
4.2		128
4.3		134
4.4		142
		145
4.6		146
4.7		146
4.8		147
5.1		148
5.2		149
5.3		149
5.4		150
5.5		151
5.6		156
5.7		156
5.8		158
6.1		159
6.2		159
6.3		160
7.1		162
7.2		167
7.3		169
7.4		172

8.5		188
8.6		188
8.7		190
8.8		190
8.9		190

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7 190

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11 S103

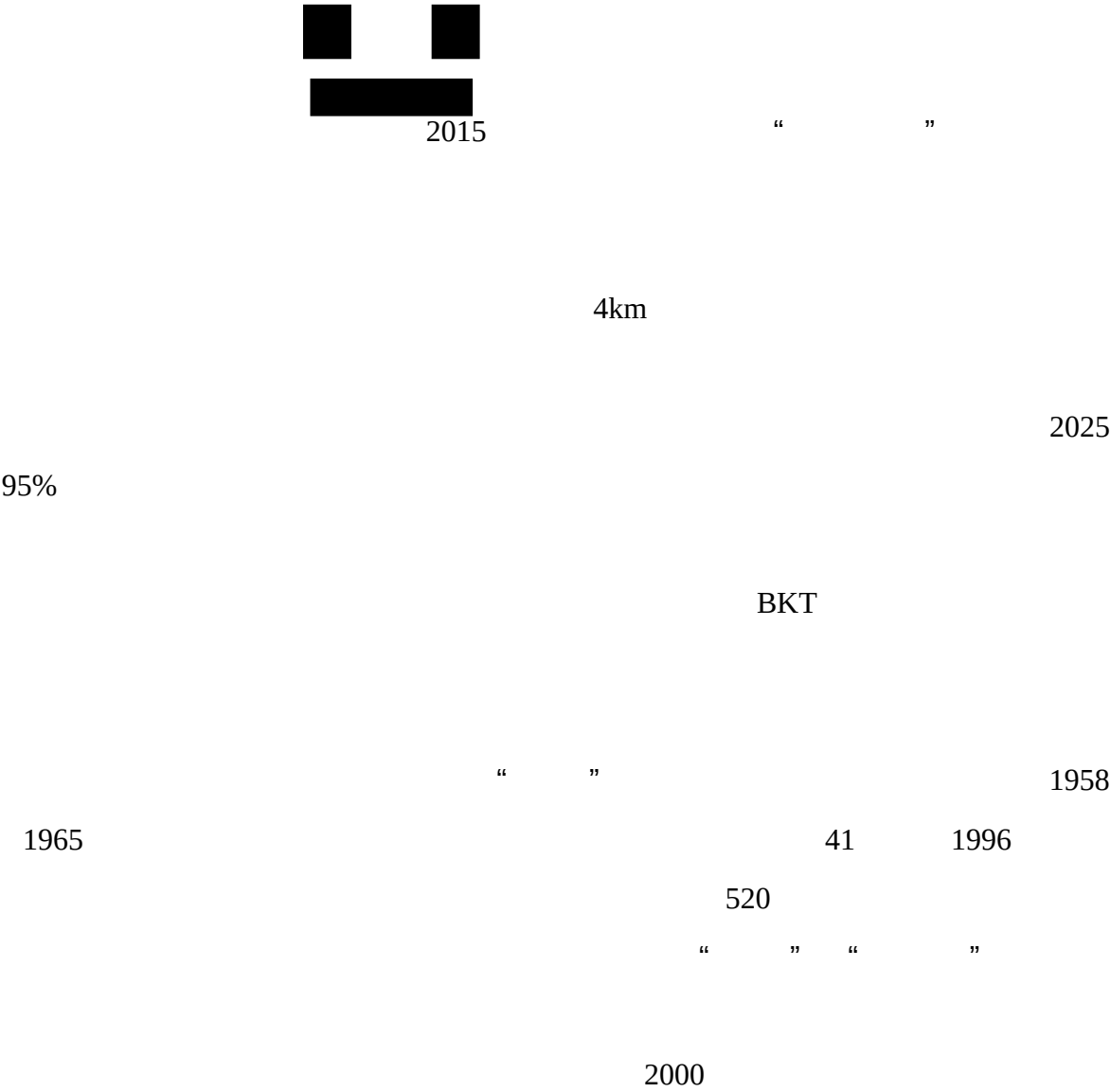
12

13

14

15

16





153hm²

1280

250



μ

“ ”

“ ” 13 88 ”

2 1#

4 2# 7 3#

6 7 2.6

0.4 2.2

25.4 324.2

2019 7 23

2019-520123-29-03-204676

3458.28 8

3#

682

1 “ ” “

” “ 46 ” “

2019 8 28

9

2019 8

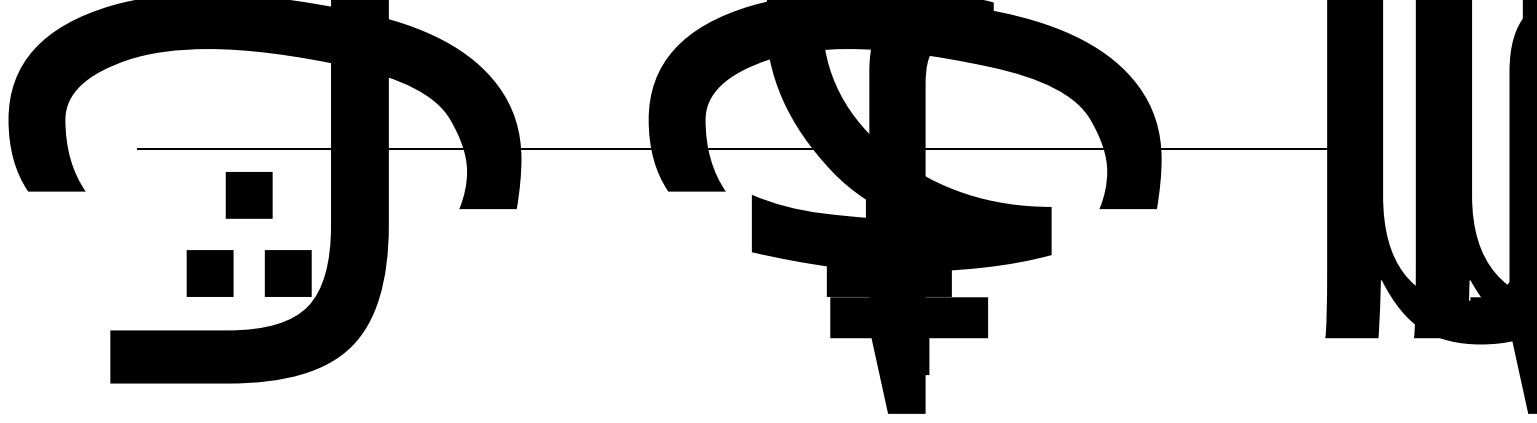
2019 9



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2012 7

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m A

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2015 1 1

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2018 12 29

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2017 6 27

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2018 10 26

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2018 12 29

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2016 11 7

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2019 1 1

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2016 7 2

9

2010 12 25

10

2014 7 29

11

2016 2 6

12

2018.10.26

13

2015 4 24

14

2014 7 29

15

2000 3 20

16				2011	1	8		
17						2016	2	6
18				1996	9	30		
19			2014	12	1			
20			2016	7	2			
21			2009	1	1			
22					2013	37		
23					2015	17		
24					2016	31		
25							2005	39
26								
2012	2							
27				2017	6	21		682
1								2000
38								
2								2001 19
3							1	2018 4
28								
4							4	2019 1 1
5								
2018	48	2018	10	16				
6								2011
150								
7								2012
77								
8						2016	39	
9	“	”						2016

95

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2018

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[2010]

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9

22

2010

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3

1998 52

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2012 11

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2012 19

6

2016

32

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<

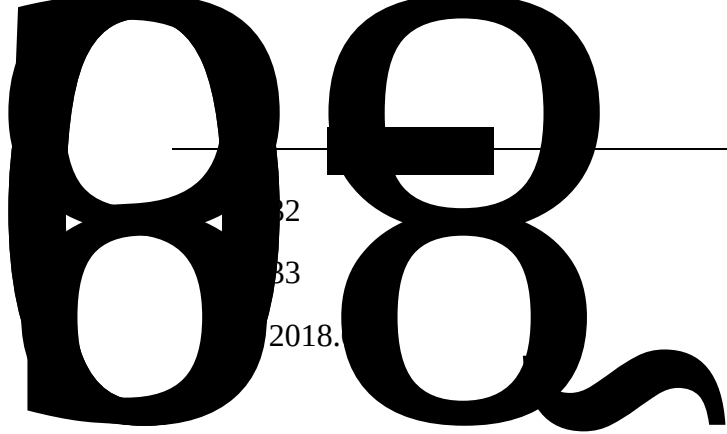
>

2018 16

8

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'



32	[2010]16	2010.11.7
33		2018 16
2018.		
1	HJ2.1-2016	
2	HJ2.2-2018	
3	HJ2.3-2018	
4	HJ2.4-2009	
5	HJ610-2016	
6	HJ1.9-2011	
7	HJ169-2018	
8	HJ 964-2018	
9	GB50433-2008	
10	HJ/T91-2002	
11	HJ/T94-2005	
12	HJ/T90-2004	
13	HJ/T 192-2015	
14	3012008 GB50434-2008	
15	GB3096-2008	
16	GB 3838-2002	
17	GB 3095-2012	h G

1

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6

7

		III	
GB3838-2002	III		
		III	
GB/T14848-2017	III		
			2
2			

1

HJ2.3-2018 H

1.5-4

		kg/a	m	m	m
		5.61	10	50	20
		1.20			
		30.83	10	11	5.5
		6.61			

1.5-5

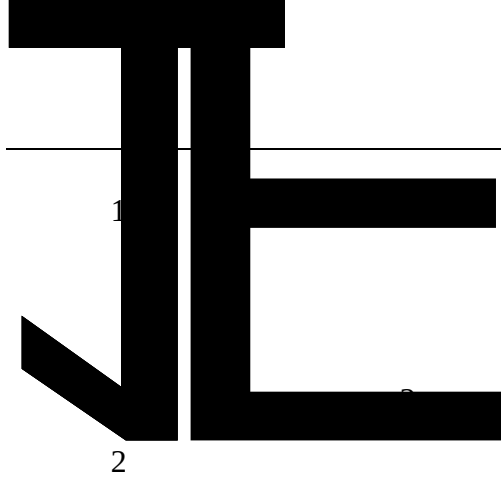
/

/

77544

35.4°C

-1.9°C



1

HJ2.2-2018

GB3095-2012

2

<3dB A

HJ2.4-2009

ç J ;

1.5-8

	I			II			III		
									-
							-		-
“ _ ”									

HJ 964-2018A“ ”

“ ”III

153hm²

1.5-9

	Pi	1.97%	1%	10%
	2			
	3dB A			
				B
	II			
	III			

1.5-102

3

	1,4- + 2- [a] [a] [b] [k] [a,h] [1,2,3-cd]		+ 2- [a] [a] [b] [k] [a,h] [1,2,3-cd]
--	---	--	--

“

“ ”

2019 42 ”

10

1

III

GB3838-2002 III 1.6-1

1	pH	6 9
2	COD	≤20
3	BOD ₅	≤4
4	SS	≤30*
5	NH ₃ -N	≤1.0
6		≤0.2
7	TP P	≤0.2
8		≤0.2
9	F ⁻	≤1.0
10		≤0.05
11	/L	≤10000
“ * ” SL63-94		

1	pH	6.5 8.5
2	N mg/L	≤0.5
3	* COD _{MN} O ₂ mg/L	≤3.0
4	mg/L	≤1000
5	mg/L	≤450
6	mg/L	≤0.05
7	N mg/L	≤20.0
8	N mg/L	≤1.00
9	mg/L	≤0.002
10	MPN/100L	≤3.0

GB3095-2012

1.6-3

		24	300	
8	*		2	mg/m ³
P244				

2 GB3096-2008 2
1.6-4

	60	50	2

GB36600-2018 1.6-5

1		60	140
2		65	172
3		5.7	78
4		18000	36000
5		800	2500
6		38	82
7		900	2000
8		2.8	36
9		0.9	10
10		37	120
11	1,1-	9	100
12	1,2-	5	21
13	1,1-	66	200
14	-1,2-	596	2000
15	-1,2-	54	163
16		616	2000
17	1,2-	5	47
18	1,1,1,2-	10	100
19	1,1,2,2-	6.8	50

20		53	183
21	1,1,1-	840	840
22	1,1,2-	2.8	15
23		2.8	20
24	1,2,3-	0.5	5
25		0.43	4.3
26		4	40
27		270	1000
28	1,2-	560	560
29	1,4-	20	200
30		28	280
31		1290	1290
32		1200	1200
33	+	570	570
34		640	640
34		76	760
36		260	663
37	2-	2256	4500
38	[a]	15	151
39	[a]	1.5	14
40	[b]	15	151
41	[k]	151	1500
42		1293	12900
43	[a,h]	1.5	15
44	[1,2,3-cd]	15	151
45		70	700
			3.6
A			

GB27632-2011 2

GB/T19923-2005 1.6-6

1	pH	6~9	6.5~9.0	
2	COD	70		
3	BOD ₅	10	10	
4	SS	10	30	
5	NH ₃ -N	5	10	
6	TP	0.5	1.0	
7	TN	10	10	
8		1	1.0	
9	m ³ /t	7	/	

GB16297-1996

2

GB 27632-2011 5 6

GB 37822-2019

GB14554-93 1.6-7~1.6-10

		mg/m ³
TSP		1.0

mg/m³ m³/t

GB 2763 Ⅳ6

		mg/m ³		
37822-2019	GB	10	1h	
		30		

mg/m³

1.7-2

1.7-2

4

			m		
		200	S	40-300	GB3095-2012
		50	W	50-300	
		350	N	30-300	
		70	S	40-200	GB3096-2008 2
		20	W	50-200	
		130	N	30-200	
		“ ”	SE	220	GB3838-2002 III
		0.19m ³ /s III	W	70	
		1.28m ³ /s III	WN	2000	
		5~7L/s · km ²	---	---	GB/T14848-2017 III
			S	100	
			WS	1200	
			E	1600	
		6 132	N	1600	
		5 350	NE	2300	

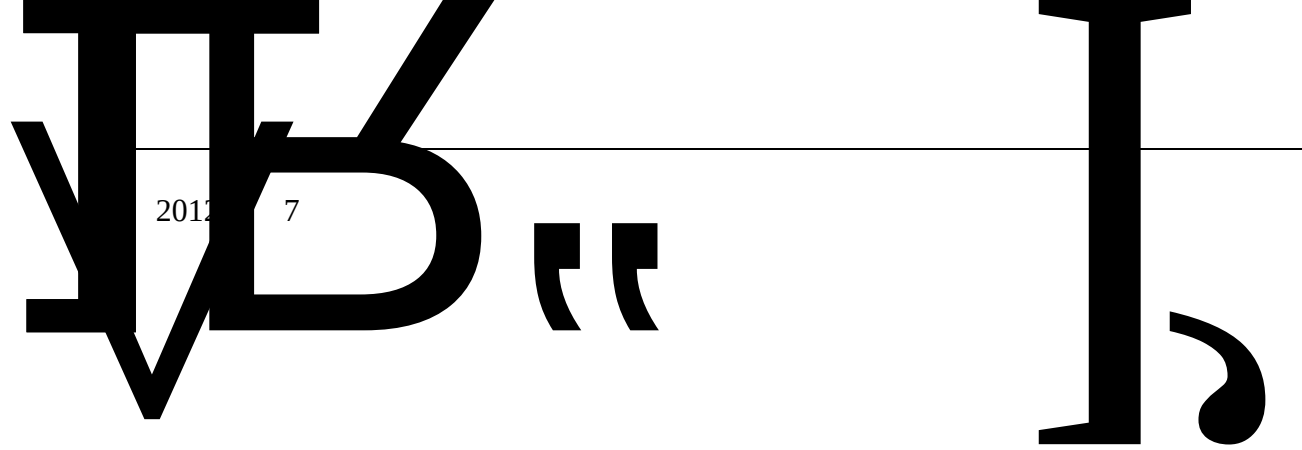


100 NE 3000

■ 3
178 NE 3500

%..

E



2012 7

2018 16

2017

5

2018 16

2018 303

1958

1996

A “ ”

42.34 m²

46 m² 65% 1.09 7763 1588

91

4 20t

2017 3 2015 6

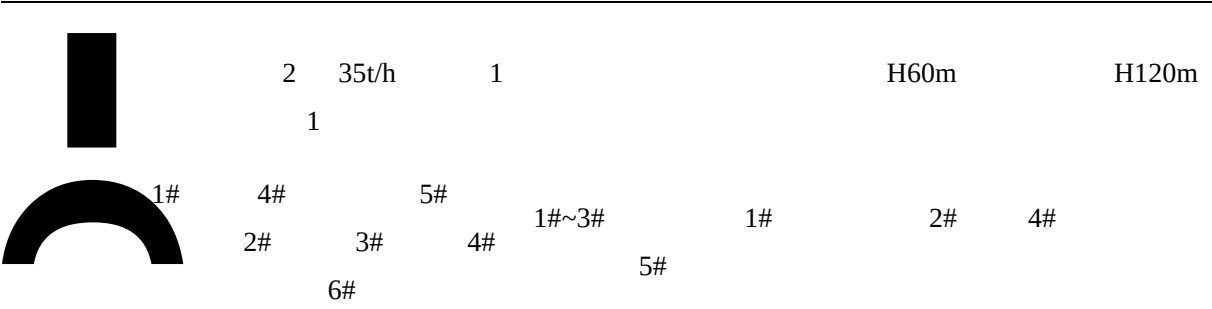
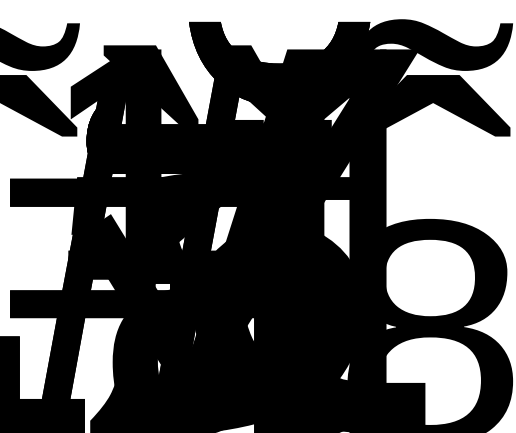
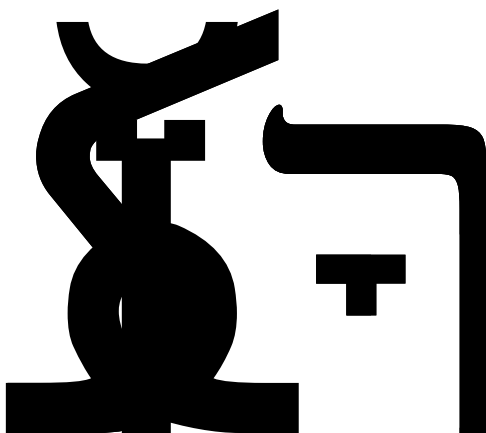
2019 5

2020 12

2015

2020

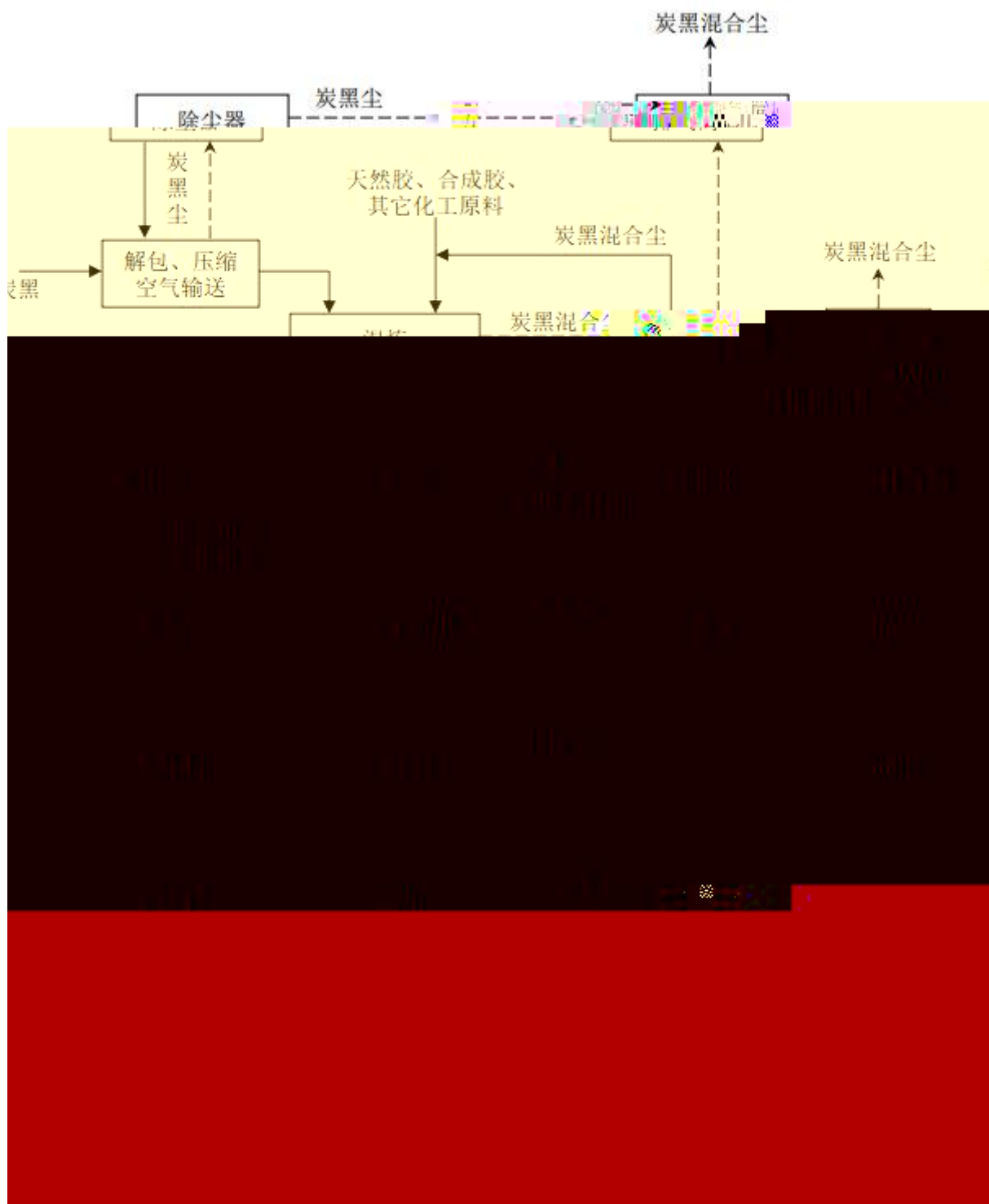
12



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2.1-1



× p × ÂoW

	26	325	490 190 300	841
2018	20	310	20	350
	25	322	/	347
	1	3	/	4
				/

2.1-3~ 2.1-6

2.1-7~ 2.1-10

2.1-11~ 2.1-14

			[dB A]	m		[dB A]	
		12	85	5		≤65	
		40	85	5		≤65	
		15	85	5		≤65	
		4	85	5		≤65	
		8	85	5			
2#		9	85	10		≤65	
		18	85	25		≤65	

/		
t/a	t/a	t/a
16183	16183	0
17963	17963	0
14530	14530	0
2089	2089	0
1358	1358	0
200	200	0

	m³/h												
			mg/m³	kg/h	m	m	m				mg/m³	kg/h	
3#	148896		2	0.3	25/12	22	0.5	50	12	η=99%		12	1.87
	643896	NMHC	9	5.69	25/12	22	1	60	-			10	31.4
			5000						1			5000	
	150000	NMHC	3.5	0.53	8/24	10	1	60	-			10	2.2
	250000		37	9.18	1/-	60	3	65	η=99%			80	/
		SO ₂	343	85.70					η=76.67%			550	/
		NOx	230	57.50								400	/

		m³/d	kg/d	mg/L	m³/d	kg/d	mg/L		
	BOD ₅	849.01	84.90	100	409.01	4.09	10		
	COD		169.80	200		24.54	60		
	SS		152.82	180		4.09	10		
			4.25	5		0.41	1		
	NH ₃ -N		6.79	8		2.05	5		

			[dB A]	m		[dB A]	
		12	85	5		≤65	
		40	85	5		≤65	
		15	85	5		≤65	
		4	85	5		≤65	
		8	85	5			
		9	85	10		≤65	
		18	85	25		≤65	

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		m³/h													
				mg/m³	kg/h	mg/m³	kg/h		mg/m³	m³/t	/	m	m	m	
		220000		200	44	2	0.44	η=99%	12	2000	22/16	21	0.5	50	
		770000	NMHC	10	7.7	10	7.7	-	10	2000	22/16	21	1	60	
				10000		4000		η=60%	4400						
		500000		3673	1836.38	37	18.36	η=99%	50	-	1	120	3.5	65	
			SO ₂	2449	1224.25	300	149.85	η=79.6%	300	-					
			NO _x	230	115	230	115		300	-					
		24000		15	0.36	2	0.05	87%	2	-	-	-	-	25	

		m ³ /d	kg/d	mg/L		kg/d	m ³ /d	kg/d	mg/L	m ³ /d	kg/d	mg/L	
	BOD ₅	1108.56	110.86	100		100.37	365	3.65	10	683.56	6.84	10	GB27632-201 1 2
	COD		221.71	200		158.80		21.90	60		41.01	60	
	SS		199.54	180		189.06		3.65	10		6.84	10	
			5.54	5		4.49		0.37	1		0.68	1	
	NH ₃ -N		8.87	8		3.63		1.83	5		3.42	5	

		[dB A]	m		[dB A]	
	33	85	10		≤65 ≤55	
	3	85	5		≤65 ≤55	
	21	85	5		≤65 ≤55	
	22	85	25		≤65 ≤55	

		t/a		/ t/a	t/a	
		15884		15884	0	
		17630		17630	0	
		14199		14199	0	
		12822		12822	0	
		1955		0	1955	
		150		150	0	
		1155	-	-	1155	

190

2.1-15

2.1-15

190

2.1.2.7

风管系统

3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

CMD-100
6000-18000m³/h
CMD-9F
540-1620m³/h
CMD-100
600-18000m³/h
24m
1 DCM60 20
DCM6
540-/ 5

风管系统

			60m	37.9kg/h 20.4mg/m ³ 0.9k/h	GB13271-2014 1
				0.1mg/m ³ 0.0008kg/h	GB18483-2001
			2400m ³ /d 680m ³	PH 7.61~7.74 TN 5.70mg/L 0.16mg/L SS9mg/L BOD ₅ 6.0mg/L COD 14mg/L TP 0.27mg/L NH ₃ -N 0.157mg/L	GB27632-2011 2
				/	
				53.1dB A ~59.6dB A 46.6dB A ~48.8dB A	GB12348-2008 2
			H22m	B11-1 TSP 6.6mg/m ³ 0.68mg/m ³	GB27632-2011 5 TSP 12mg/m ³ 10mg/m ³
				B11-2 TSP 3.7mg/m ³ 0.61mg/m ³	
				B10-1 TSP 7.4mg/m ³ 0.58mg/m ³	

			B10-2	TSP 2.9mg/m ³	0.45mg/m ³		
			B9	TSP 4.9mg/m ³	0.27mg/m ³		
H23m	11		B5	TSP 5.7mg/m ³	0.32mg/m ³	GB14554-93	2
	99%		1	B4	TSP 2.5mg/m ³		5600
	11			B3	TSP 1.5mg/m ³		
				B2	TSP 5.3mg/m ³		
				B1	TSP 2.6mg/m ³		
				B0-1	TSP 4.3mg/m ³		
				B0	TSP 3.8mg/m ³		
					1737~2291		

B8	TSP	mg/m ³
----	-----	-------------------

B9-1	TSP	3mg/m ³
------	-----	--------------------

0.32mg/m ³

B9-2	TSP	6.7mg/m ³
------	-----	----------------------

0.40mg/m ³

B10-1	TSP	5.8mg/m ³
-------	-----	----------------------

0.39mg/m ³

B10-2	TSP	5.6mg/m ³
-------	-----	----------------------

0.38mg/m ³

B10-3	TSP	5.4mg/m ³
-------	-----	----------------------

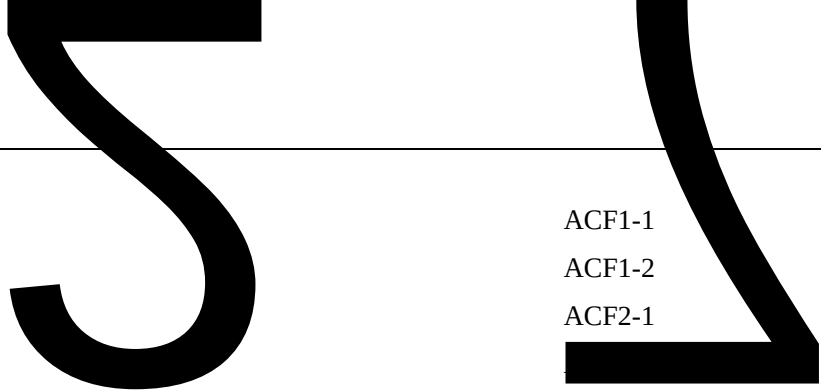
0.40mg/m ³

B11-1

$lm\bar{w} \quad m'' \quad r \quad \backslash$

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H21m

10

ACF1-1	1.13mg/m ³	1318
ACF1-2	1.36mg/m ³	1528
ACF2-1	0.73mg/m ³	1632
	2.41mg/m ³	1423
ACF1-1	1.96mg/m ³	1528
ACF10-1	2.74mg/m ³	1338
ACF10-2	1.00mg/m ³	1338
BCF6-2	1.36mg/m ³	1632
ACF8-1	2.03mg/m ³	1737
ACF8-2	2.23mg/m ³	1528

190

2.1-16

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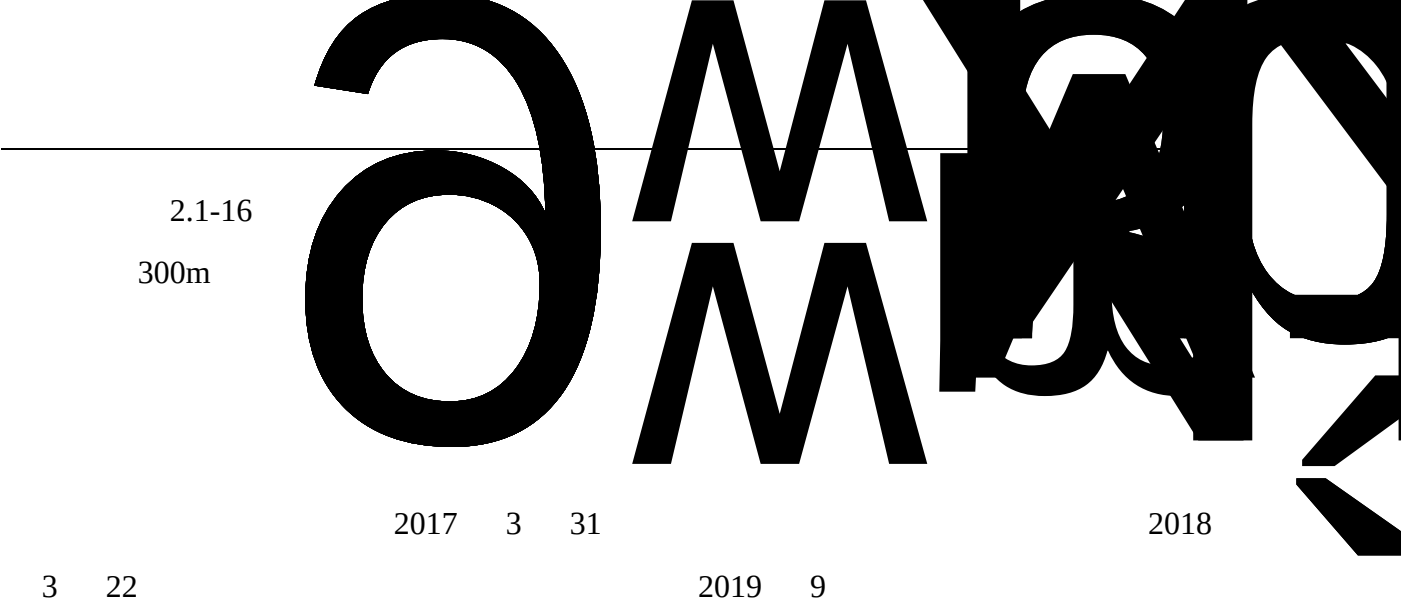
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“

”

190



		2018	
A1-2		mg/m ³	ND
		kg/h	/
	JCC2-1	mg/m ³	ND
		kg/h	/
		mg/m ³	ND
XCC4-1		kg/h	/
		mg/m ³	ND
XCC5-1		kg/h	/
		mg/m ³	7.8
XCC6-1		kg/h	0.013
		mg/m ³	11.4
XCC7-1		kg/h	0.049
		mg/m ³	ND
XCC102		kg/h	/
		mg/m ³	ND
ARX701		kg/h	/
		mg/m ³	6.0
AJX702		kg/h	0.031
		mg/m ³	ND
ARX601		30	

ARX301		mg/m ³	ND
		kg/h	/
BRX1002		mg/m ³	ND
		kg/h	/
BRX1102		mg/m ³	4.2
		kg/h	2.8 10 ⁻³
BRX402		mg/m ³	ND
		kg/h	/
BJX1103		mg/m ³	ND
		kg/h	/
BJX1003		mg/m ³	ND
		kg/h	/
BJX403		mg/m ³	ND
		kg/h	/
BOX1101		mg/m ³	ND
		kg/h	/
BOX1001		mg/m ³	6.9
		kg/h	0.029
BXX1002		mg/m ³	<20
		kg/h	/
BXX401		mg/m ³	ND
		kg/h	/
XCC3-1		mg/m ³	9.8
		kg/h	0.052
AJX402		mg/m ³	10.5
		kg/h	0.060
AJX302		mg/m ³	ND
		kg/h	/

BXX1102		mg/m ³	10.8
		kg/h	0.056
2018			
ARX301		mg/m ³	6.7
		kg/h	0.028
AJX301		mg/m ³	9.4
		kg/h	9.2 10 ⁻³
ARX401		mg/m ³	ND
		kg/h	/
AJX402		mg/m ³	10.4
		kg/h	8.4 10 ⁻³
AJX502		mg/m ³	ND
		kg/h	/
ARX501		mg/m ³	ND
		kg/h	/
ARX601		mg/m ³	ND
		kg/h	/
AJX602		mg/m ³	11.1
		kg/h	0.054
ARX701		mg/m ³	ND
		kg/h	/
ARX702		mg/m ³	8.5
		kg/h	0.062
A1-2		mg/m ³	4.5
		kg/h	0.016
AJX101		mg/m ³	ND
		kg/h	/
XCC3-1		mg/m ³	7.0
		kg/h	0.026

	mg/m ³	ND
JCC251	kg/h	/
	mg/m ³	4.7
XCC4-1	kg/h	7.5 10 ⁻³
	mg/m ³	ND
XCC5-1	kg/h	/
	mg/m ³	ND
XCC6-1	kg/h	/
	mg/m ³	10.8
XCC7-1	kg/h	0.034
	mg/m ³	ND
BRX1103	kg/h	/
	mg/m ³	7.7
BRX1102	kg/h	8.7 10 ⁻³
	mg/m ³	3.1
BRX1002	kg/h	4.1 10 ⁻³
	mg/m ³	10.0
BOX1101	kg/h	0.037
	mg/m ³	ND
BOX1102	kg/h	/
	mg/m ³	ND
BXX1002	kg/h	/
	mg/m ³	10.6
BOX1001	kg/h	0.031
BXX401		

A7	BJX401	kg/h	/	
	BJX402	mg/m ³	ND	
A7	2018			
	ARX301	mg/m ³	ND	
A7	ARX301	kg/h	/	
	AJX301	mg/m ³	8.4	
A7	AJX301	kg/h	0.066	
	ARX401	mg/m ³	ND	
A7	ARX401	kg/h	/	
	AJX402	mg/m ³	ND	
A7	AJX402	kg/h	/	
	ARX502	mg/m ³	ND	
A7	ARX502	kg/h	/	
	ARX601	mg/m ³	ND	
A7	ARX601	kg/h	/	
	ARX701	mg/m ³	ND	
A7	ARX701	kg/h	/	
	AJX602	mg/m ³	7.2	
A7	AJX602	kg/h	0.015	
	XCC4-1 XCC5-1 XCC6-1	mg/m ³	3.4	
A7		kg/h	7.8 10 ⁻³	
		mg/m ³	ND	
A2	XCC1-1 XCC3-1'	kg/h	/	
		mg/m ³	ND	

A7	mg/m ³	ND
	kg/h	/
A10	mg/m ³	ND
	kg/h	/
	mg/m ³	ND
BJX903	kg/h	/
	mg/m ³	ND
BOX1101	kg/h	/
	mg/m ³	ND
BXX1102	kg/h	/
	mg/m ³	ND
BOX1001	kg/h	/
	mg/m ³	6.5
BJX1103	kg/h	0.013
2019		
	mg/m ³	ND
A3RX	kg/h	/
	mg/m ³	ND
A4RX	kg/h	/
	mg/m ³	ND
A5RX	kg/h	/
	mg/m ³	ND
A6RX	kg/h	/
	mg/m ³	ND
A7RX	kg/h	/
	mg/m ³	10.8
A3JX	kg/h	0.079
	mg/m ³	2.8
A4JX	kg/h	0.021

		mg/m ³	2.3
	A5JX	kg/h	0.014
		mg/m ³	11.3
	AJX602	kg/h	0.075
A7		mg/m ³	ND
		kg/h	/
		mg/m ³	ND
XCC4-1	XCC5-1	kg/h	/
	XCC6-1	mg/m ³	ND
XCC1-1	XCC3-1	kg/h	/
A2		mg/m ³	ND
		kg/h	/
A7		mg/m ³	ND
		kg/h	/
A10		mg/m ³	ND
		kg/h	/
		mg/m ³	5.8
	BRX1102	kg/h	0.014
		mg/m ³	4.7
	BRX1002	kg/h	0.011
		mg/m ³	11.0
	B9XX		

	B10XX	mg/m ³	ND
		kg/h	/
	B10OX	mg/m ³	ND
		kg/h	/
		mg/m ³	ND
	BJX1103	kg/h	/
		mg/m ³	9.7
	BJX903	kg/h	0.052
		mg/m ³	10.8
	B11OX	kg/h	0.034
		2019	
	A6JX	mg/m ³	5.9
		kg/h	0.043
	A3JX	mg/m ³	6.8
		kg/h	0.023
	A7XX	mg/m ³	9.7
		kg/h	0.039
		mg/m ³	9.5
	BOX1101 0	kg/h	0.036
		mg/m ³	5.5
	BXX1002	kg/h	0.029
		GB27632-2011	5
		TSP	12mg/m ³

1.ND

2. “ / ”

20mg/m³

					GB27632	
	2018	2019	2019		-2011	2
PH	7.20-7.25	7.25-7.43	7.47-7.63		6	9
	26	4.8-5.5	26.7-27.2		/	/
	ND	ND	ND	mg/L	10	
COD	12-17	8-12	13-16	mg/L	50	
BOD ₅	3.5-5.1	2.2-2.8	2.9-3.6	mg/L	10	
	0.298-0.556	0.919-0.976	2.75-7.276			

		kg/h	3.7	/
		mg/m ³	211	550
		kg/h	14	/
		mg/m ³	10.7	80
		kg/h	0.69	/

GB27632-20115

GB27632-20112

GB12348-20082

GB13271-20141

2

2018

2018

201865

20186520181231

300960201865201812315016

5011

CODNH₃-N

42124211

3

20181

2018126~20181282.1-21~2.1-23



								GB3838-2002	
									III
			200m	500m	500m	1000m			
pH	2018.12.6	7.92	8.01	8.37	8.06	8.14	6~9		
	2018.12.6	4.72	4.62	5.74	4.96	5.11	---	---	
m/s	2018.12.6	0.18	0.34	0.19	0.16	0.17	---	---	
m ³ /h	2018.12.6	238	216	1479	481	1062	---	---	
mg/L	2018.12.6	8.71	8.04	7.21	10.2	10.1	5		
mg/L	2018.12.6	2.0	1.8	4.7	1.9	2.7	6		
mg/L	2018.12.6	6	4	4	8	7	---	---	
mg/L	2018.12.6	6	6	14	6	8	20		
mg/L	2018.12.6	1.7	1.6	3.8	1.6	2.3	4		
mg/L	2018.12.6	0.149	0.048		0.048	0.146	1.0		
mg/L	2018.12.6	0.02	0.04	0.30	0.04	0.04	0.2		
mg/L	2018.12.6	0.150	0.192	0.245	0.233	0.247	1.0		
mg/L	2018.12.6	ND	ND	ND	ND	ND	0.05		
mg/L	2018.12.6	ND	ND	ND	ND	ND	0.005	5	
mg/L	2018.12.6	ND							

2.1-21 2018

GB3838-2002 III

200m

GB3095-2012

24

0.023	0.016	0.019	0.023	0.018	0.021	0.100
0.012	0.013	0.004	0.013	0.011	0.013	0.080
0.006	0.006	0.013	0.009	0.007	0.007	0.500

			5.83	5.8	
			13.53	17.03	
	NH ₃ -N		1.2	/	/
			0.2	/	/
			0.25	0.25	
			1.13	1.33	

2018

11

6

13

COD 22.83t/a

70mg/L

NH₃-N 1.58t/a

550mg/m³

NOx

289.81t/a

5mg/L

SO₂ 1314.07t/a

400mg/m³

3458.28

5

2019

11

2020

3

2020

3

1

2.6

9051t

345kg/

2

25

1

322

3

4

7 2 88
1 4 88 2 7 88 13
88

3 16.00R25
6 7
2.6
0.4 2.2
25.4 324.2

3#

2.1-25 6
7

7 2 88
1 4

2.1-28

1	t	10.009	3453
2	t	2.159	745
3	t	6.692	2309
4	t	0.258	89
5	t	0.406	140
6			

2.1-29

4.2-

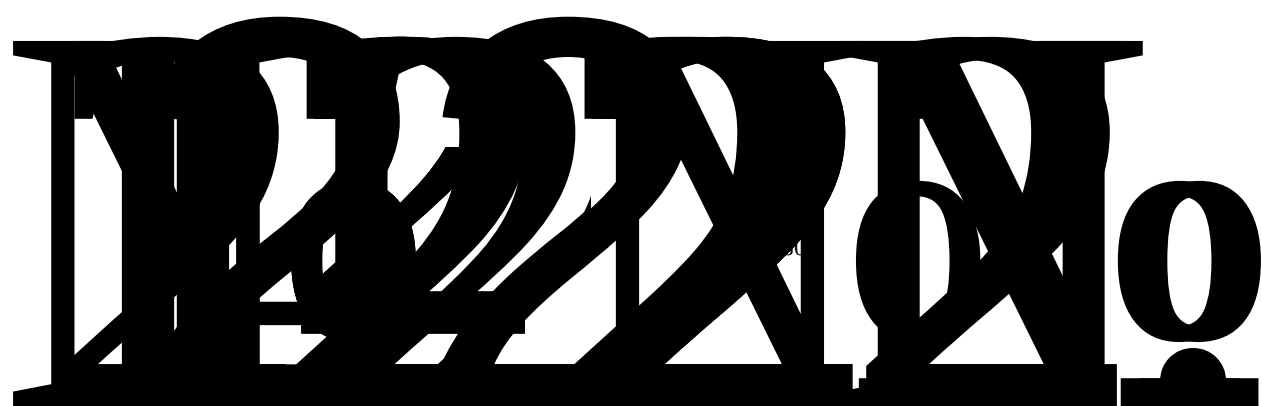
C

1.8-2.1

III -

n R

4



		21g/m ³	
N -B-	1.24 m/cm ² 107 385		

3

2.1.2.3

88 "

B

PLC

MES

345

8

8

6KV

6KV

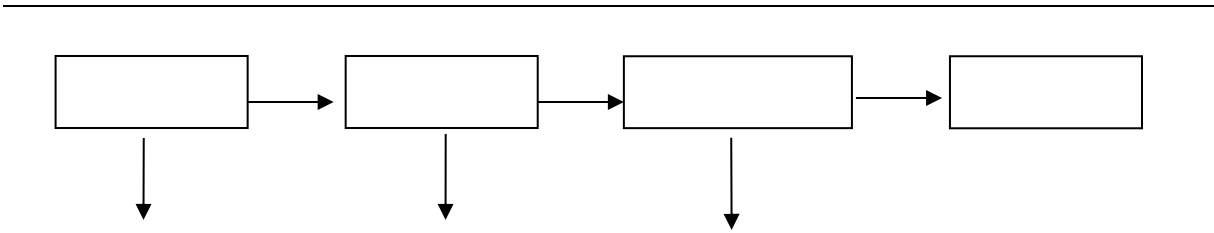


1

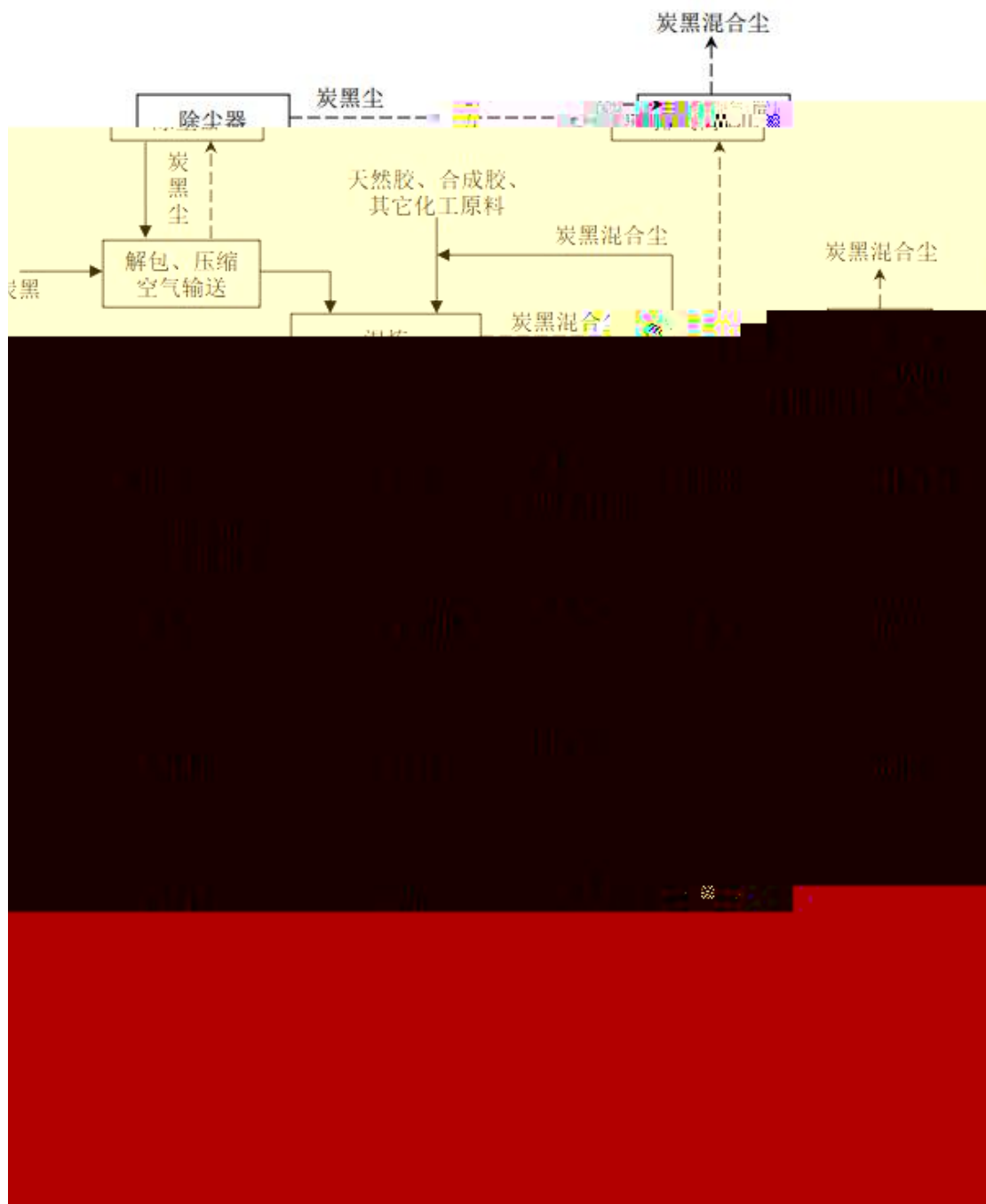
1.5 m³

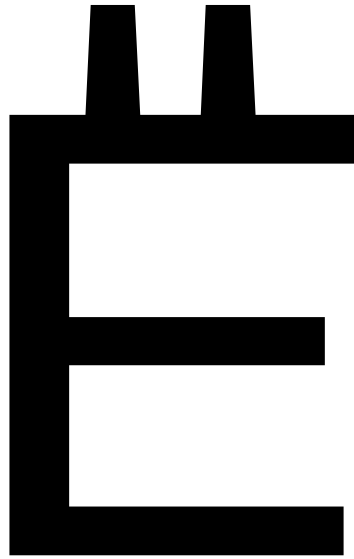
2

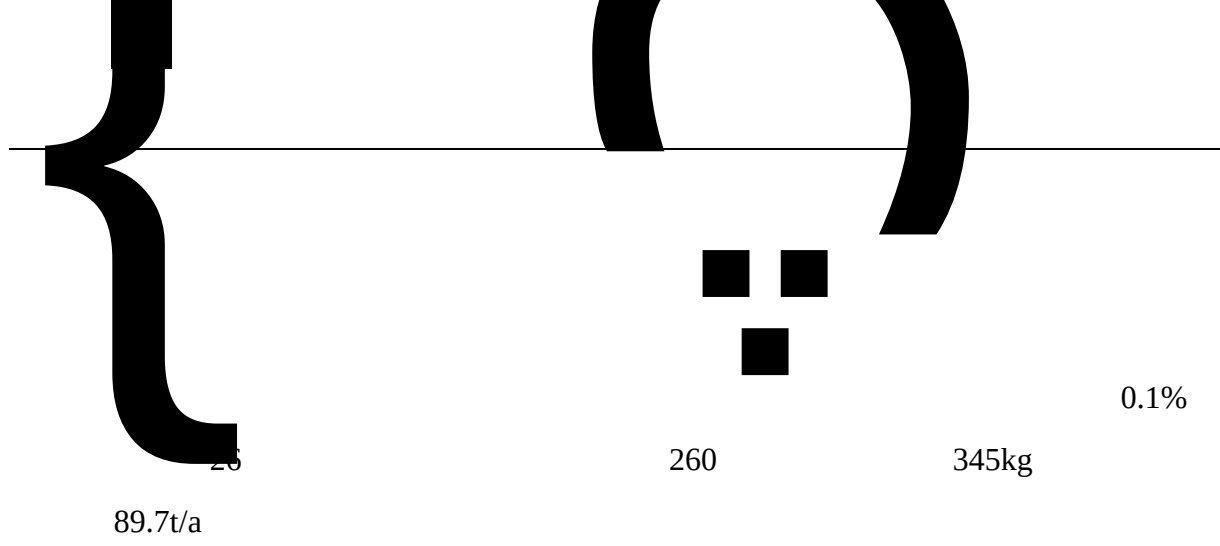
Ø^²



2.2-2







2016

“ HW08 ”

0.24t/a

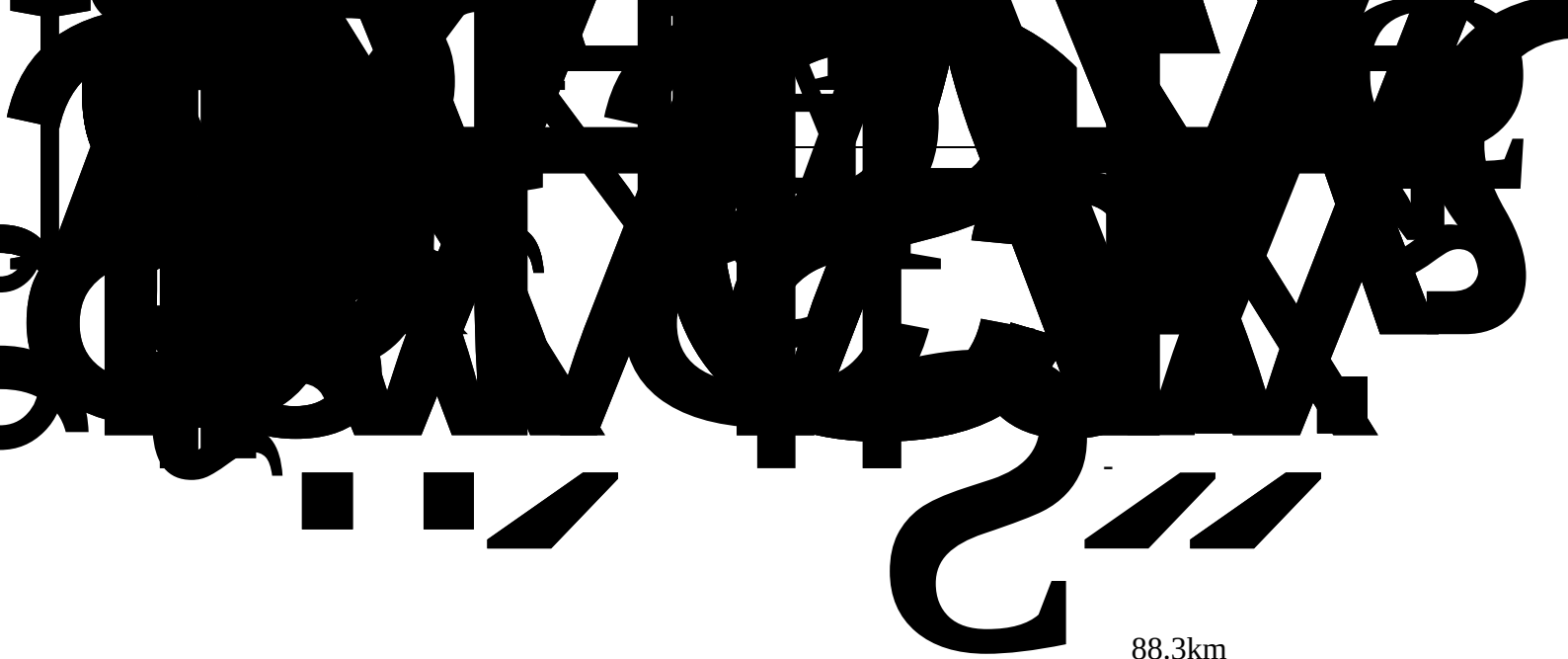
“ ”

429169.65	0	0	0	0	429169.65	0
-----------	---	---	---	---	-----------	---

21215	89.7	0	0	0	21304.7	+89.7
4810	0	0	0	0	4810	0
250	0.24	0	0	0	250	+0.24
1926	0	0				

106°43'44"~106°44'59"	26°50'42"~26°51'54"		1
	38km	25km	
40	25km		
15km	210		
	4km		
2.6km16m	1.3km		400m
1500m	1000~1200m	1749.6m	7km
	609.2m		1140.6m
832~987m	155m		
	1200m	1430m	
		1352m	1300m
1			

90%



138.8km²

29.1km

20km²

88.3km

8000m

0.67m³/s

100m

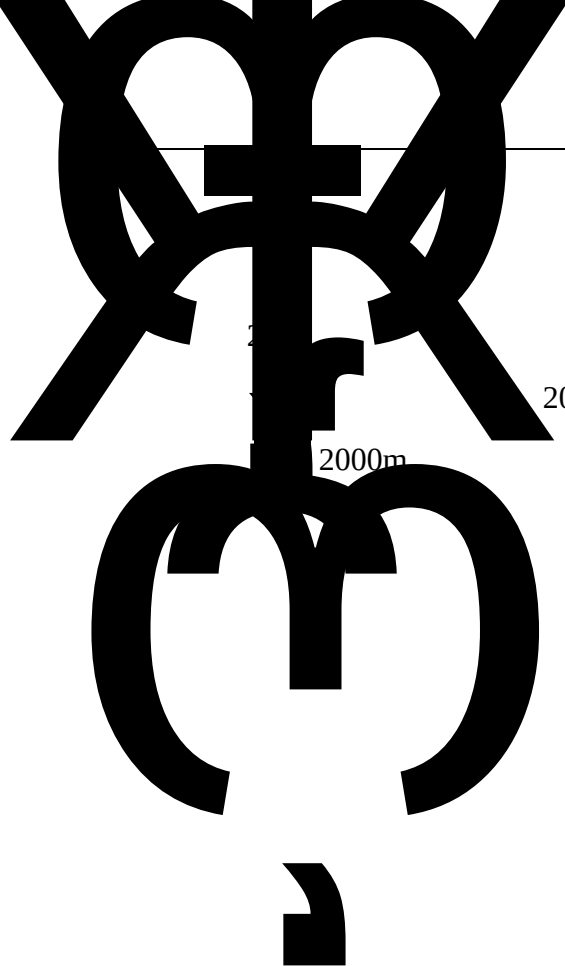
M,

7.5km

11km²

5-9 Đổ R"5"b(:"D\$ Qk@

1200mm-500mm



GB3838-2002

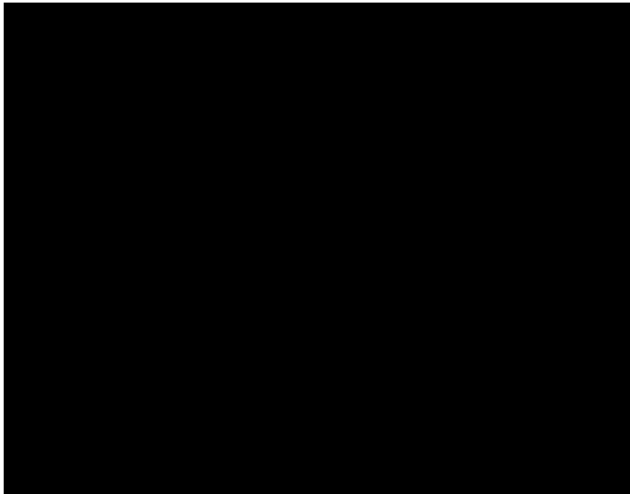
III

III

200m

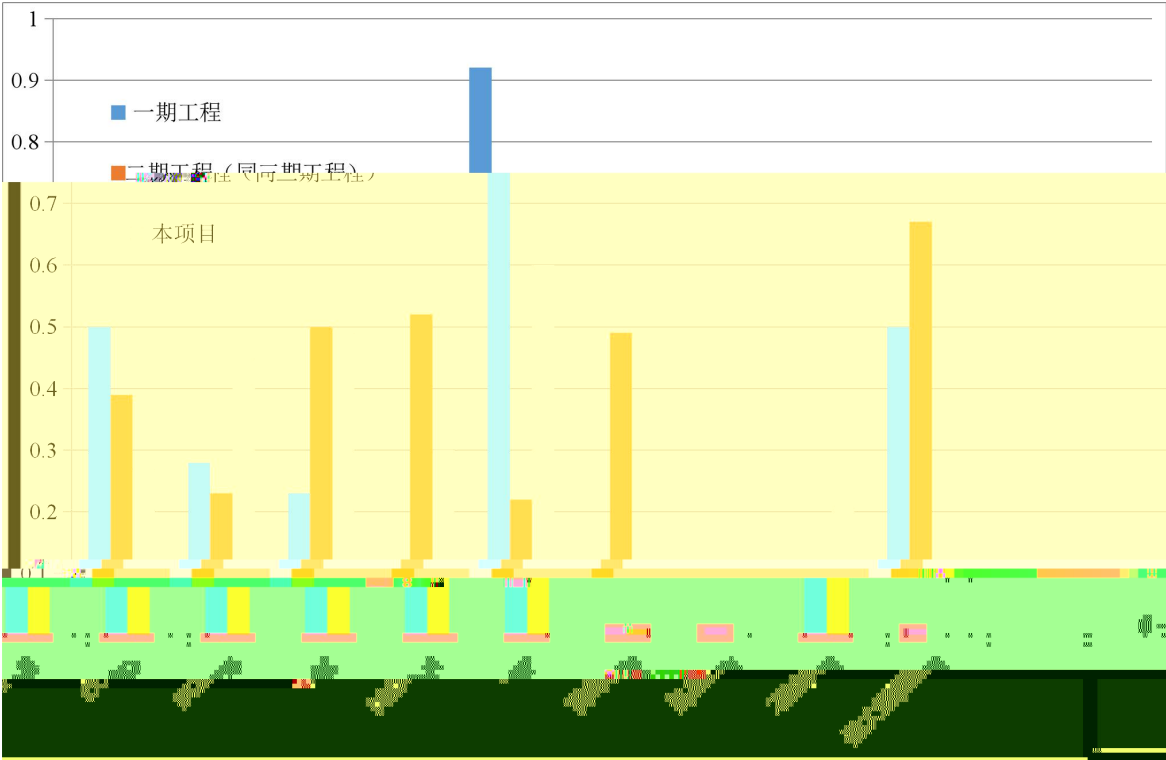
70m

2000m



		W1	W2	W1	W3	W1	W3
1	pH	0.61	0.50	0.84	0.39	0.05	0.27
2	COD	0.20	0.28	0.33	0.23	0.37	0.45
3	BOD ₅	0.28	0.23	0.49	0.50	0.38	0.49
4	SS	0.17	0.08	0.14	0.52	0.28	0.30
5	NH ₃ -N	0.06	0.92	0.07	0.22	0.22	0.60
6	TP	0.065	0.09	0.06	0.49		
7		0.013	0.013	0.01	0.01		
8		0.09	0.013	---	---	0.15	0.21
9		0.50	0.50	0.60	0.67		
10		0.18	0.01	---	---	0.04	0.09



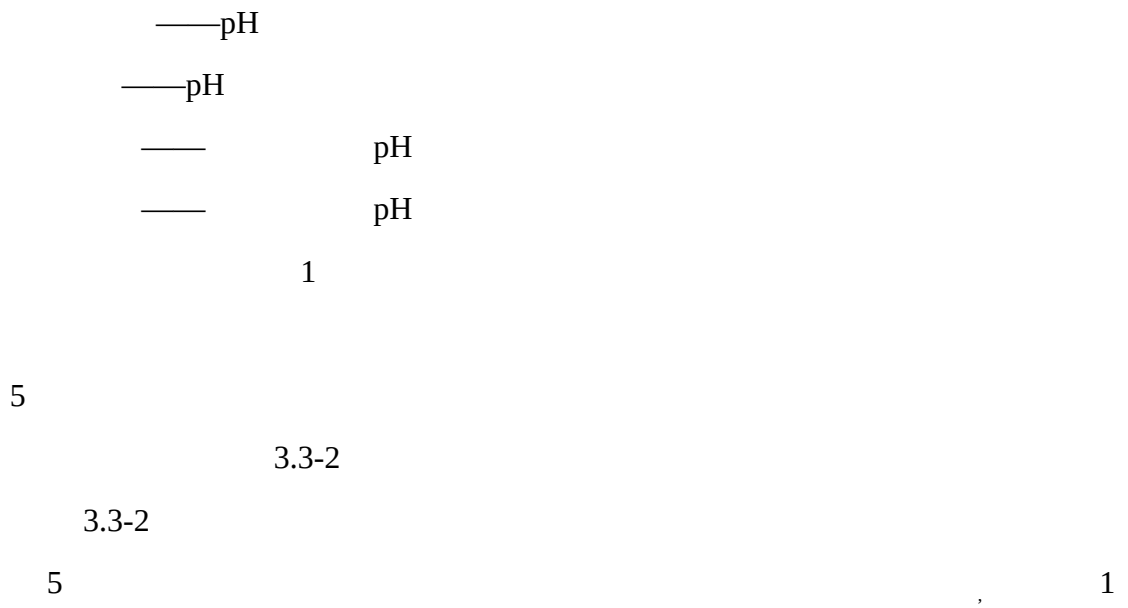


3.2-4		3.2-1~3.2-2																	
GB3838-2002		III		W1		COD		NH ₃ -N		W3									
BOD ₅		TP						W1		pH		BOD ₅							
W3	BOD ₅	SS				W1		TP		TN									
						W1												W3	
pH						W1		SS		W3		COD		NH ₃ -N					

III

GB/T14848-2017 III

$$= 7.0 \text{ pH}_j / 7.0 \text{ pH}_{sd}$$



GB/T14848-2017 II

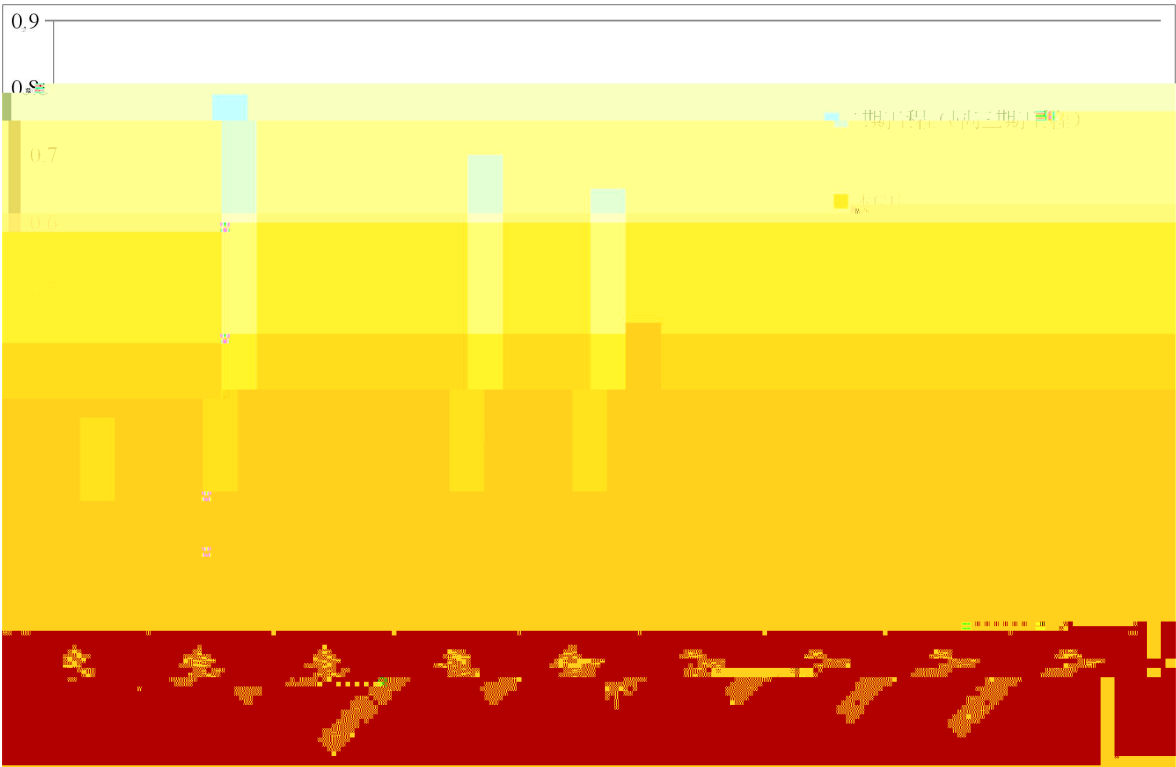
pH													
Q11	2019.9.10	16.7	7.35	0.055	0.8	360	252	0.004ND	0.75	0.003ND	0.0003ND	33	
	2019.9.11	17.1	7.21	0.049	0.7	358	254	0.004ND	0.70	0.003ND	0.0003ND	34	
	2019.9.12	16.2	7.44	0.061	0.9	365	253	0.004ND	0.76	0.003ND	0.0003ND	49	
		16.7	7.33	0.055	0.8	361	253		0.74			39	
			6.5	8.5	0.5	3	1000	450	0.05	20	1.0	0.002	3.0
Q2			0.22	0.11	0.27	0.36	0.56		0.04				
			0	0	0	0	0	0	0	0	0		
	2019.9.10	18.1	7.17	0.084	1.0	270	203	0.004ND	0.92	0.003ND	0.0003ND	62	
	2019.9.11	18.3	7.04	0.078	1.2	275	204	0.004ND	0.86	0.003ND	0.0003ND	70	
	2019.9.12	17.4	7.26	0.093	0.9	274	205	0.004ND	0.92	0.003ND	0.0003ND	79	
		17.9	7.16	0.085	1.0	273	204		0.90			70	
			6.5	8.5	0.5	3	1000	450	0.05	20	1.0	0.002	3.0
			0.11	0.17	0.33	0.27	0.45		0.05				
			0	0	0	0	0	0	0	0	0		
		2019.9.10	15.8										
Q3													

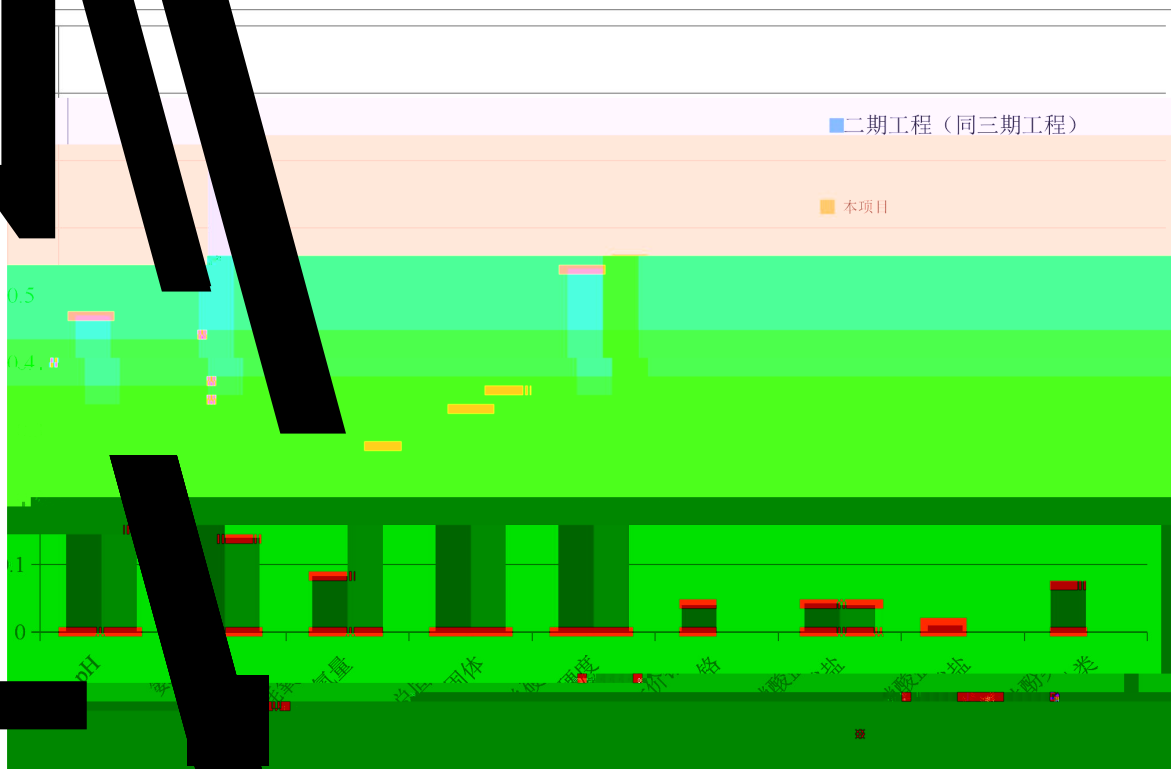
pH

3.3-3

Q1			
Q2		500	1500m
Q1	ZK1		/
Q2	ZK2		/
Q3	ZK4		/
Q4	ZK6		/
Q5	S015		/
Q6	S013		/
Q7、§	S008		/
Q1	8		/
Q2			

		Q7	Q5	Q2	Q4
1	pH	0.31	0.47	0.11	0.15
2		0.79	0.78	0.17	0.14
3		0.083	0.083	0.33	0.27
4		0.7	0.33	0.27	0.36
5		0.65	0.54	0.45	0.56
6		0.04	0.04		
7		0.13	0.0427	0.05	0.04
8		0.01	0.01		
9		0.075	0.075		





3.3-4 3.1~3.3-2

GB/T14848-2017 Ⅱ Q2

Q4

50km

3

13.6

7

22.4

1

3.5

30

-3

1235mm

230~270d

3.4-1

3.4-2

3.4-1

895.0

889.8

900.2

901.2

896.7

15.5

24.0

15.1

3.7

14.4

18.0

27.9

16.8

5.1

16.6

%

78

76

84

84

81

138.8

226.2

98.9

50.0

1411.9

7.7

7.7

7.9

8.5

8.0

mm

101.1

139.1

104.5

21.4

1168.3

≥0.1mm

16.4

13.6

17.1

16.2

191.4

mm

152.0

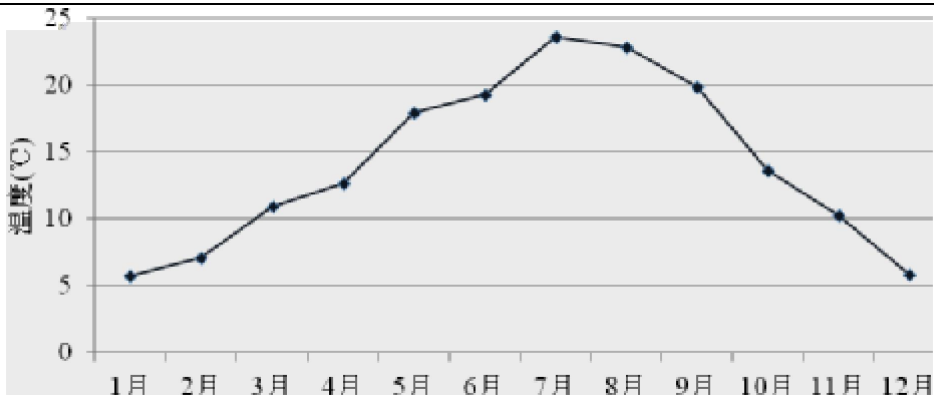
217.1

86.5

40.4

1367.7

m/s

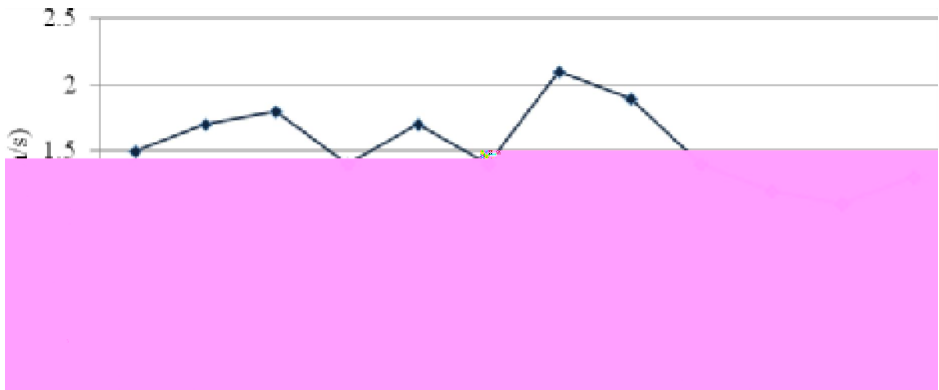


4

3.4-3

3.4-2

	1	2	3	4	5	6	7	8	9	10	11	12
m/s	1.5	1.7	1.8	1.4	1.7	1.4	2.1	1.9	1.4	1.2	1.1	1.3



A

2.2m/s

2.5m/s 2.0m/s 1.9m/s 2.2m/s

14.9%

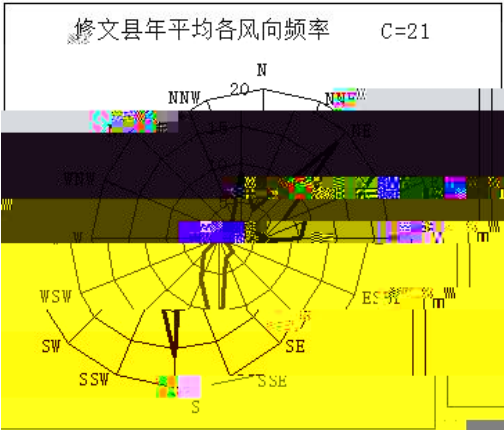
9.1%

26.7%

19.5%

13.1%30.4%11.9%8.5%36.2%18.3%12.5%26.9%12.4%9.9%24%

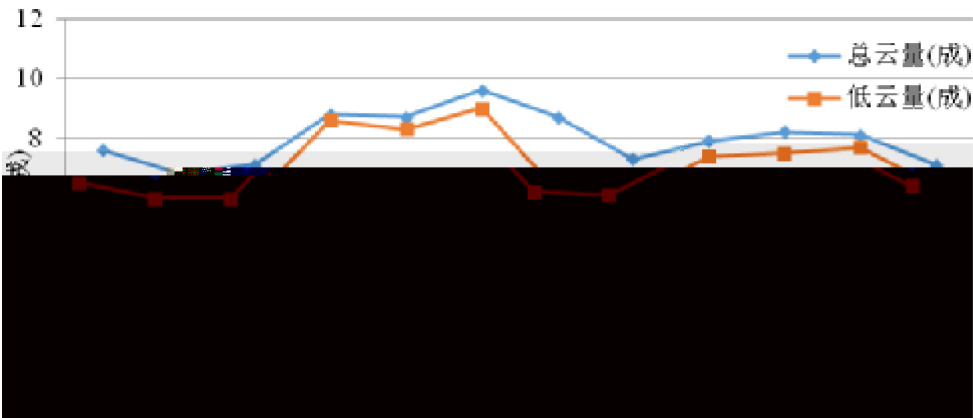
3.3-3



3.4-4

3.4-4

	1	2	3	4	5	6	7	8	9	10	11	12
	7.6	6.8	7.1	8.8	8.7	9.6	8.7	7.3	7.9	8.2	8.1	7.1
	6.5	6	6	8.6	8.3	9	6.2	6.1	7.4	7.5	7.7	6.4



1

2019 6

2019 6 12

GB3095-2012

HJ663-2013

SO₂

NO₂

CO

O₃

PM₁₀

PM_{2.5} 6

12

GB3095-2012

96.6%

2019 6

96.7%

2.04

SO₂

0.005mg/m³

NO₂

0.014mg/m³

PM₁₀

0.026mg/m³

CO

95

0.05mg/m³

O₃

90

0.115mg/m³

PM_{2.5}

0.014mg/m³

3.4-5

			ug/m ³	ug/m ³	/%	/%	
	SO ₂		150	5	3.33	0	
	NO ₂		80	14	17.50	0	
	PM ₁₀		150	26	17.33	0	
	PM _{2.5}		75	14	18.67	0	
	CO		4000	50	1.25	0	
	O ₃		200	115	57.50	0	

3.4-5

GB3095-2012

2

1 1 2

TSP

2

10

3.4-6 2

	X	Y				/m
G1	106.746426	26.851297	TSP			0
G2	106.730483	26.845228				600

2

3

2019 9

10 2019 9 16 7 TSP 20

45

4

= — ×100%

5		14		3.4-7	
G1	TSP	£	/	/	
			mg/m ³	mg/m ³	/%
			2.0	0.65~0.69	0.35
			0.9		0

G1		G6	G6
G2		G2	G6

G1 G2

3.4-1~3.4-2

3.4-9

		G6	G2	G6	G2	G1	G2
1	SO ₂	0.11	0.24	0.02	0.07	0.03	0.03
2	NO ₂	0.07	0.08	0.18	0.18	0.18	0.18
3	PM ₁₀	0.22	0.41	0.60	0.31	0.17	0.17
4	PM _{2.5}	/	/	0.61	0.37	0.19	0.19
5	1	/	/	0.5.3			

2019

4

30

5

1

2019

13:54~16:33

22:09~00

51

1m

4

10

3.5-1

IEC

N1		Leq	1.0m	
N2		Leq	1.0m	
N3		Leq	1.0m	
N4		Leq	1.0m	

1

50dB

2

GB3096-2008

2

60dB

3.5-2

	Leq	dB	
N1	55.4	2	/
	44.5		
N2	53.8	2	
	45.3		
N3	54.3	2	
	42.6		
N4	55.4	2	

3.5-3

N1				
N2				
N1		N1		
N2		N1		
N3		N1		
N4		/		
N5		N1		
N1		N1	N1	
N2		N1	N2	
N3		N1	N3	
N4		N1	N4	
N5		N1	N5	
N1		N1	N3	N3
N2		N1	N2	N2
N3		N1	N1	N1
N4		N1	N5	N4

2

2004

ž998

η

1km

3.7-1 3.7-2

	/	/	/	/
			/	/
	/	/	/	/

	/				
			pH SS COD		
			NH ₃ -N		

1

3.7-3

/

2019.09.10

106 ° 44 ' 25 "

26 ° 51 ' 06 "

I e

38%

pH

8.26

cmol/kg

14.8

✚

T1	0-0.2m	1
T2	0-0.2m	2 2m ð

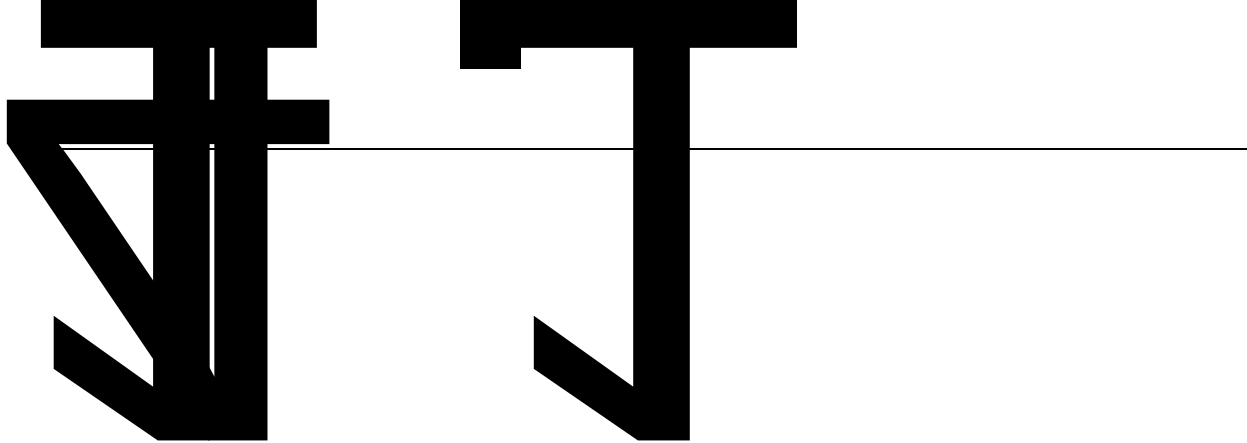
						GB	GB
mg/kg						36600-2018	36600-2018
		S _{i,j}		S _{i,j}			
pH	8.26	--	--	--	--	---	---
	0.180	0.0028		0.0010		65	172
	0.133	0.0035		0.0016		38	

mg/kg						GB 36600-2018	GB 36600-2018
		S _{i,j}		S _{i,j}			
pH	7.74	--	--	--	--	---	---
	0.090	0.0014		0.00052		65	172
	0.167	0.0044		0.0020		38	82
	12.0	0.20		0.086		60	140
	36.7	0.0020		0.00102		18000	36000
	40.5	0.051		0.016		800	2500
	116	/	/	/	/	900	2000
	37.3	0.041		0.019		/	/
	<0.5	-		-		5.7	78
	<1.3	-		-		2.8	36
	<1.1	-		-		0.9	10
	<1	-		-		37	120
1,1-	<1.2	-		-		9	100
1,2-	<1.3	-		-		5	21
1,1-	<1	-		-		66	200
-1,2-	<1.3	-		-		596	2000
-1,2-	<1.4	-		-		54	163
	<1.5	-		-		616	2000
1,2-	<1.1	-		-		5	47
1,1,1,2-	<1.2	-		-		10	100
1,1,2,2-	<1.2	-		-		6.8	50
	<1.4	-		-		53	183
1,1,1-	<1.3	-		-		840	840
1,1,2-	<1.2	-		-		2.8	15
	<1.2	-		-		2.8	20
1,2,3-	<1.2	-		-		0.5	5
	<1	-		-		0.43	4.3
	<1.9	-		-		4	40
	<1.2	-		-		270	1000
1,2-	<1.5	-		-		560	560
1,4-	<1.5	-		-		20	200
	<1.2	-		-		28	280
	<1.1	-		-		1290	1290

	<1.3	-		-		1200	1200
+	<1.2	-		-		570	570
	<1.2	-		-		640	640
	<0.09	-		-		76	760
	<0.1	-		-		260	663
2-	<0.06	-		-		2256	4500
[a]	<0.1	-		-		15	151
[a]	<0.1	-		-		1.5	15
[b]	<0.1	-		-		15	151
[k]	<0.1	-		-		151	1500
	<0.1	-		-		1293	12900
[a, h]	<0.1	-		-		1.5	15
[1,2,3-cd]	<0.1	-		-		15	151
	<0.09	-		-		70	700
“ < ” μg/kg							

3.7-5~ 3.7-7 T1 T2 T3

GB36600-2018



0.8 m³/d

BOD₅ COD SS NH₃-N

GB27632-2011 2

GB/T19923-2005

Ů

4.2-1

	L/s · km ²	L/s	m ³ /d	
	>6	>10	>600	
	3~6	5~10	300~600	
	<3	<5	<300	
	>3	>5	>300	
	1~3	1~5	100~300	
	<1	<1	<100	

1

Q₄

0~10m

2

E

1:20

0.1~0.5L/s

0.1~1L/s.km²

3

1q

2g

2-3ls

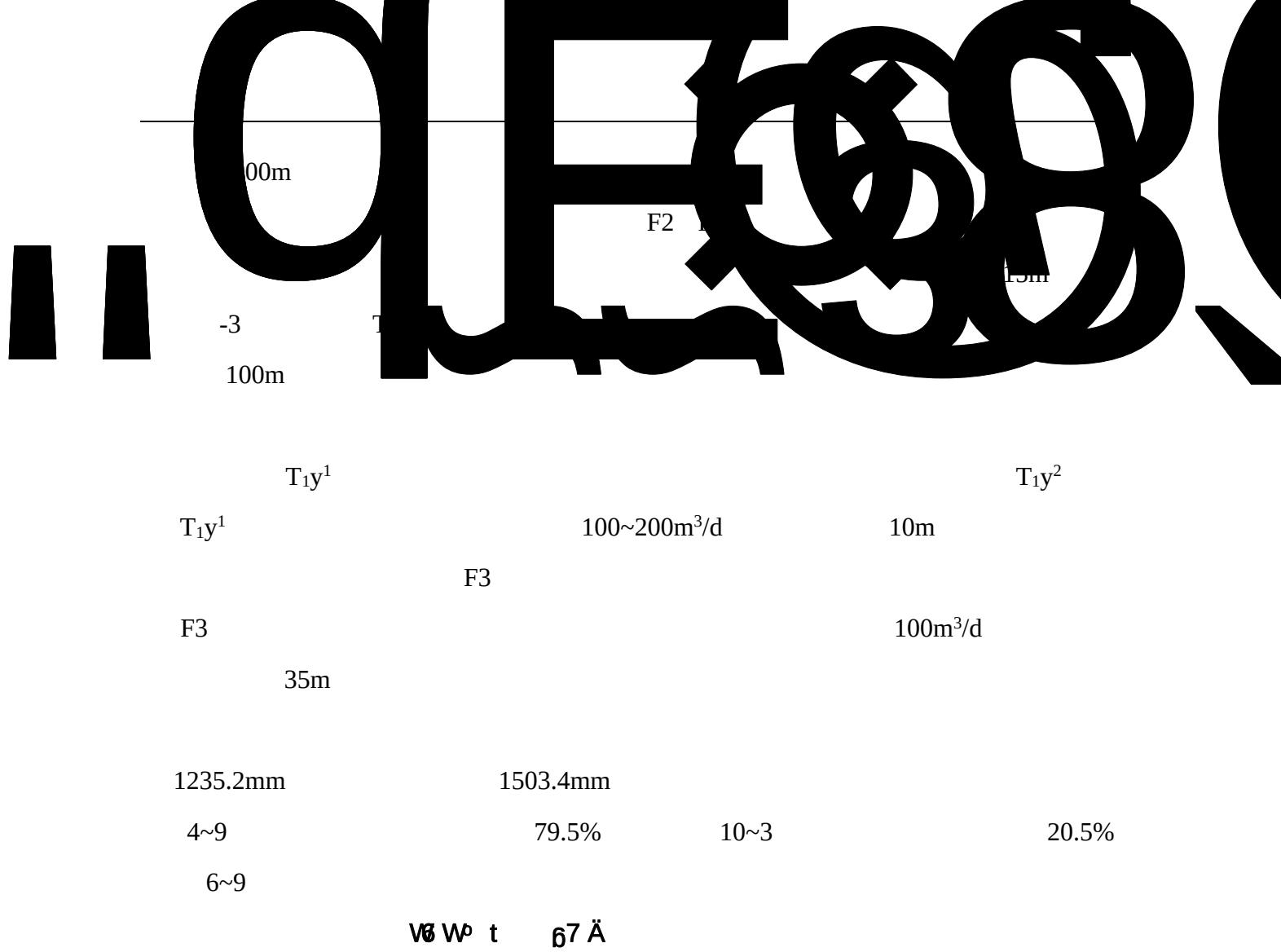
-

P₂q-m

T₁y²

T₁m

T₂s



S011	S012	S013	S015
S011			E 106 ° 45'39.34" N 26 °
52'31.16"		0.93L/s	“ ”
S012			E 106 ° 44 ' 52 " N
26 ° 52 ' 16 "		1.10L/s	“ ”
S013			E 106 ° 46 ' 23 "
N 26 ° 52 ' 59 "		374.50L/s	“ ”
S015			E 106 ° 45 ' 13 " N
26 ° 52 ' 34 "		3.33L/s	“ ”
1		2-3ls	2-3ls
30.00~50.00m			$n \times 10^{-4} \sim n \times$
10^{-3}cm/s		F2	
“ ”			
566.04m/d			
2	2-3ls	T _{1m}	T _{1y} ²
F2	F3		
3			13
		k	$n \times 10^{-4} \sim n \times 10^{-3} \text{ cm/s}$ -1
“ ”	-2	k	$n \times 10^{-4} \sim n \times 10^{-3} \text{ cm/s}$ -1
$n \times 10^{-3} \text{ cm/s}$	-2	k	$n \times 10^{-5} \sim n \times 10^{-4} \text{ cm/s}$ -1
$n \times 10^{-4} \sim n \times 10^{-3} \text{ cm/s}$		-2	



<hr/>									
1									
						3.5mg/m ³			
							4	5	/
		70%							
			GB16297-1996	2					TSP ≤ 1.0mg/m ³
2									
					NO ₂	CO	HC		
			50m				1		0.2mg/m ³
	0.13mg/m ³				0.13mg/m ³		0.062mg/m ³		
		GB3095-2012		2018					
3									
1									
			36.44kg/a	7.81kg/a					
	5.61kg/a	30.83kg/a				7.81kg/a			1.20kg/a
		6.61kg/a				839.6	m ³ /a		
	4.34mg/m ³				0.93mg/m ³				
			GB27632-2011	5					10mg/m ³

		GB 37822-2019	
	GB14554-93		3.0mg/m ³
A			
	HJ2.2-2018	A	
AERSCREEN			
B			
	AERSCREEN		
		4.3-1~4.3-2	
	3		
D/m			

D/m	mg/m ³	%	mg/m ³	%
10	×		5.79×10^{-4}	1.45
25	1.77×10^{-4}	0.44	7.75×10^{-4}	1.94
26	/	/	×	
50	1.06×10^{-4}	0.27	5.93×10^{-4}	1.48
75	6.91×10^{-5}	0.17	3.88×10^{-4}	0.97
100	4.91×10^{-5}	0.12	2.74×10^{-4}	0.68
125	3.71×10^{-5}	0.09	2.06×10^{-4}	0.52
150	2.94×10^{-5}	0.07	1.63×10^{-4}	0.41
175	2.40×10^{-5}	0.06	1.33×10^{-4}	0.33
200	2.02×10^{-5}	0.05	1.11×10^{-4}	0.28
300	1.17×10^{-5}	0.03	6.45×10^{-5}	0.14
400	7.95×10^{-6}	0.02	4.38×10^{-5}	0.09
500	7.32×10^{-6}	0.02	3.24×10^{-5}	0.09
600	4.58×10^{-6}	0.01	2.53×10^{-5}	0.06
700	3.72×10^{-6}	0.01	/	/
800	3.10×10^{-6}	0.01	/	/
900	2.64×10^{-6}	0.01	/	/
1000	2.29×10^{-6}	0.01	/	/
		10m		1%
		26m		1%

GB14554-93

3.0mg

2

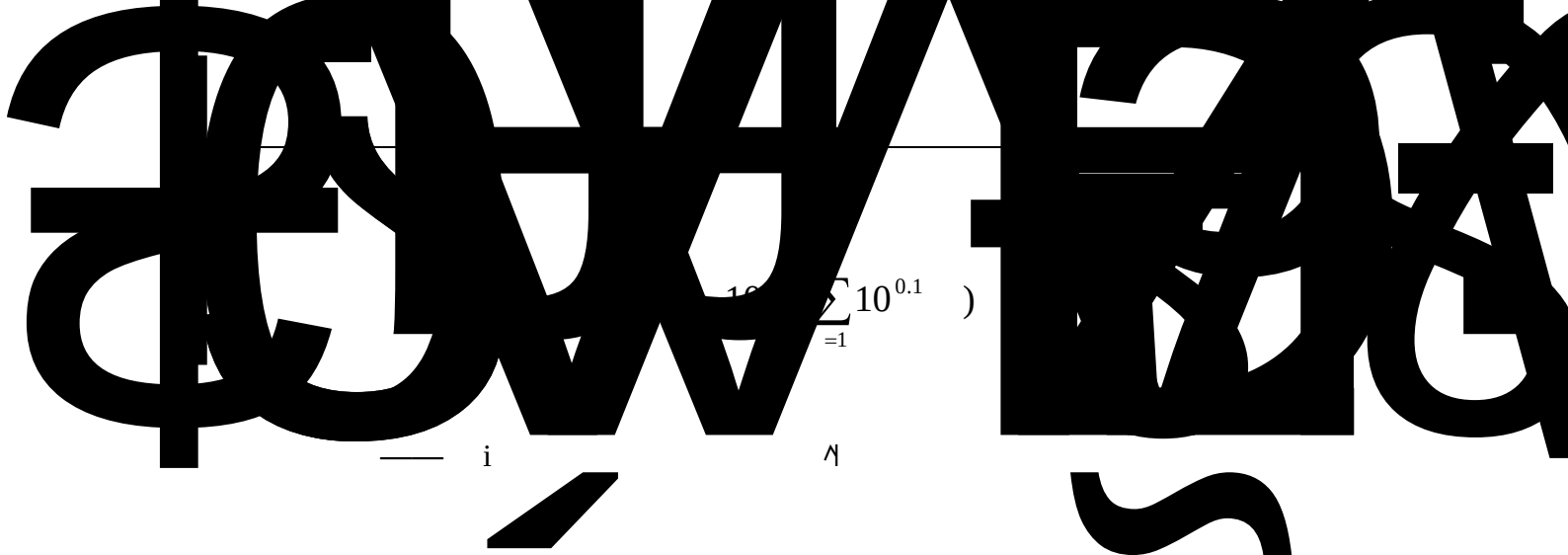
+

2

		GB14554-93	3.0mg/m ³
A			
		HJ2.2-2018	A
AERSCREEN			
B			
	AERSCREEN		
		4.3-3~4.3-4	
D/m	mg/m ³		mg/m ³
	+		

D/m		mg/m ³		mg/m ³
		+		+
10	×	3.30×10^{-3}	5.79×10^{-4}	2.92×10^{-3}
25	$1.77 \times$			





$$L_1 = L_w + 10lg\left(\frac{Q}{4\pi r_1^2} + \frac{4}{R}\right)$$

L₁— r
 L_w—
 r—
 Q— Q=1
 Q=2 Q=8
 R— R=S

$$L_w = L_n - (TL + 6) + 10lgS$$

L_n—
 L_w—
 TL—
 r—
 S— m²

$$L_{eq} = 10lg \sum 10^{0.1}$$

Leq— dB A
 Li— i dB A

2

	1m dB A		m			
7 88	80	2	1111	424	101	744
1 88	80	4	865	387	318	893
2 88	80	7	938	419	267	873

3

1

89.7t/a

100m²

2

2016

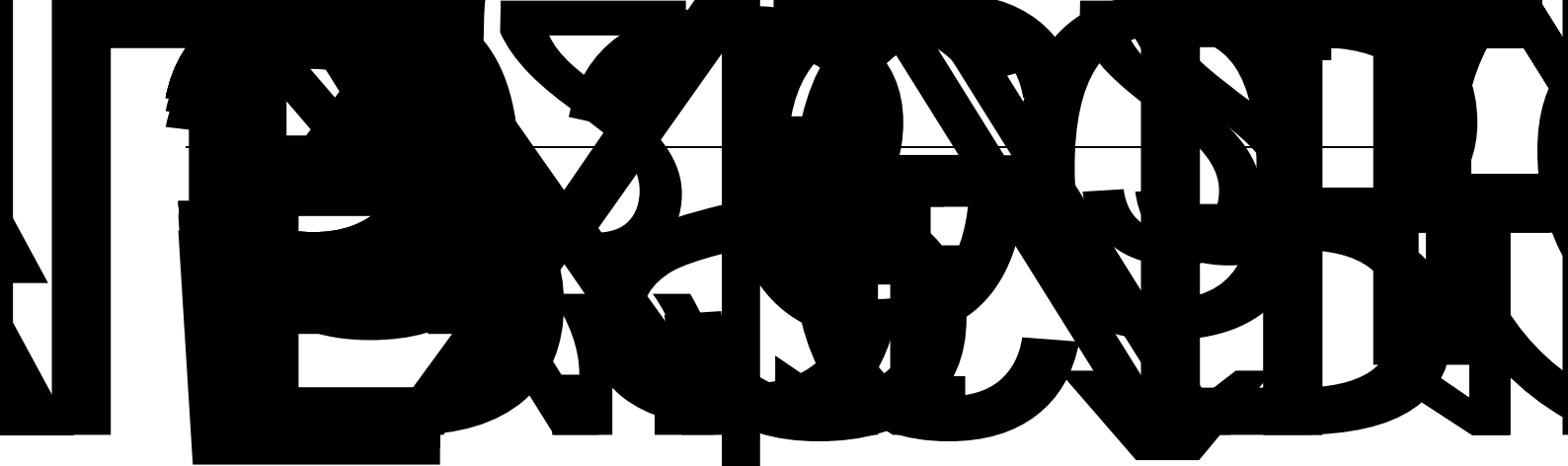
“ HW08 ”

0.24t/a

200m

Pi 1.97%

		GB18218-2018		HJ
169-2018	C			
2015	4			
		2017	6	
	2017	7	25	
520123-2017-041-L			15	



GB27632-2011 2

GB/T19923-2005

2400m³/d | B

B 3 0 X S G

16

1

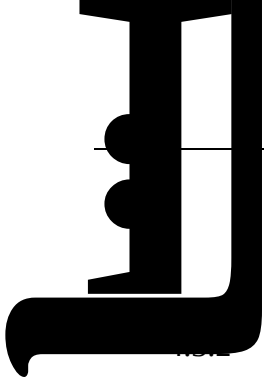
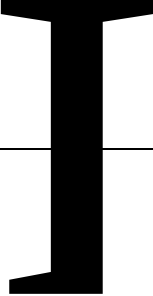
GB16297-1996 2

TSP ≤ 1.0mg/m³

2

NO₂ CO HC

3



GB27632-2011 5 10mg/m³

GB 37822-2019

GB 27632-2011

≤ 4.0mg/m³

GB14554-93 3.0mg/m³

39.82m

70dB

223m

50dB

GB12523-2011

39.82m

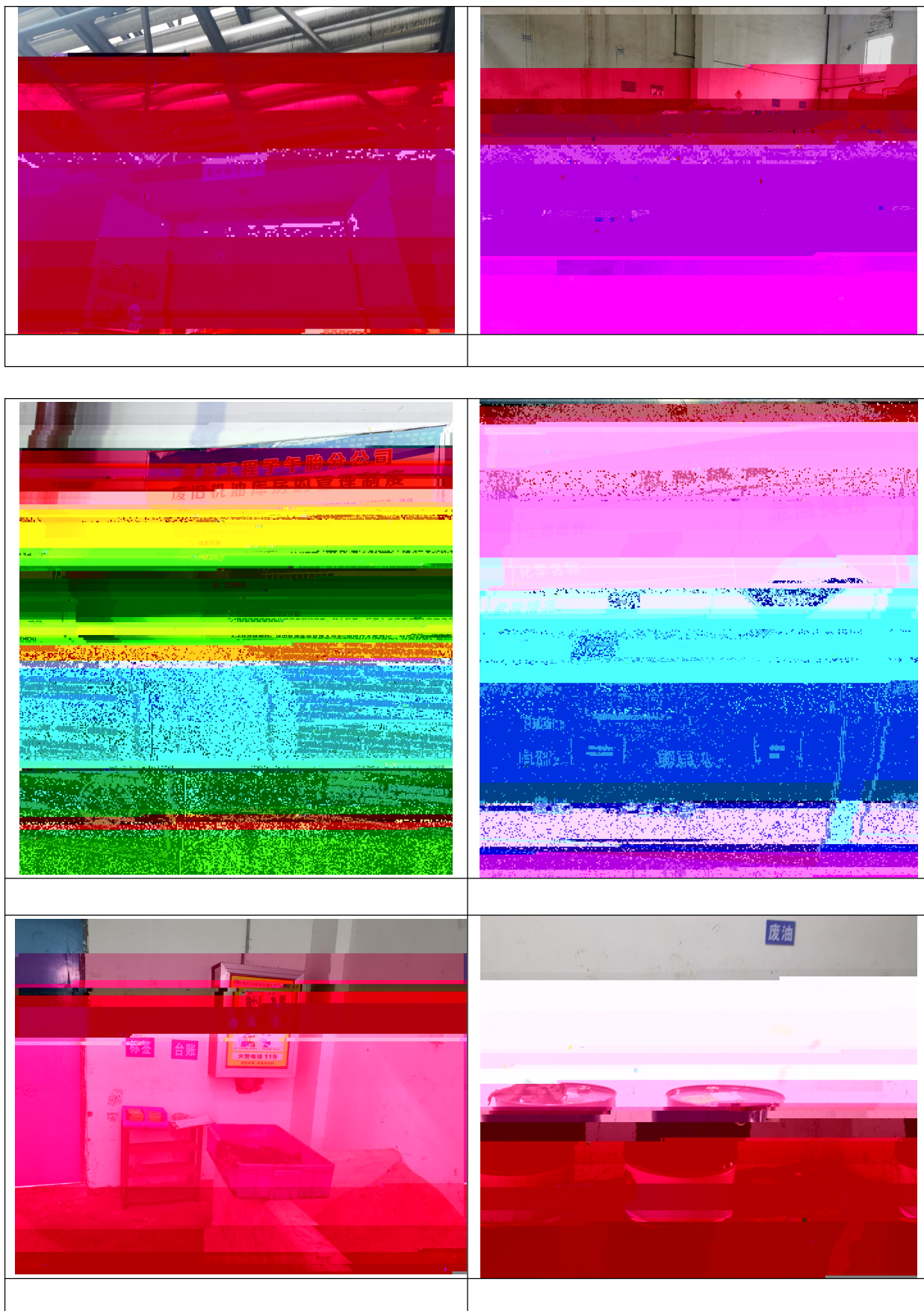
9:00 11:30 14:30 17:30

88 2 7 2 n88 i

2

7	88	2	
1	88		
2	88	7	

5



2012

A

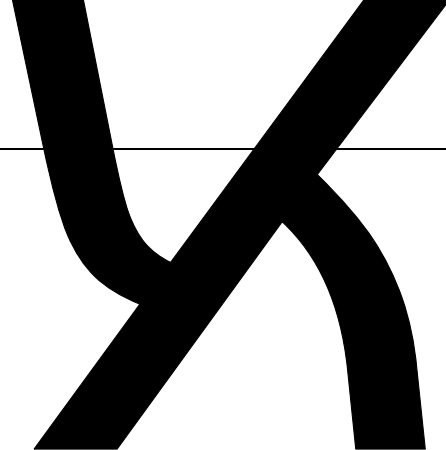
B

$\hat{A} \hat{B} R$ (@Bq •

$\hat{A} > 1$

d

a
b
c



1

2

3

4



1

2

3

HJ 964-2018

b

c

d

e

B

31

1

2

3

SO₂ NO_x

SO₂ NO_x

8.28

63

4

FIRR 32.84%

$r=12\%$ 3222

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

			4		20.0	---
		*10%	1		5.8	---
		---	---	---	63.8	---

6.3-2

		/
		10.0
		5.0
		20.0
		5.8
		40.8

2

3458.28

63.81.84%

3

63.840.8

“ ”

“ ”

“ ”

7.1-1

7.1-1

[illegible]

1

2

3

7.1-3

1			TSP
			CO NO _x H _x C
			TSP
2			COD BOD ₅ SS NH ₃ -N
3			
4			

4

7.1-4

1			NMHC
2			/
3			
4			

D

^



4

GB 37822-2019

1

1
2
3
4
5
6

1

87

002

“

”

“

”

2

200m

200m

7.3-1



“

” 13 88 ”

2

1# 4 2# 7 3#

6 7 2.6

0.4 2.2

25.4 324.2

2019

7 23 2019-520123-29-03-204676

3458.28

í Ĥ ħ ¾ } ∫ ”

3 , 1

GB3838-2002 III Ď

2019 6

GB3095-2012

TSP

GB3095-2012

4

GB3096-2008 2

3

GB36600-2018

1

0.8m³/d

2

1

2

1

2

75~80dB A

1

2

1

GB27632-2011 2

GB/T19923-2005

2

8.4-1

1		COD BOD ₅ SS NH ₃ -N TP TN	<div>WS1#<div>→→ → →→</div>WS-001</div>

		PH			
		A B			
		40% 40%			
				pH COD BOD ₅ SS NH ₃ -N LAS	3

		21	km		km ²
pH	COD	BOD ₅	SS	NH ₃ -N	LAS
		I	II	III	

		/ t/a	/ mg/L
COD	25.75		60
BOD ₅	4.29		10
SS	4.29		10
NH ₃ -N	2.15		5

			200m		500m				
			1500m						
		pH	COD	BOD ₅	SS	NH ₃ -N	L _{AS}		
“ ”		“ ”	“ ”	“ ”					

1

30m~50m

2

1

3.5mg/m³

2

75m

75m

3.23×10⁻⁴mg/m³

6.91 × 10⁻⁵mg/m³

300m

300m

3.01×10⁻⁴mg/m³

6.45 × 10⁻⁵mg/m³

GB 27632-2011

≤ 4.0mg/m³

GB14554-93

3.0mg/m³

3



1

C □

C □

$k \leq -20\%$ □

ó

Σ

u

□

1

2

200m

1

2

Pi 1.97%

8.4-3

		153 hm ²			
		NE SW 1m			
		pH 1,1- 1,2- 1,1- -1,2- -1,2- 1,2- 1,1,1,2- 1,1,2,2- 1,1,1- 1,1,2- 1,2,3- 1,2- 1,4- + 2- [a] [a] [b] [k] [a,h] [1,2,3-cd]			
		-			
		a b c d			
					C
			3	0	
			0	0	
		pH 1,1- 1,2- 1,1- -1,2- -1,2- 1,2- 1,1,1,2- 1,1,2,2- 1,1,1- 1,1,2- 1,2,3- 1,2- 1,4- + 2- [a] [a]			

[b]	[k]	[a,h]	[1,2,3-cd]
pH			
	1,1-	1,2-	1,1-
-1,2-	-1,2-		1,2-
	1,1,2,2-		1,1,1,2-
			1,1,1-
	1,2,3-		1,1,2-
1,4-			1,2-
	2-	[a]	+
[b]	[k]	[a,h]	[a]
GB15618	GB36600	D.1	D.2
T1 T2 T3			
			GB36600-2018

-

E F

50m

a b c
a b

pH

1,1- 1,2- 1,1-
-1,2- -1,2-
1,2-
1,1,1,2- 1,1,2,2-
1,1,1- 1,1,2-
3 1,2,3-
1,2- , B y í 0 7 5 4

ž 1

	☐	
1 “ □ ”	√ “ ” “ ”	
2		

2019 8

28 7

2019 10 8

3

10

1

GB27632-2011 2

GB/T19923-2005

2

190

1

2

1

2

1

39.82 m

2

7

2 88

1

4 88

2

7 88

13 88

1

2

1

