## Line 1 – Carbon monoxide



## 4.2 Summary of periodic monitoring results for emissions to air

The table below shows the results of periodically monitored substances.

Substance	Emission limit value	Results	
		29/06/2018	16/11/2018
Mercury and its compounds	0.05 mg/m <sup>3</sup>	0.0015mg/m <sup>3</sup>	0.038 mg/m <sup>3</sup>
Cadmium & thallium and their compounds (total)	0.05 mg/m <sup>3</sup>	<0.0014mg/m <sup>3</sup>	0.027 mg/m <sup>3</sup>
Sb, As, Pb, Cr, Co, Cu, Mn, Ni and V and their compounds (total)	0.5 mg/m <sup>3</sup>	0.325 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup>
Dioxins and furans (I-TEQ)	0.1 ng/m <sup>3</sup>	0.0014 ng/m <sup>3</sup>	0.0024 ng/m <sup>3</sup>
Hydrogen Fluoride	2 mg/m <sup>3</sup>	0.0039 mg/m <sup>3</sup>	0.042 mg/m <sup>3</sup>

## 4.3 Summary of monitoring results for emissions to water

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The following tables summarises the results of monitoring of emissions to water for each month:

#### Total suspended solids

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
monthly ELV (mg/m <sup>3</sup> )	45											
Monthly maximum	19	11	15	26	41	31	13	25.3	14	25	12	14
Monthly average	0.01	0.01	0	7	3.4	0.01	0.01	0.01	1	1	3.07	1

#### Ammonical Nitrogen

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
monthly ELV (mg/m <sup>3</sup> )	11000											
Monthly maximum	30261	7145	4343	7706	11488	9107	1401	6164	4203	7005	3503	7705
Monthly average	5043	140	27	1401	140	1121	701	239	420	1401	2382	1821

#### Aluminium

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
monthly ELV (mg/m <sup>3</sup> )	375											
Monthly maximum	696	394	1547	1101	365	742	755	577	1493	776	1057	841
Monthly average	149.5	120	50	40	0	373	105	118	1	43	154	83

#### Arsenic

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly ELV (mg/m <sup>3</sup> )	100											
Monthly maximum	174	148	140	137	121	185	125.9	126	113	103	179	98
Monthly average	35.31	57	35	47	46	57	44	34	31	22	37	22

#### Cadmium

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly ELV (mg/m <sup>3</sup> )	12.5											
Monthly maximum	19	20	50	71.5	40.67	34	19	27.03	17.03	30.7	36.4	48.8
Monthly average	0.001	11.5	10.44	8.35	8.86	7.5	2.26	3	3	4.1	4.5	11

#### Chromium

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly ELV (mg/m <sup>3</sup> )	40											
Monthly maximum	59	63	77	83	19	41	43.9	57	65	30	78	31
Monthly average	0.211	0.001	0	0	6	0	5	1	1	0	1	1

## Copper

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly ELV (mg/m <sup>3</sup> )	275											
Monthly maximum	255	131	137	142	190	202	125	154.2	89	333	252	71
Monthly average	33.92	55	31	145	95	87	62	119	77	39	107	85

## Iron

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly ELV (mg/m <sup>3</sup> )	1500											
Monthly maximum	78	240	184.9	98.84	114	1307	314	254	35	55	85	860
Monthly average	0.001	0.001	0	0	0	0	116	1	1	0	1	21

## Nickel

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Daily/monthly ELV (mg/m <sup>3</sup> )	100											
Monthly maximum	81	84	73	65	156	101	39	70	70	53.2	116	231
Monthly average	21.9	32	27	21	49	39	25	23	39	14	34	69

## Phosphate

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly ELV (mg/m <sup>3</sup> )	155250											
Monthly maximum	8529	7424	2561	4182	14130	26350	682	829	6364	9361	4750	5587
Monthly average	518	797	177	444	1542	2340	1658	128	818	789	378	731

## Lead

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly ELV (mg/m <sup>3</sup> )	200											
Monthly maximum	8	160	13	67	24.18	45	33	71.37	44	29	95	15
Monthly average	0.001	0.001	0	0	0	0	13	7	1	5	1	11

## Zinc

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly ELV (mg/m <sup>3</sup> )	150											
Monthly maximum	631	385	309.9	409.9	488	599	262	252	164	181	154.1	510
Monthly average	119.9	91	118	102	109	6	44.04	42	68	37	4	79

## Mercury

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Daily/monthly ELV (mg/m <sup>3</sup> )	2											
Monthly maximum	3	0.68	4.06	2	0.63	2.25	1.6	1.75	0.5	1.09	0.54	0.7
Monthly average	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

## Temperature

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Daily/monthly ELV (mg/m <sup>3</sup> )	35											
Monthly maximum	34.8	32.3	31.1	33.6	32.4	33.4	32.3	29.2	27.6	28.6	35	30.8
Monthly average	26	24	24	26.88	27.57	28.49	24.03	23.93	22.99	23.85	26.71	26.23

## 5. Summary of Permit Compliance

### 5.1 Summary of any notifications or non-compliances under the permit

Date	Summary of notification or non-compliance	Reason	Measures taken to prevent reoccurrence
16/11/2018	H2 Heavy metals high on MCERT run, passed on retest	Customer waste stream found to have contamination levels in excess of acceptance caveats	Waste acceptance procedures reviewed and updated to include full disclosure of contaminants.

### 5.2 Summary of any complaints received and actions to taken to resolve them.

Date of complaint	Summary of complaint	Reason for complaint including whether substantiated by the operator or the EA	If substantiated, measures to prevent reoccurrence
07/08/2018	Odour Complaint from Neighbouring business	Raised with EA, odour complaint was substantiated	Material was consigned by customer as non odorous, smell arose during offloading. Future loads will be injected directly from the receiving barrel.

## 6. Summary of plant improvements

**Summary of any permit improvement conditions that have been completed within the year and the resulting environmental benefits.**

**Summary of any changes to the plant or operating techniques which required a variation to the permit and a summary of the resulting environmental impact.**

Increase in permitted annual throughput to 48 000te.

A reduction in annual effluent discharge volumes by 3000 m3.

**Summary of any other improvements made to the plant or planned to be made and a summary of the resulting environmental benefits.**

- Changed 75te of activated carbon in Mercury Abatement Plant July 2018, continuing heavy metal emission compliance.
- Reline of process chemical storage tank bund Dec 2018.
- Upgrade of control system digital switches, improved plant reliability July 2018.
- Upgrade of fuel tanks
- Upgrade of Plant Heat Exchangers
- Removal of redundant calcium chloride storage

Planned for 2019

- Installation of second ID Fan
- Upgrade of Caustic delivery system (to remove the need for trace heating)
- Drums storage area surface upgrade (>100m<sup>2</sup>)
- Removal of redundant tank farm and Cooling tower.
- Installation of Tank Farm ROSOVs

**7. Details of any public liaison planned for 2019:**

<b>Date and time</b>	<b>Description</b>	<b>Location</b>
01/02/2019	New Forest Environmental Protection Liaison Committee	Lyndhurst