

GHHP-2019-045

1	.....	1
2	.....	4
2.1	.....	4
2.2	.....	6
2.3	.....	6
2.4	.....	6
3	.....	7
3.1	“ ”	7
3.1.1	.....	7
3.1.2	“ ”	8
3.2	.....	11
3.3	.....	11
3.3.1	.....	11
3.3.2	.....	17
3.3.3	.....	19
3.3.4	.....	20
3.4	.....	21
3.4.1	.....	22
3.4.2	.....	22
3.5	.....	22
4	.....	27
4.1	.....	27
4.1.1	.....	27
4.1.2	.....	29
4.1.3	.....	32
4.1.4	.....	32
4.2	“ ”	33
4.2.1	“ ”	33
4.2.2	“ ”	33
5	.....	37
5.1	.....	37
5.1.1	.....	37
5.1.2	.....	37
5.2	.....	38
5.2.1	.....	38
5.3	.....	39
5.3.1		3
9		
5.3.2	.....	42
6	.....	45
6.1	.....	45
6.2	.....	45
6.3	.....	46

	6.4	.....	46
7		.....	48
	7.1	.....	48
	7.2	.....	49
	7.2.1	.....	49
	7.2.2	.....	49
	7.3	.....	49
	7.4	.....	50
8		.....	51
	8.1	.....	51
	8.2	.....	51
	8.3	.....	51
	8.4	.....	52
	8.5	.....	52
9		.....	56
	9.1	.....	56
	9.2	.....	56
	9.2.1	.....	56
	9.2.2	.....	68
10		.....	74
	10.1	.....	74
	10.2	.....	74
	10.3	.....	74
	10.4	.....	75
	10.5	.....	75
	10.5.1	.....	75
	10.5.2	.....	75
	10.6	.....	76
	10.7	.....	76
11		.....	81
	11.1	.....	81
	11.1.1	.....	81
	11.1.2 “ ”		81
	11.1.3		81
	11.1.4		82
	11.1.5		82
	11.1.6		83
	11.2		85

	[2012] 3
	[2012]8
	[2014]2
	[2015]7
	[2016]17

1	
2	
3	

1	“ ”
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()

() (

) () [(

)]

2002 6

“ PVC ”

2003 1

“ PVC ”

2005 8 31

2003 12

“ ”

2005 1

2005 8 31

2009 6

“ ”

[2009]100

2014 1

2014 1 29

[2014]005

57000

186671

2012 10 31

[2012] 3 2012 9

2012 10 26

[2012] 8

E101 E201 E301

“ + +15

” “ + ” “ +

+MBR ”

2014 1

682

<

> ([2017]4

2019 2

2019 3 2

2019 3 21 22

2

2.1

1			1989			12	26
			2014			4	24
2015	1	1					
2			1984			5	11
			1996			5	15
						200	
8	2	28	2017	6	27	2018	1
3			1987			9	5
						1995	8
						29	
2000			4	29	2015	8	29
						201	
6	1	1	2018	10	26		
4						1996	10
						29	
1997			2018			12	29
5						1995	10
						30	
						2004	12
						2	
9	2013		6	29	2015	4	24

11 23
 8 2018 5 16
 2012 1 12 2018 3 28 2018
 5 16
 9 2009 9 23
 2012 1 12
 2017 6 3 2018 3 28
 2018 5 16
 10 1998 11 29
 253 2017 7 16
 682
 2017 10 1
 11 < >
 [2017]4
 12
 [2017]1235
 13
 [2015]113
 14 [2
 018]34
 15
 [97]122
 16
 [2018] 6
 17 [201
 5]256

2.2

1

2012 9

2 <

> [201

2]8 2012 10 26

3

2015 5

4 <

> [20

15]7 2015 8 4

2.3

1 HJ792-201

6

2 < >

2018 9 2018 5 15

3 HJ/T 397-2007

4 HJ/T 91-2002

5 HJ 819-2017

2.4

1

2

2016 5

3

3

3.1 “ ”

3.1.1

1 PVC

2003 1

“ PVC ”

2005 8 31

2

2003 12 “

”

2005 1 2005 8 31

3

2009 6 “

” [2009]100

2014 1 2014 1 29

[2014]005

4

2017 10 “

”

[2017]99 2017 11

2018 12

3-1

3.1.2

“

”

3-1

1	PVC	PVC 100 /a	2003 1 14	2002 6	2005 8 31	
2		5000 /a	2003 12 22	2004 1 2005 1	2005 8 31	
		2000 /a				
		50 /a				
		1000 /a				
		500 /a				
3		A 3000 /a	2009 6 4 [2009]100	2009 7 2014 1	2014 1 29 [2014]005	
		B, 2500 /a				
		C, 1500 /a				
		D, 1500 /a				
		A, 400 /a				
		B, 500 /a				
		C, 500 /a				
		D, 200 /a				
		A 100 /a				

		B, 100 /a				
4		4.8 /a	2017 10 27 [2017]99	2017 11 2019 4		
		3.2 /a				
		3.2 /a				
		2.0 /a				
		10.8 /a				
		6.0 /a				
		10.0 /a				

3.2

99

118 ° 88'65"

32 ° 14'05"

3

E101 E201

	41450	215	
0.50%			
	537	310	185
42	250	8	2000
	3-2		3-3
	3-4		

	3-2	
		99
/	2012 10 31	

	15	500
	980	15kg 260kg
	201 E301	E101 E

3-3

				h	
		100 /a			
		100 /a			
		200 /a			
		100 /a			
		200 /a			
		30 /a			
		300 /a			
		300 /a			
		50 /a			
		100 /a			
		5kg/a	E201		
		5kg/a			
		5kg/a	E101		
		10kg/a			
		250kg/a	E301		

						/
			+	+ +MBR	+ +MBR	
				“ ”	“ ”	
						/
			31047m ²			/

3.3.2

3-5

3-5

		/			
1		RET B S 25	1	1	/
2		EURO-ST D S25	1	1	/
3		T18BS25	1	1	/
4		YB-2	1	1	/
5		PL303	3	3	/
6		ZB-1E	1	1	/
7		FT-200AE	2	2	/
8		ZS-2E	1	1	/
9		HB43-S	1	1	/
10		/	1	1	/
11		YP10K-1	2	2	/
12		PL602-L	1	1	/
13		LGJ-50PLC	1	1	/
14		DP30A	1	1	/
15		DHG-9203A	1	1	/
16		HS-20D	1	1	/
17		UNILAB-05- TJ	1	1	/

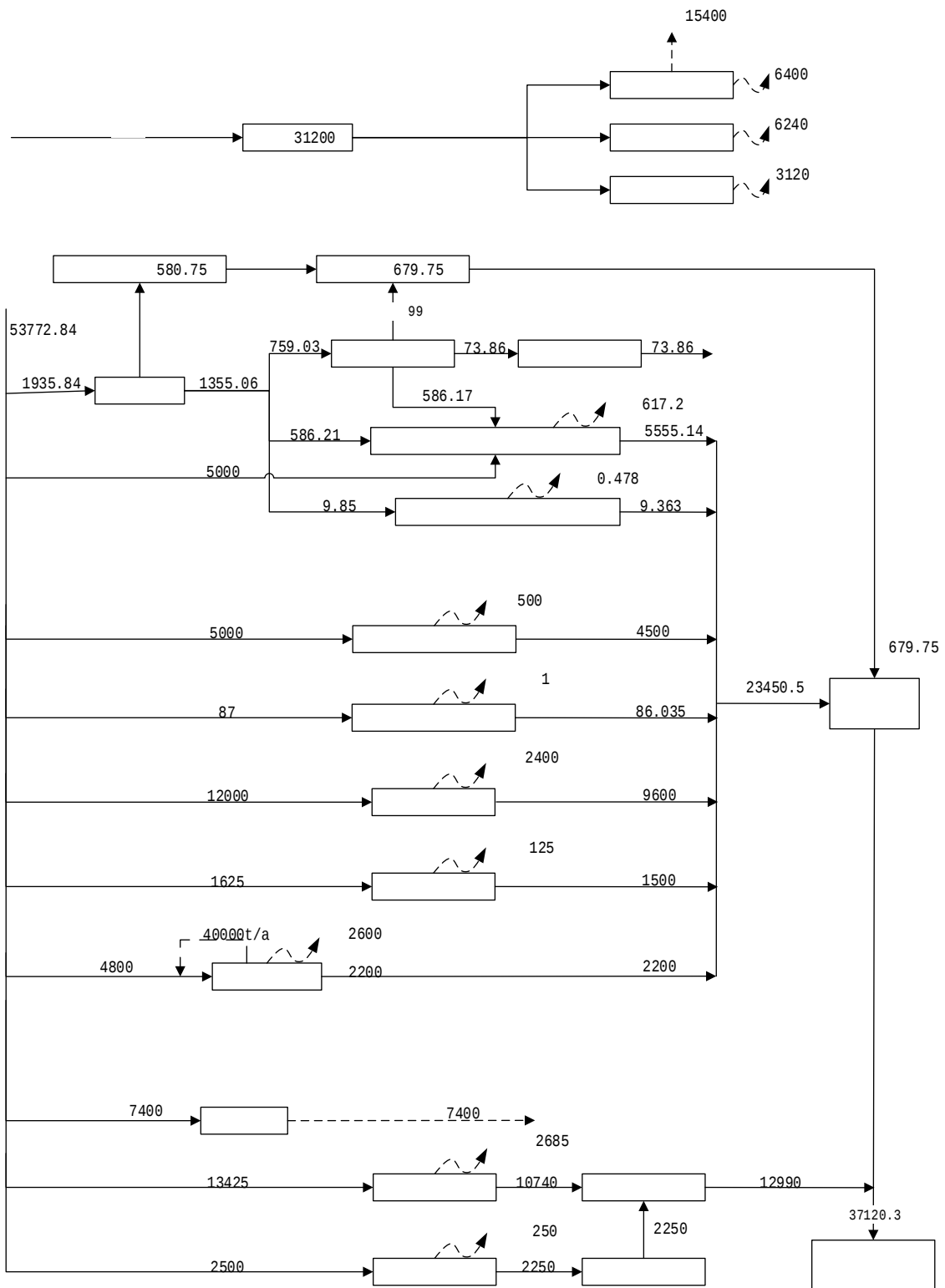
18

		/			
21		Agilent 1200	1	1	/
22		LC-20A	10	10	/
23		Agilent1260	20	5	/
24		XP205DR	2	2	/

2

/			
HWCL-5	1	1	/
DJ-1	4	4	/
SHB-	1	1	/
R201D	2	2	/
/	2	2	/
R201D	2	2	/
SHB-	1	1	/
ZKC-A	1	1	/





3-1

t/a

3.4

E101 E201 E301

3

100t/d

150t/d

MBR

6

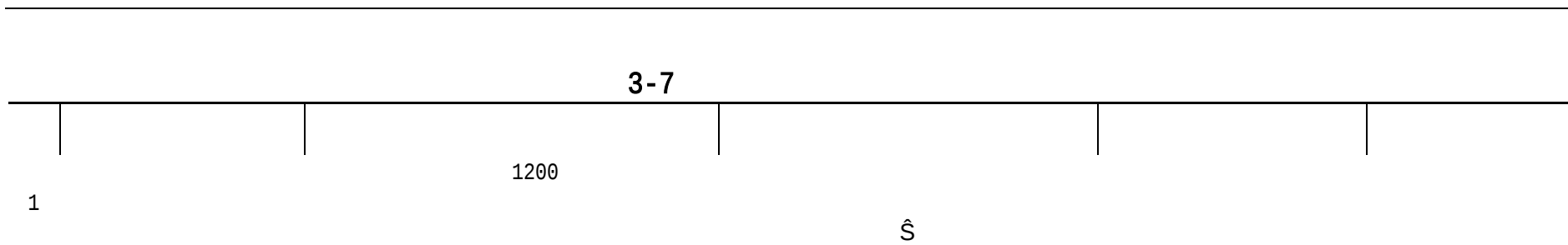
MBR

100t/d

150t/d

37120.3t/a

3-7



[2018]6

2.

[2015]256

3-8

3-9

3-8

[2018]6

50%

1

4-1

					t/a				
			COD SS		10054.8				
					95.398				
					9600				
			pH COD SS		500				
			COD SS		679.75				
			COD SS		10740				
			COD SS		2250				

4.1.2

3 1 30

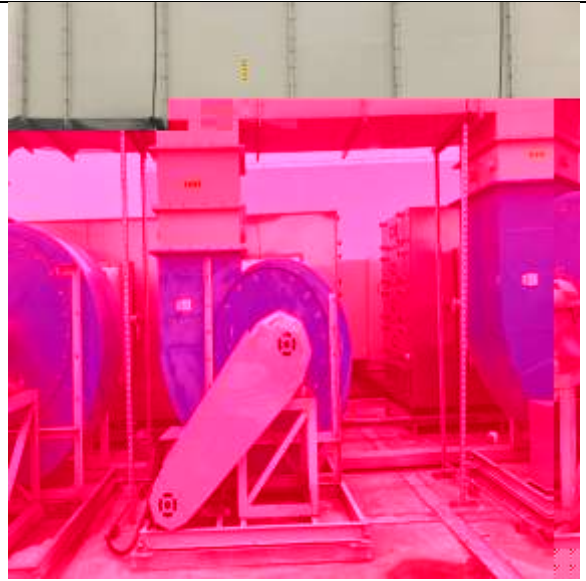
1

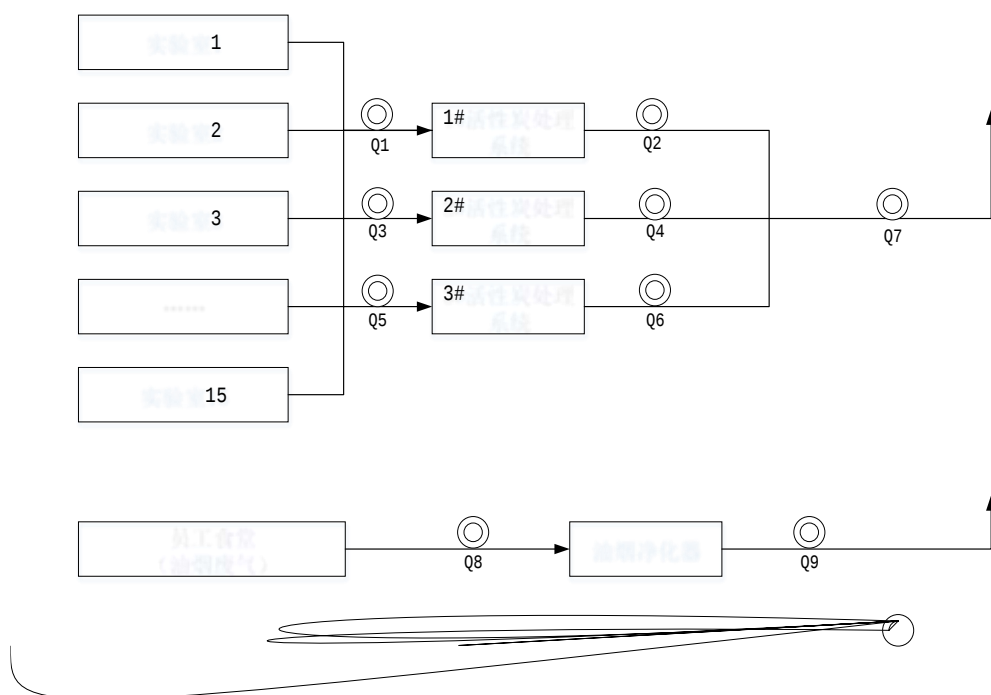
4-2

4-2

4-2

							/		
					/				
							90%	30 10cm	
							60%		





4-2

4.1.3

4-4

4-4

						t/a			
			/						
				HW49					
				900-					
				047-					

4-5

		pH COD SS	+	+ +MBR	+ +MBR	580	
				+ +	+ +	155	
		HCL				205	
						5	
						0	
						5	
						5	

						10	
						10	
					[97]122		
						1075	

5

5.1

5.1.1

5.1.2

1

2

3

4

“ + +15
”

					280
	5.7				
			6		
	500		980		15kg
	260kg				
1	“	1	”		

GB18597-2001)

5

2

6

100m

7

(GB12532-90)

15

8

DB32139-96)

$\leq 24733\text{t/a}$, $\text{COD} \leq 7.35\text{t/a}$ $\text{SS} \leq 6.15\text{t/a}$
 $\leq 0.36\text{t/a}$ $\leq 0.06\text{t/a}$, $\text{COD} \leq 2,47\text{t/a}$ $\text{SS} \leq 1,73\text{t}$
 $/\text{a}$ $\leq 0.36\text{t/a}$ $\leq 0.01\text{t/a}$, ≤ 0.006
 t/a $\leq 0.006\text{t/a}$ $\leq 0.08\text{kg/a}$ $\text{HCl} \leq 0.03\text{kg/a}$ $\leq 0.025\text{k}$
 g/a

" "

5

5.3.2

2012 8)

1

186671m

60000m)

(GB18597-2001)

5

50

6

([97]122

7

≤ 24739

$COD \leq 7.35$

$NH_3-N \leq 0.36$

COD

≤ 2.47

$NH_3-N \leq 0.36$

“ ”

3

5

“

2012 8 ”

6

6.1

6-1

6-1

	mg/L, pH	
pH	6-9	
	500	
	400	
	35	
	3.0	

6.2

3

1 30

2

0

200

5

6-2

	(mg/m³)	(kg/h)		(mg/m³)	
		H ₁ =30m	H ₂ =30m		
	190	29	14.5	12	GB16297-1996 2
	100	1.4	0.7	0.20	
	261	0.3	/	/	

GB16297-1996

200m

5m

50%

H₁=30m

H₂=30m

50%

6-3

	mg/m³	%			
	2.0	60	75	85	GB18483-2001

6.3

GB1234

8-2008 3

6-4

6-4

	Leq dB A	
	65	GB12348-2008
	55	

3

6.4

[2012]8

[2015]7

6-5

6-5			
		24739 t	24739 t
	COD	7.35 t/a	2.47 t/a
	SS	6.15 t/a	1.73 t/a
		0.36 t/a	0.36 t/a
		0.06 t/a	0.01 t/a
		0.006 t/a	0.006 t/a
		0.006 t/a	0.006 t/a
		0.08 kg/a	0.08 kg/a
		0.03 kg/a	0.03 kg/a
		0.025 kg/a	

7

E101 E201 E301

7.1

4-1		7-1		7-1		2	
		7-1					
		/		/			
S1			+	+MBR	pH SS N	COD NH ₃ - TP	4 / 2

7.2

7.2.1

VOCs

7-2

2

4-2

7-2

		/	/			
--	--	---	---	--	--	--

7-3

/

8-5

8.8.

8.

0.5dB

0.5dB

8. 0B123400)95ETQq0.000071 0 595.32 841.92 reW*nBT/P

8-1

					/
	pH	pH	GB/T6920-1986	/	pH PHB-1 JSGHEL-YQ-112-2
	COD _{Cr}		HJ 828-2017	4 mg/L	50mL JSGHEL-YQ-115-2
	SS		GB/T11901—1989	0.4 mg/L	BSA224S JSGHEL-YQ-102
			HJ 535-2009	0.025 mg/L	UV201 JSGHEL-YQ-38
			GB 11893-1989	0.01 mg/L	UV201 JSGHEL-YQ-38
			HJ 637-2018	0.06 mg/L	JLBG-125 JSGHEL-YQ-35
			HJ/T 33-1999	2 mg/m ³	Trace 1300 JSGHEL-YQ-37
			HJ 549-2016	0.03 mg/m ³	ICS-600 JSGHEL-YQ-135-2
		- / -	HJ 734-2014	0.01mg/m ³	Trace 1300 JSGHEL-YQ-37
	VOCs	- / -	HJ 734-2014	0.001 0.01mg/m ³	Thermo Trace 1300 JSGHEL-YQ-51 YQ3000-C JSGHEL-YQ-160-2
			GB 18483-2001	/	JLBG-125 JSGHEL-YQ-35 YQ3000-C JSGHEL-YQ-160-2 YQ3000-C JSGHEL-YQ-160-3
			GB12348-2008	/	AWA6228 JSGHEL-YQ-121-3

8-2						
				%	%	

8-4

		mg/L	mg/L	
pH	/	/	/	/
CODcr	GSB 07- 3161-2017200197	169 ± 9	172 164	
	GSB 07- 3161-20172001108	50.7 ± 3.0	51.8 49.2	
SS	/	/	/	/

9

JSGHEL20192

01 JSGHEL2019201

9.1

2019 3 21 2019 3 22

“ ”

9.2

9.2.1

9.2.1.1

2019 3 21 2019 3 22

S1

S2 S3

S1

pH7.3

2 7.41 COD_{cr}167mg/L 5.61mg/L 0.54mg/L 35mg/

L

9-1

9-1

(mg/L)

pH

7.32

2019 3

21

S1

			(mg/L)		
			0.54	3.0	
			35	400	
			2.10	/	/
		S2	pH	7.51	/
			COD _{Cr}	12	/
				9	/
	S3	pH	7.60	/	/
		COD _{Cr}	16	/	/
			6	/	/
	S4	pH	7.63 7.67	/	/
		COD _{Cr}	4.148×10^3	/	/
			0.563	/	/
			0.06	/	/
			84	/	/
	S5	pH	7.44 7.46	/	
		COD _{Cr}	42	/	/
			0.111	/	/
			0.02	/	/
			6	/	/
2019 3 22	S1	pH	7.35 7.43	6 9	
		COD _{Cr}	167	500	
			4.40	35	
			0.47	3.0	
			35	400	
			45.9	/	/
	S2	pH	7.47	/	/
		COD _{Cr}	14	/	/
			8	/	/

			(mg/L)		
	S4	pH	7.56 7.61	/	/
		COD _{Cr}	2.837 × 10 ³	/	/
			1.36	/	/
			0.10	/	/
			75	/	/
	S5	pH	7.42 7.45	/	/
		COD _{Cr}	40	/	/
			0.074	/	/
		0.02	/	/	
		8	/		
2019 3 22	S3				

9.2.1.2

2019 3 21 2019 3 22

GB16297-1996 2

GB18483-2001

9-2

9

- 3

9-2

1#	2019 3 21	mg/m ³	ND	ND	ND	ND	/	/
		kg/h	$<5.72 \times 10^{-4}$	$<5.95 \times 10^{-4}$	$<5.60 \times 10^{-4}$	$<5.95 \times 10^{-4}$	/	/
		(mg/m ³)	ND	ND	ND	ND	/	/
		(kg/h)	$<3.81 \times 10^{-2}$	$<3.97 \times 10^{-2}$	$<3.73 \times 10^{-2}$	$<3.97 \times 10^{-2}$	/	/
		(mg/m ³)	0.13	0.10	0.05	0.13	/	/
		(kg/h)	2.42×10^{-3}	1.92×10^{-3}	9.95×10^{-4}	2.42×10^{-3}	/	/
		# (mg/m ³)	16.2	24.1	10.1	24.1	/	/
		# (kg/h)	0.309	0.479	0.188	0.479	/	/
	Q1	mg/m ³	ND	ND	ND	ND	/	/
		kg/h	$<5.41 \times 10^{-4}$	$<5.52 \times 10^{-4}$				

2019
3 22

2#	3 21	kg/h	$<4.24 \times 10^{-4}$	$<4.18 \times 10^{-4}$	$<4.40 \times 10^{-4}$	$<4.40 \times 10^{-4}$	/	/
Q3		(mg/m ³)	ND	ND	ND	ND	/	/
		(kg/h)	$<2.83 \times 10^{-2}$	$<2.79 \times 10^{-2}$	$<2.94 \times 10^{-2}$	$<2.94 \times 10^{-2}$	/	/
		(mg/m ³)	0.05	0.01	ND	0.05	/	/
		(kg/h)	$<7.06 \times 10^{-4}$	$<2.32 \times 10^{-4}$	$<1.47 \times 10^{-4}$	$<7.06 \times 10^{-4}$	/	/
		# (mg/m ³)	0.443	0.509	0.440	0.509	/	/
		# (kg/h)	6.27×10^{-3}	7.10×10^{-3}	6.46×10^{-3}	7.10×10^{-3}	/	/
	2019	mg/m ³	ND	ND	ND	ND	/	/
		kg/h	$<4.12 \times 10^{-4}$	$<4.32 \times 10^{-4}$	$<4.14 \times 10^{-4}$	$<4.32 \times 10^{-4}$	/	/
		(mg/m ³)	ND	ND	ND	ND	/	/
		(kg/h)	$<2.75 \times 10^{-2}$	$<2.88 \times 10^{-2}$	$<2.76 \times 10^{-2}$	$<2.88 \times 10^{-2}$	/	/
	3 22	(mg/m ³)	0.08	0.10	0.10	0.10	/	/

0.14

2.0

9.2.1.3

2019 3 21 2019 3 22

59.3dB(A)

GB12348-2008 3

9-4

9-5

9-4

				dB(A)	dB(A)		
2019 3 21	Z1	1		55.5	65		
	Z2	1		59.3	65		
	Z3	1		52.3	65		
	Z4	1		52.3	65		
	Z5	1		52.0	65		
	Z6	1		55.8	65		
2019 3 22	Z1	1		59.1	65		
	Z2	1		56.4	65		
	Z3	1		51.9	65		
	Z4	1		51.9	65		
	Z5	1		51.0	65		
	Z6	1		53.2	65		

9-5

			%	kPa	m/s	
2019 3 21		/	/	/	2.4	
2019 3 22		/	/	/	2.1	

9.2.1.4

1

37120.3t/a COD 6.

20 t/a 1.30t/a 0.21t/a 0.02t/a

9-6

9-6

		mg/L	t/a	t/a	
		/	37120.3	24733	
	COD _{cr}	167	6.20	7.35	
	SS	35	1.30	6.15	
		5.61	0.21	0.36	

			1#	VOCs
	61.3%-95.2%	2#	VOCs	17.0%-71.
1%	3#	VOCs	40.4%-80.7%	
	5.56%-55.5%			
			9-7	
	9-8			

9-7

kg/h

2019 3 21

2019 3 22

2019 3 21

2019 3 22

9.2.2.2

2019 3 21 2019 3 22

,

98.6%-99.0%

89.3%-92.9%

80.3%-94.65

66.7%-80%

9-9

9-9

mg/L

2019 3 21	S4	4.148×10^3	84	0.563	0.06
	S5	42	6	0.111	0.02
%		99.0	92.9	80.3	66.7
2019 3 22	S4	2.837×10^3	75	1.36	0.10
	S5	40	8	0.074	0.02
%		98.6	89.3	94.6	80

10

10.1

“ ”

10-1

10.4

10.5

10.5.1

10.5.1.1

115m

115m

10.5.1.2

10.5.2

10.5.2.1

2019 1 14

3 1

[illegible]

+

+

2

GB16297-1996) 2

	GB18597-2001)	
5	2	5 1 2 1 3 1
6	(GB12532-90) 15	
7	DB32139-96)	
8	$\leq 24733\text{t/a,}$ $\text{COD} \leq 7.35\text{t/a}$ $\text{SS} \leq 6.15\text{t/a}$ $\leq 0.36\text{t/a}$ $\leq 0.06\text{t/a,}$ $\text{COD} \leq 2,47\text{t/a}$ $\text{SS} \leq 1,73\text{t/a}$ $\leq 0.36\text{t/a}$ $\leq 0.01\text{t/a,}$ $\leq 0.006\text{t/a}$ $\leq 0.006\text{t/a}$ $\leq 0.08\text{kg/a}$ $\text{HCl} \leq 0.03\text{kg/a}$ $\leq 0.025\text{kg/a}$	37120.3 $\text{NH}_3\text{-N } 0.21$ 0.020kg/a $\text{COD } 6.20$ 0.02
10-3 “ ”		

186671m

1 60000m)

E101 E201 E301

D201 E101 E201 E301

á I

155597m²,

8	(GB18597-2001)	(GB18597-2001)
9	50	50
10	([97]122	([97]122
11	≤ 24739 $COD \leq 7.35$ $NH_3-N \leq 0.36$ $COD \leq 2.47$ $NH_3-N \leq 0.36$	37120.3 $COD \leq 6.20$ $NH_3-N \leq 0.21$ 1.3 0.02

11

11.1

11.1.1

99

186671

90300

935

500

980

15kg

260kg

11.1.2 “ ”

2012 9

2012 10 26

2015 5

2015 8 4

2013

2015 12

₺

4

11.1.6

1

S1

p

H7.32 7.41 COD_{Cr}167mg/L

5.61mg/L

0.54mg/L

35m

g/L

2

GB16297-1996

2

GB1848

3-2001

3

59.3dB(A)

1

37120.3t/a COD 6.

20 t/a

1.3t/a

0.21t/a

0.02t/a

“ ”

()

()

()

				/		99
	()	C2720			/	118 ° 88'65" 32 ° 14'05"

500