
1	.....	1
1.1	.....	1
1.2	.....	3
1.3	.....	3
1.4	.....	4
1.5	.....	4
2	.....	6
2.1	.....	6
2.2	.....	10
2.3	.....	11
2.4	.....	13
2.5	.....	18
2.6	.....	24
2.7	.....	25
3	.....	27
3.1	.....	27
3.2	.....	30
3.3	.....	31
3.4	.....	31
3.5	.....	32
3.6	.....	33
3.7	.....	42
3.8	.....	61
3.9	.....	61
3.10	.....	64
3.11	.....	64
4	.....	66

4.1	.....	66
4.2	.....	66
4.3	.....	70
4.4	.....	71
4.5	.....	74
4.6	.....	76
4.7	.....	78
4.8	.....	79
4.9	.....	79
4.10	.....	79
5	.....	81
5.1	.....	81
5.2	.....	81
5.3	.....	88
5.4	.....	88
5.5	.....	107
6	.....	109
6.1	.....	109
6.2	.....	112
7	.....	115
7.1	.....	115
7.2	.....	116
7.3	.....	119
7.4	.....	131
7.5	.....	132
7.6	.....	154
8	.....	155
8.1	.....	155
8.2	.....	155

9	.....	180
9.1	.....	180
9.2	.....	186
9.3	.....	189
9.4	.....	196
9.5	.....	202
10	.....	203
10.1	.....	203
10.2	.....	203
11	.....	214
11.1	.....	214
11.2	.....	214
11.3	“ ”	215
11.4	.....	215
11.5	.....	216
11.6	“ ”	217
11.6	.....	219
11.7	.....	219
11.8	.....	220
12	.....	221
12.1	.....	221
12.2	.....	222
12.3	.....	222
12.4	.....	223
13	.....	224
13.1	.....	224
13.2	.....	226
13.3	.....	226

13.4	.....	229
13.5	.....	231
14	.....	233
14.1	.....	233
14.2	.....	236

1

2

3

4

1

2

3

4

5

6

7

8

9

1

2

3

4

5 ž a

	“ 1”	“ 2”	2000t/a	1000t/a
	2019	8		
			2019 10	1 10000t/a
2	4000t/a			1 2000t/a
	2020	2	1 1000t/a	
	2020	7		4000t/a
			1 2	15000t/a 2021 12
			10000t/a 1	14000t/a
		1	3#	2 10kV
1	1		1	51#
	43593.71m		6809.19m	

4.2

GB/T4754-2017 2019

C3985

“

”

2021

“81

398

”

100kv

UNIVERSITY



100

1V8

k 算

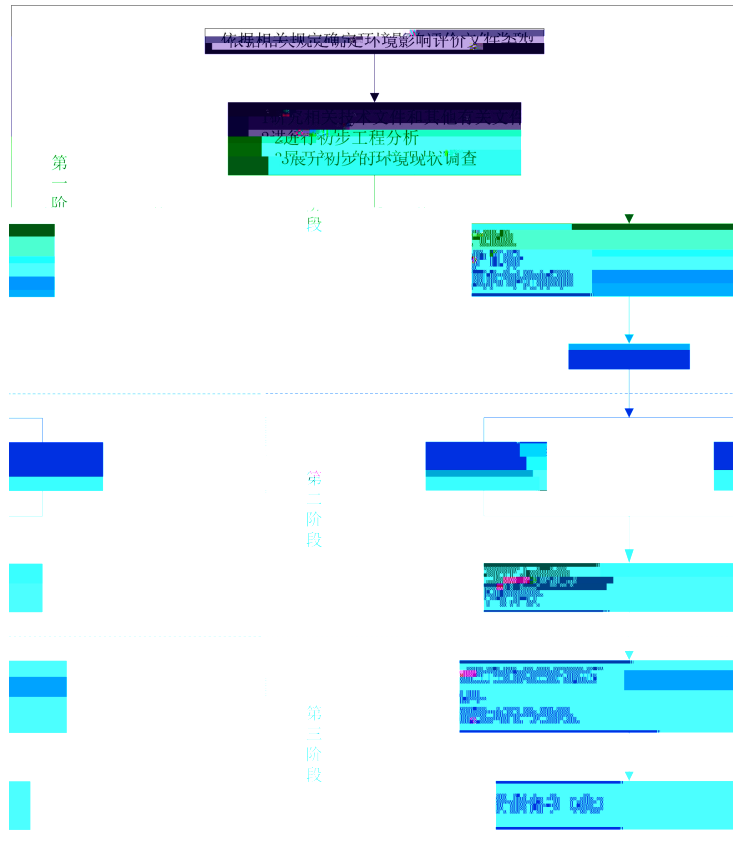
NO

\$11.00

”

g





1.3-1

1.4

1

2

3

4

5

1.5

2

2.1

2.1.1

1		2015	1	1	
2			2018	12	29
3			2018	10	26
4			2018	1	1
5		2016	7	2	
6				2018	12 29
7				2020	9 1
8				2019	1 1
9			2011	3	1
10			2017		2017
682					
11				2021	
12		2021			
13		2019		2021	
14					2012
7	3				
15					2005
11	28				

19 [2016]31

2016 5 28

20

[2014]197 2014 12 30

21 ”

[2015]162

22)β)β

[2016]150

23

[2016]81

24 2019 1 1

25 < >

2018 48 2019 1 1

15								
16			2013	4	1			
17					2017	1	1	
18		<				>	2020	7
1								
19						<		>
	[2013]7		2013	1	22			
20					“	”		
[2020]12	2020		6	30				
21		<	“	”				
							2020	11 10
22		<	“	”		>		
[2021]968	2021	12	16					
23			“	”			2021-2025	
	[2021]68		2021	11	30			

2.1.3

1	HJ2.1-2016
2	HJ2.3-2018
3	HJ610-2016
4	HJ2.2-2018
5	HJ2.4-2021
6	HJ 19-2022
7	HJ964-2018
8	HJ169-2018
9	[2001]199
10	HJ2000-2010
11	GB18218-2018

12		2017
43		
13		HJ819-2017
14	-	HJ942-2018
15	-	HJ1035-2019
2.1.4		
1		
2		
	[2017]54	
3	()	()
4		
	[2020]31	
5		
6		2020 4
7		
	[2021]36	
8		
2.2		
2.2.1		
1		
2		
3		

4

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3

Leq(A)

1,1-
¼" c

Á

A

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4

11		mg/L	0.05
12	*	mg/L	0.02
13	*	mg/L	1.0
14	*	mg/L	0.1
15	*	mg/L	250
16	*	mg/L	250
17	**	mg/L	1000
***		GB3838-2002 2 3	
**		GB5084-2021	

3

GB/T14848-2017

2.4-4

2.4-4

	pH	COD _{Mn}	NH ₃ -N		
	6.5 8.5	3.0	0.50	1.0	0.02
	250	20.0	0.01	1.00	0.3
	1.00	0.05	0.01	0.005	0.001

4

GB3096-2008 3

2.4-5

2.4-5

dB A

	3	65	55

5

GB36600-2018 1 2

2.4-6

mg/kg

		GB36600-2018

1		20	60
2		20	65
3		3.0	5.7
4		2000	18000
5		400	800
6		8	38
7		150	900
8		20	70
9		0.9	2.8
10		0.3	0.9
11		12	37
12	1,1-	3	9
13	1,2-	0.52	5
14	1,1-	12	66
15	-1,2-	66	596
16	-1,2-	10	54
17		94	616
18	1,2-	1	5
19	1,1,1,2-	2.6	10
20	1,1,2,2-	1.6	5.8
21		11	53
22	1,1,1-	701	840
23	1,1,2-	0.6	2.8
24		0.7	2.8
25	1,2,3-	0.05	0.5
26		0.12	0.43
27		1	4
28		68	270
29	1,2-	560	560
30	1,4-	5.6	20
31		7.2	28
32		1290	1290
33		1200	1200
34	+	163	570
35		222	640
36		34	76

37		92	260
38	2-	250	2256
39	[a]	5.5	15
40	[a]	0.55	1.5
41	[b]	5.5	15
42	[k]	55	151
43		490	1293
44	(a,h)	0.55	1.5
45	(1,2,3-cd)	5.5	15
46		25	70

2.4.2.2

1

GB16297-1996

2

HCl

GB16732-2015

315

a "

2

GB31573-2015 1
I

H1\LS'5-5018

52'I 2.4-8

mg/L
pH SS COD

52 GB31573-2015

GB18222-5001 5013

GB18222-5050

4

10

22

54-10

Γ6d[qB(4)]

GB15253-5011

3

22

		~0	00	00	0	

Δ l

g ..

P_i 10% $D_{10\%}$ P_i

$$P_i = C_i / C_{oi} \times 100\%$$

P_i — i %

C_i — i mg/m^3

C_{oi} — i mg/m^3

2.5-1

	Pmax 10%
	1% Pmax<10%
	Pmax<1%

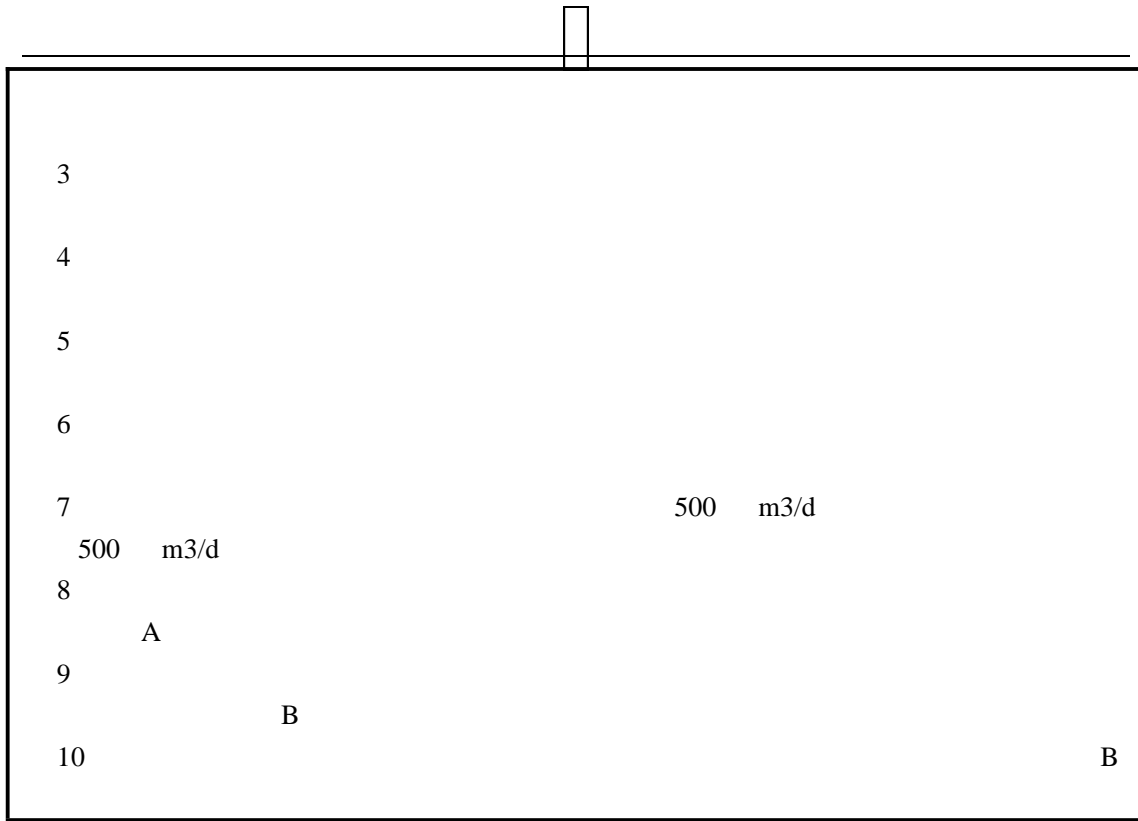
A

AERSCREEN

2.5-2

		$\mu\text{g/m}^3$	%	m
DA007		2.1543	1.08	58
DA008		2.3838	1.19	61
DA011		2.401	1.20	61
DA012		2.6251	1.31	58
DA010		0.42489	0.05	54
		0.193		
		0.077202	0.04	
	HCl	0.077202	0.15	
DA027		0.46872	0.05	66
		0.11718		
		0.087939	0.04	
	HCl	0.087939	0.18	

	<u> </u>	<u>0.7148</u>	<u>0.08</u>	
<u>DA009</u>	<u> </u>	<u>0.3362</u>	<u>0.01</u>	
	<u> </u>	<u>0.75721</u>	<u>0.38</u>	<u>51</u>
	HCl			



HJ2.3-2018

B

2

3 4 5 6 7 8 9 10

É

△

500m

4500m

&

É

a

2

200m

2.5.5

1

HJ19-2022 6.1.2

2.5-6

	IV IV+	III	II	I

HJ169-2018

9.2

5km

500m 4500m 5km

6km²

2.5.7

-

HJ964-2018

2.5-7

/									
									—
							—		—
“ — ”									

—

HJ964-2018

A

50hm²

“ ” “ ”

“ ”

200m

2.6

1

2

3

4

5

2.7

1

2.7-1

3

3.1

2016 12 26 2017 6

2017

8 21 2017 54

2018

12 1

2018 12 19

201843012400000441

2017 6 2018 9 2019 8

2019 8

28 2019 3

2019 10 29 [2019]42

8000

23000 [2019]43

2020 7 31 [2020]31

2020 7 31 [2020]32

2021 1 19 [2021]4

2022 1 20

[2022]5

6000

6000

3000

10000

3.1-1

192508.19m²

2017	6								
				10000t/a				“	
1”	4000t/a					“		”	
“	1”	“	2”	2000t/a				1000t/a	
		2019	8						
				2019	10	1	10000t/a	1	2
4000t/a						1	2000t/a		
2020	2		1	1000t/a					
2020	7							4000t/a	
				1	2		15000t/a	2021	12

1

1

3.2

1

3.2-1

$\frac{1}{1\#}$	1	10000t/a	1		1	3	19.95m
5#					2000kW		2500kVA
6#		1125m ³ /d					+
		1320m ³ /d		+			
4#	1.5m	4		1800m ²	2	4	1800m ²
							16
							0.30Mpa
a		8	30m ³ /h	1	25m ³ /h		

					25000KW
				0.9	
				120m	
				5m	
	1#	1			+15m
				+	+15m
				+	+15m
	6#			MVR	+20m
					+20m
			1		
				GB/T19923-2005	1
					150m ²
					150m ²
			1	4200m ³	5800

3.3

1

3.3-1

			t/a		
1			10000		25kg/
2			16040		25kg/

3.4

1

3.4-1

		t	t			
--	--	---	---	--	--	--

1			29720	320		25kg	
2			25000	200		25kg	
3		21%	40	100			
4		32%	1271	70			

3.5

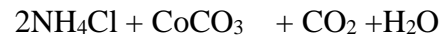
3.5.1

1

	3.5-1	1	1#		1#	1	10000t/a
			/		/	/	
1			2		30m ³ /h		
2			6	PPH	50m ³	3200	
3			4	PPH	30m ³	3200	
4			4	PPH	30m ³	3200	
5			8	PPH	30m ³	3200	
6			8	PPH	30m ³	3200	
7			8		PGRF-50C		
8			26				
9			4	PPH	10m ³	1000	
10							

pH

40 50



0.5 ~ 1h

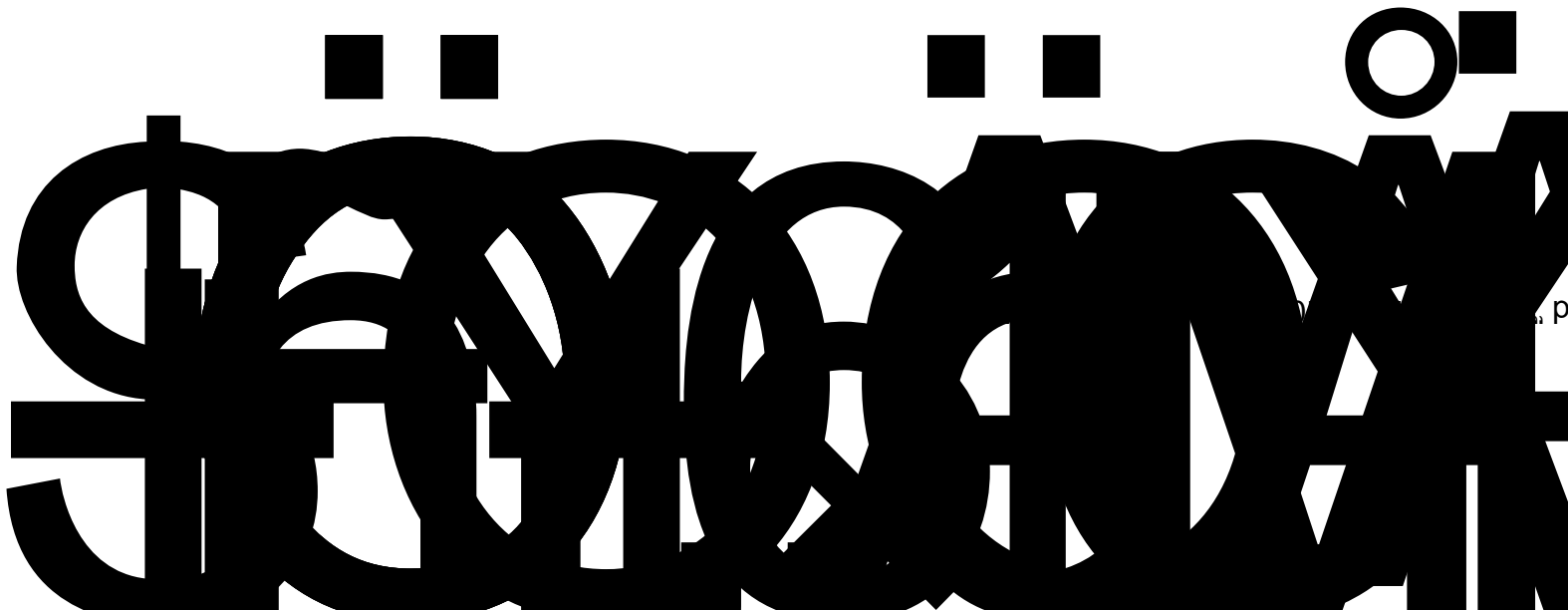
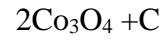
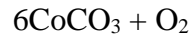
50 60

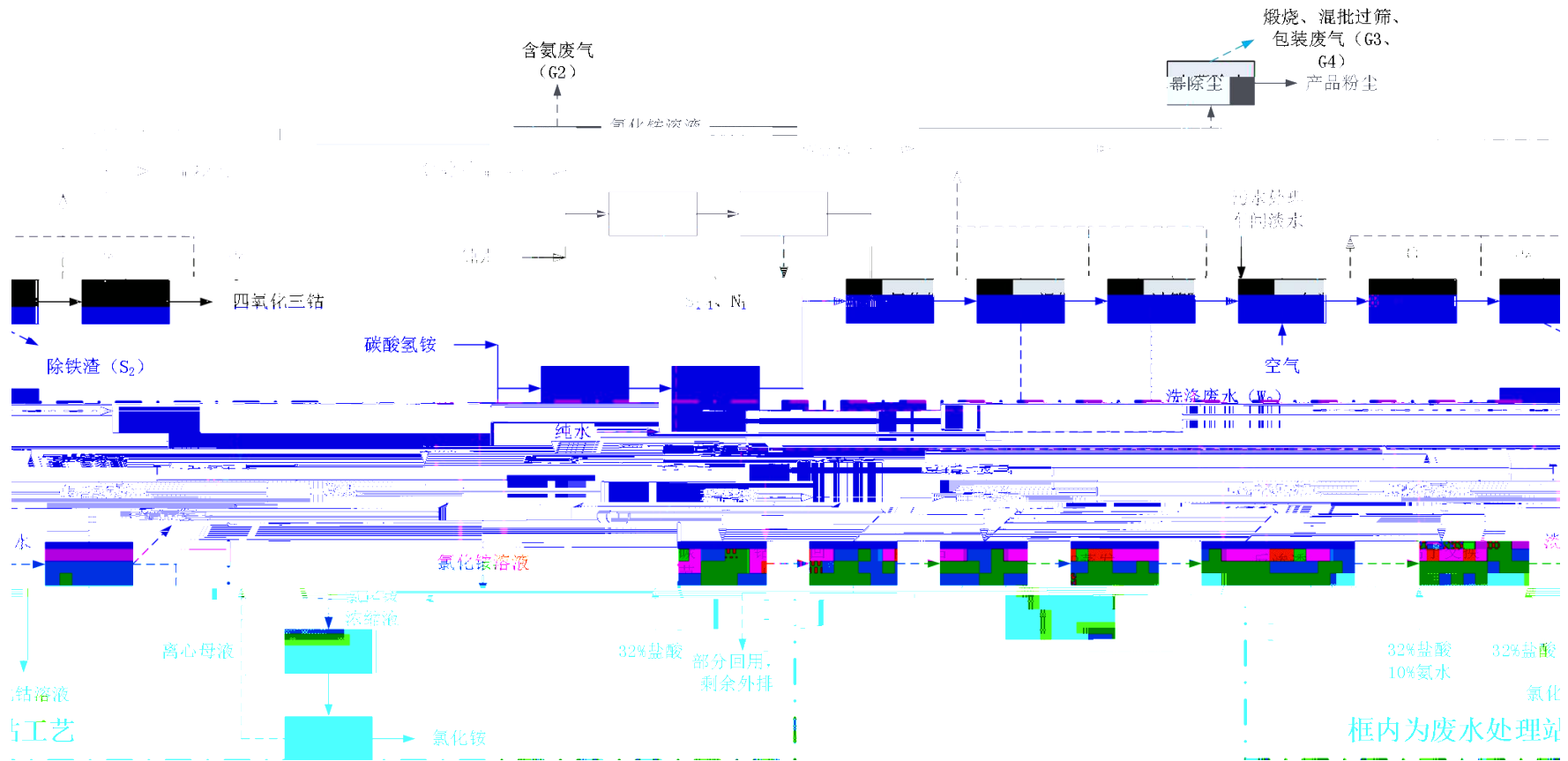
400 800

6 7h

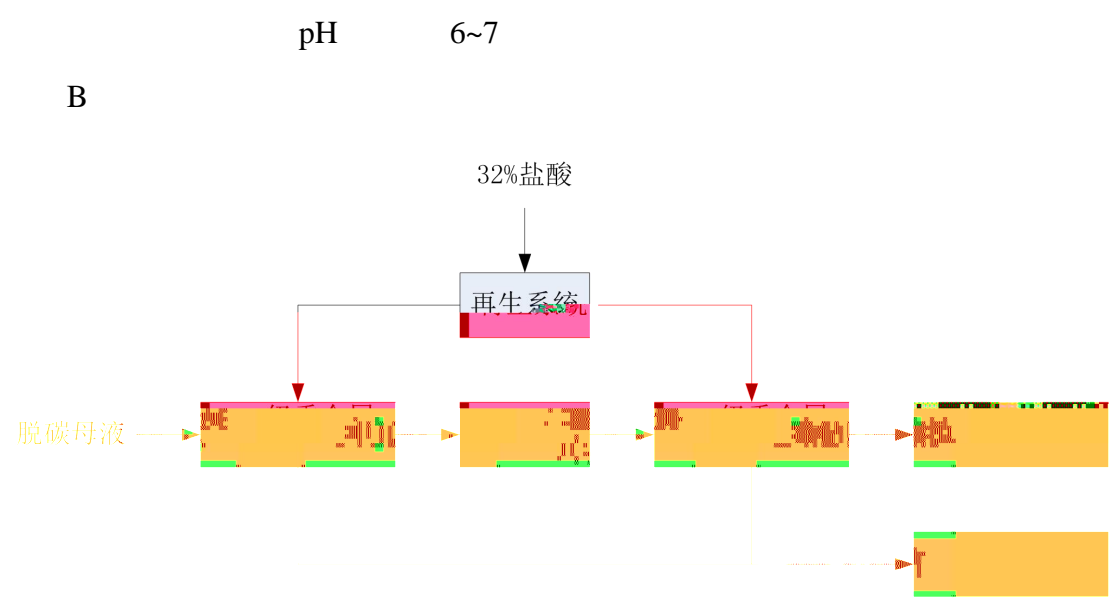
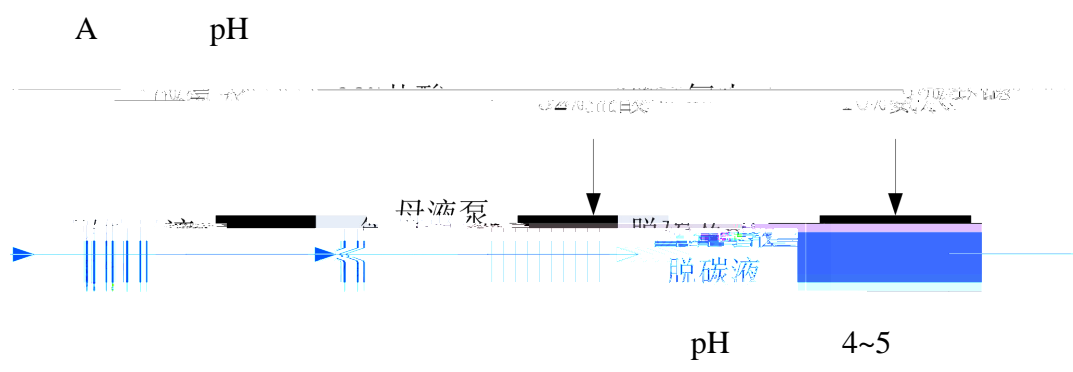
338

HCl





3.6-1



1ppm 1mg/L

C

100

MVR

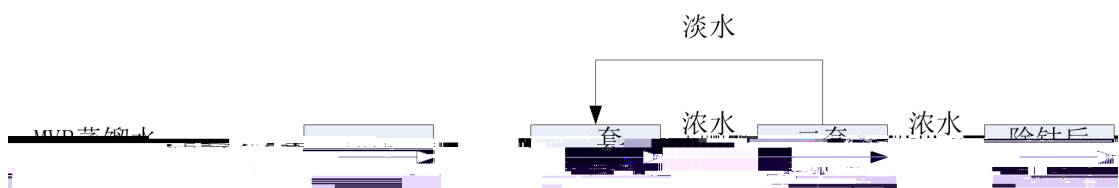
b

MVR

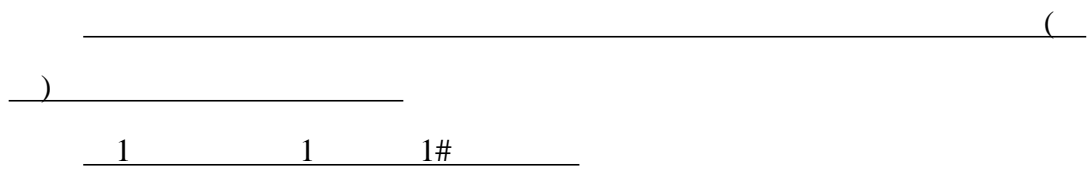
c

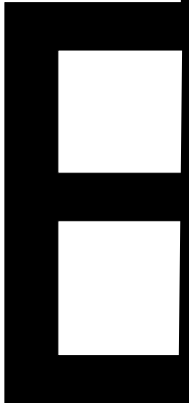
35
D +
a
MVR
MVR
MVR

2



3.6.2





\$

3.7

()

()

3.7.1

3.7.1.1

1 1#

3.7-1

1 1#			1
			3
			+ +
4#	HCl		1

3.7.1.2

1

3.7-2

		88.5mg/m ³ 10.514t/a	8.475mg/m ³ 1.007t/a
		100.167mg/m ³ 35.699t/a	10.092mg/m ³ 3.597t/a
		716.7mg/m ³ 102.2t/a	7.167mg/m ³ 1.022t/a
		319mg/m ³ 45.5t/a	3.19mg/m ³ 0.455t/a
		13.67mg/m ³ 1.3t/a	1.367mg/m ³ 0.130t/a
	HCl	0.037mg/m ³ 0.003t/a	0.037mg/m ³ 0.003t/a
		0.07mg/m ³ 0.007t/a	0.07mg/m ³ 0.007t/a

() ()

HCl

GB31573-2015

4

2022

3.7-3

mg/m³

			3.86	20
			3.69	20
			3.70	20
			3.55	20
			5.2	10
			2.31	5
			4.52	20
		HCl	0.2	20
			0.2	10

HCl

GB31573-2015 4

2

3.7-4

mg/m³

2019.2.25~2.26

0.114~0.385

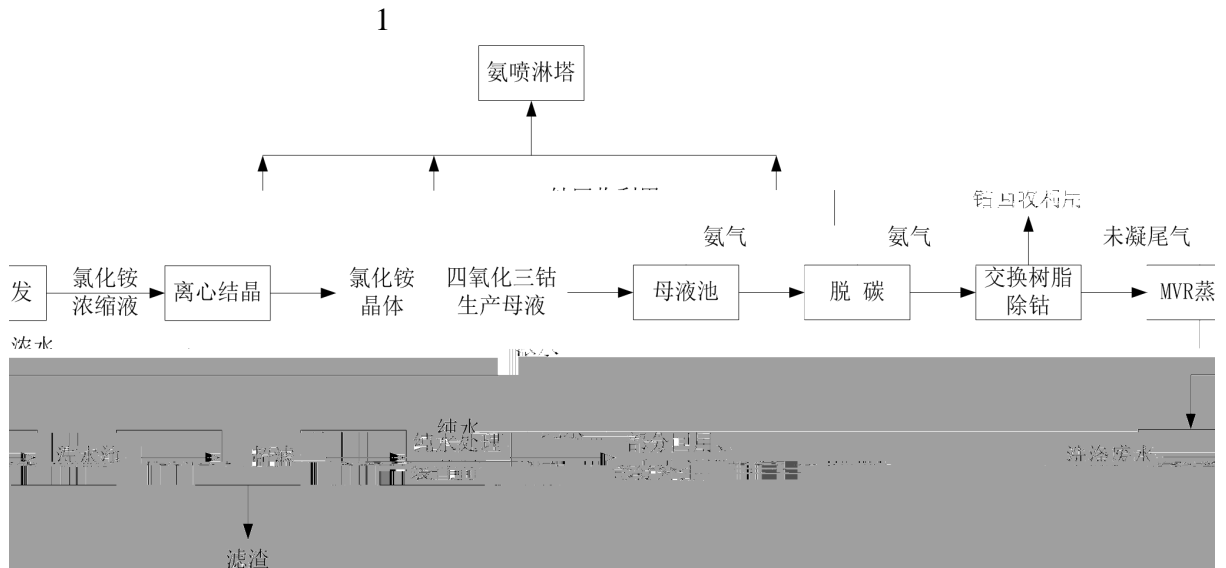
1.0

3.7-5

		kg/h	t/a
1#		0.095	0.75
		0.0325	0.25
		0.015	0.125
		0.0001	0.001
		0.0001	0.001
	HCl	0.0001	0.001

3.7.2

3.7.2.1



3.7-1 1

3.7-6

	1 1080m ³ /d +	1 600m ³ /d +	MVR

3.7.2.2

		0.55	0.59	0.57	0.52	0.55	0.58	0.52	0.55	1	mg/L
		0.27	0.28	0.27	0.29	0.24	0.21	0.23	0.27	0.5	mg/L
		3.0	3.5	3.2	3.4	3.1	3.9	3.5	3.0	6	mg/L
GB 31573-2015 1											
GB/T 31962-2015 1A											

GB31573-2015 1

GB/T31962-2015 1A

2 2022

Ni Co Mn

2022 2 21 ~2 26

3.7-9

—

mg/L

pH

NH₃-N

7.18

5

55.7

0.14

24

34.43

0.4

0.06

0.28

6~9

100

60

2

200

40

1

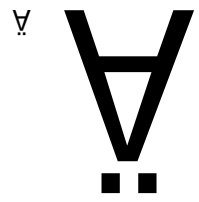
6

6

				dB A
				Leq
		2019.2.21	58.2	42.2
			57.9	42.6
1		2019.2.21	61.4	45.5
2		2019.2.22	61.9	45.9
1		2019.2.21	60.9	45.6
		2019.2.22	62.5	44.2
		2019.2.21	62.6	43.7
4		2019.2.22	61.7	44.8
1		2019.2.21	51.7	42.4
5		2019.2.22	51.3	42.1
1		2019.2.21	50.4	41.8
6		2019.2.22	52.0	41.4

65dB(A)

55dB(A)



3.7-15

	<u>mg/m³</u>	<u>t/a</u>		<u>mg/m³</u>	<u>t/a</u>
<u>H=15m D=0.7m</u>	<u>2</u>	<u>0.013</u>		<u>H=15m D=0.7m</u>	<u>10.092</u>

1#

W

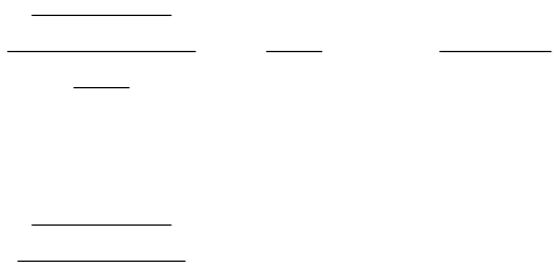
'

P

			H=15m D=0.7m					
	PM ₁₀		+	20	0.14			
	PM ₁₀		H=15m D=0.7m	20	0.07		H=15m D=0.7m	69.583
			+				3500m ³ /h	1.915
			H=15m D=0.5m	11.16	1.06		H=15m D=0.8m	5.975
			12000m ³ /h					0.710
			H=15m D=0.5m	11.16	1.06		H=15m D=0.8m	4.67
			12000m ³ /h					0.555
			H=15m D=0.5m	11.16	1.06		H=15m D=0.8m	5.198
			12000m ³ /h					0.618
			H=15m D=0.5m	11.16	1.06		H=15m D=0.8m	4.323
			12000m ³ /h					0.514
				3.28	0.52			
							H=15m D=0.8m	

20#

—
—
—
—



H=15m D=0.8m
12000m³/h

0.75 0.062

H=15m D=1m 2.948

0.56

					/	/			1.753	0.167
					/	/			3.067	0.291
					/	/			8.483	0.806
15#			+	H 18.5m	1.31	/			=	=
				D=0.5m	1.31	/	VOCs	H=15m D=0.2m	=	=
				1000m ³ /h						
1		VOCs	+	H 18.5m	6.67	0.0178		H=15m D=0.2m	=	=
				D=0.5m			VOCs			
				3000m ³ /h						
20#			+	H 15m D=0.5m	1.31	/			3.208	0.036
				1000m ³ /h	1.31	/	VOCs	H=15m D=0.7m	0.545	0.006
2		VOCs	+	H 15m D=0.5m	6.67	0.0178		H=15m D=0.7m	5.178	0.28
				3000m ³ /h			VOCs		0.484	0.026
				H=15m D=0.8m	1.34	0.116		H=15m D=0.8m	6.958	1.323
				12000m ³ /h				H=15m D=0.8m	6.492	1.234
									6.165	0.488
									3.118	0.247
					2.53	0.219		H=15m D=0.6m	1.28	0.101
									1.158	0.092
23-1#			+	H=15m D=0.6m	0.81	0.070		H=15m D=0.8m	5.723	0.680
				12000m ³ /h					1.265	0.150
									0.982	0.117
									1.02	0.121
					0.32	0.028			8.097	0.962
									2.32	0.276
								H=15m D=0.8m	2.138	0.254
					0.5	0.04				
									1.29	0.153

37#		HCl	/	/	/	/	+	H=15m D=0.5m	2.795	0.266
37#			/	/	/	/	+	H=15m D=0.5m	5.642	0.536
32-2#			+	H=15m D=0.6m	1.3	0.11		H=15m D=1m	4.363	0.829
	MVR	VOCs		12000m ³ /h				H=15m D=0.5m	3.992	0.19
32-3#MV			/	/	/	/		H=15m D=1m	6.788	1.29
R-	MVR		/	/	/	/		H=15m D=0.8m	5.48	0.521
31#			/	/	/	/		H=15m D=0.6m	6.472	0.513
1			/	/	/	/		H=15m D=0.6m	6.472	0.513
6#				H=15m D=0.8m	6.95	1.0		H=15m D=1m	6.567	1.248
				20000m ³ /h				H=15m D=0.8m	6.958	1.102
39#				H=15m D=1m						
				500						

ε #))g d =1m

∂#

31#											
2	VOCs	/	/	/	/			H=15m D=0.6m	5.253	0.333	
36#		/	/	/	/				4.537	0.2164	
		/	/	/	/			H=15m D=0.3m	6.808	0.324	
54#	HCl		H=15m D=0.8m	3.2	0.6			H=15m D=0.8m	5.035	0.718	
			25000m ³ /h								
54#	HCl		H=15m D=0.8m	3.2	0.6			H=15m D=0.8m	4.578	0.653	
			25000m ³ /h								
								VOCs	5.67	0.808	
	VOCs			2.0	0.14			H=15m D=0.8m	3.512	0.501	
								NH ₃	3.378	0.482	
								VOCs	6.152	0.877	
53#	HCl		H=15m D=0.5m	4.0	0.21			H=15m D=0.8m	4.652		
			10000m ³ /h								

			H=20m D=0.2m 800m ³ /h	0.18	0.001
			H=20m D=0.8m 22800m ³ /h	1.204	0.198
				0.226	0.037
		+	H=20m D=0.9m 26580m ³ /h	0.062	0.012
				0.025	0.005
				0.035	0.007
			H=20m D=0.2m 800m ³ /h	0.18	0.001
			H=20m D=0.8m 22800m ³ /h	1.204	0.198
				0.226	0.037
		+	H=20m D=0.9m 26580m ³ /h	0.062	0.012
				0.025	0.005
				0.035	0.007
			H=20m D=0.2m 800m ³ /h	0.18	0.001

			179190		179190	
	184700					
	100000					400m ³ /d



—	<u>0.005</u>	<u>0.0001</u>	<u>0.005</u>	<u>0.0001</u>
—	<u>0.005</u>	<u>0.0001</u>	<u>0.005</u>	<u>0.0001</u>
—	<u>0.002</u>	<u>0.00003</u>		

_____ +
_____ 125753
6000 9200
_____ 46000

55200

55200

1
MVR
450m³/d
1

		<u>COD</u>	<u>30</u>	<u>2.189</u>	<u>30</u>	<u>2.189</u>			
		—	<u>1.5</u>	<u>0.109</u>	<u>1.5</u>	<u>0.109</u>			
		—	<u>35638.52</u>		<u>35638.52</u>		—		
		<u>COD</u>	<u>30</u>	<u>1.069</u>	<u>30</u>	<u>1.069</u>	—		
		—	<u>1.5</u>	<u>0.053</u>	<u>1.5</u>	<u>0.053</u>	—		

3.8

1

3.9-1

	[2017]54	
<u>1</u>	1 10000t/a 3 12000t/a	
	1	
	1000t/a 1	
	2000t/a	
<u>2</u>	“ ”	“ ”
	120m ³	
	1 1080m ³ /d	
	1 1200m ³ /d	120m ³
	1	
		600m ³ /d 1
		2 872m ³ /d 1 900 m ³ /d
	“ ”	
	pH + +MVR +	1
	+ ”	“ pH + +MVR
		2
		pH
		pH MVR
	+ + +MVR	pH
	+ ” “	RO
	+ + ”	
	MVR	MVR
	GB/T31962-2015 1 A	
COD		
	GB31573-2015 1	
	GB31573-2015 1	
	GB/T31962-2015 1 A	
<u>3</u>		
	1#	

[2017]54

	1 10000m ³	4 1220m ³ /d 1
<u>2</u>	HCl	4#
<u>3</u>		
<u>4</u>		5.2.2

3.11.2

1

2 4#

4# 1

4.1

4

C3985

5000

2820

56.4%

10000tWD



4.2-1

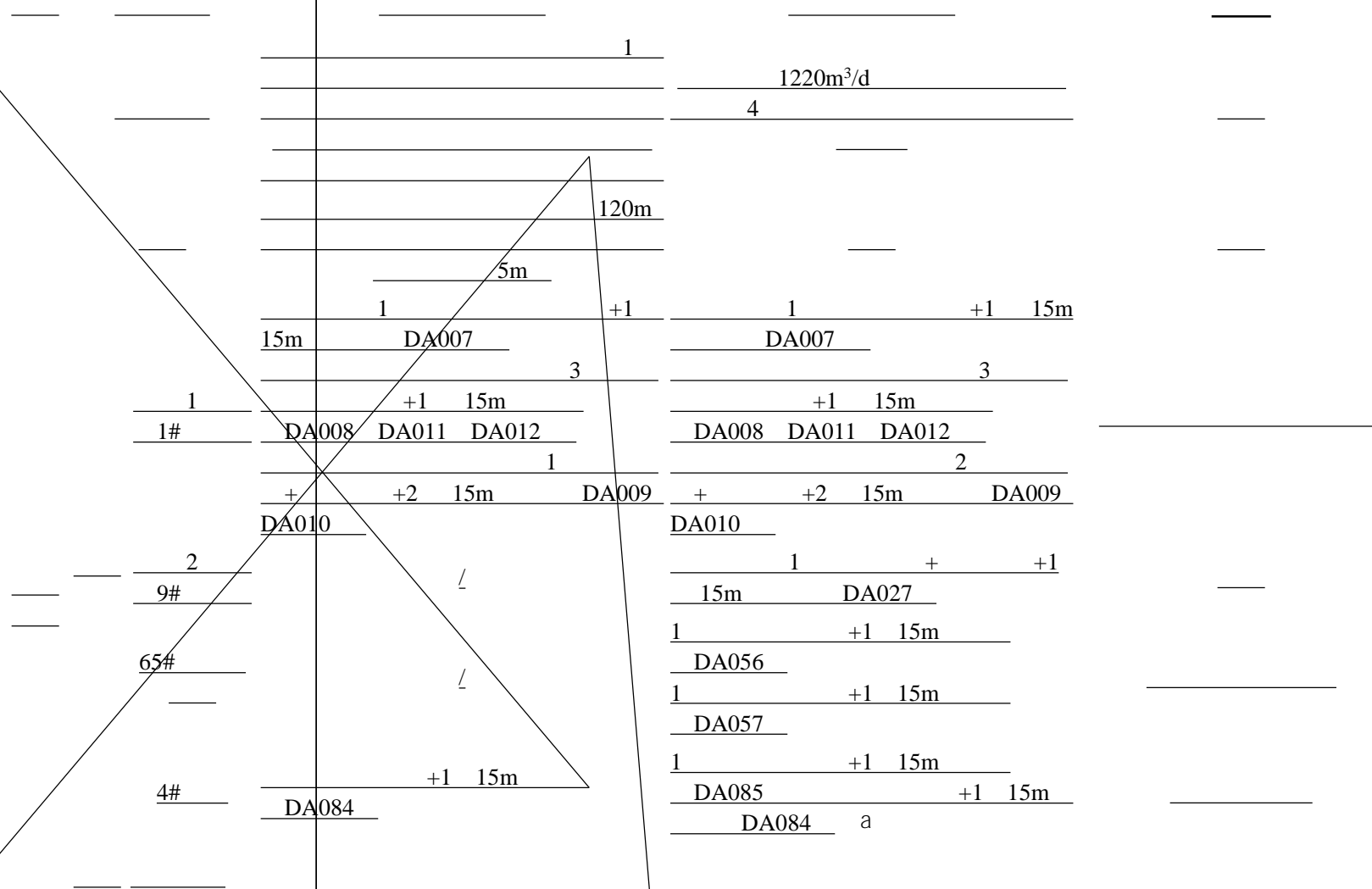
1#	1	10000t/a	1	14000t/a	4000t/a
9#	1	15000t/a	1#	4	1
4#	26	4	2	1	
	4		16		
3#		/		4298.47m ²	4118.06m ²

/

8

8

2



4.3

4.3-1

4.3-1

t/a

			t/a			t	
1			10000	14000	4000	300	1000kg/
2			16040	19643	3603	200	25kg/

GB/T26525-2011

4.3-2

		%
1	Co	72.6 73.6
2	Ni	0.02
3	Mn	0.01
4	Cu	0.01
5	Fe	0.01
6	Na	0.01
7	Ca	0.01
8	Mg	0.01
9	Pb	0.005
10	Si	0.01
11	Al	0.005
12	S	0.01
13	C	0.01
14	g/cm ³	0.5 1.6
15	g/cm ³	2.8
16	D ₁₀ um	2.0
17	D ₅₀ um	5.0 10
18	D ₉₀ um	25
19	D ₁₀₀ um	35

GB/T 2946-2018 2

1.5274		
50g	5g	
)1650mg/kg	350	520

4.4

1# 1
 1# 4
 9# 1# 2 12 2
 4.4-1 1 1# 1# 1 1

		/	/ /		/	/ /	
1		2	30m ³ /h		2	30m ³ /h	
2		6	PPH 50m ³ 3200		6	PPH 50m ³ 3200	
3		4	PPH 30m ³ 3200		4	PPH 30m ³ 3200	
4		4	PPH 30m ³ 3200		4	PPH 30m ³ 3200	
5		8	PPH 30m ³ 3200		8	PPH 30m ³ 3200	
6		8	PPH 30m ³ 3200		8	PPH 30m ³ 3200	
7		8	PGRF-50C		8	PGRF-50C	
8		26			26		
9		4	PPH 10m ³ 2200		4	PPH 10m ³ 2200	
10		4	PPH 10m ³ 2200		4	PPH 10m ³ 2200	
11		4	304 5m ³ 1800		4	304 5m ³ 1800	
12		48	PPH 10m ³ 2200		48	PPH 10m ³ 2200	
13		4	PPH 30m ³ 2500		4	PPH 30m ³ 2500	

SBH

14	H	CM442	pH	14	CM442
		CPS			CPS11D
15				16	
16	5	DN50	25m ³ /h	5	DN50 25m ³ /h
17	32			32	
18	8	40m ²	16MPa	8	40m ² 16MPa
19	4	PPH	10m ³	4	PPH 10m ³
20					

a&

		/		
2	2	30m ³ /h	2	30m ³ /h
3	/		/	
4	/		/	
5	2	PPH 30m ³	2	PPH 30m ³
6	2	PPH 30m ³	2	PPH 30m ³
7	4	PPH 30m ³	4	PPH 30m ³
8	6	PPH 40m ³	6	PPH 40m ³
9	6	PPH 50m ³	6	PPH 50m ³
10	16	PPH 30m ³	16	PPH 30m ³
11	8	PPH 40m ³	8	PPH 40m ³
12	2	PPH 50m ³	2	PPH 50m ³
13	4	PPH 50m ³	4	PPH 50m ³
14	8	50m ²	8	50m ²
15	38		38	
16	28		28	
17	2	DN80 50m ³ /h	2	DN80 50m ³ /h
18	40		40	
19	28	316L 10m ³	28	316L 10m ³
20	28	PPH 18.		



25	8	PPH 18m ³	8	PPH 18m ³
26	4	PPH 4m ³	4	PPH 4m ³
27	32	316L	32	316L
28	8	PPH 18m ³	8	PPH 18m ³
29	4	PPH 4m ³	4	PPH 4m ³
30	4	304 10m ³	4	304 10m ³
31	96		96	
32	40	IMC50-40- 160FT	40	-160FT
33	8	PLG2500/1 0	8	PLG2500/ 10
34	8	304 4m ³	8	304 4m ³
35	4	ZYDP-100 0-2S	4	ZYDP-10 00-2S
36	4	AT-CG-150 HHH /	4	0HHH /
37	/		/	
38				

1	1		2972 0	4254 6	12826	320		25kg	
2			2500 0	2757 1.6	2571.6	200		50kg	
3		20%	1271	1333	62	70			4#
4		21%	40	40	0	140			4#

2

CoCl₂·6H₂O 237.93

3.35 1049 86

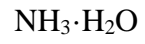
4.5-2

	Co	Ni	Mn	Fe	Cu	Ca	Mg	Zn	Pb	Cd	Cr	Al	
	24 .5%	10 ppm	10 ppm	10 ppm	10 ppm	50 ppm	50 ppm	10 ppm	10 ppm	10 ppm	10 ppm	5 ppm	0.01 %

HCl ()-114.8()

(=1) 1.20 () 108.6(20%)

(=1) 1.26



-77

36

$0.91\text{g}/\text{cm}^3$

LDLo 43mg/kg

LD50 350mg/kg



58

70

4.6

4.6.1

1

0.30Mpa

2

1

1

65#

$1220\text{m}^3/\text{d}$

GB/T19923-2005

1

4.6-1

	600	600	0	700	700	0	100	100	0
MVR									

4.6.2 _____

2

10KV I

150m²

150m² ,

4 15 6

4.6.3

4.6.4

2000m³

4.6.5

3#

4.6-2 t

--	--	--	--	--	--

1		50			3#
2		2000		25kg	3#

4.6-3

		× m		m ³	t	
	98%	7.2*3.2	4	50	30	
	21%	7.2*3.2	4	50	140	
	30%	7.2*3.2	16	50	420	
	30%	7.2*3.2	2	50	70	

4.6.6

1 _____

213m²

2 _____

106.78m²

3 _____

214.3m²

4.7

1

4.8

1

2022 7

2022 9

2

20

2

3

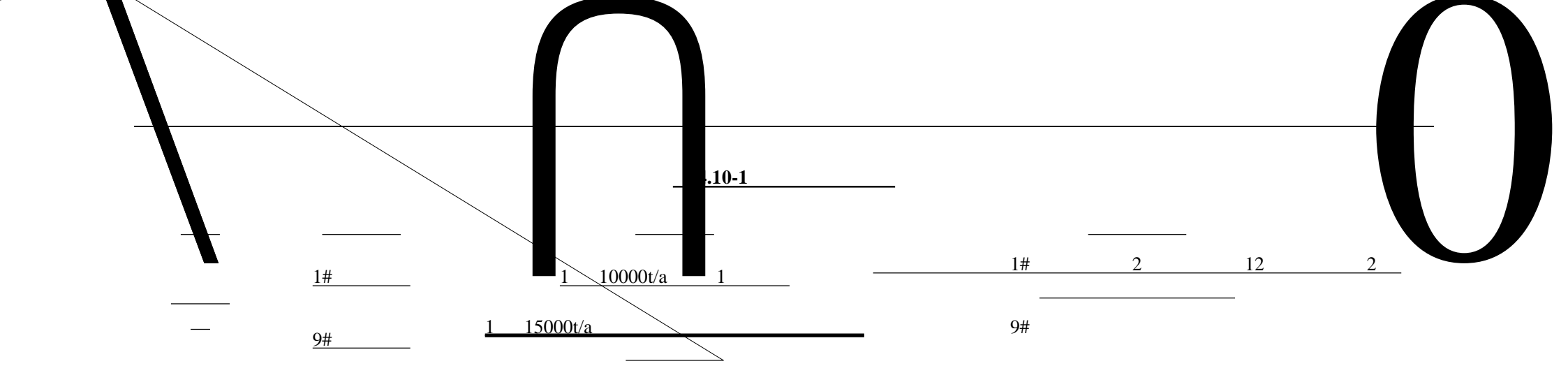
4

4.9

3

4.10

1





5.1

1

3.6.1.1

	"	-	-	-	-	"	"	-
-	"							
	200t/		50				10000t/a	
	200 t/		70				14000t/a	

5.1-1

	7	4.2 /	4	0.5 /	1	2.8 /
	5	4.2 /	4	0.5 /	1	2.8 /

5.2

5.2.1

1	5.2-1				
5.2-1	1	BP %PI(TM)	0.2857		

	<u>9.012</u>	<u>36047.91</u> <u>2</u>	<u>126174</u>		<u>36047.91</u> <u>2</u>	<u>126174</u>
	<u>0.050</u>	<u>199.99</u>	<u>700</u>		<u>45997.93</u> <u>7</u>	<u>161000.83</u>
	<u>0.095</u>	<u>380.838</u>	<u>1333</u>		<u>0.527</u>	<u>1.843</u>
	<u>0.003</u>	<u>11.428</u>	<u>40</u>		<u>0.245</u>	<u>0.858</u>
					<u>1828.026</u>	<u>6398.41</u>
					<u>342.84</u>	<u>1200</u>
				MVR	<u>519.974</u>	<u>1820</u>
					<u>277.764</u>	<u>972.221</u>
					<u>0.154</u>	<u>0.538</u>
					<u>37.5%</u>	<u>4.286</u>
					<u>37.5%</u>	<u>0.286</u>
					<u>15.142</u>	<u>53</u>
			<u>331304</u> <u>.6</u>		<u>94653.72</u> <u>4</u>	<u>331304.6</u>

5.2.2

<u>1</u>						
	<u>1</u>	<u>1# Co</u>		<u>4.2-2</u>		
<u>24.2%</u>	<u>Co₃O₄</u>		<u>73.4%</u>			

<u>t/a</u>		<u>t/a</u>	
<u>2941.653</u>	<u>10296.3</u>	<u>2936.425</u>	<u>10278</u>
<u>4.571</u>	<u>16</u>	<u>5.143</u>	<u>18</u>
		<u>0.051</u>	<u>0.179</u>
		<u>0.571</u>	<u>16</u>

_____	3538.295	12384.651	_____	3538.295	12384.651
-------	----------	-----------	-------	----------	-----------

5.2.3

5.2.3.1

1			
83914m ³ /a		38162m ³ /a	
8085m ³ /a	897m ³ /a	36050m ³ /a	
24257m ³ /a			
63782m ³ /a		65#	
GB/T19923-2005			
1	1#	36050m ³ /a	46000m ³ /a

2		1	
1			

GB/T19923-2005
161000m³/a

1

126174m³/a

1

5.2-1

5.3

3#

5.4

5.4.1

5.4.1.1 1

1	1#	10000t/a				
14000t/a					1#	
	4	9#	1#	2	12	
2						
1						
1#	5	15m		1	1#	
2						
2	1	4				

5.4-1

—	—	—			—			—
		—	—	—	—	—	—	
1	DA00 7	—	15m* 0.8m	—	—	15m* 0.8m	—	—
2	DA00 8	—	15m* 0.8m	—	—	15m* 0.8m	—	—
3	DA01 1	—	15m* 0.8m	—	—	15m* 0.8m	—	—

4

DA01
2

15m* 0.8m

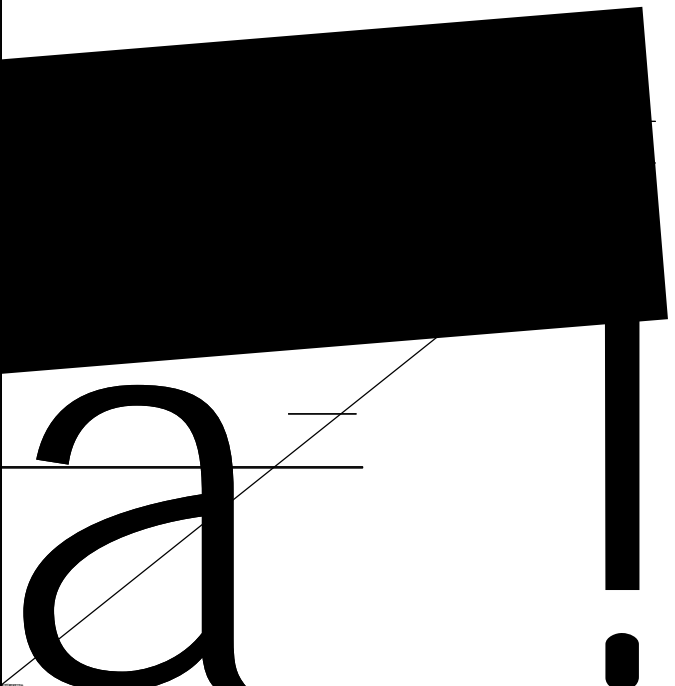
15m* 0.8m

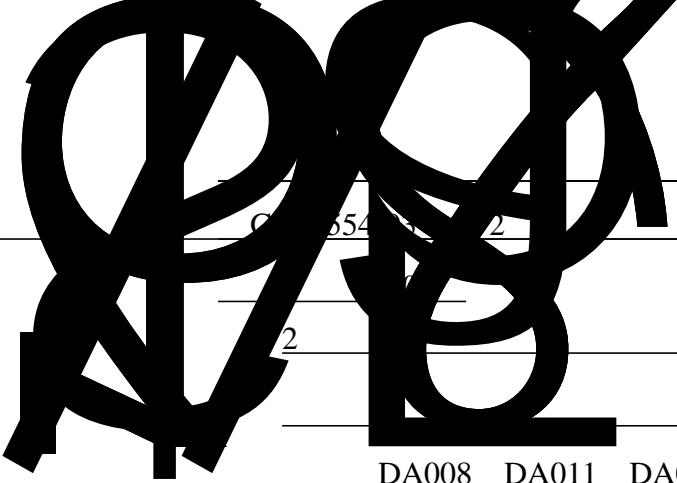
5

DA00
9

0^a ç ~ +

15m* 0.8m





654	2	15m	
2	G2		3
DA008	DA011	DA012	15m6 15000m ³ /h Ä

\$11 a



9 0 V €:B » » 0%2



g

		GB31573-2015	3HCl	
				mg/m ³
				DA027
	106.2mg/m ³	1.593kg/h	0.016kg/h	0.126t/a
12.617t/a	1.062mg/m ³	0.016kg/h		0.126t/a
				GB31573-2015
4	10 mg/m ³			
23.52mg/m ³	0.353kg/h	2.794t/a		0.235mg/m ³
	0.004kg/h	0.028t/a		
				GB31573-2015 3
	5 mg/m ³	2.167mg/m ³	0.033kg/h	
0.257t/a	0.217mg/m ³	0.003kg/h		0.026t/a
				GB31573-2015 3 1
	20 mg/m ³ HCl	2.167mg/m ³		0.033kg/h
0.257t/a		0.217mg/m ³		

1.593kg/h @ P A4€“1’ tñ0 Ý

		0.3	0.038
	1	0.1	0.013
		0.05	0.006

5.4.1.5 65#

65#

pH MVR

pH

2 15m

DA056 DA057

G5 DA056

pH

MVR

99% 5000m³/h

90%

120mg/m³

0.6kg/h 4.752t/a 12mg/m³ 0.06kg/h

0.475t/a

GB31573-2015 3 20 mg/m³

500

100

GB14554-93 2 15m

2000

G6 DA057

pH

HCl HCl

6t/a HCl

HCl 4# 3
 2 0.060
 0.060
 G 73-20 3HCl 10
 mg/m³
 2
 65# HCl HCl
 #
 5.4-3

		<u>t/a</u>	<u>kg/h</u>
	65#	0.080	0.010
HCl		0.060	0.008

5.4.1.10 4#

4#
 2
 8 HCl
 1 DA084 0.008
 12000m³/h
 " HCl a " 8

20mg/m³

0.0027t/a

0.0063t/a

2

5.4-4

		t/a	kg/h
		0.001	0.0001
HCl	4#	0.001	0.0001
		0.001	0.0001

5.4-5

	t/a	kg/h		mg/m ³	kg/h	t/a	mg/ m ³	kg/h
DA007	14.72	1.859	15000m ³ /h	D-0.7m h-15m	11.865	0.178	1.41	--
	4.206	0.531		T-30	3.39	0.051	0.403	20
DA008	16.66	1.96						
	4.76							

4.049

0.03

18000m³/h

T-30

5.4.2

1		
	83914m ³ /a	38162m ³ /a
8085m ³ /a	897m ³ /a	36050m ³ /a
		24257m ³ /a
	63782m ³ /a	
	65#	
	GB/T19923-2005	
36050m ³ /a	46000m ³ /a	
	1	291182m ³ /a
		84900 ³ /a
	223240m ³ /a	1
	65#	
	GB/T19923-2005	
126174m ³ /a	161000m ³ /a	
2		
		100m ³ /a
		700m ³ /a

+

5.4-8

m ³ /a	pH	(mg/L)	(t/a)	m ³ /a	(mg/L)	(t/a)	(mg/L)
-------------------	----	--------	-------	-------------------	--------	-------	--------

63782

1

1#



5.4.3

HW13-	900-015-13
10t/a	
5	0.5t/a
2021	HW08-
900-249-08	
6	
1t/a	
GB18597-2001	
	GB18599-2001

5.4-11

		t/a			
		1	HW08	900-249-08	
		10	HW13	900-015-13	
		4.29	==	==	
		2.8			
		0.28	==	==	
		1	==	==	

5.4-12

<u>1</u>		<u>HW13</u>	<u>900-015-13</u>	<u>10</u>					<u>60d</u>	<u>T</u>	
<u>2</u>		<u>HW49</u>	<u>900-249-08</u>	<u>1</u>					<u>60d</u>	<u>T I</u>	

5.4.5

5.4-13

		m ³ /a	8.81	4.20	4.61
		COD t/a	5.355	3.972	1.383
		NH ₃ -N t/a	1955.292	1955.223	0.069
		t/a	13.398	13.3978	0.0002
		t/a	35.3	34.947	0.353
		t/a	12.9	12.771	0.129
		HCl t/a	2.185	1.934	0.251
		t/a	<u>25.106</u>	<u>22.6</u>	<u>2.506</u>
		t/a	0.1	0	0.1
		t/a	0.05	0	0.05
		HCl t/a	0.06	0	0.06
		t/a	<u>0.38</u>	<u>0</u>	<u>0.38</u>
			4.29	4.29	0
			0.28	0.28	0
			2.8	2.8	0
			1	1	0

		10	10	0
		1	1	0

5.4.6 “ ”

		1	4000t/a
65#	4#		
		1	1
		2	

		5.4-14		t/a		
		“ ”				
	<u>m³/a</u>	<u>17.92</u>	<u>4.61</u>	<u>6.36</u>	<u>16.17</u>	<u>-1.75</u>
	<u>COD</u>	<u>5.376</u>	<u>1.383</u>	<u>1.908</u>	<u>4.851</u>	<u>-0.525</u>
	<u>NH3-N</u>	<u>0.269</u>	<u>0.069</u>	<u>0.095</u>	<u>0.243</u>	

5.5

1

COD NH₃-N

2

GB31573-2015 1

GB8978-1996

COD 30mg/L NH₃-N 1.5mg/L

46100t/a

COD1.383t/a NH₃-N0.069t/a

3

5.5-1 0

5.5-1 t/a

COD

12.05

0.6

6

6.1

6.1.1

27°52 55 28°29 07 111°53 25 112°47 20 36km
88km 69km

1
28°19 14.66 112°35 38.54

1

6.1.2

42.26m 86.95m
10% 0.05g 0.35s
GB18306-2001 50

42.26m 86.95m

6.1.3

			20		16.8
	40.6		-12.0	1	4.5
7		29.9		276	10
5300.3		1362.3		1384.2	
81%	1714.7	10		107.78-112.3	/
				2.4m/s	24m/s

16.8

101216.7Pa

1362.3mm

NNW

S

2.4m/s

26.4

35kg/m²

6.1.4

144km

98km

6.1.6

-

6.2

6.2.1

319

25km

45km

6.2.2

1998

2002

10km²

2006

11.11km²

21.11km²

2007

2008 6

[2008]71

2010 11

“

”

2013

21.11km²

60km²

2013 1

2013 12

n n n \$ n



5.0×10⁴m³/d

2.5×10⁴m³/d

2.5×10⁴m³/d

89.98

“ +

A²O+AO

+

+

+

+

”

GB3838-2002

10mg/L

7

7.1

7.1.1

2021 1 25 2020

7.1-1 ug/m³

			μg/m ³	μg/m ³	
	SO ₂		4	60	
	NO ₂		18	40	
	PM ₁₀		49	70	
	PM _{2.5}		31	35	
	CO	95	1.2	4000	
	O ₃	90 8	127	160	

2020

2020

GB3095-2012

7.1.2

2020 5 9 _____

7.1-2

				m
G1			==	==
G2	VOCs	2020.5.9-5.15	==	==
G3		2020.8.3-8.9		540

				<u>550</u>
<u>G4</u>				
<u>G5</u>	<u>2021.11.20-11.21</u>			<u>280m</u>
	<u>2020.5</u>	<u>2020.8</u>	<u>2021</u>	<u>.11</u>

	3#	2500m	
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2

2020 5 9 ~11

3

1

3

7.2-2

3

pH COD NH₃-N

GB3838-2002 1

GB3838-2002 2 3

GB5084-2005 1

7.3

7

	mg/L	0.006L	0.006L	0.006L	0.006L	0.02	
	mg/L	2.5×10^{-3} L	2.5×10^{-3} L	2.5×10^{-3} L	2.5×10^{-3} L	0.05	
	mg/L	5.76	5.45	5.52	5.68	250	
	mg/L	148	155	146	159	450	
	mg/L	3.16	3.85	3.92	4.08	250	
	pH	7.06	7.11	7.08	7.10	6.5-8.5	
	mg/L	1.04	1.12	1.08	1.10	3.0	
	NH ₃ -N	mg/L	0.110	0.122	0.115	0.104	0.50
	mg/L	0.009L	0.009L	0.009L	0.009L	1.00	
	mg/L	0.03	0.03	0.03	0.03	1.00	
	mg/L	0.087	0.090	0.091	0.092	0.10	
	mg/L	3.00×10^{-4} L	3.00×10^{-4} L	3.00×10^{-4} L	3.00×10^{-4} L	0.01	
	mg/L	0.004L	0.004L	0.004L	0.004L	0.05	
2# U 2	mg/L	5.0×10^{-4} L	5.0×10^{-4} L				

4L

							5
		mg/L	1.45	1.38	1.40	1.48	3.0
3# U	N=						
3							

		mg/L	$3.00 \times 10^{-4} \text{L}$	$3.00 \times 10^{-4} \text{L}$	$3.00 \times 10^{-4} \text{L}$	$3.00 \times 10^{-4} \text{L}$	0.01	
		mg/L	0.004L	0.004L	0.004L	0.004L	0.05	
		mg/L	$5.0 \times 10^{-4} \text{L}$	$5.0 \times 10^{-4} \text{L}$	$5.0 \times 10^{-4} \text{L}$	$5.0 \times 10^{-4} \text{L}$	0.005	
		mg/L	$2.5 \times 10^{-3} \text{L}$	$2.5 \times 10^{-3} \text{L}$	$2.5 \times 10^{-3} \text{L}$	$2.5 \times 10^{-3} \text{L}$	0.01	
		mg/L	0.006L	0.006L	0.006L	0.006L	0.02	
		mg/L	$2.5 \times 10^{-3} \text{L}$	$2.5 \times 10^{-3} \text{L}$	$2.5 \times 10^{-3} \text{L}$	$2.5 \times 10^{-3} \text{L}$	0.05	
		mg/L	7.33	7.14	7.23	7.28	250	
		mg/L	186	175	172	182	450	
		mg/L	5.83	5.54	5.63	5.68	250	
GB/T 14848-2017 1								
GB/T 14848-2017 2								

GB/T 14848-2017 III

7.3.2

7.3.2.1

1
pH

2

4

7.3-2

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D1

79.2m

1
pH

7.3-3

mg/L pH

		pH														
GB14848-2017		6.5~8.5	3.0	0.50	250	250	1.00	0.01	1.00	0.005	0.01	0.02	0.05	0.1	0.05	0.0001
D 1		6.76	0.87	0.03	57	19.4	0.00925	0.00211	0.0319	<0.0000 5	0.00019	0.0026 1	<0.0 2	0.0 3	<0.00 4	<0.0000 2
		6.72	0.80	0.02	11	17.8	0.00919	0.00207	0.0305	<0.0000 5	<0.0001 2	0.0025 5	<0.0 2	0.0 2	<0.00 4	<0.0000 2
		-	0.84	0.03	27	18.4	0.00921	0.00209	0.0313	<0.0000 5	0.00014	0.0025 8	<0.0 2	0.0 3	<0.00 4	<0.0000 2
	)	0.56	0.28	0.06	0.108	0.073	0.009	0.0209	0.031	0.01	0.014	0.129	0.4	0.3	0.08	0.2
D 2		6.71	0.46	0.03	11	18.4	0.00045	<0.0000 9	0.0396	0.00006	<0.0001 2	0.0021 0	<0.0 2	0.0 4	<0.00 4	<0.0000 2
		6.52	0.41	<0.02	9	16.8	0.00039	<0.0000 9	0.0378	0.00006	<0.0001 2	0.0020 7	<0.0 2	0.0 4	<0.00 4	<0.0000 2
		-	0.44	0.02	10	17.6	0.00042	<0.0000 9	0.0384	0.00006	<0.0001 2	0.0020 8	<0.0 2	0.0 4	<0.00 4	<0.0000 2
		0.96	0.147	0.04	0.04	0.07	0.0004	0.0009	0.038	0.012	0.012	0.104	0.4	0.4	0.08	0.2
D 3		6.65	1.22	0.15	12	16.6	0.00733	<0.0007 6	0.0336	0.00006	0.00026	0.0018 9	<0.0 2	0.0 7	<0.00 4	<0.0000 2
		6.60	1.14	0.12	9	15.1	0.00695	<0.0007 0	0.0333	0.00006	<0.0001 2	0.0018 0	<0.0 2	0.0 7	<0.00 4	<0.0000 2
		-	1.17	0.13	10	15.8	0.00720	<0.0007	0.0335	0.00006	0.00020	0.0018	<0.0	0.0	<0.00	<0.0000

7.3.2.2

1

pH

2

7

7.3-4

7.3-5

mg/L pH

		D9	D10	D11	D12	D13	D14	D15
				6				
pH		6.68	8.54	6.89	7.42	8.87	8.43	6.86
	mg/L	0.095	0.035	0.085	0.208	0.156	0.185	0.229
	mg/L	10.3	4.84	19.8	9.64	15	2.83	8.33
	mg/L	0.003L	0.013	0.027	0.003L	0.004	0.01	0.013
	mg/L	0.0003L	0.0003L	0.0003L	0.0003L	0.0003L	0.0003L	0.0003L
	mg/L	0.004L	0.004L	0.004L	0.004L	0.004L	0.004L	0.004L
	µg/L	0.3L	0.3L	0.3L	0.3L	1	0.4	0.3L
	µg/L	0.07	0.04L	0.04L	0.04L	0.04L	0.04L	0.04L
	mg/L	0.004L	0.004L	0.004L	0.004L	0.004L	0.004L	0.004L
	mg/L	23	168	56	49	280	133	51
	µg/L	2	1L	1L	1L	1L	1L	1L
	µg/L	0.1L	0.1L	0.1L	0.1L	0.1L	0.1L	0.1L
	mg/L	0.05	0.09	0.19	0.07	0.23	0.13	0.05L
	mg/L	0.03L	0.22	0.04	0.12	0.12	0.04	0.08
	mg/L	0.01L	0.23	0.22	0.11	0.07	0.12	0.14
	mg/L	140	283	216	165	572	279	116
	mg/L	0.98	1.32	0.96	2.07	1.45	1.24	2.07



mg/L

8L

42

8L

8L

40

26



5

HJ610-2016

1

$$P_i = \frac{C_i}{C_{oi}}$$

——i

——i mg/L

——i mg/L

pH

$$S_{pH_j} = \frac{pH_j - 7.0}{pH_{su} - 7.0} (pH_j > 7.0) \quad S_{pH_j} = \frac{7.0 - pH_j}{7.0 - pH_{sd}} (pH_j \leq 7.0)$$

pH_j——pH

pH_{sd}——pH

pH_{su}——pH

GB/T14848-2017

D10 D13 pH D9 D13

pH

GB/T14848-2017

D10 D13 D14 Ca-HCO₃

--

6

7.3-7

_____	_____	D9	D10	D11	D12	D13	D14	D15
_____	mg/L	0.95	35.9	2.25	2.73	11.2	6.62	2.00
_____	mg/L	8.81	32.3	13.9	13.9	29.5	19.6	7.27
_____	mg/L	10.8	57.5	16.7	12.8	95.5	39.9	8.09
_____	mg/L	5.00	9.53	4.20	5.30	9.86	10.7	3.98
_____	mg/L	5L	5L	5L	5L	5L	5L	5L
_____	mg/L	16	174	13	17	256	121	15
_____	mg/L	3.68	41.8	8.08	11.2	39.0	32.4	3.09
_____	mg/L	13.5	20.1	15.6	23.4	48.9	37.9	9.60

7.3-8

_____	_____	_____
<u>1</u>	D9	Ca-Cl
<u>2</u>	D10	Ca-HCO ₃
<u>3</u>	D11	Ca-Cl
<u>4</u>	D12	Ca-Cl
<u>5</u>	D13	Ca-HCO ₃
<u>6</u>	D14	Ca-HCO ₃
<u>7</u>	D15	Ca-Cl

7.4

2021 11 20 ~2021 11 21

7.4-1

dB(A)

			51	49	55	dB	A
N2			60	61	65	dB	A
			50	48	55	dB	A
N3			56	60	65	dB	A
			51	51	55	dB	A
N4			55	57	65	dB	A
			51	50	55	dB	A
N5			61	60	65	dB	A
			50	49	55	dB	A
N6			58	59	65	dB	A
			48	50	55	dB	A
N7			57	60	65	dB	A
			51	49	55	dB	A
N8			55	57	65	dB	A
			50	48	55	dB	A
N9			57	57	60	dB	A
			45	46	50	dB	A
N10			57	56	60	dB	A
			46	46	50	dB	A

GB3096-2008 3

GB3096-2008 2

7.5

8000

23000

()

()

7.5-1

7.5-1

T1 18#		0~0.2m	1
T2 20#		0~0.5m 0.5~1.5m,1.5~3m	3
T3 21#		0~0.5m 0.5~1.5m ,1.5~3m	3
T4 17#		0~0.5m 0.5~1.5m,1.5~3m	3

T5		0~0.2m	1
T6		0~0.2m	1
*T1	300m	0~0.2m	1
*T2	300m	0~0.2m	1
*T3	500m	0~0.2m	1
“*”	()	()	

2.4-7 47

2019 8 9 2020 5 9

GB15618

-2018

GB15618-2018

7.5-2

7.5-2

mg/kg PH

T1 18#	0m- 0.2m		pH		7.76	—
				mg/kg	17.8	60
				mg/kg	0.47	65
				mg/kg	2L	5.7
				mg/kg	34	18000
				mg/kg	179	200
				mg/kg	3.7	800
				mg/kg	0.180	38
				mg/kg	11	900
			*	mg/kg	2.13	70
				mg/kg	299	—
				mg/kg	2.1×10 ⁻³ L	2.8
				mg/kg	1.5×10 ⁻³ L	0.9

			mg/kg	$3 \times 10^{-3}L$	37
		1,1-	mg/kg	$1.6 \times 10^{-3}L$	9
		1,2-	mg/kg	$1.3 \times 10^{-3}L$	5
		1,1-	mg/kg	$8.0 \times 10^{-4}L$	66
		-1,2-	mg/kg	$9.0 \times 10^{-4}L$	596
		-1,2-	mg/kg	$9.0 \times 10^{-4}L$	54
			mg/kg	$2.6 \times 10^{-3}L$	616
		1,2-	mg/kg	$1.9 \times 10^{-3}L$	5
		1,1,1,2-	mg/kg	$1.0 \times 10^{-3}L$	10
		1,1,2-	mg/kg	$1.0 \times 10^{-3}L$	6.8
			mg/kg	$8.0 \times 10^{-4}L$	53
		1,1,1-	mg/kg	$1.1 \times 10^{-3}L$	840
		1,1,2-	mg/kg	$1.4 \times 10^{-3}L$	2.8
			mg/kg	$9.0 \times 10^{-4}L$	2.8
		1,2,3-	mg/kg	$1.0 \times 10^{-3}L$	0.5
			mg/kg	$1.5 \times 10^{-3}L$	0.43
			mg/kg	$1.6 \times 10^{-3}L$	4
			mg/kg	$1.1 \times 10^{-3}L$	270
		1,2-	mg/kg	$1.0 \times 10^{-3}L$	560
		1,4-	mg/kg	$1.2 \times 10^{-3}L$	20
			mg/kg	$1.2 \times 10^{-3}L$	28
			mg/kg	$1.6 \times 10^{-3}L$	129
			mg/kg	$2.0 \times 10^{-3}L$	1200
		+	mg/kg	$3.6 \times 10^{-3}L$	570
			mg/kg	$1.3 \times 10^{-3}L$	640
			mg/kg	0.09L	76
			mg/kg	ND	260
		2-	mg/kg	0.06L	2256

	a	mg/kg	0.1L	15
	a	mg/kg	0.1L	1.5
	b	mg/kg	0.2L	15
	k	mg/kg	0.1L	151
		mg/kg	0.1L	1293
	a,h	mg/kg	0.1L	1.5
	1,2,3-cd	mg/kg	0.1L	15
		mg/kg	0.09L	70
	pH		8.56	—
		mg/kg	54.6	60
		mg/kg	0.60	65
		mg/kg	2L	5.7
		mg/kg	39 ³	18000
		mg/kg	155	200
		mg/kg	5.5	800
		mg/kg	0.122	38
		mg/kg	12	900
	*	mg/kg	1.14	70
T2 20#		mg/kg	316	—
	0m-	mg/kg	2.1×10 ⁻³ L	2.8
1	0.5m			



			1,1,2-	mg/kg	$1.0 \times 10^{-3}L$	6.8
				mg/kg	$8.0 \times 10^{-4}L$	53
			1,1,1-	mg/kg	$1.1 \times 10^{-3}L$	840
			1,1,2-	mg/kg	$1.4 \times 10^{-3}L$	2.8
				mg/kg	$9.0 \times 10^{-4}L$	2.8
			1,2,3-	mg/kg	$1.0 \times 10^{-3}L$	0.5
				mg/kg	$1.5 \times 10^{-3}L$	0.43
				mg/kg	$1.6 \times 10^{-3}L$	4
				mg/kg	$1.1 \times 10^{-3}L$	270
			1,2-	mg/kg	$1.0 \times 10^{-3}L$	560
			1,4-	mg/kg	$1.2 \times 10^{-3}L$	20
				mg/kg	$1.2 \times 10^{-3}L$	28
				mg/kg	$1.6 \times 10^{-3}L$	129
				mg/kg	$2.0 \times 10^{-3}L$	1200
			+	mg/kg	$3.6 \times 10^{-3}L$	570
				mg/kg	$1.3 \times 10^{-3}L$	640
				mg/kg	0.09L	76
				mg/kg	ND	260
			2-	mg/kg	0.06L	2256
			a	mg/kg	0.1L	15
			a	mg/kg	0.1L	1.5
			b	mg/kg	0.2L	15
			k	mg/kg	0.1L	151
				mg/kg	0.1L	1293
			a,h	mg/kg	0.1L	1.5
			1,2,3-cd	mg/kg	0.1L	15
				mg/kg	0.09L	70
T2 20#	0.5m		pH		7.95	—
				mg/kg	33.9	60

2	-1.5m		mg/kg	0.66	65
			mg/kg	2L	5.7
			mg/kg	40	18000
			mg/kg	155	200
			mg/kg	6.8	800
			mg/kg	0.095	38
			mg/kg	14	900
		*	mg/kg	1.14	70
			mg/kg	295	—
			mg/kg	$2.1 \times 10^{-3}L$	2.8
			mg/kg	$1.5 \times 10^{-3}L$	0.9
			mg/kg	$3 \times 10^{-3}L$	37
		1,1-	mg/kg	$1.6 \times 10^{-3}L$	9
		1,2-	mg/kg	$1.3 \times 10^{-3}L$	5
		1,1-	mg/kg	$8.0 \times 10^{-4}L$	66
		-1,2-	mg/kg	$9.0 \times 10^{-4}L$	596
		-1,2-	mg/kg	$9.0 \times 10^{-4}L$	54
			mg/kg	$2.6 \times 10^{-3}L$	616
		1,2-	mg/kg	$1.9 \times 10^{-3}L$	5
		1,1,1,2-	mg/kg	$1.0 \times 10^{-3}L$	10
		1,1,2-	mg/kg	$1.0 \times 10^{-3}L$	6.8
			mg/kg	$8.0 \times 10^{-4}L$	53
		1,1,1-	mg/kg	$1.1 \times 10^{-3}L$	8/((, m ³

22 g/

1,2-

mg/kg

$1.0 \times 10^{-3} \text{L}$

5, -

			mg/kg	$3 \times 10^{-3}L$	37
		1,1-	mg/kg	$1.6 \times 10^{-3}L$	9
		1,2-	mg/kg	$1.3 \times 10^{-3}L$	5
		1,1-	mg/kg	$8.0 \times 10^{-4}L$	66
		-1,2-	mg/kg	$9.0 \times 10^{-4}L$	596
		-1,2-	mg/kg	$9.0 \times 10^{-4}L$	54
			mg/kg	$2.6 \times 10^{-3}L$	616
		1,2-	mg/kg	$1.9 \times 10^{-3}L$	5
		1,1,1,2-	mg/kg	$1.0 \times 10^{-3}L$	10
		1,1,2-	mg/kg	$1.0 \times 10^{-3}L$	6.8
			mg/kg	$8.0 \times 10^{-4}L$	53
		1,1,1-	mg/kg	$1.1 \times 10^{-3}L$	840
		1,1,2-	mg/kg	$1.4 \times 10^{-3}L$	2.8
			mg/kg	$9.0 \times 10^{-4}L$	2.8
		1,2,3-	mg/kg	$1.0 \times 10^{-3}L$	0.5
			mg/kg	$1.5 \times 10^{-3}L$	0.43
			mg/kg	$1.6 \times 10^{-3}L$	4
			mg/kg	$1.1 \times 10^{-3}L$	270
		1,2-	mg/kg	$1.0 \times 10^{-3}L$	560
		1,4-	mg/kg	$1.2 \times 10^{-3}L$	20
			mg/kg	$1.2 \times 10^{-3}L$	28
			mg/kg	$1.6 \times 10^{-3}L$	129
			mg/kg	$2.0 \times 10^{-3}L$	1200
		+	mg/kg	$3.6 \times 10^{-3}L$	570
			mg/kg	$1.3 \times 10^{-3}L$	640
			mg/kg	0.09L	76
			mg/kg	ND	260
		2-	mg/kg	0.06L	2256

a	mg/kg	0.1L	15
a	mg/kg	0.1L	1.5
b	mg/kg	0.2L	15
k	mg/kg	0.1L	151
	mg/kg	0.1L	1293
a,h	mg/kg	0.1L	1.5
1,2,3-cd	mg/kg	0.1L	15
	mg/kg	0.09L	70
pH		6.17	—
	mg/kg	29.9	60
	mg/kg	0.57	65

T3 21# 0m-
 1 0.5m

			1,1,2-	mg/kg	$1.0 \times 10^{-3}L$	6.8
				mg/kg	$8.0 \times 10^{-4}L$	53
			1,1,1-	mg/kg	$1.1 \times 10^{-3}L$	840
			1,1,2-	mg/kg	$1.4 \times 10^{-3}L$	2.8
				mg/kg	$9.0 \times 10^{-4}L$	2.8
			1,2,3-	mg/kg	$1.0 \times 10^{-3}L$	0.5
				mg/kg	$1.5 \times 10^{-3}L$	0.43
				mg/kg	$1.6 \times 10^{-3}L$	4
				mg/kg	$1.1 \times 10^{-3}L$	270
			1,2-	mg/kg	$1.0 \times 10^{-3}L$	560
			1,4-	mg/kg	$1.2 \times 10^{-3}L$	20
				mg/kg	$1.2 \times 10^{-3}L$	28
				mg/kg	$1.6 \times 10^{-3}L$	129
				mg/kg	$2.0 \times 10^{-3}L$	1200
			+	mg/kg	$3.6 \times 10^{-3}L$	570
				mg/kg	$1.3 \times 10^{-3}L$	640
				mg/kg	0.09L	76
				mg/kg	ND	260
			2-	mg/kg	0.06L	2256
			a	mg/kg	0.1L	15
			a	mg/kg	0.1L	1.5
			b	mg/kg	0.2L	15
			k	mg/kg	0.1L	151
				mg/kg	0.1L	1293
			a,h	mg/kg	0.1L	1.5
			1,2,3-cd	mg/kg	0.1L	15
				mg/kg	0.09L	70
T3 21#	0.5m		pH		5.71	—
				mg/kg	25.8	60

2	-1.5m		mg/kg	0.81	65
			mg/kg	2L	5.7
			mg/kg	53	18000
			mg/kg	176	200
			mg/kg	5.2	800
			mg/kg	0.030	38
			mg/kg	12	900
		*	mg/kg	2.13	70
			mg/kg	165	—
			mg/kg	$2.1 \times 10^{-3}L$	2.8
			mg/kg	$1.5 \times 10^{-3}L$	0.9
			mg/kg	$1.3 \times 10^{-3}L$	37
		1,1-	mg/kg	$1.6 \times 10^{-3}L$	9
		1,2-	mg/kg	$1.3 \times 10^{-3}L$	5
		1,1-	mg/kg	$8.0 \times 10^{-4}L$	66
		-1,2-	mg/kg	$9.0 \times 10^{-4}L$	596
		-1,2-	mg/kg	$9.0 \times 10^{-4}L$	54
			mg/kg	$2.6 \times 10^{-3}L$	616
		1,2-	mg/kg	$1.9 \times 10^{-3}L$	5
		1,1,1,2-	mg/kg	$1.0 \times 10^{-3}L$	10
		1,1,2-	mg/kg	$1.0 \times 10^{-3}L$	6.8

			1,2-	mg/kg	1.0×10 ⁻³ L	560
			1,4-	mg/kg	1.2×10 ⁻³ L	20
				mg/kg	1.2×10 ⁻³ L	28
				mg/kg	1.6×10 ⁻³ L	129
				mg/kg	2.0×10 ⁻³ L	1200
			+	mg/kg	3.6×10 ⁻³ L	570
				mg/kg	1.3×10 ⁻³ L	640
				mg/kg	0.09L	76
				mg/kg	ND	260
			2-	mg/kg	0.06L	2256
			a	mg/kg	0.1L	15
			a	mg/kg	0.1L	1.5
			b	mg/kg	0.2L	15
			k	mg/kg	0.1L	151
				mg/kg	0.1L	1293
			a,h	mg/kg	0.1L	1.5
			1,2,3-cd	mg/kg	0.1L	15
				mg/kg	0.09L	70
T3 21#	1.5m		pH		5.55	—
3	-3m			mg/kg	37.3	60
				mg/kg	0.50	65
				mg/kg	2L	5.7
				mg/kg	54	18000
				mg/kg	174	200
				mg/kg	5.5	800
				mg/kg	0.023	38
				mg/kg	9	900
			*	mg/kg	1.14	70
				mg/kg	165	—
				mg/kg	2.1×10 ⁻³ L	2.8
				mg/kg	1.5×10 ⁻³ L	0.9

	mg/kg	$3 \times 10^{-3}L$	37
1,1-	mg/kg	$1.6 \times 10^{-3}L$	9
1,2-	mg/kg	$1.3 \times 10^{-3}L$	5
1,1-	mg/kg	$8.0 \times 10^{-4}L$	66
-1,2-	mg/kg	$9.0 \times 10^{-4}L$	596
-1,2-	mg/kg	$9.0 \times 10^{-4}L$	54
	mg/kg	$2.6 \times 10^{-3}L$	616
1,2-	mg/kg	$1.9 \times 10^{-3}L$	5
1,1,1,2-	mg/kg	$1.0 \times 10^{-3}L$	10
1,1,2-	mg/kg	$1.0 \times 10^{-3}L$	6.8
	mg/kg	$8.0 \times 10^{-4}L$	53
1,1,1-	mg/kg	$1.1 \times 10^{-3}L$	840
1,1,2-	mg/kg	$1.4 \times 10^{-3}L$	2.8
	mg/kg	$9.0 \times 10^{-4}L$	2.8
1,2,3-	mg/kg	$1.0 \times 10^{-3}L$	0.5
	mg/kg	$1.5 \times 10^{-3}L$	0.43
	mg/kg	$1.6 \times 10^{-3}L$	4
	mg/kg	$1.1 \times 10^{-3}L$	270
1,2- [/_]			

			a	mg/kg	0.1L	15
			a	mg/kg	0.1L	1.5
			b	mg/kg	0.2L	15
			k	mg/kg	0.1L	151
				mg/kg	0.1L	1293
			a,h	mg/kg	0.1L	1.5
			1,2,3-cd	mg/kg	0.1L	15
				mg/kg	0.09L	70
T4 17# 1	0m- 0.5m		pH		5.95	—
				mg/kg	23.3	60
				mg/kg	0.32	65
				mg/kg	2L	5.7
				mg/kg	35	18000
				mg/kg	173	200
				mg/kg	6.3	800
				mg/kg	0.015	38
				mg/kg	11	900
				* mg/kg	1.14	70
				mg/kg	137	—
				mg/kg	$2.1 \times 10^{-3}L$	2.8
				mg/kg	$1.5 \times 10^{-3}L$	0.9
				mg/kg	$3 \times 10^{-3}L$	37
				1,1- mg/kg	$1.6 \times 10^{-3}L$	9
				1,2- mg/kg	$1.3 \times 10^{-3}L$	5
				1,1- mg/kg	$8.0 \times 10^{-4}L$	66
				-1,2- mg/kg	$9.0 \times 10^{-4}L$	596
				-1,2- mg/kg	$9.0 \times 10^{-4}L$	54
				mg/kg	$2.6 \times 10^{-3}L$	616
				1,2- mg/kg	$1.9 \times 10^{-3}L$	5
				1,1,1,2- mg/kg	$1.0 \times 10^{-3}L$	10

1,1,2-	mg/kg	$1.0 \times 10^{-3}L$	6.8
	mg/kg	$8.0 \times 10^{-4}L$	53
1,1,1-	mg/kg	$1.1 \times 10^{-3}L$	840
1,1,2-	mg/kg	$1.4 \times 10^{-3}L$	2.8
	mg/kg	$9.0 \times 10^{-4}L$	2.8
1,2,3-	mg/kg	$1.0 \times 10^{-3}L$	0.5
	mg/kg	$1.5 \times 10^{-3}L$	0.43
	mg/kg	$1.6 \times 10^{-3}L$	4
	mg/kg	$1.1 \times 10^{-3}L$	270
1,2-	mg/kg	$1.0 \times 10^{-3}L$	560
1,4-	mg/kg	$1.2 \times 10^{-3}L$	20
	mg/kg	$1.2 \times 10^{-3}L$	28
	mg/kg	$1.6 \times 10^{-3}L$	129
	mg/kg	$2.0 \times 10^{-3}L$	1200
	mg/kg	$3.6 \times 10^{-3}L$	570
	mg/kg	1.3×10	

3

2	-1.5m		mg/kg	0.29	65
			mg/kg	2L	5.7
			mg/kg	36	18000
			mg/kg	179	200
			mg/kg	4.2	800
			mg/kg	0.032	38
			mg/kg	14	900
		*	mg/kg	3.11	70
			mg/kg	103	—
			mg/kg	2.1×10 ⁻³ L	2.8
			mg/kg	1.5×10 ⁻³ L	0.9
			mg/kg	3×10 ⁻³ L	37
		1,1-	mg/kg	1.6×10 ⁻³ L	9
		1,2-	mg/kg	1.3×10 ⁻³ L	5
		1,1-	mg/kg	8.0×10 ⁻⁴ L	66
		-1,2-	mg/kg	9.0×10 ⁻⁴ L	596
		-1,2-	mg/kg	9.0×10 ⁻⁴ L	54
			mg/kg	2.6×10 ⁻³ L	616
		1,2-	mg/kg	1.9×10 ⁻³ L	5
		1,1,1,2-	mg/kg	1.0×10 ⁻³ L	10
		1,1,2-	mg/kg	1.0×10 ⁻³ L	6.8
			mg/kg	8.0×10 ⁻⁴ L	53
		1,1,1-	mg/kg	1.1×10 ⁻³ L	840
		1,1,2-	mg/kg	1.4×10 ⁻³ L	2.8
			mg/kg	9.0×10 ⁻⁴ L	2.8
		1,2,3-	mg/kg	1.0×10 ⁻³ L	0.5
			mg/kg	1.5×10 ⁻³ L	0.43
			mg/kg	1.6×10 ⁻³ L	4
	mg/kg	1.1×10 ⁻³ L	270		

			1,2-	mg/kg	1.0×10 ⁻³ L	560
			1,4-	mg/kg	1.2×10 ⁻³ L	20
				mg/kg	1.2×10 ⁻³ L	28
				mg/kg	1.6×10 ⁻³ L	129
				mg/kg	2.0×10 ⁻³ L	1200
			+	mg/kg	3.6×10 ⁻³ L	570
				mg/kg	1.3×10 ⁻³ L	640
				mg/kg	0.09L	76
				mg/kg	ND	260
			2-	mg/kg	0.06L	2256
			a	mg/kg	0.1L	15
			a	mg/kg	0.1L	1.5
			b	mg/kg	0.2L	15
			k	mg/kg	0.1L	151
				mg/kg	0.1L	1293
			a,h	mg/kg	0.1L	1.5
			1,2,3-cd	mg/kg	0.1L	15
				mg/kg	0.09L	70
T4 17#	1.5m		pH		5.92	—
3	-3m			mg/kg	21.2	60
				mg/kg	0.14	65
				mg/kg	2L	5.7
				mg/kg	36	18000
				mg/kg	177	200
				mg/kg	2.4	800
				mg/kg	0.021	38
				mg/kg	10	900
			*	mg/kg	2.13	70
				mg/kg	1024	—
				mg/kg	2.1×10 ⁻³ L	2.8
				mg/kg	1.5×10 ⁻³ L	0.9

	mg/kg	$3 \times 10^{-3}L$	37
1,1-	mg/kg	$1.6 \times 10^{-3}L$	9
1,2-	mg/kg	$1.3 \times 10^{-3}L$	5
1,1-	mg/kg	$8.0 \times 10^{-4}L$	66
-1,2-	mg/kg	$9.0 \times 10^{-4}L$	596
-1,2-	mg/kg	$9.0 \times 10^{-4}L$	54
	mg/kg	$2.6 \times 10^{-3}L$	616
1,2-	mg/kg	$1.9 \times 10^{-3}L$	5
1,1,1,2-	mg/kg	$1.0 \times 10^{-3}L$	10
1,1,2-	mg/kg	$1.0 \times 10^{-3}L$	6.8
	mg/kg	$8.0 \times 10^{-4}L$	53
1,1,1-	mg/kg	$1.1 \times 10^{-3}L$	840
1,1,2-	mg/kg	$1.4 \times 10^{-3}L$	2.8
	mg/kg	$9.0 \times 10^{-4}L$	2.8
1,2,3-	mg/kg	$1.0 \times 10^{-3}L$	0.5
	mg/kg	$1.5 \times 10^{-3}L$	0.43
	mg/kg	$1.6 \times 10^{-3}L$	4
	mg/kg	$1.1 \times 10^{-3}L$	270
1,2- [/_]			

a	mg/kg	0.1L	15
a	mg/kg	0.1L	1.5
b	mg/kg	0.2L	15
^			



			1,1,2-	mg/kg	$1.0 \times 10^{-3}L$	6.8
				mg/kg	$8.0 \times 10^{-4}L$	53
			1,1,1-	mg/kg	$1.1 \times 10^{-3}L$	840
			1,1,2-	mg/kg	$1.4 \times 10^{-3}L$	2.8
				mg/kg	$9.0 \times 10^{-4}L$	2.8
			1,2,3-	mg/kg	$1.0 \times 10^{-3}L$	0.5
				mg/kg	$1.5 \times 10^{-3}L$	0.43
				mg/kg	$1.6 \times 10^{-3}L$	4
				mg/kg	$1.1 \times 10^{-3}L$	270
			1,2-	mg/kg	$1.0 \times 10^{-3}L$	560
			1,4-	mg/kg	$1.2 \times 10^{-3}L$	20
				mg/kg	$1.2 \times 10^{-3}L$	28
				mg/kg	$1.6 \times 10^{-3}L$	129
				mg/kg	$2.0 \times 10^{-3}L$	1200
			+	mg/kg	$3.6 \times 10^{-3}L$	570
				mg/kg	$1.3 \times 10^{-3}L$	640
				mg/kg	0.09L	76
				mg/kg	ND	260
			2-	mg/kg	0.06L	2256
			a	mg/kg	0.1L	15
			a	mg/kg	0.1L	1.5
			b	mg/kg	0.2L	15
			k	mg/kg	0.1L	151
				mg/kg	0.1L	1293
			a,h	mg/kg	0.1L	1.5
			1,2,3-cd	mg/kg	0.1L	15
				mg/kg	0.09L	70
T6			pH		6.56	—
	0m-			mg/kg	21.9	60

0.2m		mg/kg	0.32	65
		mg/kg	2L	5.7
		mg/kg	37	18000
		mg/kg	173	200
		mg/kg	4.2	800
		mg/kg	0.028	38
		mg/kg	14	900
	*	mg/kg	1.14	70
		mg/kg	190	—
		mg/kg	$2.1 \times 10^{-3}L$	2.8
		mg/kg	$1.5 \times 10^{-3}L$	0.9
		mg/kg	$3 \times 10^{-3}L$	37
	1,1-	mg/kg	$1.6 \times 10^{-3}B6 v$	9
	1,2-			

			1,2-	mg/kg	1.0×10 ⁻³ L	560
			1,4-	mg/kg	1.2×10 ⁻³ L	20
				mg/kg	1.2×10 ⁻³ L	28
				mg/kg	1.6×10 ⁻³ L	129
				mg/kg	2.0×10 ⁻³ L	1200
			+	mg/kg	3.6×10 ⁻³ L	570
				mg/kg	1.3×10 ⁻³ L	640
				mg/kg	0.09L	76
				mg/kg	ND	260
			2-	mg/kg	0.06L	2256
			a	mg/kg	0.1L	15
			a	mg/kg	0.1L	1.5
			b	mg/kg	0.2L	15
			k	mg/kg	0.1L	151
				mg/kg	0.1L	1293
			a,h	mg/kg	0.1L	1.5
			1,2,3-cd	mg/kg	0.1L	15
				mg/kg	0.09L	70

7.5-3

		mg/kg PH							
		pH							
*T1 300m	2019.8. 9	5.40	3.16	36.8	75	24.7	146	49	9.97
*T2 300m		4.67	1.57	27.1	73	26.1	117	49	10.2
*T3 500m		4.66	1.60	37.9	87	21.6	173	60	9.95

7.5-2 7.5-3 T1-T4

GB36600-2018

T5 T6 *T1

300m

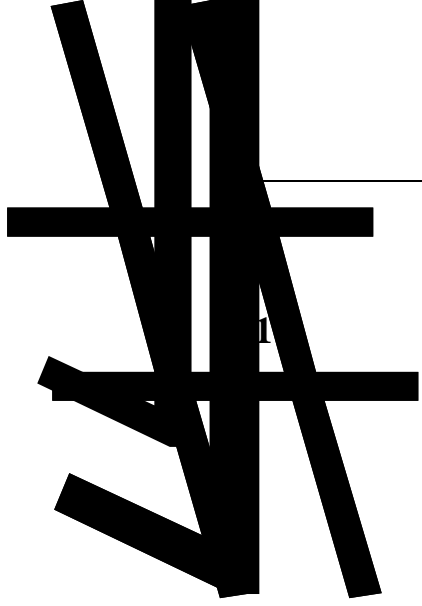
*T2

300m

*T3

500m

' *



8

3#

		—	<u>0.185</u>	<u>30%</u>	<u>0.1295</u>
		<u>HCl</u>	<u>0.185</u>		<u>0.1295</u>
	<u>DA027</u>	—	<u>12.617</u>	<u>60%</u>	<u>5.0468</u>
		—	<u>2.794</u>		<u>1.1176</u>
		—	<u>0.257</u>	<u>30%</u>	<u>0.1799</u>
		<u>HCl</u>	<u>0.257</u>		<u>0.1799</u>
	<u>DA009</u>	—	<u>13.629</u>	<u>60%</u>	<u>5.4516</u>
		—	<u>6.073</u>		<u>2.4292</u>
		—	<u>1.426</u>	<u>30%</u>	<u>0.9982</u>
		<u>HCl</u>	<u>1.426</u>		<u>0.9982</u>
<u>65#</u>	<u>DA056</u>	—	<u>4.752</u>	<u>30%</u>	<u>3.3264</u>
<u>pH</u>	<u>DA057</u>	<u>HCl</u>	<u>0.317</u>	<u>30%</u>	<u>0.2219</u>

8.2.1.2

1

HJ2.2-2018

HCl

2

HJ2.2-2018

AERSCREE

AERSCREE

8.2-4 AERSCREE

U 5 \$ T

	/km	-
	/°	-

3

AERSCREE

AERSCREE

AERSCREEN筛选计算与评价等级-筛选方案

筛选方案名称: 筛选方案

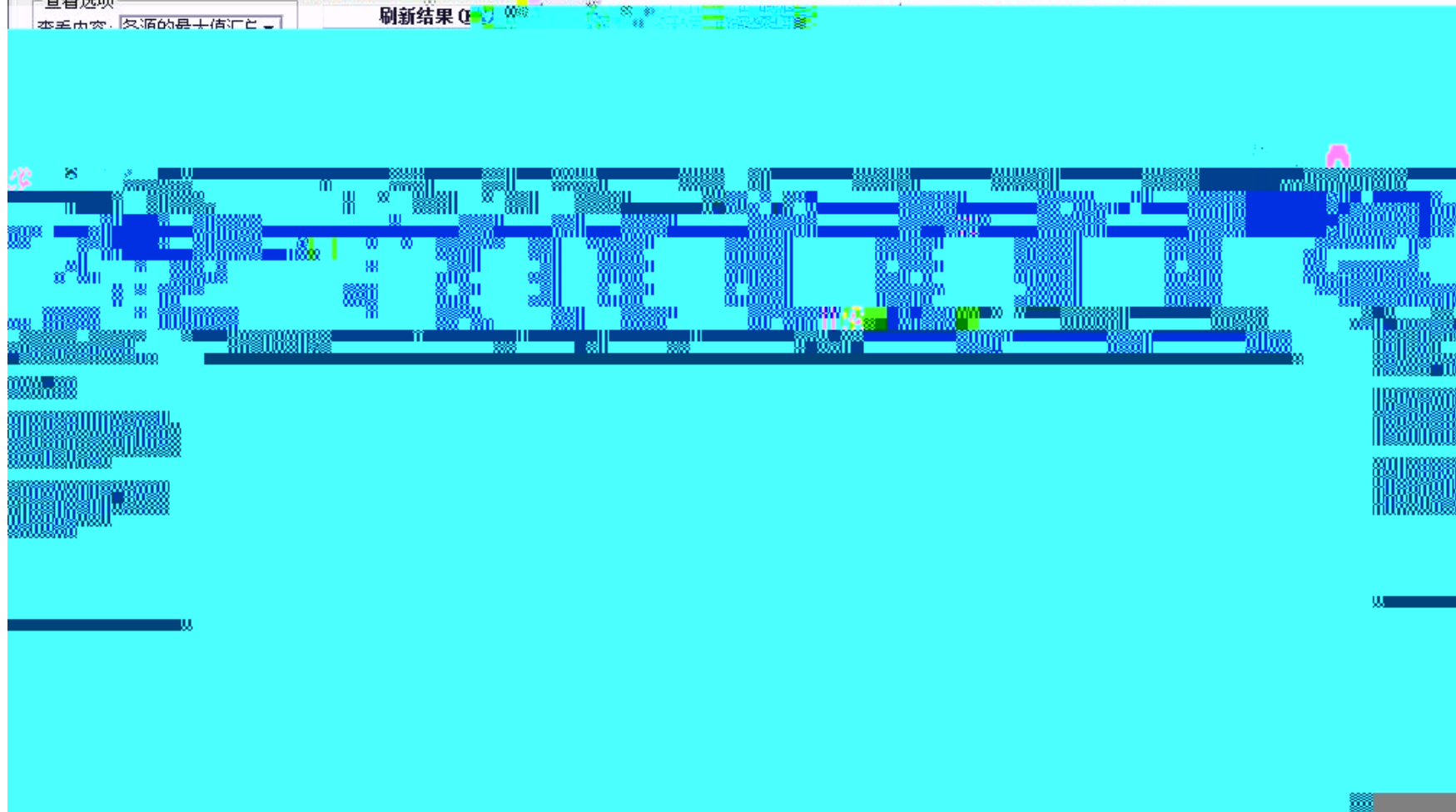
筛选方案定义 筛选结果

筛选结果: 已考虑地形高程。未考虑建筑下洗。AERSCREEN运行了 23 次(耗时2:4:25)。按【刷新结果】重新计算!

查看选项

查看内容: 各源的最大值汇总

刷新结果



8.2-5

$\mu\text{g}/\text{m}^3$

%

m

P_i 10% $D_{10\%}$ P_i

$$P_i = C_i / C_{oi} \times 100\%$$

P_i — i %

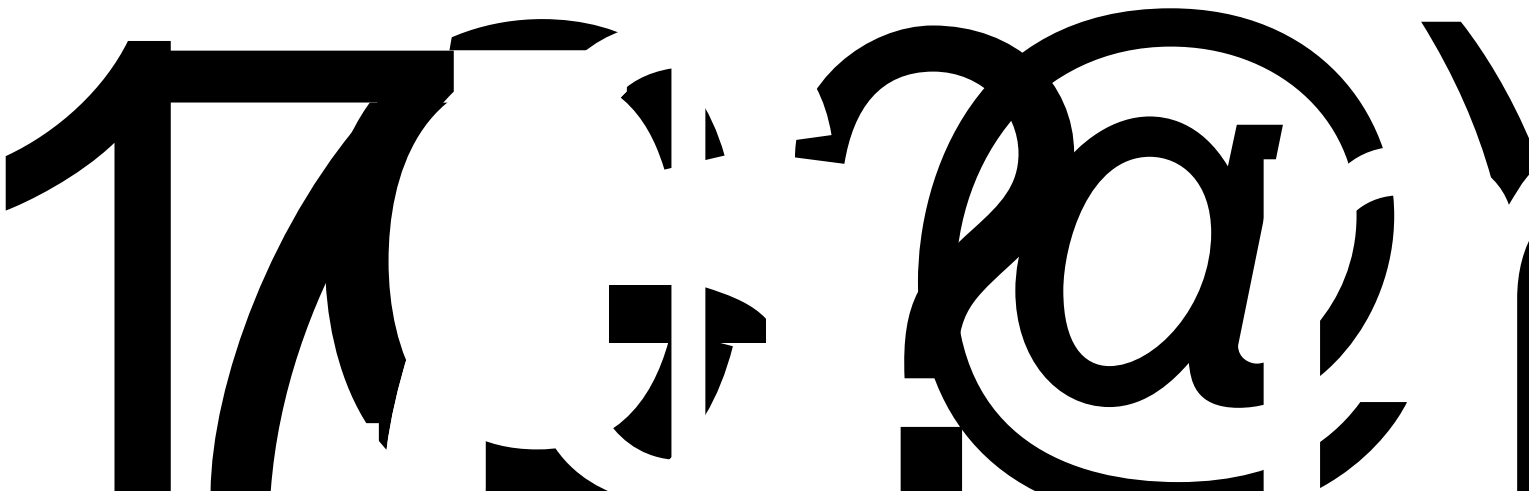
C_i — i mg/m^3

C_{oi} — i mg/m^3

8.2-7

	$P_{\max} < 10\%$
	$1\% < P_{\max} < 10\%$
	$P_{\max} < 1\%$

8.2-6 i \hat{e}



8.2.1.4

1

8.2-8

			(mg/m ³)	kg/h	t/a
1	DA007		3.39	0.051	0.403
2	DA008		4.037	0.061	0.48
3	DA011		4.037	0.061	0.48
4	DA012		4.037	0.061	0.48
5	DA010		0.637	0.011	0.091
			0.284	0.005	0.04
			0.13	0.002	0.019
		HCl	0.13	0.002	0.019
6	DA027		1.062	0.016	0.126
			0.235	0.004	0.028
			0.217	0.003	0.026
		HCl	0.217	0.003	0.026
7	DA009		0.956	0.017	0.136
			0.426	0.008	0.061
			1	0.018	0.143
		HCl	1	0.018	0.143
8	DA056		12	0.06	0.475
9	DA057	HCl	0.8	0.008	0.063
					0.353
					0.129
HCl					0.251
NH3					2.506

8.2-9

8.2.2

8.2.2.1

8.2-11

	m ³ /a	
+	36050	
	3000	
	2400	
	600	
	-	
	256866	

8.2.2.2

1

2.5×10⁴m³/d

2.5×10⁴m³/d

29.2km²

“

+

A²O+AO

+

+

+

+

”

GB3838-2002

10mg/L

GB8978-1996

8.2-15

		m ³ /a					
							/ mg/L
1	DW01	4.6			-	SS	10
						COD	30
						NH ₃ -N	1.5
							-
2	DW02	0.01			-		

8.2-16

				mg/L
1	DW01-DW02	pH	GB31573-2015 1	6~9
2		COD		200
3		SS		100
4		NH ₃ -N		40
5		Co		1.0
6			GB/T31962-2015 1A	500
7				400

8.2-17

			mg/L /	kg/d /	/ t/a
1	DW01	COD	40	5.576	1.84
2		SS	20	2.788	0.92
3		NH ₃ -N	30	4.182	1.38
4		Co	0.005	0.001	0.0002
5			150	20.909	6.9
6	DW02	SS	20	0.006	0.002
7		COD	40	0.012	0.004
8		NH ₃ -N	30	0.009	0.003
		COD			1.844
		SS			0.922
		NH ₃ -N			1.383
		Co			0.0002
					6.9

8.2.2.5

8.2.3

8.2.3.1

8.2.3.2

8.2.3.3

8.2.3.4

65#

1

100mg/L

2

- HJ610-2011

$$\frac{1}{2} \left(\frac{1}{2\sqrt{t}} \right) \frac{1}{2} \left(\frac{1}{2\sqrt{t}} \right) \quad 7-1$$

x— m

t— d

C—t x mg/L

C_0 — mg/L
 u — m/d
 D_L — m^2/d erfc()—

3

u

0.05m/d

x D_L
 “ = ”

20m $D_L=1m^2/d$

4

100 1000 5

8.2-20

(m)	(mg/L)		
	100d	1000d	5a
50	100	100	100
100	8.64012	61.20286	83.59877
150	0.3828876	23.87585	52.14999
200	0.01137653	6.665832	24.81061
250	0.000253946	1.437015	9.378646
300	4.54E-06	0.2514486	2.919578
350	6.75E-08	0.03696535	0.7698227
400	8.61E-10	0.004681236	0.1757244
450	9.60E-12	0.000520412	0.03532518
500	9.50E-14	5.15E-05	0.006340126
550	8.46E-16	4.60E-06	0.001027324
600	6.84E-18	3.74E-07	0.000151965
0.05mg/L			

5

100

200

1000

350

GB/T14848-2017

8.2.4

1

70 100dB(A)

Leaⁿ

Li— i

LA—

n—

4

8.2-22

			dB(A)
1		2	68.01
2		2	73.01

8.2-23

		m	dB A
1		1030	13.94
2		30	44.65
3		100	34.2
4		530	19.71

dB A

dB A

58	58	65	51	51	55
56	56.31	65	51	51.91	55
59	59.01	65	49	49.14	55
56	56	65	51	51	55

8.2.5

8.2-25

		t/a			
		1	HW08	900-249-08	
	☐	10	HW13	900-015-13	
		4.29	--	--	
		2.8			
		0.28	--	--	
		1	--	--	

1

150m²

GB18597-2001



8.2-26

—	—	—	—	—	—	—	—	—	—
1	—	—	HW0 8	900- 249- 08	—	150	—	100t	30d
2	—	—	HW1 3	900- 015- 13	—	150	—	100t	30d

2

HJ 2025-2012

8.2.6

8.2.6.1

8.2.6.1

8.2-26

8.2-27

8.2-26

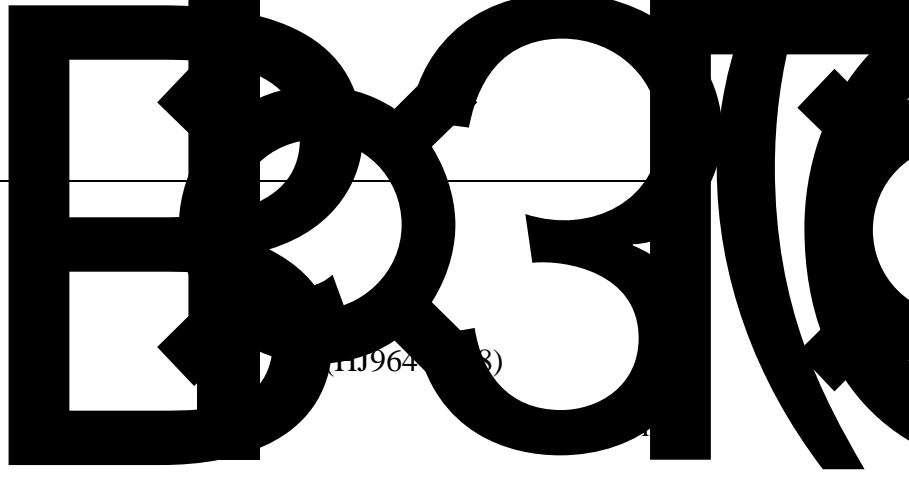
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			--
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“ ”

8.2.6.2



2



(HJ964-2018)

8.2.6.3

í ž É)ß³ ; ýAô' ° _ , l ž É)ß³ ÄB (HJ964-2018)

Û

1

$$\Delta S = \frac{n(I_s - L_s - R_s)}{(\rho_b \times A \times D)}$$

S——

g/kg

I_s——

g

L_s——

g

R_s——

g

ρ_b——

kg/m³

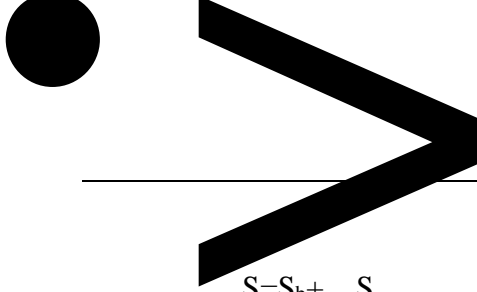
A——

m²

D——

0.2m

n



$$S = S_b + S$$

S_b —

g/kg

S —

g/kg

1

1350kg/m³

0.2m

2

200m

936000m²

3

30

4

8.2-28

1

g

000

2

m²

000

3

m/

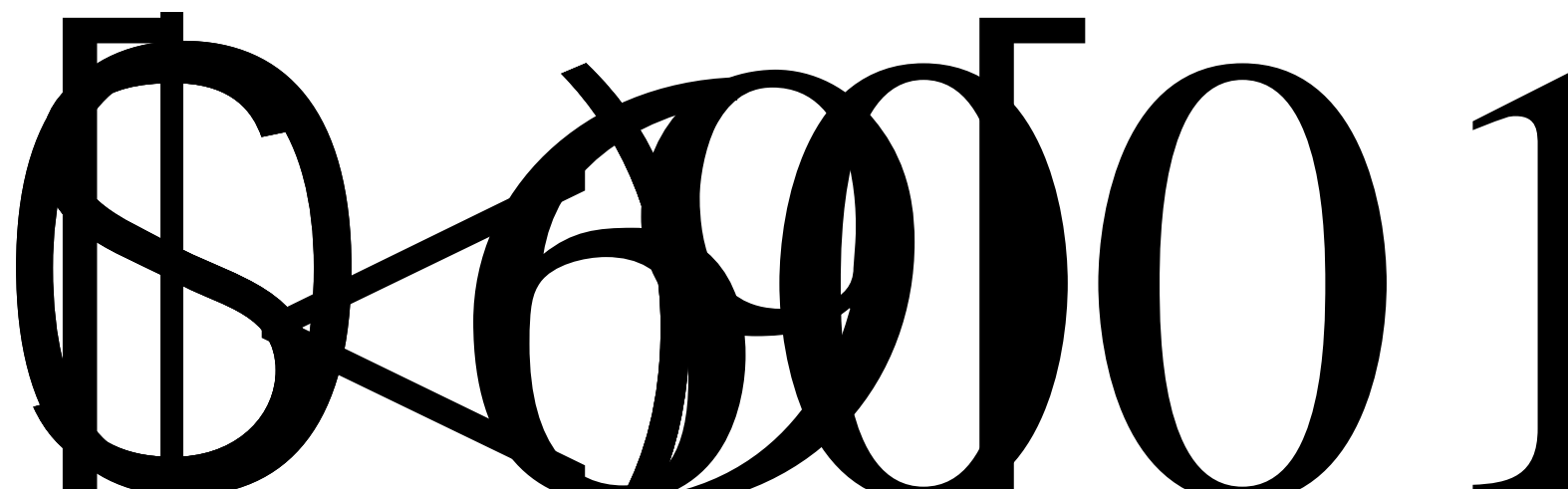
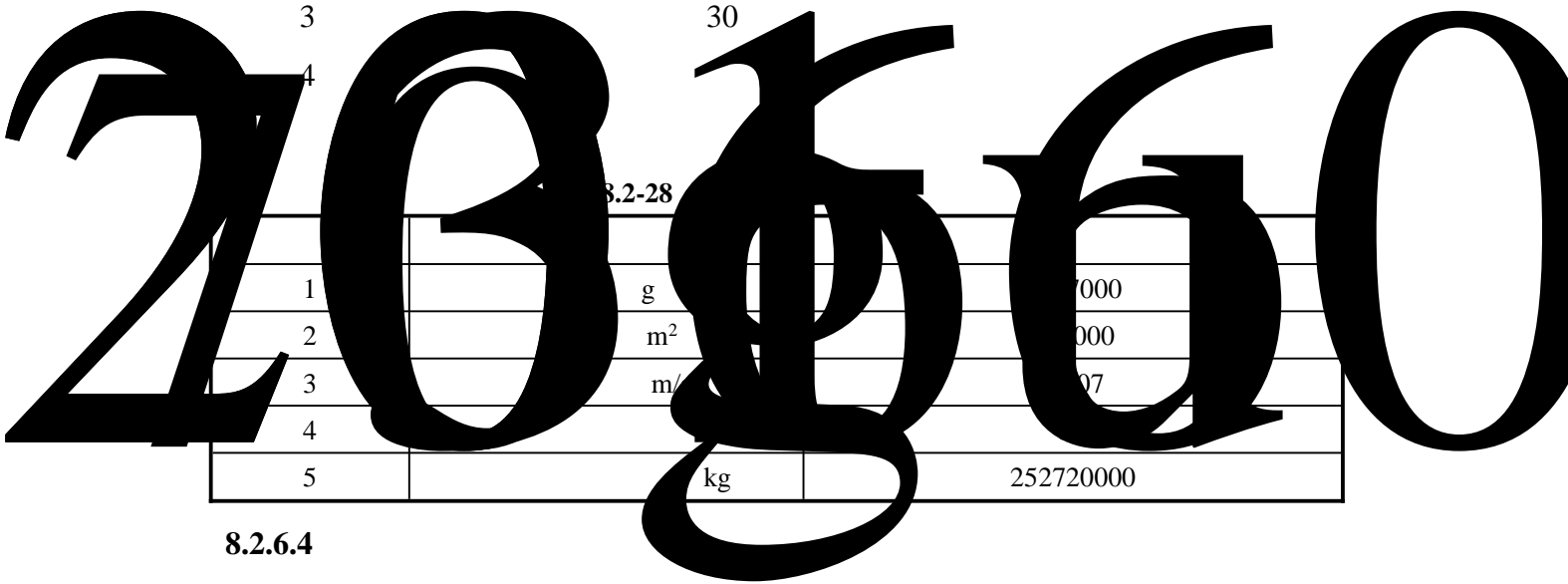
07

5

kg

252720000

8.2.6.4



GB36600-2018

9.1

9.1.1

9.1.1.1

P

1

Q

HJ169-2018

B

Q

$$\frac{1}{1} \quad \frac{2}{2} \quad \dots \quad \text{---}$$

q_1, q_2, \dots, q_n
 Q_1, Q_2, \dots, Q_{0m}

tW

LTJIN©

?
 4
 # -

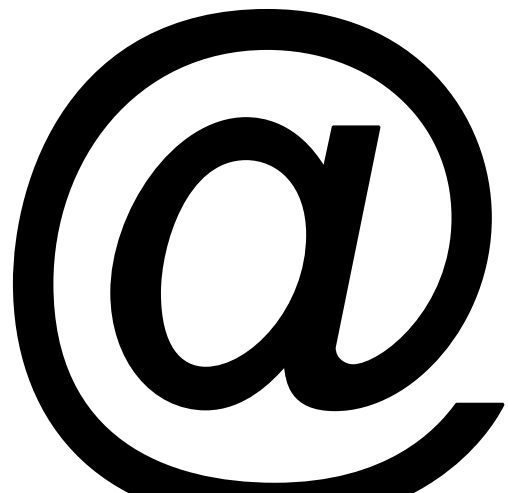
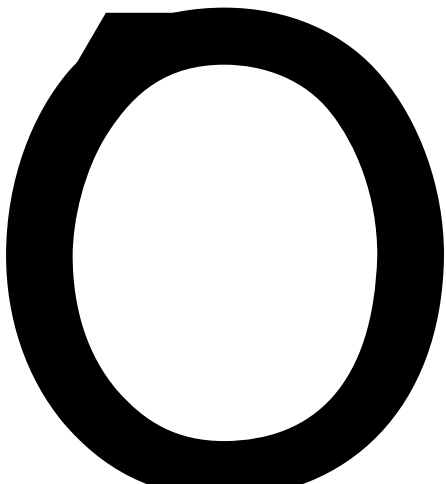
M 100', . # IP

o m 21e [v>]

y'

■ 2 H ■

4



<u>5 M 10</u>	<u>M3</u>		
<u>M=5</u>	<u>M4</u>		

M M3

3 P

P

9.1-4

P

<u>Q</u>	<u>M</u>			
	<u>M1</u>	<u>M2</u>	<u>M3</u>	<u>M4</u>
<u>Q 100</u>	<u>P1</u>	<u>P1</u>	<u>P2</u>	<u>P3</u>
<u>10 Q < 100</u>	<u>P1</u>	<u>P2</u>	<u>P3</u>	<u>P4</u>
<u>1 Q < 10</u>	<u>P2</u>	<u>P3</u>	<u>P4</u>	<u>P4</u>

P P1

9.1.1.2

E

E1

E2

E3

1

9.1-5

E1	5		5	500	
	1000		200m		
	200				
E2	5		1	5	500
	500	1000			200m
		100	200		
E3	5		1	500	
	500		200m		
	100				

500

500

1000

	1	5	E2
2			

9.1-6

F1	24h
F2	24h
F3	

F3

9.1-7

S2

S3

9.1-8

	F1	F2	F3
S1	E1	E1	E2
S2	E1	E2	E3
S3	E1	E2	E3

F2

S3

E3

3

9.1-9

G1	
G2	
G3	

G3

9.1-10

D3

Mb 1.0m K 1.0×10^{-6} cm/s

D2

0.5m Mb 1.0m K 1.0×10^{-6} cm/s
Mb 1.0m 1.0×10^{-6} cm/s K 1.0×10^{-4} cm/s

D1	"D2" "D3"
----	-----------

0.5m Mb<1.0 $1.0 \times 10^{-6} \text{cm/s} < K$ $1.0 \times 10^{-4} \text{cm/s}$

D2

9.1-11

	G1	G2	G3
D1	E1	E1	E2
D2	E1	E2	E3

E1

9.1.2

1

HJ169-2018

9.1-14

+

				-	2
3	20%	35	1336-21-6	/	1B / 1 - 3 - 1
4		1734		2*	1 - 2 - 2
5	2000mg/L			-	2

9.2.2

_____ 1# 9# _____

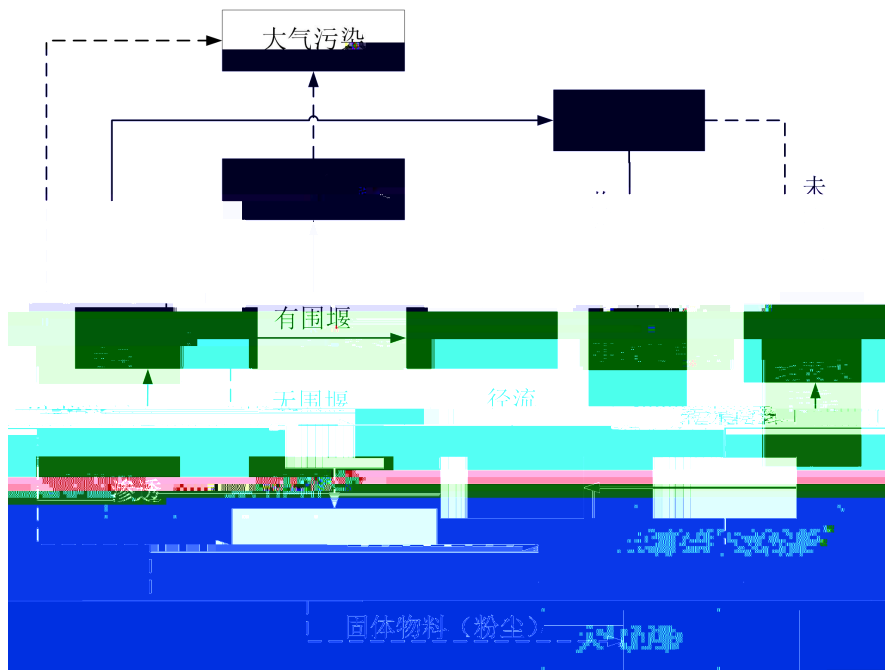
9.2-2

		4	20	/	
		10	/	/	/
		2	/	/	/
6#	25m ³				
	10m ³				
	200m ³	1		+	

9.2.3

/

/



9.2-1

/

/

/

/

SO₂ CO

5

9.3
9.3

1



2

9.3-1

/ / /	10mm 10min	1.00×10 ⁻⁴ /a 5.00×10 ⁻⁶ /a 5.00×10 ⁻⁶ /a
	10mm 10min	1.00×10 ⁻⁴ /a 5.00×10 ⁻⁶ /a 5.00×10 ⁻⁶ /a
	10mm 10min	1.00×10 ⁻⁴ /a 1.25×10 ⁻⁸ /a 1.25×10 ⁻⁸ /a
		1.00×10 ⁻⁸ /a
75mm	10%	5.00×10 ⁻⁶ / m·a 1.00×10 ⁻⁶ / m·a
75mm 150mm	10%	2.00×10 ⁻⁶ / m·a 3.00×10 ⁻⁷ / m·a
150mm	10% 50mm	2.40×10 ⁻⁶ / m·a * 1.00×10 ⁻⁷ / m·a
TNO Guidelines for Quantitative Reference Manual Bevi Risk Assessments * International Association of Oil & Gas Producers Risk Assessment Data Directory (2010,3)		

9.3-2

	min	max
1	5.0×10 ⁻⁶	5.0×10 ⁻⁵
2	1.0×10 ⁻⁶	1.0×10 ⁻⁴
3	9.5×10 ⁻⁶	



	1949-1982		13440	
				17
				19
	13440	261 (1.94%)	1056 (7.86%)	
	505 (3.76%)	828 (6.16%)		6165
(45.87%)	1076 (8.00%)		651 (4.84%)	
784 (5.83%)		138 (1.03%)		40 (0.29%)
	57 (0.42%)			

	95	1987	20--25
	47.8%		27.6%
			18.8%
8.2%		33.0%	23.1%
34.2%		34.2%	22.8%
90			

2

3

1×10^{-5}

1×10^{-5}

8.33×10^{-5}

1 _____

HJ169-2018 F

$$\sqrt{\frac{2}{0.2}}$$

Q₀ _____ kg/s

P _____ 10⁵Pa

P₀ _____ 10⁵Pa

g _____ 9.8m/s²

_____ F.1 0.5

_____ 8×10⁻⁵m²

2 _____

Q₃

$$\frac{3}{0} \frac{(2)(2)}{(4)(2)}$$

Q₃ _____ kg/s

n _____

p _____ Pa

R _____ J/mol·K

T₀ _____ K

u _____ m/s

r — m

19.82kg/s

0.0209kg/s

17.84kg/s

0.066kg/s

HJ169-2018 G

SLAB

9.3-5

/(^o)

112.5845

/(^o)

28.3238

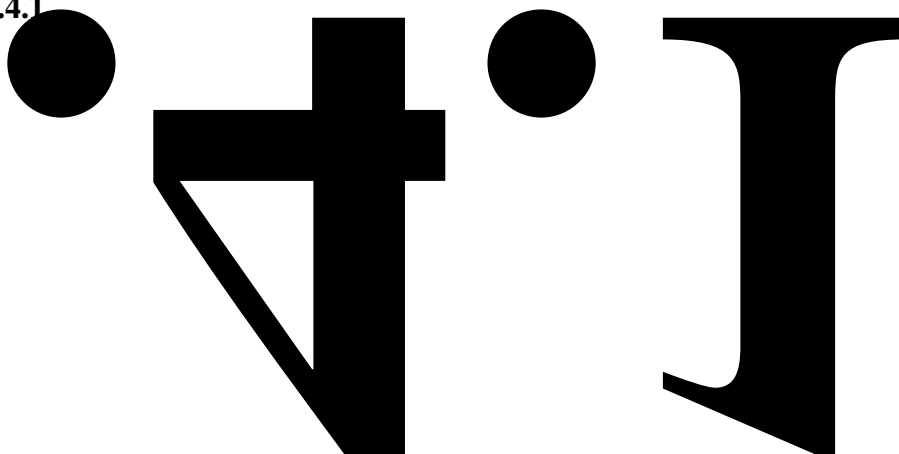
	$\frac{25}{50\%}$ $\frac{1.5\text{m/s}}{F}$
5060	5.7469E-01



5.0761E+02mg/m ³	-1 150g/m ³
45m	-2 33mg/m ³
150m	-1
-2	
3	
4	
1.5m	

9.4

9.4.1



2

1

2

9.4.2.2

1 4200m³

1 5800m³

9.4.3

9.4.3.1

1

2 /

3 /

4

5

6

7

8

9

10
11
12

↓ 0%

9.4.3.2

1

2

9.4.3.3

! !

! 0B ! A

10

10.1

DV0_Δ

10.2

10.2.1

10.2.1.1

HCl

10.2-1

	m ³ /h	m
DA007	15000m ³ /h	D-0.8m h-15m T-30
DA008	15000m ³ /h	D-0.8m h-15m T-30
DA011	15000m ³ /h	D-0.8m h-15m T-30
DA012	15000m ³ /h	
DA010	+ 20000m ³ /h	D-0.8m h-15m T-30
DA027	+ 5000m ³ /h	D-0.6m h-15m T-30
DA009	+ 20000m ³ /h	D-0.8m h-15m T-30
65# pH DA056	5000m ³ /h	D-0.5m h-15m T-30
DA057		

\$a+\$

	DA084	15000m ³ /h	D-0.5m h-15m T-30
--	-------	------------------------	----------------------

10.2.1.2

1

HCl

pH

HCl

GB31573-2015 3

2

pH

MVR

pH

MVR

GB31573-2015 3

20 mg/

GB31573-2015

+

10.2.1.3

15m

GB31573-2015

15m

GB31573-2015

15m/s

HJ2000-2010

10.2.1.4

HCl

1

+

2

3

10.2.2

10.2.2.1

1



10.2-2

1

1220m³/d

+
+

+

+

10.2-3

								/	
				1	2	3	4		
W3	2020.02.14			5.70	5.72	5.78	5.59	5.70	—
	2020.02.15		mg/L	5.70	5.69	5.70	5.72	5.72	
W4	2020.02.14			0.01L	0.01L	0.01L	0.01L	0.01L	1
	2020.02.15		mg/L	0.01L	0.01L	0.01L	0.01L	0.01L	
		%		99.8					

+MVR

COD

COD

COD

65#

1220m³/d

267m³/d

1220m³/d

10.2-4

	m ³ /d	m ³ /d	
	667m ³ /d	600m ³ /d	
	267m ³ /d	1220m ³ /d	

10.2.2.3

"

"

Q

_____	<u>1.0</u>	<u>0.01</u>	<u>0.005</u>	<u>0.01</u>	<u>0.02</u>	<u>0.05</u>	<u>0.10</u>	
_____	—	—	—	—	—	—	—	

GB/T 14848-2017 1

10.2.4

1

2

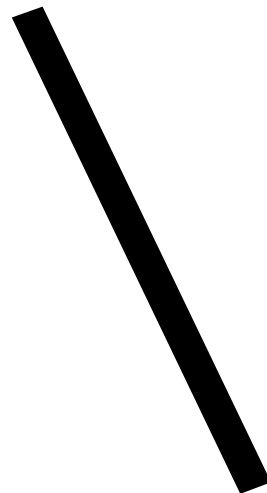
3

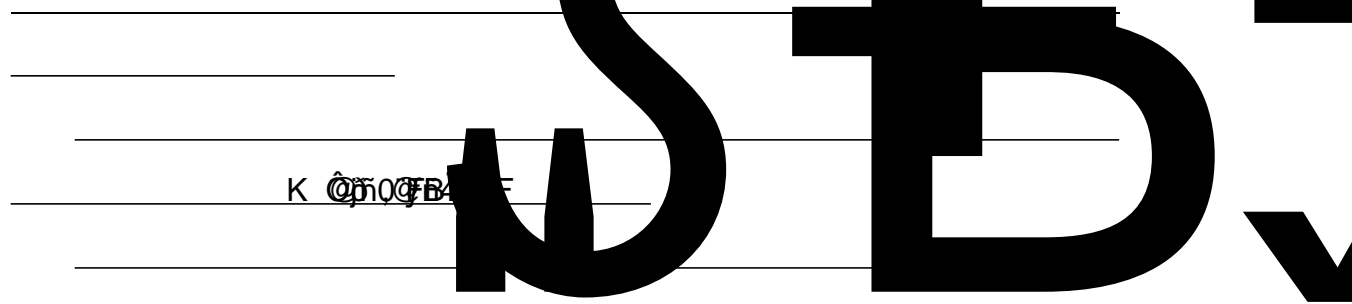
4

GB18597-2001

1

/





K OTCB E

10.2.6

10.2.7

1	1	4200m ³	1
5800 m ³			
2	1	200m ³	

11

11.1

	2019	4
	2	

11.2

1

2781.58 (206.65)

()

493.79

2

“

”

11.5

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“

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“

”

1

2013 1

2

“

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11.6

“ ”

“ ”

2020 11

11.6-1

“ ”

120101165

[2013]296

12017124

2018 4

1.1

1.2

1.3

2.1

2.1.1

2.1.2

2.2

2.2.1

	3.3		
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“ ”

11.6

11.7

11.7.1

3

11.7.2

11.7.3

11.8

“ ”

12

) () ()

12.1

2820 56.4%

12.1-1

					()
		1	+1 15m		0
			DA007		
		1	+1 15m		0
			DA008		
	1	1	+1 15m		0
			DA011		
		1	+1 15m		0
			DA012		
1		3	+ +3		
		15m	DA010 DA009		10
			DA027		
	4	1	+1 15m		
			DA056 ,		
		HCl 1	+1 15m		5
			DA057		
	4#	HCl 1	+1 15m		
			DA085		5
			+1 15m	DA084	
			1	4	
				d	2800
2		+			
					0
		.			

3

0

0

4

0

0

0

5

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†

3

4

5

12.4

“ ”

13.1

13.1.1

13.2

13.2-1

	1 2		

13.3

13.3.1



		HCl NH ₃		GB31573-2015 GB14554-93
		pH SS COD		GB31573-2015
		pH SS COD		
		A		GB12348-2008 3

2

13.3-2

	G1	VOCs HCl				
	G2 500m	NH ₃				
	T1 65#	pH				
	T2 65#					
	T3 65#					
	D1	pH				
	D2					
	D3					
	D4					
	D5					

13.3.3

1



2 Å

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È

A

3

*600,ÀÊË•R10%È>|- CXx 2R,,P@ 5%È2@ôÑAPGÿ

13.4.2

GB15562.1~2-95

1

2

2

3

13.4-1

13.4-1



				
--	--	---	--	--

13.4.3

1

2

13.5

5 + 5 10
4 5 10

[2017]4

“

13.5-1

1 4 +1 15m
2 +2 15m
9*

		4200m ³ 5800m ³ 200m ³ 1800m ³ 100m ³	

14

14.1

14.1.1

	1	10000t/a		14000t/a
		1	3#	2 10kV
1	1		1	51#
43593.71m			6809.19m	

5000	2820	56.4%
------	------	-------

14.1.2

1					
	2020				
			HCl		
		HJ2.2-2018	D		
2					
		3	pH	COD	NH ₃ -N
GB3838-2002	1				
		GB3838-2002	2	3	
				GB5084-2005	1

!

"D

3

5

7

GB/T 158-2017

4

GB3096-2008

5

+

X

GB36600-2018

GB15618-2018

{r@ B}

/

{b@D@#%@#p@z@

14.1.3

1

4

GB12348-2008 3

5

100%

14.1.4

HJ169-2018 B

Q Q 100

14.1.5

1

2019

4

2

2

e

3

14.1.6

n

ž

n

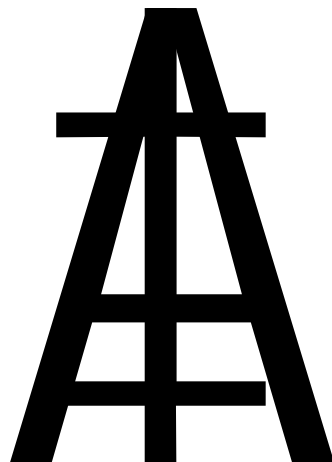
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