

	1800			
	1			
	13602199475		29525365	300350
	1			
				2018-120112-33-0 3-951678
		□		C3399
	2000			—
	100		15	15
	3			2019 5
	“ ” 2018 7			
	1			
	1			
			100	1800
				1
	2			1800
	800	1000		

2019 2 12  
 3  
 1  
 38.957029° 117.411808° 4 1 4  
 1800 2 3  
 6  
 1 2  
 ( 44 )  
 < > ( 1  
 2018 4 28 ) “ —67 —  
 ”  
 HJ610-2016 “I —53 —  
 ”

2011

2013

[2013]330

(2015 )

2015 121

(2010 )

2018 12 7

“

1800

”

2018-120112-33-03-951678

4

1

2009

2010 4 26

<

2009-2020

>

[2010]188

5

“

2005

2007

“

”

GB/T4754-2017

1

112011101537

6

2012

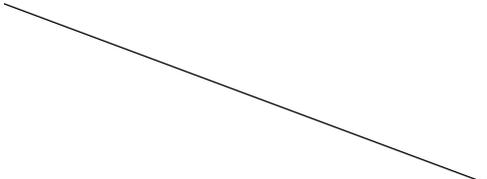
3			
	2018	1 18m +	
P1			
[2016]95			
2000m <sup>2</sup>			1800
3			
1-3			1-4
		m <sup>2</sup>	m
1		920	10
2		120	10

3		10	3	
4		800	-	-
5		50	3	
6		100	3	
7		2000	-	-

			3
		UV +	1 18m

1-5			
1		800	
2		1000	

1		1309	4		
2		1319	2		
3		1310	2		
4		JZ4240	3		
5		GZK4240	1		
6		-	3		



1			2000	500	
2			2	0.5	
3			0.15	0.2	
4			0.3	0.2	
5		-	-	-	-
6		-	-	10 KW.h	-

			“ ”
3			

20

GB50015-2003

50L/ .

280

1m<sup>3</sup>/d

280m<sup>3</sup>/a

1:19

0.3t/a

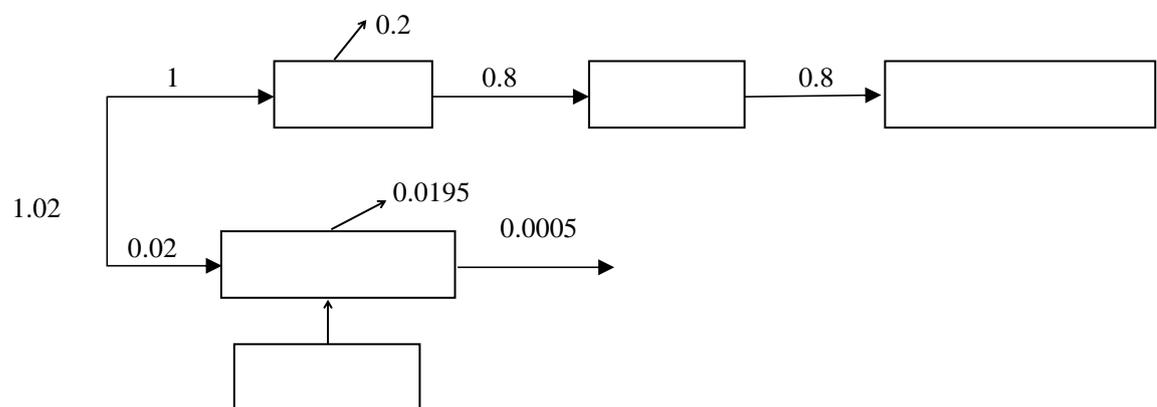
5.7m<sup>3</sup>/a

0.8

0.8m<sup>3</sup>/d

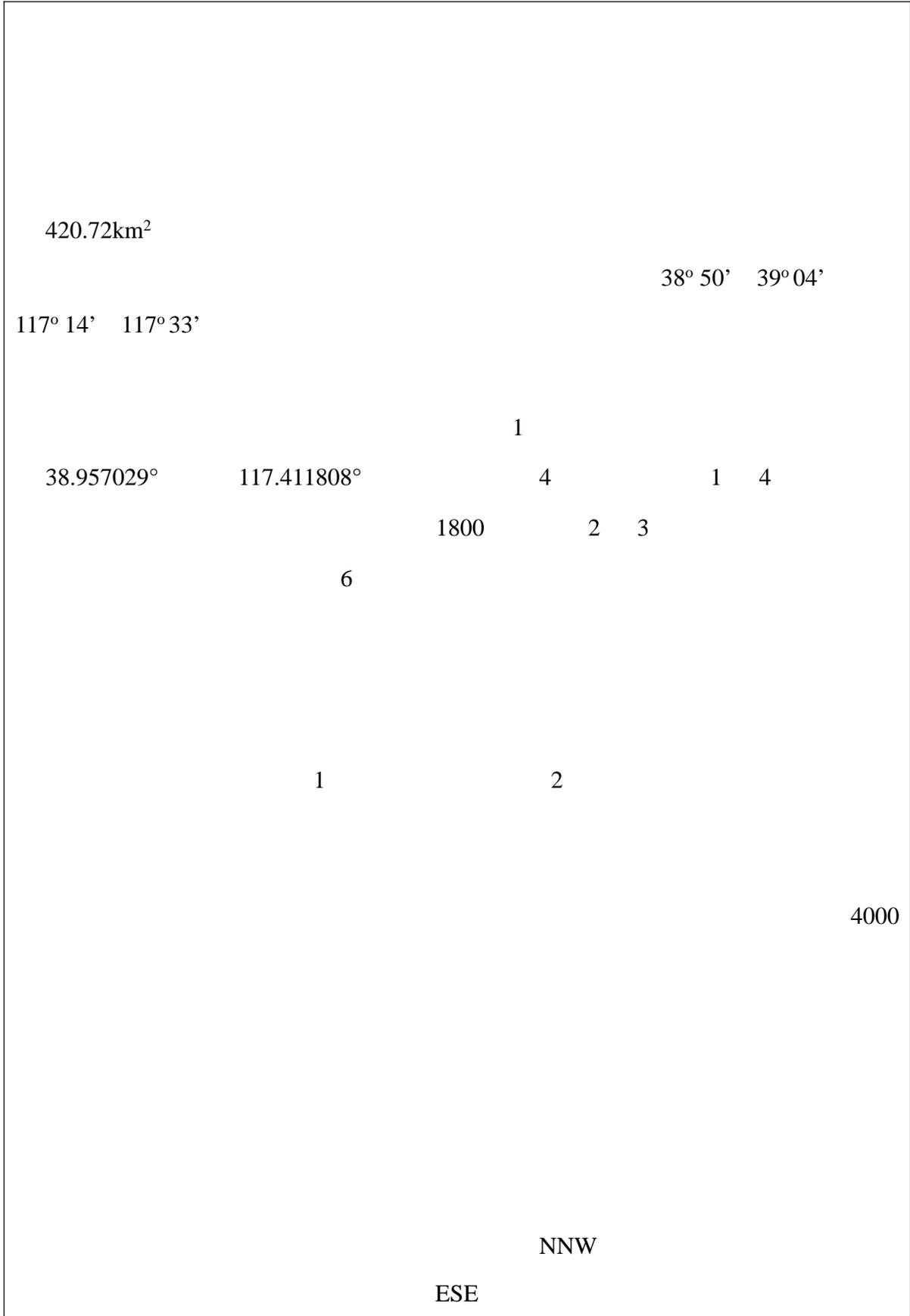
224m<sup>3</sup>/a

1-1



10  
20  
2 8 280  
3360h

100 1800  
1  
6  
2011 1 17  
[2011]016



420.72km<sup>2</sup>

38° 50' 39° 04'

117° 14' 117° 33'

1

38.957029°

117.411808°

4

1 4

1800

2 3

6

1

2

4000

NNW

ESE

SSW

2659

11.9

206

14.5

556.4mm

64%

387.84

8 173

45

17

“ ” “ ” “ ” “ ”

“ ”

12

2014

“ ”

”

708 16% 75.4

775 25% 20419 15%

4%

20

5 28 2

12

95%			200	“	”
				532	
96%	28				
					3000
			10.4		
				“	”
			20		
4	12	25			
					“
		”			

36.5

“

” “ ”

“ ”

“ ”

“ ”

IT



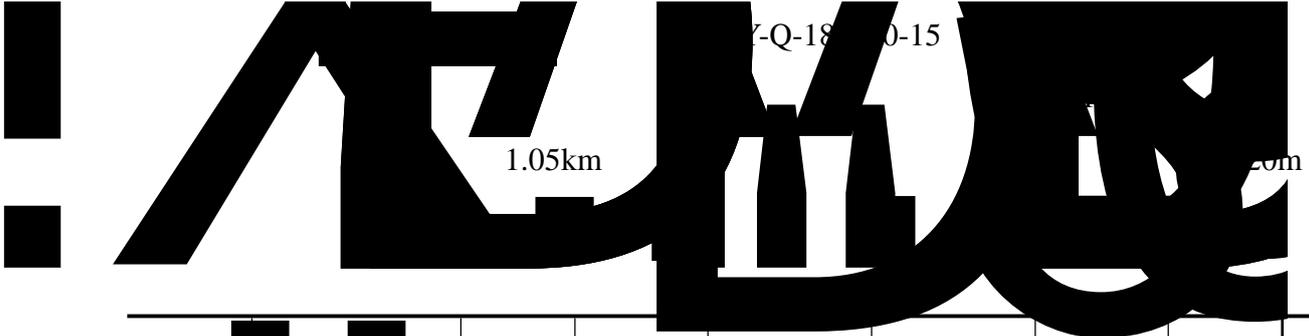
HJ2.2-2018

SO<sub>2</sub> NO<sub>2</sub> PM<sub>10</sub> PM<sub>2.5</sub> CO O<sub>3</sub>

SO <sub>2</sub>		11.5	60	19.2	
NO <sub>2</sub>		47.8	40	119.5	
PM <sub>10</sub>		86.2	70	123.1	
PM <sub>2.5</sub>		54.0	35	154.3	
O <sub>3</sub>	95 24h	156.3	160	97.7	
CO	90 8h	1.3	4	32.5	

CO mg/m<sup>3</sup> 24 4mg/m<sup>3</sup> O<sub>3</sub> 8

“ ” 2018-2019  
(2018—2020 )  
( )  
2020  
PM<sub>2.5</sub> 52μg/m<sup>3</sup> 71%  
2015 25% 2015  
26% 25% 25%  
1.2  
VOCs 2018 1  
25 2018 1 31  
2018 8 27 2018 9 3



	-1200	330			2.0	0.59-0.82	41	/
	-470	-940			2.0	0.53-0.8	40	/
	100	-440		/	2.0		/	/

X

Y

-1200 330

2018.1.25-1.31

1230

-470 -940

2018

18

19

1m

1

4

3

3-5

2

	2018.12.18	54.5	53	42.6	43.5
1#	2018.12.19	55.4	54.7	42.5	43.6
	2018.12.18	48.8	42.2	44.6	43.0
2#	2018.12.19	49.2	48.4	41.8	42.6
	2018.12.18	58.6	59.8	44.8	43.6
3#	2018.12.19	59.8	58.8	44.4	44.2
	2018.12.18	57.8	57.5	42.5	43.2
4#	2018.12.19	57.2	56.5	43.4	44.0
	2018.12.18	48.8	42.2	43.6	43.0
5#	2018.12.19	49.2	48.4	41.8	42.6
	2018.12.18	55.2			
6#					

65/55

0.24-0.26m/d

0.25m/d

2.2~2.5m

1

Kv

6.8×10<sup>-7</sup>cm/s

Cl-Na

pH 8.19 8.22

3000 4830mg/l

Cl- SO42-

3

3

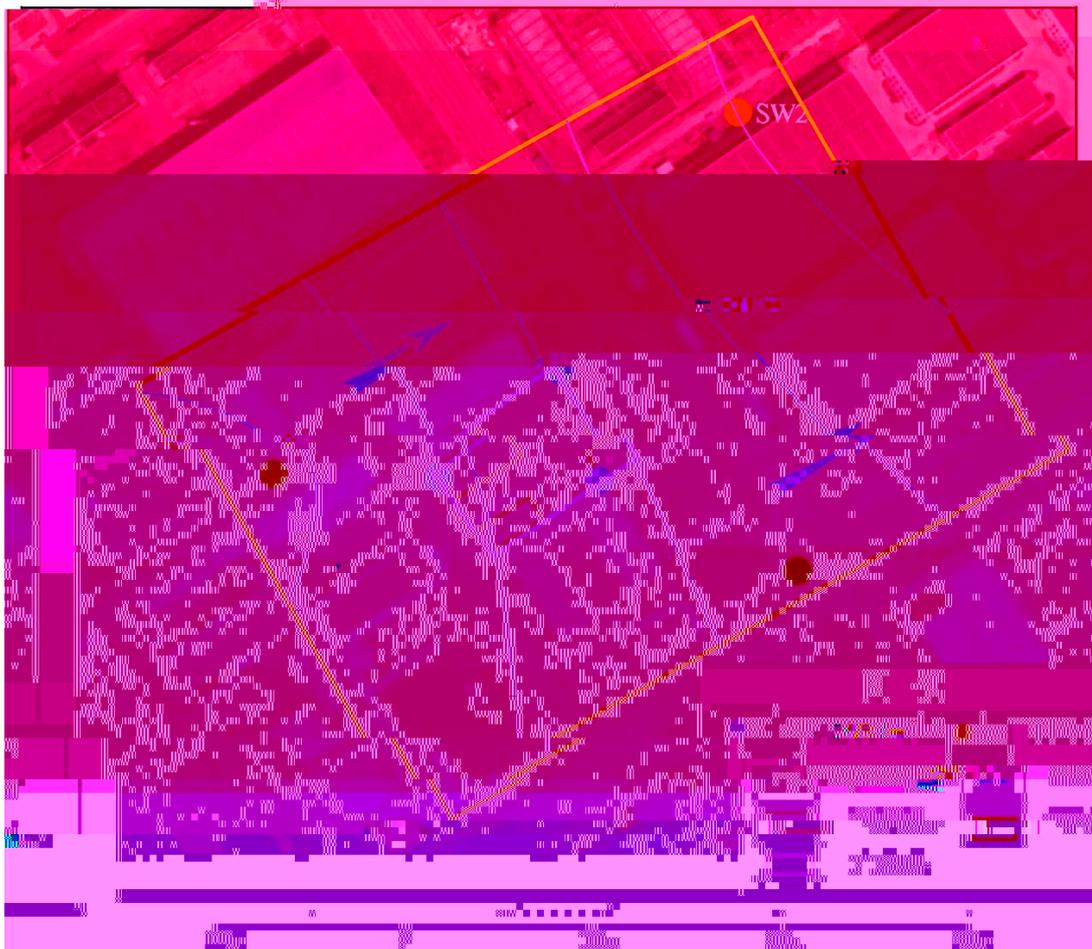
2018 12

3-10

3-8

0.5‰

S1	0.27	-0.25	-2.28	2.03	17	
S2	0.31	-0.22	-2.33	2.11	17	
S3	0.29	-0.26	-2.32	2.06	17	
SW1	-0.11	-0.20	-2.24	2.04	6	
SW	-0.17	-0.28	-2.41	2.13	6	
SW3	-0.22	-0.30	-2.35	2.05	6	



$2.85 \times 10^{-5} \text{cm/s}$

2.03~2.11m

	Mb 1.0m	K $1 \times 10^{-6} \text{cm/s}$
	0.5m Mb<1.0m	K $1 \times 10^{-6} \text{cm/s}$
	Mb 1.0m	$1 \times 10^{-6} \text{cm/s} < K < 1 \times 10^{-4} \text{cm/s}$
		“ ” “ ”

pH

N

N

(mg/L)	0.0232	0.0143	0.0085	0.0232	0.0085	0.01533	0.00605	100%
(mg/L)	0.00015	0.00006	0.00008	0.00015	0.00006	0.00010	0.00004	100%
(mg/L)	ND	ND	ND	—	—	—	—	0%
(mg/L)	0.0241	0.00746	0.0166	0.0241	0.00746	0.0161	0.0068	100%
(mg/L)	ND	ND	ND	—	—	—	—	0%
(mg/L)	ND	ND	ND	—	—	—	—	0%
(mg/L)	0.8	0.8	0.7	0.8	0.7	0.77	0.05	100%
N (mg/L)	ND	1.84	1.32	1.84	1.32	1.58	0.77	67%
( N ) (mg/L)	ND	1.49	0.123	1.49	0.123	0.81	0.68	67%
(mg/L)	1.46	1.25	0.65	1.46	0.65	1.12	0.34	100%
(mg/L)	2.44	4.7	3.36	4.7	2.44	3.50	0.93	100%
pH	8.22	8.2	8.19	8.22	8.19	8.20	0.01	100%
(mg/L)	20	23.3	16.4	23.3	16.4	19.90	2.82	100%
(mg/L)	0.66	0.16	0.11	0.66	0.11	0.31	0.25	100%
(mg/L)	34	51.6	56.6	56.6	34	47.40	9.69	100%
(mg/L)	48	39.8	73	73	39.8	53.60	14.12	100%
(mg/L)	998	872	1430	1430	872	1100.00	238.95	100%
(mg/L)	146	106	196	196	106	149.33	36.82	100%
(mg/L)	ND	ND	ND	—	—	—	—	0%
(mg/L)	0.109	0.0875	0.0803	0.109	0.0803	0.0923	0.0122	100%
(mg/L)	1590	867	2040	2040	867	1499.00	483.18	100%
(mg/L)	627	569	661	661	569	619.00	37.98	100%

(mg/L)	4050	3000	4830	4830	3000	3960.00	749.8	100%
(CaCO <sub>3</sub> )(mg/L)	731	595	1000	1000	595	775.33	168.29	100%
(mg/L)	5.23	5.95	4.32	5.95	4.32	5.17	0.67	100%
( ) (mg/L)	ND	ND	ND	—	—	—	—	0%
mg/L	ND	ND	ND	—	—	—	—	0%
(mg/L)	ND	ND	ND	—	—	—	—	0%
(mg/L)	671	720	630	720	630	673.67	36.79	100%
(mg/L)	1590	867	2040	2040	867	1499.00	483.18	100%
(mg/L)	627	569	661	661	569	619.00	37.98	100%

ND

3

67% pH

100%

K	34.0	0.87	1.48%	Cl- Na
Ca	48.0	2.40	4.08%	
Na	998.0	43.41	73.97%	
Mg	146.0	12.01	20.47%	
	58.69			
Cl	1590.0	44.85	65.09%	
SO <sub>4</sub>	627.0	13.05	18.95%	
CO <sub>3</sub>	0.0	0.00	0.00%	
HCO <sub>3</sub>	671.0	11.00	15.96%	
	68.90			
				Cl- Na
K	51.6	1.32	2.64%	
Ca	39.8	1.99	3.98%	
Na	872.0	37.93	75.92%	
Mg	106.0	8.72	17.46%	
	49.96			



pH	8.22		8.2		8.19		
(mg/L)	20		23.3		16.4		
(mg/L)	0.66		0.16		0.11		
(mg/L)	998		872		1430		
(mg/L)	ND		ND		ND		
(mg/L)	0.109		0.0875		0.0803		
(mg/L)	1590		867		2040		
(mg/L)	627		569		661		
(mg/L)	4050		300		4830		
(CaCO <sub>3</sub> ) (mg/L)	731		595		1000		
(mg/L)	5.23		5.95		4.32		
( ) (mg/L)	ND		ND		ND		
mg/L	ND		ND		ND		

S1

pH

GB/T14848-2017

GB/T14848-2017

GB/T14848-2017

GB/T14848 -2017

GB3838-2002

GB3838 -2002

S2

pH

GB/T14848-2017

GB/T14848-2017

GB/T14848-2017

GB/T14848-2017

GB3838-2002

GB3838-2002

GB3838-2002

GB3838 -2002

S3

pH

GB/T14848-2017

GB/T14848-2017

GB/T14848-2017

GB/T14848-2017

GB3838-2002

GB3838-2002

GB3838 -2002

3

pH

GB/T14848-2017

GB/T14848-2017

GB/T14848-2017

GB3838-2002

GB3838-2002

GB3838 -2002

3

T1 T2

0 20cm

40~60cm 80 100cm T3

0 20cm

7

							pH			C <sub>10</sub> ~C <sub>40</sub>	
		27					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-					+		
			11			2-		[a]	[a]		[b]
	[k]			[a,h]		[1,2,3-cd]					

pH      9.54    9.1    8.91    8.88    8.85    8.8    9.35    9.54    8.8    9.06    0.26    100%

	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%
	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%
	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%
1,2-	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%
	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%
1,1,2-	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%
	ND	ND	D	ND	ND	ND	ND	-	-	-	-	-	0%
	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%
1,1,1,2-	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%
	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%
	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%
	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%
	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%
	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%
1,1,2,2-	ND	ND	ND	D	ND	ND	ND	-	-	-	-	-	0%
1,2,3-	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%
1,2-	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%
1,4-	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%
	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%
2-	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%
	N	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%
	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%
a	0.474	ND	ND	ND	ND	ND	ND	0.256	0.474	0.256	0.37	0.17	29%
	0.411	ND	ND	ND	ND	ND	ND	0.262	0.411	0.262	0.34	0.16	29%
b	0.348	ND	ND	ND	ND	ND	ND	0.348	0.348	0.35	0.12	0.12	14%
k	0.157	ND	ND	ND	ND	ND	ND	0.57	0.157	0.16	0.05	0.05	14%
a	0.179	ND	ND	ND	ND	ND	ND	0.103	0.179	0.103	0.14	0.07	29%
1 2 3-cd	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%
h <sup>a</sup>	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	0%

	7	pH			C <sub>10</sub> ~C <sub>40</sub>
100%	a	a	29%	b	k
14%		27			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-		+
		6		2-	[a,h]
[1,2,3-cd]					

pH	-	9.54		9.1		8.91		8.88		8.85		8.8		9.35
Cd	5.7	0.26		0.2		0.19		0.14		0.15		0.2		0.17
Hg	18000	0.109		0.127		0.092		0.07		0.153		0.08		0.162
As	900	10.2		10.1		1.7		10.1		10.1		10.3		10
Cu	38	30		31		35		26		28		29		30
Pb	60	31.5		26.6		32.5		26		26.5		31.4		28.1
	800	ND		ND		ND		ND		ND		ND		ND
Ni	65	28		29		31		28		28		31		30
C10~C40	4500	214		122		124		90.8		103		94.8		165
	37	ND		ND		ND		ND		ND		ND		ND
	0.43	ND		ND		ND		ND		ND		ND		ND
1,1-	66	ND		ND		ND		ND		ND		ND		ND
	616	0.0257		0.0562		0.0232		ND		ND		0.0285		0.0209
1,2-	596	ND		ND		ND		ND		ND		ND		ND
1,1-	9	ND		ND		ND		ND		ND		ND		ND
1,2-	54	ND		ND		ND		ND		ND		ND		ND

	0.9	ND							
1,1,1-	840	ND							
1,2-	5	ND							
	4	ND							
	2.8	ND							
	2.8	ND							
1,2-	5	ND							
	1200	ND							
1,1,2-	2.8	ND	ND	ND	ND	D	ND	ND	ND
	53	ND							
	270	ND							
1,1,1,2-	10	ND							
	28	ND							
	570	ND							
	1290	ND							
	640	ND							
1,1,2,2-	6.8	ND							
1,2,3-	0.5	ND							

- ò<sup>3</sup>

	76	ND		ND		ND		ND		ND		ND		ND
	70	ND		ND		ND		ND		ND		ND		ND
a	15	0.474		ND		0.256								
	1293	0.411		ND		0.262								
b	15	0.348		ND										
k	151	0.157		ND										
a	1.5	0.179		ND		0.103								
1 2 3-cd	15	ND		ND		ND		ND		ND		ND		ND
a h	1.5	ND		ND		ND		ND		ND		ND		ND

pH C10~C40  
27 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- + 11  
2- [a] [a] [b] [k] [a,h] [1,2,3-cd]

GB36600-2018

200m

200m

GB3095-2012

GB3095-2012		SO <sub>2</sub>	1	μg/Nm <sup>3</sup>	500
			24	μg/Nm <sup>3</sup>	150
				μg/Nm <sup>3</sup>	60
		NO <sub>2</sub>	1	μg/Nm <sup>3</sup>	200
			24	μg/Nm <sup>3</sup>	80
				μg/Nm <sup>3</sup>	40
		PM <sub>10</sub>	24	μg/Nm <sup>3</sup>	150
				μg/Nm <sup>3</sup>	70
		PM <sub>2.5</sub>	24	μg/Nm <sup>3</sup>	75
				μg/Nm <sup>3</sup>	35
		CO	1	mg/Nm <sup>3</sup>	10
			24	mg/Nm <sup>3</sup>	4
		O <sub>3</sub>	1	μg/Nm <sup>3</sup>	200
			8	μg/Nm <sup>3</sup>	160
-	HJ2.2-2018 D	TVOC	8h	μg/Nm <sup>3</sup>	600

3

GB3096-2008 3

4-2

GB3096-2008	3		dB(A)		65
					55

HJ 610-2016

8.4.1.1

“GB/T 14848-2017

GB/T 14848

GB/T 14848

GB 3838-2002

DZ/T

0290-2015

”

1	pH	6.5-8.5			5.5-6.5,8.5-9	5.5-9	GB/T 14848-2017
2	(NH <sub>4</sub> )(mg/L)	0.02	0.10	0.50	1.50	1.50	
3	(N)(mg/L)	2.0	5.0	20	30	30	
4	(N)(mg/L)	0.01	0.10	1.00	4.80	4.80	
5	( ) (mg/L)	0.001	0.001	0.002	0.01	0.01	
6	(mg/L)	0.001	0.01	0.05	0.1	0.1	
7		100	150	200	400	400	
8	(mg/L)	50	150	250	350	350	
9	(mg/L)	50	150	250	350	350	
10	(As)(mg/L)	0.001	0.001	0.01	0.05	0.05	
11	(Hg)(mg/L)	0.0001	0.0001	0.001	0.002	0.002	
12	(Cr <sup>6+</sup> )(mg/L)	0.005	0.01	0.05	0.1	0.1	
13	(CaCO <sub>3</sub> )(mg/L)	150	300	450	650	650	
14	(Pb)(mg/L)	0.005	0.005	0.01	0.1	0.1	
15	(mg/L)	1.0	1.0	1.0	2.0	2.0	
16	(Cd)(mg/L)	0.0001	0.001	0.005	0.01	0.01	
17	(Fe)(mg/L)	0.1	0.2	0.3	2.0	2.0	
18	(Mn)(mg/L)	0.05	0.05	0.1	1.50	1.50	
19	(mg/L)	300	500	1000	2000	2000	
20	COD <sub>Mn</sub> O <sub>2</sub> (mg/L)	1.0	2.0	3.0	10	10	
21	(mg/L)	0.05	0.5	1.00	5.0	5.00	
22	(μg/L)	0.5	1.0	10.0	120	120	

23	(µg/L)	0.5	140	700	1400	1400	
24	(µg/L)	0.5	100	500	1000	1000	
25	(µg/L)	0.5	30.0	300	600	600	
26	(µg/L)	0.5	2.0	20.0	40.0	40.0	
27	COD <sub>Cr</sub> (mg/L)	15	15	20	30	40	GB 3838-2002
28		0.05	0.05	0.05	0.5	1.0	
29	P (mg/L)	0.02 0.01	0.1 0.025	0.2 0.05	0.3 0.1	0.4 0.2	
30	N (mg/L)	0.2	0.5	1.0	1.5	2.0	

4

GB36600-2018

1		65	172	GB36600—2018
2		5.7	78	
3		38	82	
4		60	140	
5		18000	36000	
6		800	500	
7		900	2000	
8		4	40	
9		1200	1200	
10		640	640	
11	+	570	570	
12		28	280	
13		1290	1290	
14		4500	9000	

1 pH

2 /

1	VOCs	
DB12/524-2014	2	-

3	65	55
GB18599-2001		2008.5.1
		GB34330-2017
	HJ 2025-2012	
GB18597-2001		
[2002]71		
	-	[2007]57

[2016]74 “ ” [2016] “ ”  
COD  
VOCs  
COD VOCs  
224m<sup>3</sup>/a  
DB12/356-2018  
500mg/L 45mg/L  
DB12/599-2015 A  
30mg/L 1.

$$=10\text{mg/L}\times 224\text{m}^3/\text{a}\div 10^6=0.0025\text{t/a}$$

$$=0.3\text{mg/L}\times 224\text{m}^3/\text{a}\div 10^6=0.0001\text{t/a}$$

VOCs

1 VOCs 2.98mg/m<sup>3</sup> 3360h/a

10000m<sup>3</sup>/h

$$\text{VOCs } 2.98\times 10000\times 3360\times 10^{-9}=0.1\text{t/a}$$

2 VOCs 1.19mg/m<sup>3</sup> 3360h/a

10000m<sup>3</sup>/h

$$\text{VOCs } 1.19\times 10000\times 3360\times 10^{-9}=0.04\text{t/a}$$

3 VOCs

DB12/524-2014 60mg/m<sup>3</sup> 3360h/a

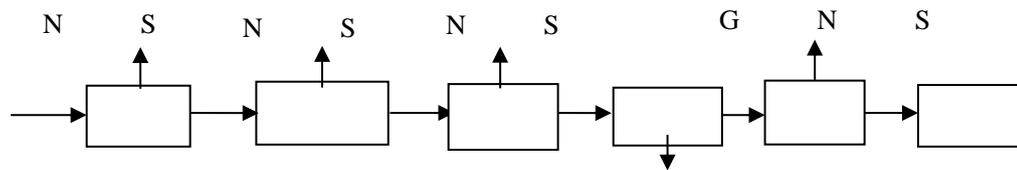
10000m<sup>3</sup>/h

$$\text{VOCs } 60\times 10000\times 3360\times 10^{-9}=2.02\text{t/a}$$

	VOCs	0.04t/a	2.02t/a	0.04t/a
		224m <sup>3</sup> /a	224m <sup>3</sup> /a	224m <sup>3</sup> /a
	COD	0.0784t/a	0.112 t/a	0.0067t/a
	NH <sub>3</sub> -N	0.0067t/a	0.01 t/a	0.0007t/a
	TP	0.0014t/a	0.0018t/a	0.0001t/a
	TN	0.0112t/a	0.016t/a	0.0025t/a

COD 0.112t/a 0.01t/a

0.0018t/a 0.016t/a COD



1

2

3

1mm

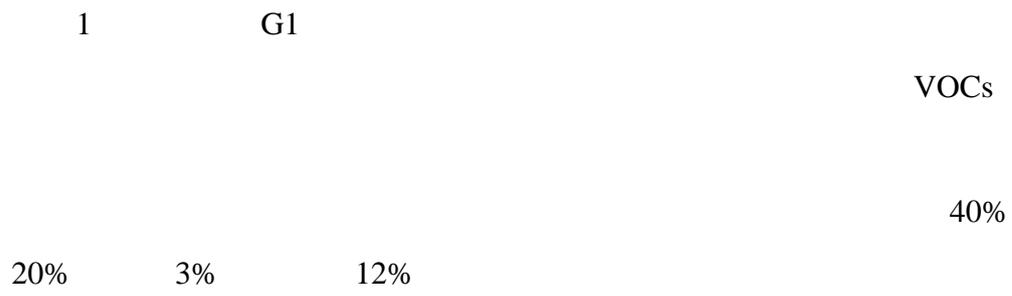
0.1mm--0.2mm

4

5

VOCs

6



	VOCs	+UV		1 18m P1				
		+ 10000m <sup>3</sup> /h						
<p>20                      50L/ d                      1m<sup>3</sup>                      280</p> <p>280m<sup>3</sup>                      0.8                      0.8m<sup>3</sup>/d 224m<sup>3</sup>/a</p>								
mg/L	6~9	350	250	300	30	60	7.0	10
t/a	—	0.0784	0.056	0.0672	0.0067	0.014	0.0016	0.0023
<p>20dB(A)</p>								
1		1309	70	4	20dB(A)			50
2		1319	70	2				50
3		1310	70	2				50
4		JZ4240	75	3				55
5		GZK4240	75	1				55
6			70	3				50
7		-	75	1				55

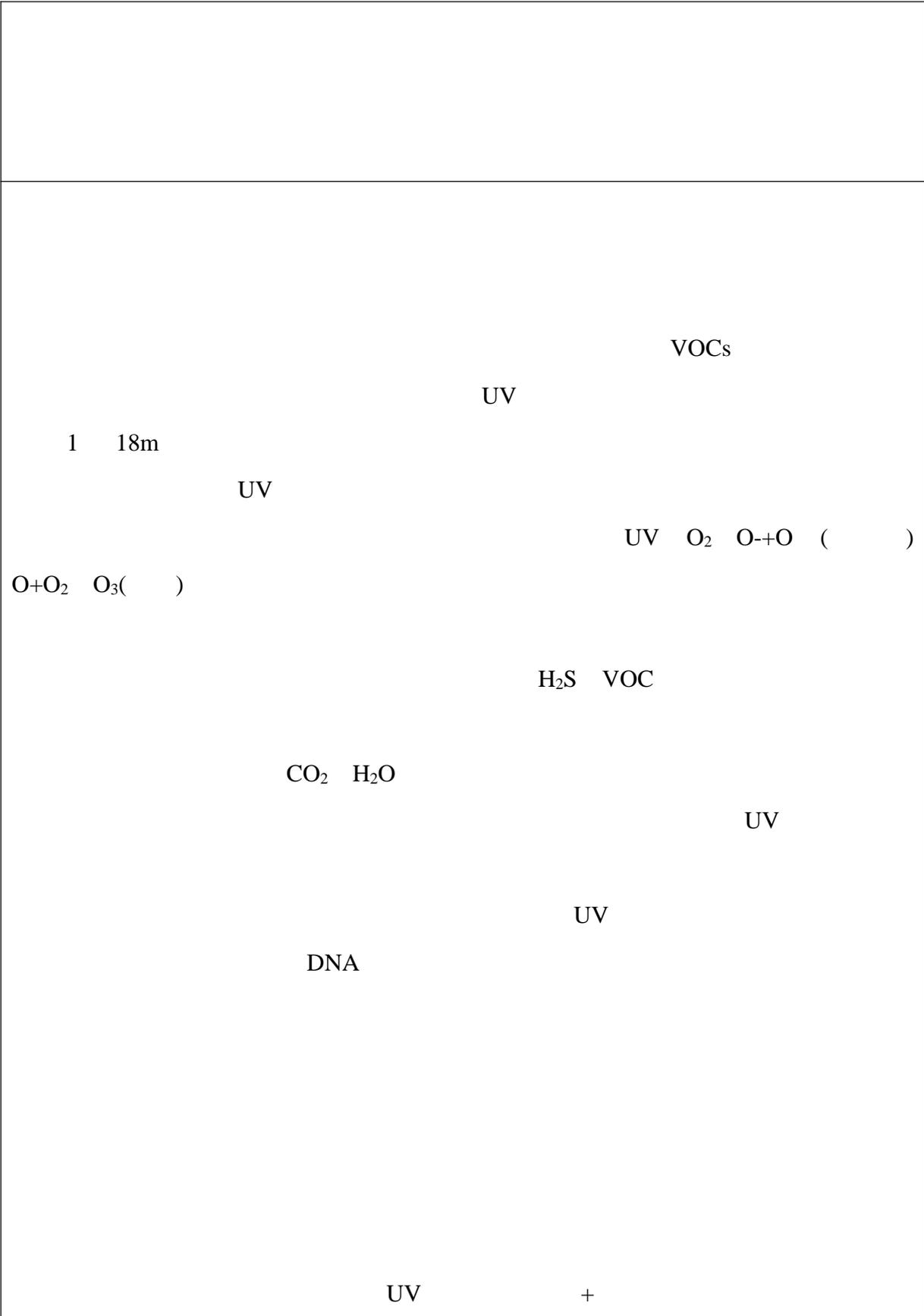
		280	20	
0.5kg/ .d		2.8t/a		
				200t/a
				UV
○		0.15t/a		2016
“HW09”				
○		0.1t/a		2016
“HW08”				
○		0.4t/a		2016
“HW49 ”				
○				0.05 t/a
		2016	“HW49 ”	
○				
0.03t/a			2016	“HW13
”				
○ UV				
		UV		
UV		0.01t/a	UV	
2016	“HW29	”		

1				150
2				30
3				20
4				0.15
5				0.1
6				0.4
7				0.05
8				0.03
9	UV			0.01
10				2.8

1		HW09	900-006-09	0.15					1	T	
2		HW08	900-218-08	0.1					1	T/In	
3		HW49	900-041-49	0.4					1	T/In	
4		HW49	900-041-49	0.05					1	T	
5		HW13	265-103-13	0.03					6	T/In	

6	UV	HW29	900-023-29	0.01						6	T	
---	----	------	------------	------	--	--	--	--	--	---	---	--

		P1	VOCs		2.98 mg/m <sup>3</sup> 0.03kg/h	1.19mg/m <sup>3</sup> 0.012kg/h	
			pH	224t/a		224t/a	
			COD	6~9		6~9	
			BOD <sub>5</sub>	350mg/L 0.0784t/a		350mg/L 0.0784t/a	
			SS	200mg/L 0.0448t/a		200mg/L 0.0448t/a	
				250mg/L 0.056t/a		250mg/L 0.056t/a	
				30mg/L 0.0067t/a		30mg/L 0.0067t/a	
				7mg/L 0.0016t/a		7mg/L 0.0016t/a	
				60mg/L 0.0135t/a		60mg/L 0.0135t/a	
				10mg/L 0.0025t/a		10mg/L 0.0025t/a	
				2.8 t/a		0	
				200t/a		0	
				0.15t/a		0	
				0.1t/a		0	
				0.4t/a		0	
				0.05t/a		0	
				0.03t/a		0	
			UV	0.01t/a		0	
						70-75dB(A)	



60%                      60%                      0.5t

                                 30%

0.15t                      0.1t/a                      60%

                                 1.2s                      0.2kg

                                 750

7-1

--	--	--	--

1                      <“                      ”                      >                      [2017]121

		2020	
1.1		30%	
1.2			
1.3	80%		100%

2                      “                      ”

[2018]18

		2020	
2.1		30%	
2.2			

2.3	80%	100%	
-----	-----	------	--

VOCs

40%      20%

3%      12%      5%      10%      10%

5%

2t/a

VOCs      2t/a×5%=0.1t/a

3360h

0.03kg/h

VOCs

18m

0.1 t/a×40%=0.04t/a    0.012kg/h

UV      +

60%      VOCs

10000m<sup>3</sup>/h

	VOCs	0.1	0.012	1.19	1.5	60	
			/	/	/	1000	

VOCs

DB12/524-2014 2

VOCs 60mg/m<sup>3</sup> 1.5kg/h

DB12/-059-2018 1

-

HJ2.2-2018

AERSCREEN

	/m
	/km
	/°

		X	Y								VOCs
P1		30	-40	4	18	0.4	5.53	20	3360		0.012

AERSCREEN

16	0.78715
25	0.55433
50	0.29276
75	0.26366
100	0.19716
500	0.05366
900	0.02874
1000	0.02315
1500	0.01356
2000	0.00919
2500	0.00677
3000	0.00526
4000	0.00352

5000	0.0025	0.0
/%	0.78	1.1

- HJ2.1-2018 大气环境空气质量标准 附录A 表A.1 环境空气质量标准限值表

Pi — i

10 D10

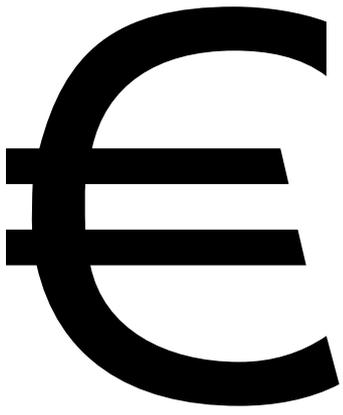
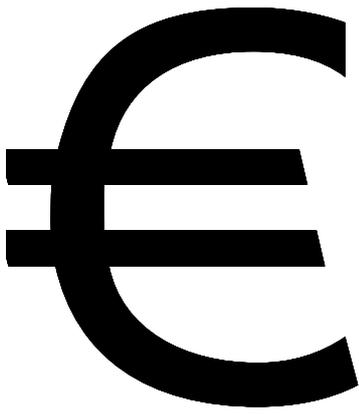
$$Pi = (Ci / Coi) \times 100$$

Pi — i

Ci — i

Coi — i  $\mu\text{g}/\text{m}^3$

		=50km	5~50km	5km	
	SO <sub>2</sub> +N Ox	2000t/a	500~2000t/a	500t/a	
		(VOCs )		PM <sub>2.5</sub> PM <sub>2.5</sub>	
				D	
		2018			



50km

5 50km

=5km

(VOCs )

PM<sub>2.5</sub>

PM<sub>2.5</sub>

		k -20%		k -20%	
		VOCs			
				3	
		m			
		SO <sub>2</sub> 0 t/a	NO <sub>x</sub> 0 t/a	0 t/a	VOCs 0.04 t/a

“ ” “ ” “ ”

HJ2.3-2018

B

224t/a

pH SS COD BOD<sub>5</sub>

	mg/L	6~9	350	250	300	30	60	7.0	10
	t/a		0.0784	0.056	0.0672	0.0067	0.0134	0.0016	0.0022
DB12/35 6-2018	DB12/35 6-2018	6~9	500	300	400	45	70	8.0	15

DB12/356-2018

[2002]71

[2007]57

COD BOD<sub>5</sub> SS  
(DB12/356-2018)

$$\begin{aligned} \text{COD} &= 350\text{mg/L} \times 224\text{m}^3/\text{a} \div 10^6 = 0.0784\text{t/a} \\ = 30\text{mg/L} \times 224\text{m}^3/\text{a} \div 10^6 &= 0.0067\text{t/a} & = 50\text{mg/L} \times 224\text{m}^3/\text{a} \div 10^6 &= 0.0112\text{t/a} \\ = 6\text{mg/L} \times 224\text{m}^3/\text{a} \div 10^6 &= 0.0014\text{t/a} \end{aligned}$$

$$\begin{aligned} \text{COD} &= 500\text{mg/L} \times 224\text{m}^3/\text{a} \div 10^6 = 0.112\text{t/a} \\ = 45\text{mg/L} \times 224\text{m}^3/\text{a} \div 10^6 &= 0.01\text{t/a} & = 70\text{mg/L} \times 224\text{m}^3/\text{a} \div 10^6 &= 0.016\text{t/a} \\ = 8\text{mg/L} \times 224\text{m}^3/\text{a} \div 10^6 &= 0.0018\text{t/a} \end{aligned}$$

$$\begin{aligned} \text{COD} &= 30\text{mg/L} \times 224\text{m}^3/\text{a} \div 10^6 = 0.0067 \text{ t/a} \\ = 3.0\text{mg/L} \times 224\text{m}^3/\text{a} \div 10^6 &= 0.0007\text{t/a} & = 10\text{mg/L} \times 224\text{m}^3/\text{a} \div 10^6 &= 0.0025\text{t/a} \\ = 0.3\text{mg/L} \times 224\text{m}^3/\text{a} \div 10^6 &= 0.0001\text{t/a} \end{aligned}$$

1

1		pH SS COD BOD <sub>5</sub>						DW 001	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

1	DW0 01	E 117°4 1'22.5	N 38°9 5'67.	0.02 24				pH	6-9
								COD	30

		3"	37"							BOD <sub>5</sub>	6
										SS	5
											10
											1.5 3.0
											0.3
											0.5

\* 11 1 3 31

1	DW001	COD BOD <sub>5</sub>	pH SS	DB12/356-20 18	pH 6-9 SS 400 mg/L COD 500 mg/L BOD <sub>5</sub> 300 mg/L 45 mg/L 70 mg/L 8 mg/L 15 mg/L

1	DW001	pH	6-9		
		COD	30	0.00002	0.0067
		BOD <sub>5</sub>	6	0.00005	0.0013
		SS	5	0.00004	0.0011
			10	0.00008	0.0022
			1.5 3.0	0.000003	0.0007
			0.3	0.0000003	0.00007

						0.5			0.0000004	0.0001
1	DW 001	pH							1	
		COD							/	
		BOD <sub>5</sub>								
		SS								
			--	--	--	--		3		

2

3.00 m<sup>3</sup> 2012 6

2.48 m<sup>3</sup>

A<sup>2</sup>/O

DB12/599-2015 1 A

DB12/356-2018



---

		/	/
		km	/ km <sup>2</sup>
		/	
		/	
			⊗
		/ km	/ km <sup>2</sup>
		/	

				/ t/a	/ mg/L
		COD	0.0067		30
		BOD <sub>5</sub>	0.0013		6
		SS	0.0011		5
			0.0022		10
			0.0007		1.5 3.0
			0.00007		0.3
			0.0001		0.5
				/ t/a	/ mg/L
		/	/	/	/
		m <sup>3</sup> /s	m <sup>3</sup> /s	m <sup>3</sup> /s	m <sup>3</sup> /s
			m	m	m
			/		
			/		COD BOD <sub>5</sub> SS
				pH	

---

		⚙
		⚙

---

HJ610-2016

HJ610-2016

HJ610

-2016

GB-18599-2001

GB-18597-2001

2

0.5

1

”

“

”

“

”

“

“

”

2

1

2

3

HJ610-2016

7

1

2.07m

2.85×10<sup>-5</sup>cm/s

7-16

	Mb 1.0m K 1×10 <sup>-6</sup> cm/s	
	0.5m Mb 1.0m K 1×10 <sup>-6</sup> cm/s Mb 1.0m 1×10 <sup>-6</sup> cm/s K 1×10 <sup>-4</sup> cm/s	2.07m  2.85×10 <sup>-5</sup> cm/s
	“ ” “ ”	

2

HJ610-2016

7-17


3

HJ610-2016

7-16

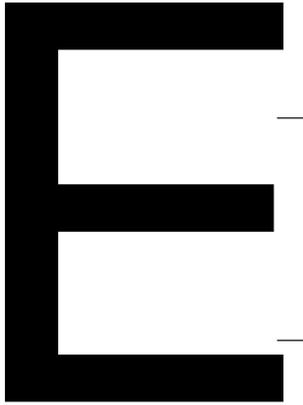
7-17



Mb 6.0m

K  $1 \times 10^{-7}$ cm/s

GB18598



Mb 1.5m

K  $1 \times 10^{-7}$ cm/s

GB16889

HJ 610-2016

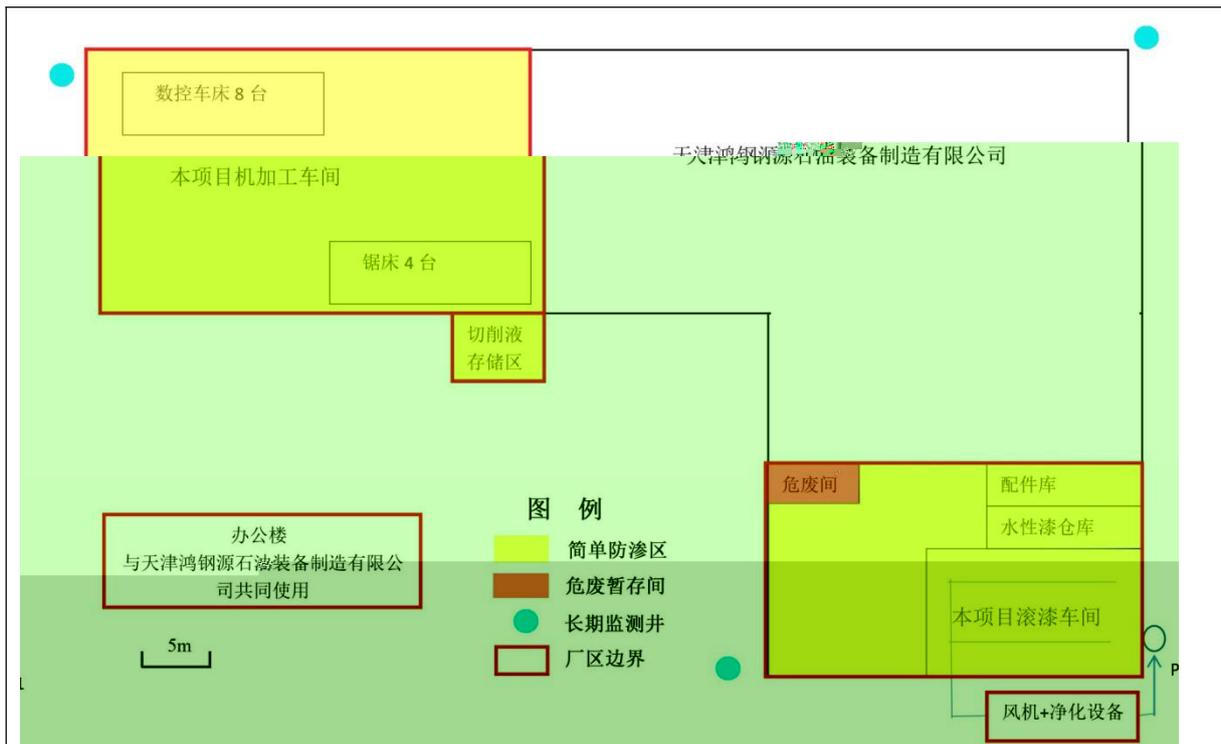
GB18597-2001 “

” “

”

7-19

1						
2						
3						
4						
5						
6						
7				GB18597-2001		



GB18597-2001

70-75dB(A)

1		1309	70	4	20dB(A)	50
2		1319	70	2		50
3		1310	70	2		50
4		JZ4240	75	3		55
5		GZK4240	75	1		55
6			70	3		50
7		-	75	1		55

1

$$L_P = L_r - 20 \log(r/r_0) - (r - r_0) - R$$

$L_P$ -----

dB(A)

$L_r$ -----  $r$  dB(A)

$r$ ----- m

$r_0$ ----- m  $r_0=1m$

----- dB(A)/m 0.008dB(A)/m

$R$ ----- 20dB(A)

2

$$L = L_1 + 10 \lg[1 + 10^{(L_2 - L_1)/10}]$$

$L$  dB(A)

$L_1$  dB(A)

$L_2$  dB(A)

		12	83	70	20	26.1	57.3 43.3	58.1
		3	74.5	5	20	40.5		40.9
		1	75	2	20	49.0		
		12	83	10	20	43	47.2 42.8	52.1
		3	74.5	5	20	40.5		51.1
		1	75	2	20	49.0		
		12	83	10	20	43	47.2 43	48.6
		3	74.5	70	20	17.6		46.0
		1	75	80	20	17.0		
		12	83	5	20	49	59.3 44.3	59.7
		3	74.5	30	20	25.0		50.3
		1	75	40	20	23.0		

GB12348-2008 3

65dB(A)

55dB(A)

UV

150t/a

30t/a

20t/a

UV

0.1t/a

0.15t/a

0.4 t/a

0.05t/a

0.03t/a

0.01t/a

20

0.5kg/ •d

2.8t

1				150
2				30
3				20
4				0.15
5				0.1
6				0.4
7				0.05
8				0.03
9	UV			0.01
10				2.8

GB15562.2

2004 7 1

2008 5 1

GB18597-2001

HJ2025-2012

GB15562.2-1995

---

GB18597-2001

1

$10^{-7}$  / 2

2

$10^{-10}$  /

300Kg(L)

30

1		HW08	900-249-08	10m <sup>2</sup>				
2		HW09	900-006-09					
3		HW49	900-041-49					
4		HW49	900-041-49					
5		HW06	900-402-06					

6		UV	HW29	900-023-29				
---	--	----	------	------------	--	--	--	--

HJ2025

5 1999

[2005 ] 9

1	40%	0.2		5000	0.00004
2	1- -2- 5%	0.025		5000	0.000005
3		0.4		2500	0.0002

$$q_1/Q_1 + q_2/Q_2 + \dots + q_n/Q_n \leq 1$$

$$\frac{q_1}{Q_1} + \frac{q_2}{Q_2} + \dots + \frac{q_n}{Q_n} \leq 1$$

$$2.45 \quad 10^{-4} < 1$$


10%      10%      40%      20%      3%      12%      5%

1-      -2-

GB18218-2018

7-26

7-27

	—	350-8000	—	145-155
	20		g/mL	
260	—	1.16 -1.18 H20=1	0.793	12%
		LD50 2500 mg/kg( )		LC50
				(GB
		13690-92)	3.2	
1-	-2-	C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>	90	118
		21.7		g/mL
39		1.33 kPa	—	0.922
		LD50 6.6g/kg		
		40.18g/m <sup>3</sup>	5~6	


1



[2014]54

1

2

3

4

5

6

		E117°41'18.08"	N38°95'70.29"

					1-					
					-2-					
	/t	0.2	0.2	0.2	0.025					
		500 m				—	5 km			—
		200 m						—		
			F1			F2		F3		
			S1			S2		S3		
			G1			G2		G3		

				D1	D2	D3
		1	1	10	10	100
	M	M1	M2		M3	M4
	P	P1	P2		P3	P4
		E1	E2		E3	
		E1	E2		E3	
		E1	E2		E3	
	+					I
			/			
		SLAB	AFTOX			
				-1		__m
				-2		__ m
				__		__ h
						__ d
				__		__d

		2007 57	<
	>	2002 71	
1		18m	
			5m
2		1	
			[2002]71
			-
	[2007]57		
3			(GB12348-2008)
4			
		GB15562.2-1995	-
		GB15562.1 2-1995	
	( )		

15%

100

15

1		7	+UV + + P1
2		3	
3		2	
4		3	
		15	/

2017 7 16

1.

2.

3.

4.

1	P1	VOCs	DB12/524-2014
			DB12/-059-2018
2	—	COD BOD <sub>5</sub> SS pH	DB12/356-2018
3		A	GB12348—2008 3
			GB18599-2001
4			HJ 2025-2012
		UV	GB18597-2001
			2008.5.1
5	"d ha^6†V† è		

7-33 7-34

P1	VOCs	1 /	DB12/524-2014 DB12/-059-2018

COD BOD<sub>5</sub> SS  
pH 1 /

2

13m



2

3 ' CE\$ÙpÑ • @Â@ 4 )\$è\$DZö Ö È - 40\$G-y Ái,\$G— 5"ž\$# ' .-\$# ' # ì\$C

4 ' CE\$ ÙpÑ 70 4rB9\_é2B9B' ÑÑB9Ö# IPôú\$

5 ° ÈÀB9,É\_z@F-91e-ùìé2B9,ÉD'ÀÑ ¼É\$DZD

6 °R\$S'ùÑB9DÑÑDy,àDèB9,ÉD'Òà — É\$ Ù ĐZD

7

8

1

Ä2

[2016]81

[2017]84

1

2

3

2017

“

64

” “

”

“ ”

2020

			VOCs	UV 18m	+ P1
			pH SS COD BOD <sub>5</sub>		
			UV		

“ ” 2018  
7 1  
1  
100  
1800 1  
2 1800  
800 1000  
2019 2  
12  
38.957029° 117.411808°  
1 2  
21  
2011 2013  
[2013]330  
121 (2015 ) 2015  
(2010 )  
2018 12 7 “

1800	”	2018-120112-33-03-951678					
				1			
						112011101537	
6							2012
		2012					
				1			
GB/T4754-2017							
		SO <sub>2</sub>		CO 24			95
O <sub>3</sub>	8		90				
GB3095-2012		PM <sub>2.5</sub>	PM <sub>10</sub>	NO <sub>2</sub>		GB3095-2012	
		PM <sub>2.5</sub>	PM <sub>10</sub>				
				2018	1	25	2018 1 31
		2018 8 27		2018	9	3	
							1#

	1.23km	2#		1.05km
3#			420m	
				2.0mg/m <sup>3</sup>
			DB12/-059-2018	2
			GB3096-2008	3
	4			4
pH	( N )	( N )		CN-
	GB/T 14848-2017)			GB/T
14848-2017)		( CaCO <sub>3</sub> )		
	GB/T148482017)			COD <sub>Cr</sub>
	GB 3838-2002			
	GB 3838-2002			
		15		
			GB36600—2018	
		VOCs		
				UV
+		18m	P1	60%
VOCs				
DB12/524-2014			VOCs	50mg/m <sup>3</sup> 0.75kg/h
			DB12/-059-2018	1
	2			

GB12348-2008 3

UV

GB18599-2001

GB18597-2001

2008.5.1

2002 71

[2007]57

“ “

[2014]197 “

”

VOCs COD

VOCs

VOCs0.04t/a

VOCs2.02t/a

COD0.0784 t/a

0.0067 t/a

0.0014 t/a

0.0112 t/a

COD0.112 t/a

0.01 t/a

0.0018 t/a

0.016 t/a

15

100

15%

1

2

3

