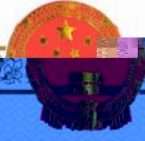


2466

2019 7



建设项目环境影响评价资质证书

山东凤祥股份有限公司智能高效养殖加工一体化



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	91370100771006830R
	0531- 88682875
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	2017035370352016370709000865
2.	
	2017035370352016370709000865
	00014539



检验检测机构 资质认定证书

证书编号：2015150509U

名称：山东鲁环检测科技有限公司

经审查，你机构已具备国家有关法律、行政法规规定的
条件，符合资质认定条件，准予批准，可以在社会出具具有证明作用的数
据和结果，特发此证。资质认定包括检验检测机构计量认证。

许可使用标志



2015150509U

发证日期：2017年08月18日

有效期至：2021年10月08日

发证机关：山东省质量技术监督局



本证书由国家认证认可监督管理委员会监制，在中华人民共和国境内有效。



2010 10.45

1991

2 3 20 46 4

2 40 1.8

1.13 1.2 20

10 6 2018 32

2019 40

2015

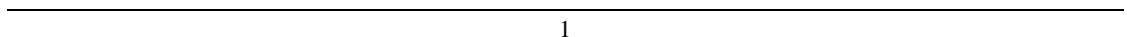
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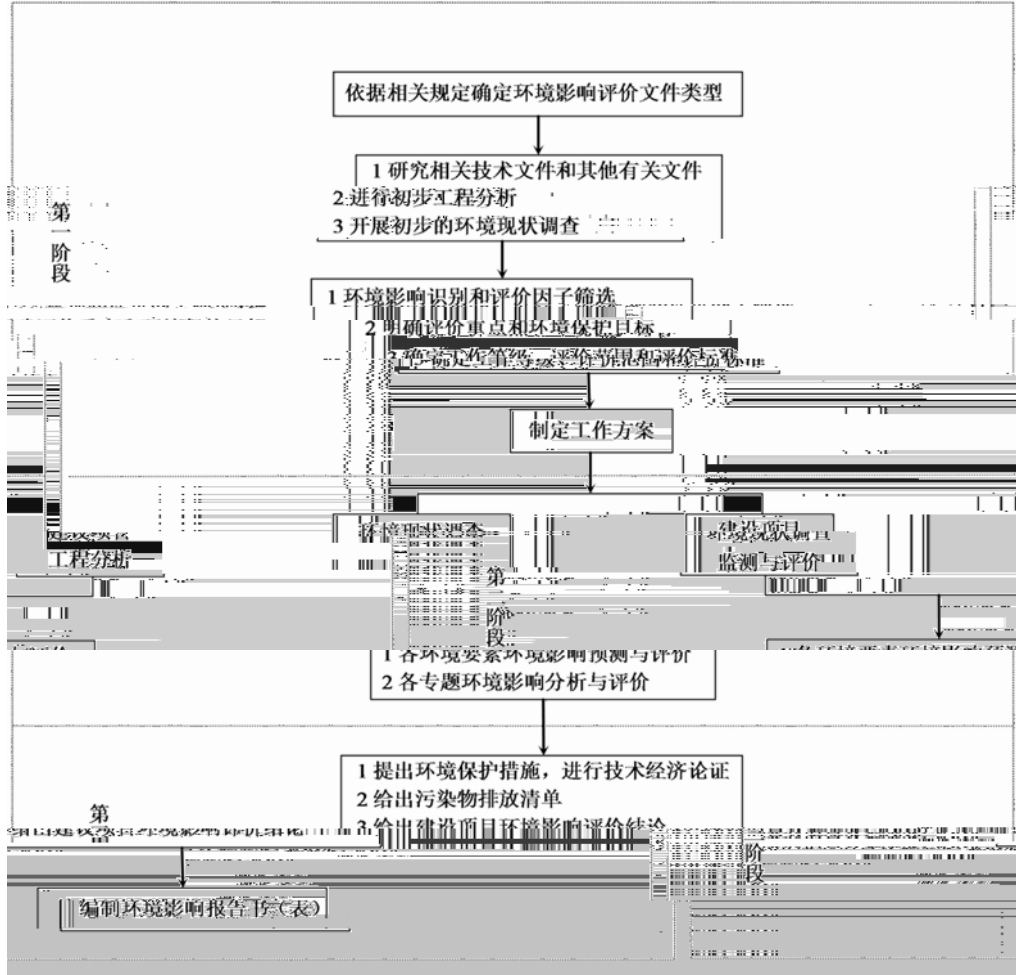
134879 40

5000 94 88 2.7

2.3 25 298 6935.95 /

8000 /





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3

4

2

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2

3

GB12348-2008 2

4

5

6

100m

100m

102.03m

111.05m

2019 6

1	1-1
1.1	1-1
1.2	1-6
1.3	1-7
1.4	1-9
1.5	.....	1-14
2	.....	2-1
2.1	.....	2-1
2.2	.....	2-2
2.3	.....	2-6
2.4	.....	2-8
2.5	.....	2-14
2.6	.....	2-20
2.7	.....	2-53
2.8	.....	2-56
2.9	.....	2-61
3	.....	3-1
3.1	.....	3-1
3.2	.....	3-7
3.3	.....	3-10
4	.....	4-1
4.1	.....	4-1
4.2	.....	4-11
4.3	.....	4-20
4.4	.....	4-33
4.5	.....	4-38

4.6	.....	4-47
4.7	.....	4-48
4.8	.....	4-50
5	.....	5-1
5.1	.....	5-1
5.2	.....	5-2
5.3	.....	5-6
5.4	.....	5-7
5.5	.....	5-8
5.6	.....	5-12
5.7	.....	5-13
5.8	.....	5-19
5.9	.....	5-20
6	.....	6-1
6.1	.....	6-1
6.2	.....	6-7
6.3	.....	6-14
6.4	.....	6-15
6.5	.....	6-16
6.6	.....	6-16
6.7	.....	6-17
6.8	.....	6-17
7	.....	7-1
7.1	.....	7-1
7.2	.....	7-2
7.3	.....	7-2

7.4 7-1

7.5 7-4

8 8-1

8.1 8-1

8.1 8-3

8.2 8-7

8.3 “ ” 8-9

8.4 8-11

9 9-1

9.1 9-1

9.2 9-1

9.3 9-2

9.4 9-2

9.5 9-16

9.6 9-17

9.7 9-21

9.8 9-21

10 10-1

10.1 10-1

10.2 10-9

10.3 10-9

1

1.1

1.1.1

- 1) 2014.4.24 2015.1.1
- 2) 2018.12.29
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- 5) 2016.11.7
- 6) (2018.8.31 2019.1.1)
- 7) 2018.12.29
- 8) 2012.2.29 2012.7.1
- 9) 2009.1.1
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- 12) 2016.7.2
- 13) 2012.12.28
- 14) 2015.4.24
- 15) 2008.1.1
- 16) 682 2017.10.1
- 17)
- [2018]31
- 18) 2015.4.24
- 19) 2015.4.24
- 20) 1077
- 2017 7
- 21) 2005 139

-
- 22) 1 2012 8 1
- 23) 2006 12 1
- 24) 643 2014.1.1
- 25) 450 2005.11.18
- 26) 257 1999.1.1
- 27) 591 2011.12.1
- 28) 44 2017.7.1
- 29) 1 < >
2018.4.28
- 30) 48 2017.11.6
- 31) 39 2016.8.1
- 32) 34 2015.6.5
- 33) 35 2015.9.1
- 34) 31 2015.1.1
- 35) 46 2017.11.1
- 36) 5 1999.10.1
- 37) 9 2001.5.8
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-

-
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-

67)

2018 9

68)

< >

2018 2

69)

[2018]266

70)

2018 22

1.1.2

1)

(2018.11.30)

2)

2018.11.30

3)

2018.11.30

4)

2018.1.23

5)

2018.9.21

6)

2018.1.23

7)

2015.5.1

8)

2017.5.1

9)

2018.1.23

10)

2015.7.20

11)

311

2018.1.24

12)

309

2017.8.1

13)

<

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2003.1.1

14)

[2000]86

15)

“

”

[2006]60

16)

(

[2008]636)

17)

[2010]114

-
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(2016-2017) >
- 30) 7
[2016]46
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-

34)

[2014]130

35)

[2015]41

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- 1) (HJ2.1-2016)
- 2) (HJ2.3-2018)
- 3) (HJ610-2016)
- 4) HJ2.2-2018
- 5) (HJ2.4-2009)
- 6) HJ19-2011
- 7) HJ69-2018
- 8) HJ819-2017
- 9) (HJ2000-2010)
- 10) (HJ 2015-2012)
- 11) HJ/T91-2002
- 12) HJ2035-2013
- 13) HJ944-
2018
- 14) HJ884-2018
- 15) 2016.8.1
- 16) GB18218-2009
- 17) HJ589-2010
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- 20) GB18597-2001
- 21) HJ-BAT-10)
- 22) HJ497-2009
- 23) HJ/T81-2001
- 24) [2017]25
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- 26) CB/T19525.2-2004
- 27) NY/T1168-2006
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- 2) “ ”
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- 6)
- 7) 2014-2020
- 8) “ ”
- 9) “ ”
- 10) “ ” 2016-2020
- 11) 2013-2020
- 12) 2016-2020
- 13) “ ”
- 14) 2016~2020
- 15) 2018-2035
- 16) 2006-2020

1.1.5

- 1)
- 2)
- 3)
- 4)

1.2

1.2.1

1.2.2

“ ” “ ” “ ”

1.2.3

1.3

1.3.1

1

1.3-1

1.3-1

		NO _x SO ₂

		COD _{cr} BOD ₅ SS

2

1

2

3

4

1.3-2

1.3-2

1				/	▲	/	▲
2				▲	/	▲	/
3				▲	▲	▲	▲
4				▲	/	▲	/
5				/	▲	/	▲
6				▲	/	▲	/
7				▲	▲	▲	▲
8				▲	/	▲	/

	/
	/

1.3-

4 -1.7143 TD<22701c3166

1.3-3

		pH COD BOD ₅	
		K ⁺ Na ⁺ Ca ²⁺ Mg ²⁺ pH	---
		A Leq A	Leq[dB(A)]
		pH [a]	---

1.4

1.4.1

1

HJ2.2-2018

Pi i i 10%

D_{10%} Pi

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

Pi — i %

C_i — i mg/m³

C_{oi} — i mg/m³

1.4-1

1.4-1

--	--

	$P_{\max} \geq 10\%$
	1% P_{\max} 10%
	$P_{\max} = 1\%$

1.4-2 ARESCREEN

1.4-3

1.4-2

/	/	
	()	
		6.7 °C 2
	9	°C
	(m)9	
	/km	
	/°	

HJ2.2-2018

ARESCREEN

D_{10%}

1.4-3

1.4-3

D_{10%}

2

HJ2.3-2018

B

3

HJ 610-2016

“ ”

4

GB3096-2008

2

3dB(A)

- HJ2.4-2009

5

1.4-4

1.4-4

	+			
				a
a				

6

HJ964-2018

A

“

”	600	30		60	III
			A		
		50hm ²	5~50hm ²	5hm ²	
		5hm ²			

1.4-5

			B
	HJ 610-2016	A	
			2
			3dB
			2291.1 1.5274km ² <2km ²

1.4.2

“ ”

1.4-8 1.4-1

1.4-9 1.4-2

1.4-8

		5.0km	
			B
	1km	1km	2km 6km ²
	1.0m	200m	
		/	

	0.05 km	

1.4-9

			(m)	
	1	SE	607	773
	2	W	654	534
	3	S	863	268
	4	NE	953	468
	5	SE	1659	732
	6	SE	2624	450
	7	SE	1813	784
	8	SSE	1617	698
	9	SSE	2080	521
	10	S	2368	612
	11	SW	2053	402
	12	SW	2021	299
	13	SSW	2500	274
	14	SSW	3191	869
	15	SW	3261	303
	16	SW	2953	4
	17	W	1989	9
	18	W	2361	5
	19	NW	1973	6
	20	NW	2391	4
	21	NW	3264	6
	22	NW	3453	3
	23	N	1803	7
	24	NE	1880	10
	25	NE	1655	7
	26	ENE	1860	6
	1	NE	681	3
	2	S	1540	
	3	ENE	1930	2
	4	ENE	1895	7

5		E	2240	7
6		N	2453	3
7		N	1250	6
8		NW	1290	8
9		NW	1740	1
10		NW	2580	6
11		NW	2900	5
12		WSW	2130	5
13		WSW	1840	3
14		SW	3310	4
15		SW	3150	6
16		SW	2225	3
17		SSW	2320	15
18		SE	2605	784
19		SSE	2455	698
20		SSE	2935	521
21		SE	1260	773
22		SE	2260	732
1		E	516	
2		W	503	
3		SW	696	
4		SE	1460	
5		N	1130	
6		N	1995	
7		NNE	1980	
8		NNE	2930	
9		ENE	1910	
10		SE	2580	
11		SE	2700	
12		SSE	2710	
13		S	2165	
14		SSW	2330	
15		SSW	2430	
16		SW	2810	
17		SW	2400	
18		SW	2065	

19		W	1295	
20		WNW	1540	
21		NW	1545	
22		NW	2920	
1		N	528	
2		S	716	
3		NNW	900	
4		NNW	1645	
5		NNW	1925	
6		NNW	2585	
7		NW	3175	

	8		SE	1870	
--	---	--	----	------	--

19		S	1510	
20		SSE	2640	
21		SE	967	
22		E	1784	
23		NE	1820	
24		NNE	2400	
25		NNE	2120	
26		NE	2500	
27		E	2374	
1		N	514	
2		SW	700	
3		S	706	
4		SE	878	
5		SE	1100	
6		ESE	689	
7		WNW	621	
8		N	997	
9		N	1400	
10		N	2097	
11		N	2134	
12		N	2355	
13		NNW	1280	
14		NW	2742	
15		NW	2940	
16		WNW	2320	
17		WNW	2380	
18		W	2400	
19		WSW	2070	
20		WSW	1830	
21		SW	2260	
22		SSW	1400	
23		SW	3060	
24		SSW	2500	
25		S	2325	
26		SSE	1740	
27		SE	3140	

	27		NW	1525	

19		ESE	1690	
20		SE	1780	
21		SE	2490	
22		SE	2270	
23		SE	3250	
24		NE	2520	
1		N	535	
2		N	1920	
3		N	1460	
4		NW	1720	
5		W	519	
6		W	965	
7		W	960	
8		NW	2990	
9		NW	2600	
10		WNW	1910	
11		W	2000	
12		WSW	2150	
13		SW	3010	
14		SW	2560	
15		SW	2260	
16		SSW	2350	
17		SSW	890	
18		SSE	2100	
19		SSE	2240	
20		SE	1560	
21		SE	1910	
22		E	1450	
23		ESE	1100	
24		SE	1520	
25		NE	1760	
26		NE	1775	
27		NE	2540	
1		E	519	
2		SE	830	

3		SE	1400	
4		SSE	1520	
5		SSE	1190	
6		SE	2240	
7		SE	2650	
8		SE	2870	
9		S	730	
10		S	580	
11		WSW	680	
12		SW	1220	
13		SW	2060	
14		SW	2550	
15		WNW	940	
16		WNW	1550	
17		WNW	1960	
18		NW	2500	
19		N	720	
20		N	990	
21		NE	1480	
22		NE	2610	
23		N	1800	
24		N	2200	
25		NE	2550	
1		SSW	1090	
2		W	605	
3		W	590	
4		NNW	1280	
5		NNW	1900	
6		NW	3050	
7		NW	2820	
8		WNW	2250	
9		W	2390	
10		SW	1880	
11		SW	2600	
12		SW	3170	
13		SW	3530	

14		SSW	2000	
15		SSW	2380	
16		SSW	2500	

23		NW	2290	
24		NW	3220	
1		E	564	
2		ESE	570	
3		NE	1580	
4		NE	2100	
5		NNE	1740	
6		N	2460	
7		N	1300	
8		N	680	
9		N	2310	
10		NNW	2680	
11		NW	2310	
12		NNW	1430	
13		NW	1650	
14		W	2350	
15		WSW	1290	
16		SW	1420	
17		SW	2130	
18		WSW	1060	
19		W	765	
20		W	745	
21		SW	895	
22		SSW	2020	
23		SSW	2870	
24		S	620	
25		S	1730	
26		SE	3200	
27		SE	2320	
1		N	652	
2		N	2040	
3		NW	1800	
4		NNW	2520	
5		NW	3135	
6		W	2580	

7		SSW	3490	
8		SSW	2730	
9		SSE	1840	
10		E	1930	
11		ENE	1205	
12		ENE	1580	
13		ENE	2190	
14		ENE	2050	
15		ENE	2500	
16		NE	3070	
1		W	556	
2		E	507	
3		NNE	1000	
4		N	750	
5		NNW	550	
6		N	1610	
7		NW	1940	
8		NW	2500	
9		WNW	1575	
10		W	2050	
11		WNW	2650	
12		W	2170	
13		WSW	2430	
14		WSW	1780	
15		WSW	2090	
16		WSW	1750	
17		SW	2025	
18		SW	3190	
19		SSW	2730	
20		SSW	1570	
21		S	737	
22		S	975	
23		SSE	2130	
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2		N	1390	

3		NNE	1510	
4		N	1820	
5		NNE	1780	
6		NNE	2130	
7		NNE	2290	
8		SE	1180	
9		ESE	1440	
10		SE	1570	
11		ESE	2110	
12		SE	1420	
13		SE	2680	
14		SE	3100	
15		SSE	2370	
16		S	2345	
17		SW	2200	
18		SW	2510	
19		WSW	1240	
20		W	1270	
21		WNW	2050	
22		NW	2690	
1		W	632	
2		S	530	
3		NNW	725	
4		NNW	885	
5		NNW	2630	
6		NW	2255	
7		NW	1380	
8		W	1600	
9		SW	1360	
10		S	1850	
11		SSE	2260	
12		SE	2780	
13		SSE	965	
14		SE	1620	
15		E	1000	
16		NNE	893	

17		NE	1780	
18		NE	2300	
19		NE	1840	
1		NNW	1064	
2		NW	1100	
3		NW	2100	
4		NW	2490	
5		W	1507	
6		WNW	1810	
7		SW	2740	
8		SSW	2190	
9		SW	2360	
10		SW	1590	
11		SSW	1070	
12		S	1660	
13		S	1980	
14		SE	2310	
15		ESE	1800	
16		E	535	
17		E	1400	
18		ENE	1780	
19		NE	1640	
20		NE	2020	
21		NE	1410	
22		NNE	1600	
23		NNE	2180	
24		NNE	2500	
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3		WNW	2230	
4		WNW	2190	
5		NW	2760	
6		NW	2475	
7		NNW	2350	
8		N	1475	

9		NNE	1830	
10		NNE	1440	
11		NE	2425	
12		NE	524	
13		NE	1110	
14		NE	1530	
15		SE	2345	
16		SE	1370	
17		SE	1130	
18		ESE	1260	
19		SE	2550	
20		SSE	3040	
21		SSE	2500	
22		S	1185	
23		SSW	1400	
24		SW	1710	
25		SW	505	
26		SW	1300	
1		NW	578	
2		N	715	
3		N	1200	
4		N	1690	
5		NNW	1840	
6		NW	2050	
7		NW	1460	
8		WNW	2300	
9		W	1880	
10		WSW	674	
11		SW	2460	
12		SSW	1320	
13		SSW	2420	
14		S	526	
15		SSE	900	
16		SSE	1090	
17		SE	1490	
18		ESE	2160	

19		SE	2485	
20		SE	2830	
21		NE	2180	
22		NNE	2510	
23		NNE	2720	
24		NE	1560	
1		NNW	704	
2		NNW	1090	
3		NW	1300	
4		NW	1500	
5		NW	2430	
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12		WSW	2280	
13		SW	2200	
14		SW	2090	
15		SW	1760	
16		SW	1525	
17		S	1060	
18		SSW	1025	
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20		SSE	1790	
21		SSE	2010	
22		E	1170	
23		ESE	1490	
24		E	1750	
25		NE	2380	
26		NNE	1200	
27		NE	2990	
28		NNE	2330	
29		NNE	2240	

1		W	503	
2		WNW	1680	
3		SW	1390	
4		SW	2600	
5		SSW	1135	
6		S	1150	
7		S	1670	
8		S	2160	
9		S	2090	
10		SSE	2280	
11		SE	750	
12		SE	2050	
13		SE	1040	
14		E	675	
15		ESE	1620	
16		ESE	2090	
17		E	1805	
18		ENE	1850	
19		NE	506	
20		NE	1050	
21		NE	1080	
22		NE	1400	
23		NE	1510	
24		NE	2560	
25		NNE	1960	
26		N	1470	
27		N	760	
28		NNW	720	
29		NNW	1575	
30		NW	2160	
31		NW	3100	
1		W	506	
2		W	830	
3		W	1090	
4		W	1370	
5		W	2410	

6		WNW	1870	
7		WNW	2560	
8		WNW	2050	
9		NW	2180	
10		NW	3220	
11		NW	707	
12		NE	1500	
13		NE	2890	
14		E	1920	
15		E	2100	
16		E	1030	
17		SE	2410	
18		SSE	1500	
19		S	1530	
20		S	2540	
21		S	810	
22		S	692	
23		SW	2570	
24		SSW	1890	
25		SW	1785	
1		SSW	652	
2		W	1520	
3		SW	2690	
4		S	2340	
5		S	1740	
6		SSE	1685	
7		SSE	2200	
8		ESE	1400	
9		ESE	1630	
10		ESE	2270	
11		E	2080	
12		E	1263	
13		NE	1080	
14		NE	1170	
15		NE	2030	
16		NNE	2915	

17		NNE	2595	
18		NNE	2600	
19		N	2250	
20		SW	2320	
21		SW	3325	
1		N	521	
2		NNW	1000	
3		NNW	845	
4		N	864	
5		NNW	1530	
6		NW	1900	
7		NW	2110	
8		NNW	2260	
9		N	1620	
10		NE	3170	
11		NE	1185	
12		NE	2670	
13		E	615	
14		E	700	
15		E	1920	
16		SE	1510	
17		SE	2320	
18		SSE	2130	
19		SE	2300	
20		SE	2870	
21		W	1170	
22		WSW	1460	
23		WSW	2250	
24		SW	2300	
25		SW	3000	
1		N	572	
2		N	845	
3		N	980	
4		NNE	1150	
5		NE	1830	

6		SE	765	
7		SE	2010	
8		SE	2380	
9		S	1790	
10		S	955	
11		SW	2175	
12		W	920	
13		NW	1700	
14		NW	2700	
15		NW	3110	
1		S	544	
2		S	720	
3		ESE	1200	
4		NE	731	
5		SE	2340	
6		NE	2345	
7		NE	2460	
8		NE	2530	
9		N	1480	
10		NNW	1800	
11		NNW	1580	
12		NW	2920	
13		WNW	1270	
14		WNW	1330	
15		W	1520	
16		W	1510	
17		WSW	2020	
18		WSW	1745	
19		SW	2430	
20		SW	2840	
21		SSW	2010	
22		S	2035	
23		SE	3220	
1		N	789	
2		WNW	713	

	17		NE	2890	
	18		NNE	2450	
	18		SSW	2790	
	1		N	650	
	2		NNW	2150	
	3		NW	1670	
	4		NW	2560	
	5		NW	3000	
	6		NW	2280	
	7		WNW	2700	
	8		SW	2730	
	9		WSW	1595	
	10		WSW	970	
	11		SW	1357	
	12		SW	2000	
	13		SSW	2010	
	14		S	510	
	15		S	1845	
	16		SSE	1650	
	17		SSE	1910	

18

9		SSW	2070	
10		SSW	2625	
11		NE	585	
12		ESE	784	
13		SE	2300	
14		SE	3070	
15		SE	2430	
16		SE	1556	
17		E	1850	
18		ENE	2400	
19		NE	2240	
20		NE	1985	
21		NNE	1570	
22		N	1620	
23		N	1785	
24		NNE	2020	
25		NNE	2130	
26		NNE	1970	
27		NNE	2340	
1		N	503	
2		SW	1000	
3		NNW	1240	
4		N	1730	
5		N	1950	
6		N	1625	
7		N	760	
8		NNE	2440	
9		NNE	2120	
10		NNE	2550	
11		NE	2060	
12		ENE	1025	
13		ENE	749	
14		ESE	2270	
15		SE	1380	
16		S	760	
17		S	711	

18		S	1430	
19		S	1800	
20		SSW	1845	
21		S	2230	
22		SSW	1170	
23		SSE	2510	
24		SW	2260	
25		SW	2275	
26		SE	3130	
27		WNW	1350	
28		NW	1975	
29		NW	1390	
30		NW	2710	
31		NW	3100	
1		SSE	1015	
2		SSE	1690	
3		SE	1750	
4		SSE	1645	
5		SSE	1980	
6		SE	2340	
7		SE	2600	
8		S	2050	
9		SSW	1460	
10		W	1500	
11		NNW	1120	
12		NNW	1490	
13		N	1020	
14		N	1100	
15		NNW	1890	
16		NNW	2220	
17		N	1880	
18		NE	1060	
19		NE	1000	
20		E	939	
21		E	1540	
22		ENE	1890	

N 360 N 360	23		ENE	1550	
	1		W		
	2		N	245	
	3		N	360	
	4		N	414	
	5		N	1430	
	6		N	1980	
	7		W	1520	
	8		NW	2755	
	9		SW	2610	
	10		SW	3130	
	11		S	735	
	12		S	580	
	13		S	1160	
	14		S	1690	
15		S	1080		
16		S	795		

36		N	3880	
37		N	3590	
38		N	3120	
39		N	3020	
40		NNW	3750	
41		NW	3180	
42		NW	3200	
43		NW	4420	
44		W	3250	
45		W	2530	
46		WSW	4740	
37		WSW	2880	
38		WSW	3290	
39		WSW	3220	
40		SW	3450	
41		SW	3130	
42		SW	3900	
43		SSW	4180	
44		SSW	4670	
45		S	3250	
46		S	3800	
47		S	4280	
48		S	3890	
49		SSE	4020	
50		SSE	3600	
51		SE	4430	
52		SE	4060	
53		E	4480	
54		NE	4130	
1		S	383	400
2		N	536	640
3		N	1356	716
4		NNE	835	314
5		ENE	735	512
6		ESE	998	608
7		W	1252	943

	8		NNE	2556	299
	9		NW	2890	476
	10		WNW	3037	1003
	11		NW	1670	493
	12		WNW	1896	752
	13		W	2065	499
	14		W	2486	552
	15		W	2631	2300
	16		WSW	1642	396
	17		WSW	2008	360
	18		SW	2212	551
	20		SW	2253	1004
	23		S	2608	990
	24		S	1446	1276
	29		S	934	490
	30		SE	1377	554
	31		SW	2533	544
	32		ENE	1713	1290
	33		ENE	2524	821
	34		E	3004	1403

1.5

1.5.1

1.5-1~ 1.5-7

1.5-1

	GB3095-2012	
	GB3838-2002	
	GB/T 14848-2017	
	GB3096-2008	2
	() (GB36600-2018)	
	GB15618-2018	

1.5-2

--	--	--

			GB3095-2012
SO ₂		0.15	
	1	0.50	
NO ₂		0.08	
	1	0.20	
PM ₁₀		0.15	
PM _{2.5}		0.075	
CO		4	
	1	10	
	8	0.16	
	1	0.2	
		0.2	HJ2.2-2018 D D.1
		0.01	
	/	20	GB14554-93

1.5-3

				GB3838- 2002 1
1	pH	---	6~9	
2	COD	mg/L	≤30	
3	BOD ₅	mg/L	≤6	
4		mg/L	≤1.5	
5	TN	mg/L	≤1.5	
6	TP	mg/L	≤0.3 0.1	
7		mg/L	≥3	
8		/L	≤20000	

1.5-4

				GB/T 14848-2017
1	pH	---	6.5 8.5	
2		mg/L	≤450	
3		mg/L	≤1000	
4		mg/L	≤0.5	
5		mg/L	≤20	
6		mg/L	≤1.0	
7		mg/L	≤250	
8		mg/L	≤250	
9		mg/L	≤1.0	
10		mg/L	≤0.05	
11		mg/L	≤0.002	
12		mg/L	≤0.3	

13		MPN CFU/100mL	≤3.0	

1.5-5

dB A

dB A

23	1,2,3-	≤ 0.5	mg/kg		
24		≤ 0.43	mg/kg		
25		≤ 4	mg/kg		
26		≤ 270	mg/kg		
27	1,2-	≤ 560	mg/kg		
28	1,4-	≤ 20	mg/kg		
29		≤ 28	mg/kg		
30		≤ 1290	mg/kg		
31		≤ 1200	mg/kg		
32	+	≤ 570	mg/kg		
33		≤ 640	mg/kg		
34		≤ 76	mg/kg) (GB36600-2018) (
35		≤ 260	mg/kg		
36	2-	≤ 2256	mg/kg		
37	[a]	≤ 15	mg/kg		
38	[a]	≤ 1.5	mg/kg		
39	[b]	≤ 15	mg/kg		
40	[k]	≤ 151	mg/kg		
41		≤ 1293	mg/kg		
42	[a h]	≤ 1.5	mg/kg		
43	[1,2,3-cd]	≤ 15	mg/kg		
44		≤ 70	mg/kg		

1.5-7

			pH 5.5	5.5<pH 6.5	6.5<pH 7.5	pH>7.5	
1		mg/kg	0.3	0.3	0.3	0.6	GB15618-2018
2		mg/kg	1.3	1.8	2.4	3.4	
3		mg/kg	40	40	30	25	
4		mg/kg	70	90	120	170	
5		mg/kg	150	150	200	250	
6		mg/kg	50	50	100	100	
7		mg/kg	60	70	100	190	

			pH 5.5	5.5<pH 6. 5	6.5<pH 7. 5	pH>7.5	
8		mg/kg	200	200	250	300	
9		mg/kg	0.10				GB15618-2018
10		mg/kg	0.10				

1.5.2

1.5-8

1.5-8

			GB14554-93			1	2
			DB37/2376-2013				
			GB16297-1996				2
			DB37/2374-2013				1
			DB37/2374-2013				--
			2				--
			2018 224				--
			2018-2019				
			[2018]100				
			GB18596-2001				7
							/
			GB12523-2011				---
			GB12348-2008				1
			GB18599-2001				---
			GB18597-2001				---
			GB18596-2001				6
			DB37/596-2006				---

1

1.5-8

1.5-8

		(m)	kg/h	mg/m ³	mg/m ³	
		15	4.9	---	1.5	GB14554-93 1 2
			0.33	---	0.06	
			2000 ()	---	---	
			---	---	20 ()	
			0.35	20	1.0	DB372376-2013 GB16297-1996
		15	---	10	---	DB37/2374-2013 [2018]100 2018 224
	SO ₂		---	50	---	
	NO _x		---	50	---	

2

1.5-9

1.5-9

	pH	SS mg/L	COD mg/L	BOD ₅ mg/L	mg/L	/100mL
	5.5-8.5	≤100	≤200	≤100	≤1000	≤4000

3

GB12523-2011

(GB12348-2008) 2

1.5-10

dB A

2	60	50

4

GB18599-2001

GB18597-2001

GB18596-2001

6

1.5-11

	$\geq 95\%$	$\leq 10^5$ /

2

2.1

1991

A

2008

2000 9

5000

2009 10

39.6

					1	
2	21	45	4		2	
	40		172		1.8	1.05
	1.2		20		10	2018
	32	2019		40		

2.2

2.2.1

“ ” 2.2-1

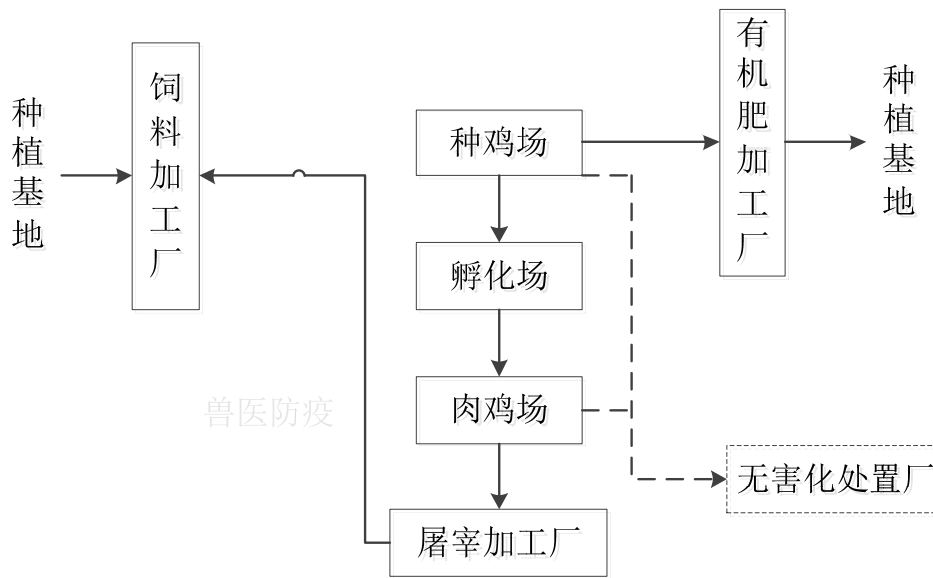
2.2-1 “ ”

1		1992		2000	50
2				“ ”	6000
3	³	2001 12		2005 11	6
4		2001 12		2008 4	4
5		2004 11		2009 12	-
6		2006 8		2007 10	1.2 m ³ /d
7		2010 12 [2010]30		2013 8	4000
8		2012 8		2015 11	10 1 26
9		2017 4 [2017]9			
10		2012 12 [2012]29		2016 9 [2016]21	9 1 34
11	5	[2017]09			5
12	5	[2017]78			

“ ”

2.2.2

2.2-1



2.2.3

7
7
7
7
7
7
7
7

2.2.3.1

2.2.3.1.1

11
6000 /a
2450m³/d 808500m³/a
6000
2.2-2

2.2-2

		6000			
		17	10 /	6	6000
			2	15m ³	
		80m ³ /h	126.7	m ³ /a	400m
			1000m ³		
			700		
		2450m ³ /d	808500m ³ /a		
				25	

2.2.3.1.2

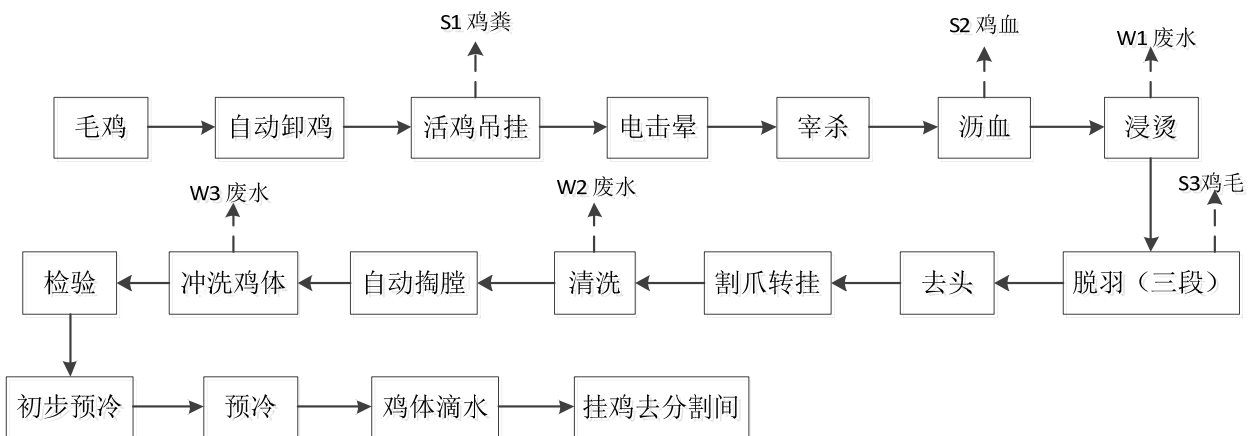
15

60 62

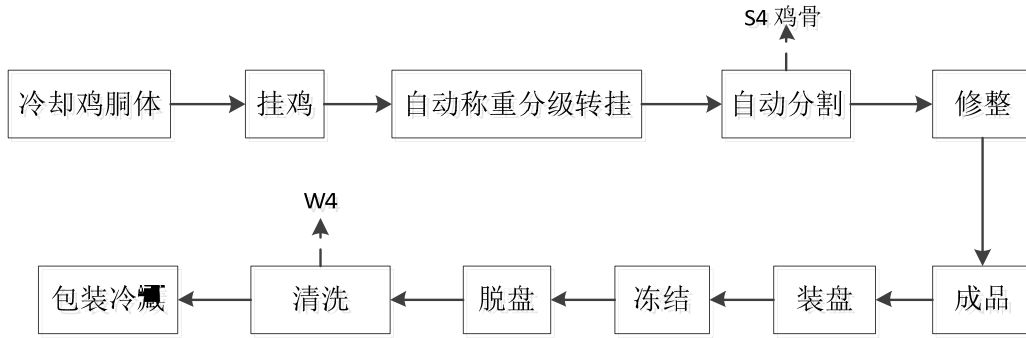
5

2.2-3

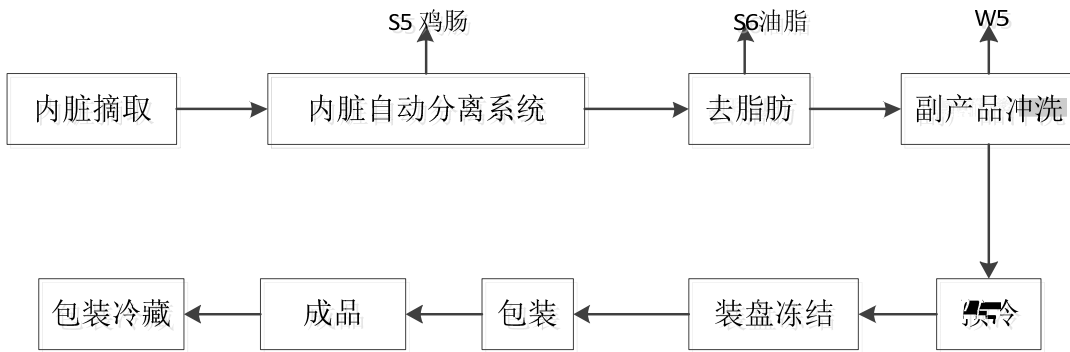
1



2



3



2.2-3

1

2

1

2

3

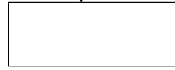
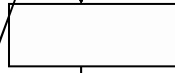
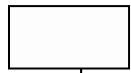
80-100

20-45

4

3

2.2-4



2.2-3

	G1				
	G2				
	G3				25

	W1		COD SS BOD ₅		
	W2		COD SS BOD ₅		
	W3		COD SS BOD ₅		
	W4		COD SS BOD ₅		
	W5		COD SS BOD ₅		
	S1				
	S2				
	S3				
	S4				
	S5				
	S6				
	S7				
	N1				

Tj6d08d014151d391d6a



EM

NH₃

0.04t/a H₂S

0.003t/a

2.2.3.4

43.5m³/d

510311m³/a

34.8m³/d

12528m³/a

15m

2.2-4

2.2-5

2.2-4

	1		1 12549m ²
	1		1 300m 80m ³ /h 48m ²
	2		
	3		36m ² 36m ² 957.42 kWh
	4		621m ² 1296m ²
	1		10000 m ² 27.2%
	2		
	3		2km
	4		
	5		

2.2-5

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

	G1				/
	G2		SO ₂ NO _x		
	W1		COD SS BOD ₅		
	W2		COD SS BOD ₅		
	S1				
	S2				
	S3				
	N				

2.2.4

SO₂ NO_x

25m

2.2.4.1

2019.6.1 2019.6.4

2.2-4 2.2-7

2.2-4

		mg/m ³			
		1#	2#	3#	4#
2019.6.1	1	0.05	0.07	0.13	0.09
	2	0.08	0.11	0.15	0.14
	3	0.04	0.11	0.13	0.11
2019.6.2	1	0.06	0.07	0.11	0.09
	2	0.08	0.09	0.15	0.12
	3	0.05	0.11	0.13	0.11

	mg/m ³				
	1	0.006	0.009	0.012	0.011
2019.6.1	2	0.007	0.011	0.014	0.013
	3	0.005	0.008	0.010	0.009
	1	0.004	0.006	0.008	0.007
2019.6.2	2	0.007	0.013	0.016	0.012
	3	0.005	0.009	0.014	0.012
	1	<10	<10	<10	<10
2019.6.1	2	<10	11	<10	<10
	3	<10	12	14	<10
	4	<10	11	12	12
	1	<10	<10	<10	<10
2019.6.2	2	<10	<10	11	<10
	3	11	12	13	<10

2.2-5

		mg/m ³			
		1#	2#	3#	4#
2019.6.1	1	0.04	0.08	0.09	0.06
	2	0.07	0.07	0.11	0.08
	3	0.06	0.08	0.10	0.09
2019.6.2	1	0.04	0.06	0.07	0.07
	2	0.06	0.08	0.11	0.09
	3	0.07	0.09	0.12	0.08
2019.6.1	mg/m ³				
	1	<0.001	0.002	0.003	<0.001
	2	0.002	0.003	0.004	0.004
	3	0.001	0.002	0.006	0.003
2019.6.2	1	<0.001	0.001	0.003	0.002
	2	0.001	0.002	0.003	0.002
	3	0.001	0.003	0.004	0.002
2019.6.1	1	<10	<10	<10	<10
	2	<10	<10	12	11
	3	<10	<10	11	<10
2019.6.2	1	<10	<10	11	11
	2	<10	11	12	<10
	3	<10	<10	<10	<10

2.2-6

		mg/m ³			
		1#	2#	3#	4#
	1	0.05	0.08	0.11	0.07

2019.6.1

	3	0.001	0.002	0.004	0.002
2019.6.3	1	<10	<10	<10	<10
	2	<10	<10	11	<10
	3	<10	<10	11	<10
2019.6.4	1	<10	<10	<10	<10
	2	<10	11	12	<10
	3	<10	<10	11	11

GB14554-93 1

2019.6.3 2019.6.4

2.2-8 2.2-9

2.2-8

		mg/m ³			
		1#	2#	3#	4#
2019.6.3	1	<0.01	<10	<10	<0.01
	2	<0.01	0.02	0.02	0.01
	3	<0.01	<0.01	0.02	<0.01
2019.6.4	1	<0.01	0.01	0.02	<0.01
	2	<0.01	0.01	0.01	<0.01
	3	<0.01	0.01	0.03	0.02
2019.6.3	mg/m ³				
	1	<0.001	<0.001	<0.001	<0.001
	2	<0.001	<0.001	<0.001	<0.001
	3	<0.001	<0.001	<0.001	<0.001
2019.6.4	1	<0.001	<0.001	<0.001	<0.001
	2	<0.001	<0.001	<0.001	<0.001
	3	<0.001	<0.001	<0.001	<0.001
2019.6.3	1	<10	<10	<10	<10
	2	<10	<10	<10	<10
	3	<10	<10	11	<10
2019.6.4	1	<10	<10	<10	<10
	2	<10	<10	11	<10
	3	<10	<10	<10	<10

2.2-9

		mg/m ³			
		1#	2#	3#	4#
2019.6.3	1	<10	<10	<10	<10
	2	<10	<10	<10	<10
	3	<10	<10	12	13
2019.6.4	1	<10	<10	<10	<10
	2	<10	<10	11	<10
	3	<10	11	13	<10
2019.6.3	mg/m ³				
	1	<10	<10	<10	<10
	2	<10	<10	<10	<10
	3	<10	<10	12	13
2019.6.4	1	<10	<10	<10	<10
	2	<10	<10	11	<10
	3	<10	11	13	<10
2019.6.3	mg/m ³				
	1	<10	<10	<10	<10
	2	<10	<10	<10	<10
	3	<10	<10	12	13
2019.6.4	1	<10	<10	<10	<10
	2	<10	<10	11	<10
	3	<10	11	13	<10

GB14554-93 1

2019.6.3 2019.6.4

2.2-10 2.2-11

2.2-10

		mg/m ³			
		1#	2#	3#	4#
2019.6.5	1	0.43	0.50	0.60	0.52
	2	0.46	0.54	0.67	0.57
	3	0.52	0.73	0.88	0.69
2019.6.6	1	0.45	0.68	0.83	0.74
	2	0.69	0.82	0.96	0.81

	3	0.59	0.66	0.81	0.73
2019.6.5	mg/m ³				
	1	0.008	0.009	0.016	0.014
	2	0.013	0.016	0.024	0.018
	3	0.017	0.024	0.030	0.022
2019.6.6	1	0.009	0.016	0.019	0.015
	2	0.015	0.018	0.022	0.016
	3	0.013	0.024	0.028	0.022
2019.6.5					
	1	<10	<10	<10	<10
	2	<<	0.009	0.<0	<10

g V r h e g F V h e w D i e w U e V r t

		kg/h	2.9×10^{-2}	1.1×10^{-2}	6.4×10^{-2}
		%	5.6	5.6	4.0
			15m		0.3m

DB37/2376-2013

2

2018-2019

[2018]100

SO₂ 50 mg/m³ NO_x 50 mg/m³

10 mg/m³

2019.6.3 2019.6.4

2.2-12

2.2-13

2.2-12

"

		mg/m ³	2.1	3.8	2.6	2.3	2.7	3.3
		kg/h	2.2×10 ⁻²	4.3×10 ⁻²	3.2×10 ⁻²	2.8×10 ⁻²	3.5×10 ⁻²	4.2×10 ⁻²
			733	1303	977	733	977	977
			15m		0.5m			

GB14554-93 1

2.2-13

		mg/m ³			
		1#	2#	3#	4#
2019.6.5	1	0.43	0.48	0.55	0.51
	2	0.42	0.46	0.61	0.52
	3	0.55	0.63	0.73	0.66
	4	0.40	0.47	0.59	0.52
2019.6.6	1	0.36	0.41	0.48	0.44
	2	0.55	0.66	0.77	0.62
	3	0.52	0.57	0.68	0.61
	4	0.47	0.51	0.61	0.54
2019.6.5	mg/m ³				
	1	0.008	0.012	0.016	0.011
	2	0.009	0.016	0.020	0.017
	3	0.009	0.020	0.024	0.018
	4	0.007	0.014	0.019	0.016
	1	0.005	0.013	0.018	0.014

2019.6.6

2.2.4.2

2016 YS049

2.2-14

		mg/L pH				
		pH	COD		SS	TP
2016.9.14	1	7.82	21	0.59	5	0.38
	2	7.85	20	0.63	7	0.42
	3	7.79	19	0.74	8	0.41
	4	7.81	22	0.69	6	0.37
		—	21	0.66	6	0.40
2016.9.15	1	7.66	23	0.82	8	0.45
	2	7.71	20	0.77	6	0.46
	3	7.65	18	0.80	7	0.39
	4	7.73	24	0.79	6	0.42
		—	21	0.80	7	0.43

pH 7.65-7.85 COD

SS TP 21mg/L 0.80mg/L 7mg/L 0.43mg/L

2019.6.3 2019.6.4

2.2-15

2.2-15

			pH	COD _{Cr} mg/L	BOD ₅ mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	/L
1#	6.5	1	6.56	1.08×10 ³	203	34.1	437	38	173	24.9	5.4×10 ⁵
		2	5.93	1.24×10 ³	219	36.4	468	41	188	28.7	3.5×10 ⁵

		3	7.08	1.29×10 ³	226	31.7	475	47	194	31.2	5.4×10 ⁵
		4	7.24	1.33×10 ³	184	29.4	424	40	166	29.7	9.2×10 ⁵
	6.6		7.11	1.01×10 ³	219	28.1	428	32	175	22.9	3.5×10 ⁵
			7.32	1.27×10 ³	241	26.7	454	44	189	25.1	5.4×10 ⁵
			7.13	1.16×10 ³	226						
			6.69	1.39×10 ³	218	32.6	435	32	154	31.4	5.4×10 ⁵

COD

2000mg/L SS 500mg/L NH₃-N 100mg/L

2.2.4.3

2.2-16

2.2-16

		t/a	
		54000	
		208	
		1.35	
		42.5	
		376	
		325.5	
		75	
		300	

			49.3	46.1
			47.6	44.2
2019.5.29	2#		44.9	43.6
			47.3	44.7
			44.8	43.1
			43.9	42.6
2019.6.2	3#		46.2	41.8
			54.3	47.9
			49.2	44.6
			48.1	45.2
2019.6.2	4#		48.6	45.9
			46.9	44.3
			47.2	45.1
			51.9	47.6
2019.6.4	5#		47.3	45.5
			52.1	48.5
			45.7	44.8
			48.3	46.1
2019.6.4	6#		52.7	46.8
			53.9	45.1
			50.2	44.8
			54.3	46.6
2019.6.6	7#		50.6	43.7
			48.2	45.9
			53.2	46.2
			57.8	47.3
2019.6.6			56.1	47.5
			58.9	48.7
			55.7	46.2
			54.9	46.8

GB12348-2008 2

2.2.4.5

2.2-18

2.2-18

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		NH ₃	0.308t/a	0.123 t/a	EM
		H ₂ S	0.022 t/a	0.009 t/a	
			—	20	
		NO _x	0.016 t/a	0.07mg/m ³	15m
		SO ₂	0.003 t/a	0.05mg/m ³	
			0.001 t/a	1.0mg/m ³	
		NO ₂	0.212 t/a	50mg/m ³	
		SO ₂	0.207 t/a	29.55mg/m ³	
			0.062t/a	8.64mg/m ³	
		NH ₃	0.375t/a	0.2mg/m ³	25m
		H ₂ S	0.008t/a	0.05mg/m ³	
			—	20	
		NH ₃	0.007t/a		
		H ₂ S			
			—	20	
		821028t/a	0		
		54000 t/a	0		
		208 t/a	0		
		1.35 t/a	0		
		42.5 t/a	0		
		376 t/a	0		
		325.5 t/a	0		
		75 t/a	0		
		300 t/a	0		
		3520 t/a	0		
		4400 t/a	0		
		3840 t/a	0		
		3400 t/a	0		

		105.25t/a	0	
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2.2.5

2.2.5.1

2016 12

2.2-19

2.2-19

	<p>2 9 2 10 1 1 35 133924.71</p>	<p>2 9 10 1 35 133924.71</p>	
	<p>GB14554-93 2 2t/h 15m GB13271-2001 DB37/1996-2011</p>	<p>GB14554-93 GB14554-93</p>	
	<p>GB12348-2008 2</p>	<p>GB12348-2008 2</p>	

		GB12348-2008	2	
	1000	500	490	
			500	
	COD 0.94t/a	NO _x	SO ₂ 4.36t/a	COD

2.2-20

1			--

GB14554-93

GB14554-93

7	600		--
8	COD SO ₂	COD SO ₂	--
9	”	“	--
	15m DB37/1996-2011 1 50mg/m ³ (GB14554-93) CB37/597-2006	25m (GB14554-93) CB37/597-2006	--

2.2.5.2

%

25m

2

2.3

2.3.1

1

2

22%	20%	18-20%;	1%	5%	
30%	100	90	205	290	100
		82	104	100	
		24.7%			
			42%	46	
40		47%			
64%	21%		15%		
	1300	1500		60	

3

T1

4

2010

7-8

2~5

24

5

2010

2.3.2

) (2013
5
13 30
32
21
2011 2013 “ ” “
” 32 “ 15 1 15
1000 ”
16

2.4

2.4.1

149394
11 38 2.3-1
2.3-1A/B
40 5000
94 88 2.7 2.3
25 298 6935.95 /
8000 / 42 11
10 25

2020 12

2010

1130

880

1955

30

25

2.4-1

45.5				
1			36°19.157'	115°81.576'
2			36°21.145'	115°80.525'
3			36°21.245'	115°76.560'
4			36°20.494'	115°76.345'
5			36°20.484'	115°75.079'
6			36°19.833'	115°79.834'
7			36°13.998'	115°72.023'
8			36°06.526'	115°86.555'
9			36°20.882'	116°00.088'
10			36°07.907'	115°88.366'
11			36°24.531'	115°95.700'
12			36°20.854'	115°96.425'
13			36°23.129'	115°99.403'
14			36°25.988'	115°86.591'
15			36°24.465'	115°85.705'
16			36°27.815'	115°84.001'
17			36°26.140'	115°78.122'
18			36°12.033'	115°97.730'
19			36°13.891'	116°01.004'
20			36°26.690'	115°87.052'
')				
25			36°19.749'	115°81.255'
')				
1			36°06.845'	115°91.627'
2			36°06.337'	115°90.900'



45.5

2.4-3

35

2.4-4

2.4-5

45.5

2.4-6

35

2.4-7

2.4-8

2.4-3

45.5

		13	96m	16m	1536m ²	19968m ²
					3.5	
					16.5 m ²	
					33 m ²	
				13		
					48 m ²	
					96m ²	54 m ²
					274.16 kWh	
					163.5 m ²	33 m ²
					66 m ²	49.5 m ²
					EM	

2.4-4

35

		10	96m	16m	1536m ²	
			15360m ²		3.5	
					16.5 m ²	
					33 m ²	
				10		
					48 m ²	
					300KW	

		210.9 kWh	96m ²	54 m ²	
		163.5 m ²	66 m ²	49.5 m ²	33 m ²

2.4-6 45.5

1		-	-	-
1.1			13	15t
1.2			13	86.25m
1.3			13	86.25m
1.4			13	-300KW
1.5			13	50
1.6			13	
1.7			13	27cm×56cm 250mm
1.8			13	AC2000+
1.9			13	3 7
2		-	-	-
2.1			1	
2.2			2	15kw 21L/min 35MPA 30m ³
2.3			1	/
2.4			1	
2.5			3	/
2.6			1	
2.7			1	/
2.8			1	800kw*2

2.4-7 35

1		-	-	-
1.1			10	15t
1.2			10	86.25m
1.3			10	86.25m
1.4			10	-300KW
1.5			10	50
1.6			10	
1.7			10	27cm×56cm 250mm
1.8			10	AC2000+
1.9			10	3 7
2		-	-	-
2.1			1	

2.2			2	15 kw 21L/min 35MPA 30m ³
2.3			1	/
2.4			1	
2.5			3	/
2.6			1	
2.7			1	/
2.8			1	720kw*2

2.4-8

1		-	-	-
1.1			7	15t
1.2			7	86.25m
1.3			7	86.25m
1.4			7	-300KW
1.5			7	50
1.6			7	
1.7			7	27cm×56cm 250mm
1.8			7	AC2000+
1.9			7	3 7
2		-	-	-
2.1			1	
2.2			2	15kw 21L/min 35MPA 30m ³
2.3			1	/
2.4			1	
2.5			3	/
2.6			1	
2.7			1	/
2.8			1	500kw*2

2.4.2.2

8

1

10

9

3

			10.8		5
6.3	1			12.6	1
		74		11	22
41		93.6			
17-19					
	93.6		94%	88	
					2.4-9
6.3		2.4-10		9	
	2.4-11	10.8		2.4-12	12.6
		2.4-13	6.3		2.4-14
	9		2.4-15	10.8	
2.4-16	12.6			2.4-17	

2.4-9

1	5%	25 26
2		32 33
3		84%
4	44	65%
5	44	186 190
6	44	176 180
7		8% 10%

2.4-9

1		3		60.2
2		14		92
3		10		70
4		12		75
5		12		75
6		12		75
7		12		75
8		12		75

9		10		75
10		7		63

2.4-10 6.3 7

		7	120m 12180m ²	14.5m 9000	1740m ²
			1	42 m ²	
			2	105 m ²	
		2	20t	6	2t
	LNG	40m ³ LNG			
		84 m ²			
				21 m ² 53.494 kWh	42 m ²
		210 m ²	126 m ²	42 m ²	105 m ²
		(63)			
		EM			

2.4-12 9 10

		10	120m 17400m ²	14.5m 9000	1740m ²
			1	42 m ²	
			2	105 m ²	
		2	20t	6	2t
	LNG	40m ³ LNG			
		84 m ²			

				21 m ² 76.42 kWh	42 m ²
		210 m ²	126 m ²	42 m ²	105 m ²
		(63)			
		EM			

2.4-13

10.8

12

		12	120m 20880m ²	14.5m	1740m ² 9000
			1		42 m ²
			2		105 m ²
		2	20t	6	2t
	LNG	40m ³ LNG			
		84 m ²			
				21 m ² 91.7 kWh	42 m ²
		401.7 m ²	126 m ²	42 m ²	147 m ²
		(300 m ³)			

		EM
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2.4-14

12.6

14

		14	120m 24360m ²	14.5m	1740m ² 9000
			1		42 m ²
			2		105 m ²
		2	20t	6	2t
	LNG	40m ³ LNG			
		84 m ²			
		21 m ² 106.988		42 m ² kWh	
		210 m ²	126 m ²	42 m ²	105 m ²
		(63)		(300 m ³)	
		EM			

2.4-15

6.3

1		-		-
1.1			1	2 20t 4 2t
1.2			7	
1.3			7	120M
1.4			7	
1.5			7	50

1.7			7	27cm×56cm
1.8			7	AC2000+
1.9			1	1T
2		-		-
2.1			2	20KW
2.2			2	15kw 21L/min 35MPA 30m ³
2.3			1	
2.4			3	
2.5			1	
2.6				
2.7				350kw*2
2.8			2	

2.4-16 9

1		-		-
1.1			10	2 20t 6 2t
1.2			10	
1.3			10	120M
1.4			10	
1.5			10	50
1.6			10	
1.7			10	27cm×56cm
1.8			10	AC2000+
1.9			1	1T
2		-		-
2.1			2	20kw
2.2			2	15kw 21L/min 35mpa 30m ³
2.3			1	
2.4			3	
2.5			1	
2.6				
2.7				400kw*2
2.8			2	

2.4-17 10.8

1		-		-
1.1			12	2 20t 6 2t
1.2			12	
1.3			12	120M
1.4			12	
1.5			12	50
1.6			12	
1.7			12	27cm×56cm
1.8			12	AC2000+
1.9			1	1T
2		-		-
2.1			2	20KW
2.2			2	15kw 21L/min 35mpa 30m ³
2.3			1	
2.4			3	
2.5			1	
2.6				
2.7				500kw*2
2.8			2	

2.4-18 12.6

1		-		-
1.1			14	2 20t 6 2t
1.2			14	
1.3			14	120M
1.4			14	
1.5			14	50
1.6			14	
1.7			14	27cm×56cm
1.8			14	AC2000+
1.9			1	1t
2		-		-
2.1			2	20kw
2.2			2	15kw 21L/min 35mpa 30m ³
2.3			1	

2.4			3	
2.5			1	
2.6				
2.7				500kw*2
2.8			2	

2.4.2.3

2.4-19

2.4-20

2.4-21

2.4-19

1		90%
2		2%
3		99%
4		86%
5		98%
6		1%

2.4-20

	1	142*53m	7526m ²
		50m ³	
		60m ³ /d	
		15m	/
		50m ³	/
			/

2.4-21

1		-	-	-

1.1		36		14.7kw
1.2		16		11.1 kw
1.3		1		160 kw
1.4		1		600 kw
1.5			1	1000kva
1.6			3	
1.7			1	
1.8			1	

2.4.2.4

42

11

2.4-22

2.4-23

2.4-24

2.4-22

		NY525-2002
/ %	≥30	≥30
+ / % +	≥4	≥4
/ %	≤30	≤30
pH	5.5~8.0	5.5~8.0

2.4-23

						3172 m ²
						4096 m ² 64*32 * 6.5m
						4096 m ² 64*32 * 6.5m
						2048 m ² 32*32 * 6.5m
						2048 m ² 32*32 * 6.5m
						3126 m ²
						368 m ²
						30.4 m ²
						72 m ²
						5708.8m ³ /a

		28.62 t/a
		2974.96
	%# &#	
	+	+ &\$m

2.4-24

1			4	30 m ³ Q235
2			4	40m ³ /h
3			13	B800-2m
4			2	
5			4	
6			4	
7			4	15m ³ Q235
8			4	15 20t/h
9			4	20-50kg/ 300-400 /h
10			4	10-15t/h
11			2	600
12			1	2600×26000
13			1	2000×2000
14			24	B800/B650
15			4	
16			4	
17				

2.4.2.5

8000

/

GB16869-2005

2.4-25~2.4-29

2.4-25

项 目	鲜禽产品	冻禽产品(解冻后)
组织状态	肌肉富有弹性,指压后凹陷部位立即恢复原状	肌肉指压后凹陷部位恢复较慢,不易完全恢复原状
色 泽	表皮和肌肉切面有光泽,具有禽类品种应有的色泽	
气 味	具有禽类品种应有的气味,无异味	
加热后肉汤	透明澄清,脂肪团聚于液面,具有禽类品种应有的滋味	
淤血[以淤血面积(S)计]/cm ² S>1 0.5<S≤1 S≤0.5	不得检出 片数不得超过抽样量的2% 忽略不计	
硬杆毛(长度超过12mm的羽毛或直径超过2mm的羽毛)	不得检出	
	异物	
	注:淤血面积指单一整禽,或单一分割禽的一片淤血面积。	

2.4-26

项 目	指 标	
	鲜禽产品	冻禽产品
菌落总数/(cfu/g)	≤ 1×10 ⁶	5×10 ⁵
大肠菌群/(MPN/100g)	0/25g	沙门氏菌
沙门氏菌	0/25g	0/25g

* 取样个数为5。

2.4-27

项 目	指 标
冻禽产品解冻失水率/(%)	≤ 6
15	挥发性盐基氮/(mg/100g)
0.05	汞(Hg)/(mg/kg)
0.2	铅(Pb)/(mg/kg)
0.5	砷(As)/(mg/kg)
0.1	脂肪含量低于 10%时,以全样计
	脂肪含量不低于 10%时,以脂肪计
	脂肪含量低于 10%时,以全样计
	脂肪含量不低于 10%时,以脂肪计
	肌肉
	肝
	肾
	肌肉
	肝
	肾
g/kg)	
克球酚)/(mg/kg)	
	不得检出

2.4-28

		2 8000 /	6 5	2 8	0
		m ²			
		2F	940 m ²		
			m ³		
	/	1 1			
		80 m ²			
		160 m ²			
		3112m ³ /d			
			3700 kwh		
		0.7Mpa			
		51t/d 1.7 t/a			

		2	7100m ²
			240 m ²
			+
			750m ³

2.4-29

1		6T		1
2		2000P/h		2
3		2000P/h		2
4	/	670-630		2
5		400P/h		2
6		2000P/h		2
7	/	B0736 HDII-4.5F		2
8				2
9		B1211,SA18.7		2
10		B1645,D16S A		2
11		/		2
12		B2201 HP		2
13				2
14		B2721 TR-DENT		2

15		192-150,MK3 20 Unit/6"		2
16		C1061 VOC-24		2
17		C1137 Nuova24		2
18		/		2
19		/		2
20	1	C4005 BR-III HS		2
21	2	C4005 BR-III HS		2
22		365-350 B180-6"		2
23		B0161 HD		2
24		L400-6		2
25		LS-800X2		2
26				1
27		L650-2400/Z		2
28		LS-800X2		2
29		L980-6/Z		1
30		C1200		3
31		JCSSJ- 5000-12000		2
32		L-600		2
33		EQ7		2
34		BZ-J-20		2
35		BD+7-SUS		4
36		IFSE-20TR7		2
37		D2.1-30He		2
38		B0161 HD		2
39		B0161 HD		2
40		Z500-7		2
41		JW700		2
42				2
43		BWK8000-10000 180 ³/h		2
44		2.5T/H		2
45		TR-1G/MX NT 180		4
46		/		1
47		/		4
48		I-CUT22		2
49		IFSE-20TR7		4
50		MSGW-S500-8R		8
51		2.5T/H		4
52				4
53				4
54		DZ-1000<CV>		4
55		/		1
56		SCK30)		8
57		ZD200-C		8
58		MRPK-09		4
59		MSR-40-20kg		4

60		MRPC-05		4
61		9020-1G-E/9175/CN		8
62		ABB660		2
63		W1300*D1100		4
64		844-090 1200		1
65		SAC37		1
66		/		1
67		ZJ15B/350		1
68		/		1
69		/		1
70		/		1
71		/		1
72		/		1
73		Metis7		3

2.4.2.6

40

2.4-28

		1	7	K35	40
					4244m ²
		1	7	500kg/	2000kg/
					1333m ²
		16		335 m ³	
		6		1848m ²	;
				6950 m ³	18
				335m ³	DDGS 4
				90m ³	
				725m ²	/
				475m ²	/
				150m ²	/
		7	1		147m ²
		7	1		147m ²
					24000 /
		2		2000kva	

		<p>1 2 3 10 3 4 1</p> <p>3</p> <p>1-3 43m;</p> <p>43m</p> <p>3</p> <p>41560-90520m³/h</p>	<p>7 13 3.5m 5 4m 3</p> <p>1</p> <p>4m 1</p> <p>3 3</p> <p>43m 400mm</p> <p>7m 27m</p>	2
		GB18597-2001		

2.4-29

1			
1.1			
	T600		1
	TBLMt4		3
	TFPX4-250A		2
	T500		1
	TGSSP25		1
	TCQY100A		1
	TBLMb4		1
1.2			
	TGSSP25		2
	T500		2
	TBLMt4		2
	TGSSP25		2
	TCQY100A		1
	TBLMb4		2
	TFPX4-250A		1

	4-72-3.6A		1
	SCQZ90X80X110A		1
	TFPX8-250A		1
1.3			
	TWLY25×65		3
“968”	SFSP132X65G		2
	GM22C		3
	TLSU _F 32		3
	T500		3
	TBLMt4		
	TBLMb4		3
	TFPX6-250A		1
			2
“968”	SFSP132X65G		1
1.4			
	TLSUw25X25		2
	TLSUw32		4
	TLSUw25		8
	TLSUw20		2
	TLSUw16		2
	TBLMb4		2
			8
	SLHS16		1
	SYTC200		1
	MSBS160		1
	TGSSP32		2
	T600		1

	SLNF32×32		3
	SGFY38		3
	GF-12		3
	TLGF-LY-55C		3
	MUSL30×180		6
	T500		3
	TBLMt4		3
" "	SFJH180X3C		3
	TLSUW20		3
1.6			
	PTWL260		3
	TGSSP25		3
7.			
			1
2			
2.1			
	4-72-4A		1
	TGSP25(8)		1
T	T500 40		1
	TBLF4		1
	SCQZ90×80×110		1
	TBLMY8		1
			2
	TFPX4-250		1
	TFPX8-250		1
	STLG75		3
	TFPX6-250		2
2.2			
	PLJL250		32
	PLJL160		6
	MJWL125		14
	TBLMY8		1
			1
2.3			
	STLG75		2
	SJHS4		1
	TGFZ32		1
	SJHS1		1
	TGFZ24		1
2.4			
	TBLF4		4
	JSC50L		1
			4

	TBLMY25A		4
			4
			2
	JDC50L		1
2.5			
			1

2.4.2.7

2.4-30

2.4-30

1				
1.1		/	40	
1.2			5000	
1.3			94	
1.4			292	
1.5			8000	
1.6			11	
1.7			153189	
1.8			110000	
1.9			4516	
2			149394	
2.1			122917	
2.2			2138	
2.3			81331	
2.4			24339	
3				
3.1			234621.00	
3.2			85760.00	
3.3			6218.00	
3.4			73389.00	
3.5			1999.00	
4				
4.1		KWH	12581.89	
4.2			219.54	
4.3		M ³³	1278.47	
4.4			590.5	
4.5			2.5	
5			2105.5	
6			2010	
7			185266	
8			32071	
9			147224	
10		%	22.17%	
		%	22.00%	

11			6.66	
			6.68	
12			83681	
	ic=12%		82292	
13		%	13.68%	
14		%	18.77%	
15		%	31.81%	

2.4.3

2.4.3.1

1 45.5

228m 172m 58.9 39267m²

13 96m 16m

16m 13

45.5

2.4-2

2 35

119m 263m 47 31333m²

10 96m 16m

16m 10

			35			2.4-3
3		7	24.5			
		7			7	
	7				7	
			119m	200m	35.6	23733m ²

			20		96m	16m
	16m	7				
						2.4-4
					4~6m	
	4m				6m	4m

2.4.3.2

1	6.3					
	147.5m	280m				41300m ²
			7		120m	14.5m
	16m	10				

				6.3		2.4-5
2	9					
		147.5m	280m	41300m ²		
				10	120m	14.5m
		16m	10			
				9		2.4-6
3	10.8					
12						
			272m	182m	102200m ²	
				12	120m	14.5m
		16m	12			
				10.8	12	
	2.4-7					
12						
		147.5m	329m	48527.5m ²		

12 120m 14.5m
16m 12
10.8 12
2.4-8
3 12.6
14
272m 350m 102200m²

14 124m 12.5m
16m 14
12.6 14
2.4-9
14
147.5m 378m 55755m²

14 124m 12.5m
16m 14

			12.6		14	
2.4-10						
					4~6m	
	4m				6m	4m
2.4.3.3						
142m	53m		7526m ²			
			2.4-11			
2.4.3.4						
		172m	199m		34228m ²	
2.4-12						
2.4.3.5						
				6m	4m	

10m

2.4-13

2.4.3.6

1

1848m³

2.4-14

2.4.3.7

1

2

3

2.4.4

2.4.4.1

1

36

48

GPS

2

2.4-31

	0	1	7	14	21	28	35	40
	33.0	32.5	30.0	27.0	24.5	22.0	20.0	19.0
	32.5	32.0	29.5	26.5	24.0	21.5	19.5	18.5

3

0~7 70%~75% 8~21 60%~70%

50%~60%

4

1~7 20~40Lux
 8~21 10~15Lux 22 3~5Lux

5

5

NY/T 1168-2006

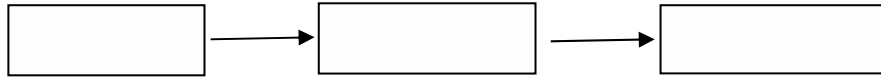
6

40

a: 1:50
 35/21

b: FX

FX



7

2.4-32

2.4-32

		/	
	1		SOP
			SOP
		2	SOP
	1:500		SOP005

HJ 497-2009

40

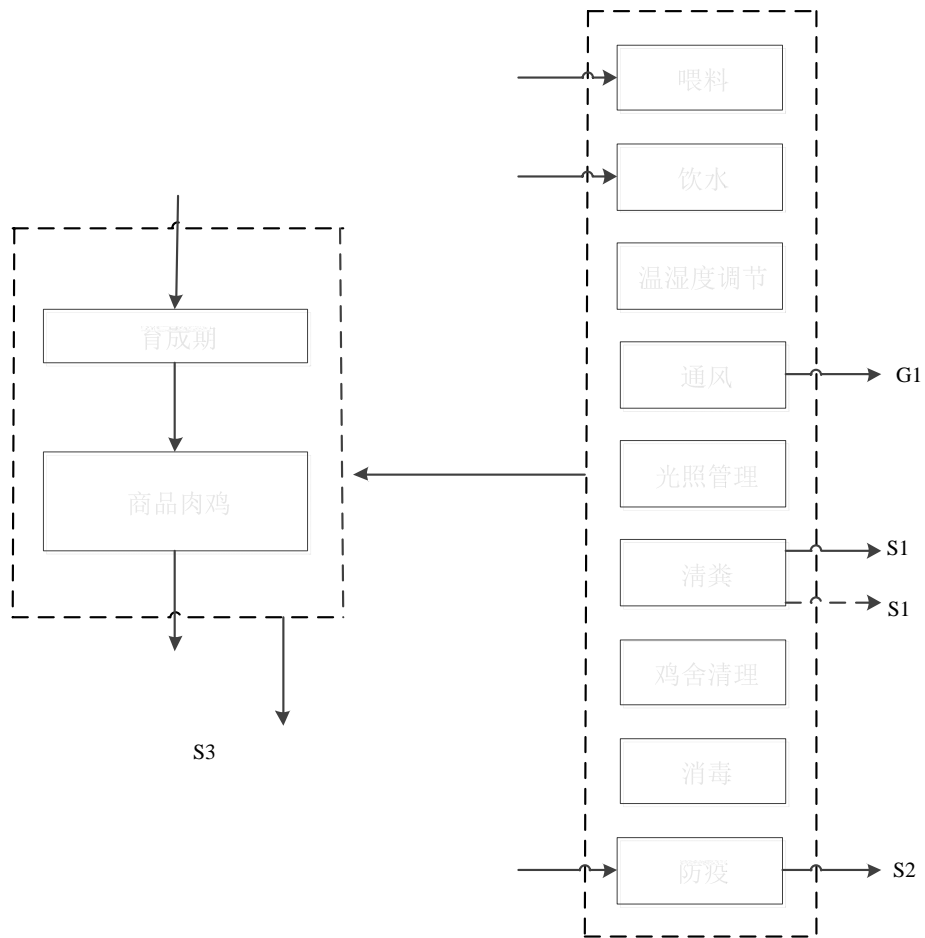
10-15

1

7

2.4-1

2.4-33



2.4-1

2.4-33

	G1		NH ₃ H ₂ S		EM
	W1		COD SS BOD ₅		
	S1				
	S2				
	S3				
	S4				
	N				

2.4.4.2

1

24-36

29~31

25

32~35

2

1

28

21~22

48

60 Lx 7~10

1/3

2

24

4

“4~3”

12~14

“5~2”

2%~5%

3

20

23

30%

50%

5

20

18

1 10 40~45

4

63

NY/T

1168-2006

4

63

FX

35/21

6

2.3-18

44

10-11

10

1

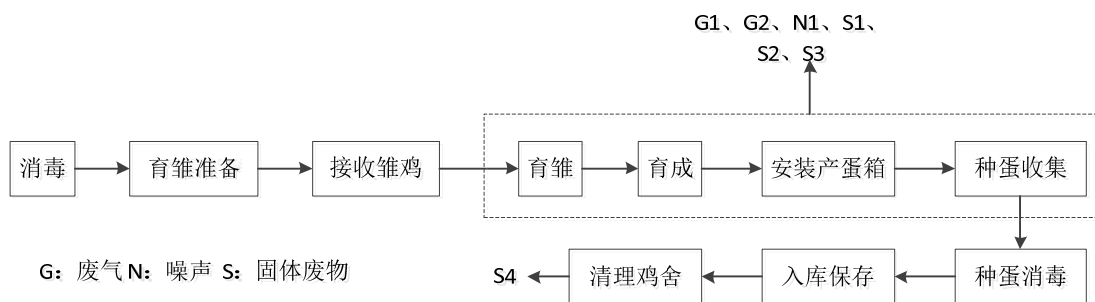
1

8

9500

2.4-2

2.4-34



2.4-2

2.4-34

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

G1

NH₃ H₂S

EM

Ö

7

4

1

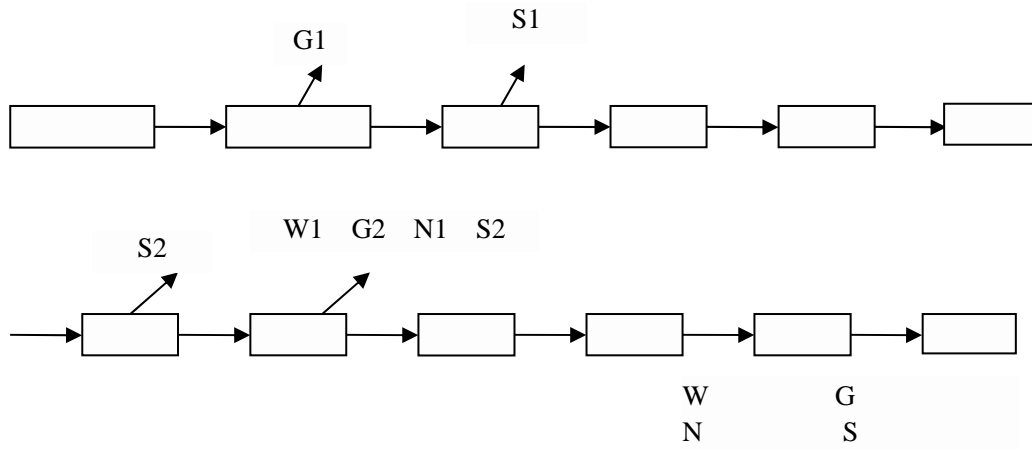
30%-40% 60%-70%

“ ” “ ”

75%-80%

2.4-3

2.4-35



2.4-3

2.4-35

	G1				/
	G2		SO2 NOx		
	W1		COD SS BOD ₅		
	W2		COD SS BOD ₅		
	S1				
	S2				
	S3				
	N				

2.4.4.4

1

80%

60%

2

60%

3

笼养鸡粪（含水率80%）

脱水

鸡粪（含水率60%）

发酵菌剂

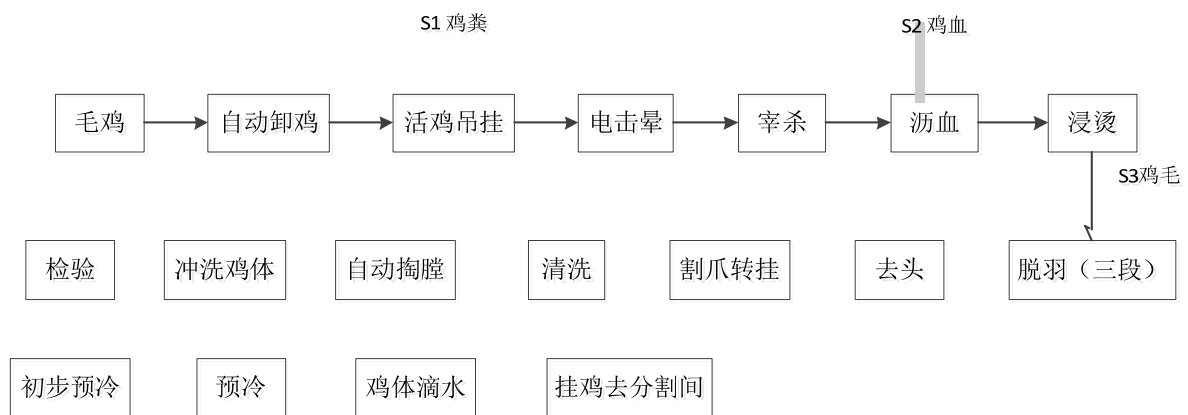
	G ₁₋₄ G ₂₋₄			15m
	G ₁₋₅ G ₂₋₅ G ₂₋₁₀			
	G ₁₋₆ G ₂₋₇			
	G ₂₋₆			
	G ₂₋₈			
	G ₂₋₉			
	G ₁₋₇ G ₂₋₁₁			
	W ₁			
	W ₂			
	W ₃			
	W ₄			
	S ₁			
	S ₂			
	S ₃			
	S ₄			
	S ₅			

2.4.4.5

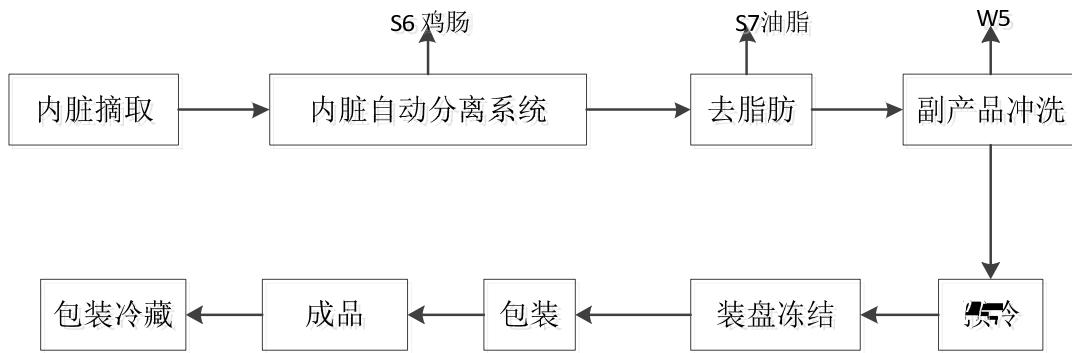
1

HACCP()

2



3



2.4-8

1

2

1

2

3

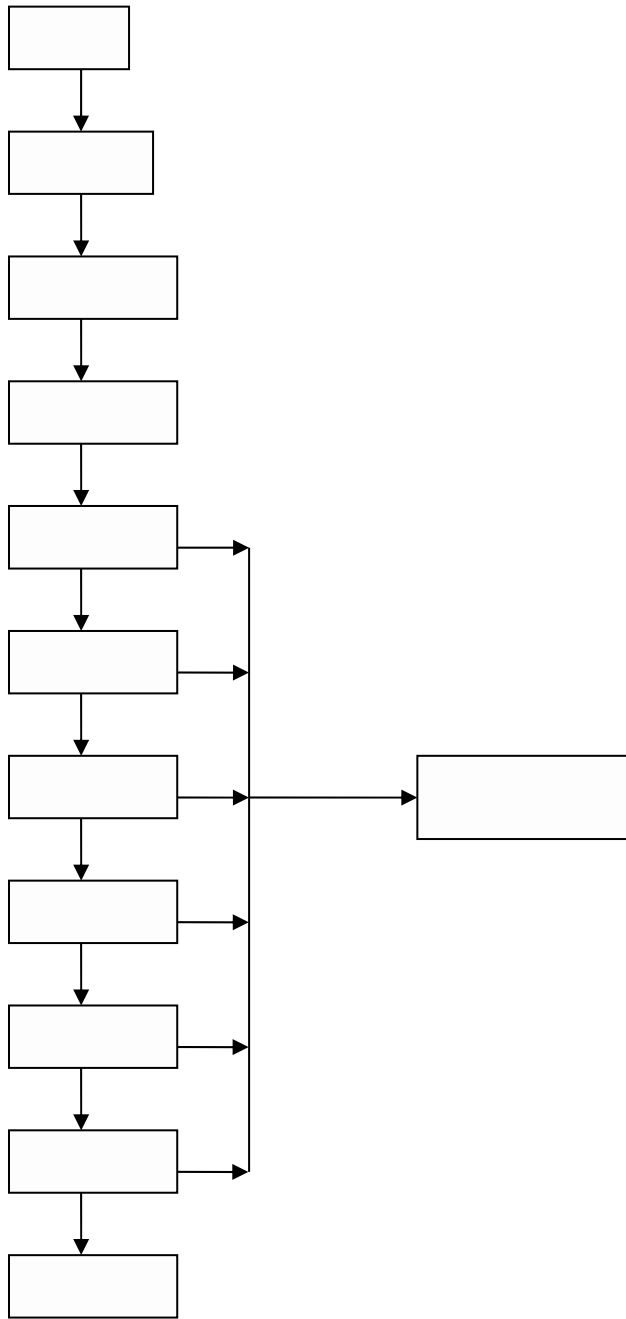
80-100

20-45

4

3

2.4-9



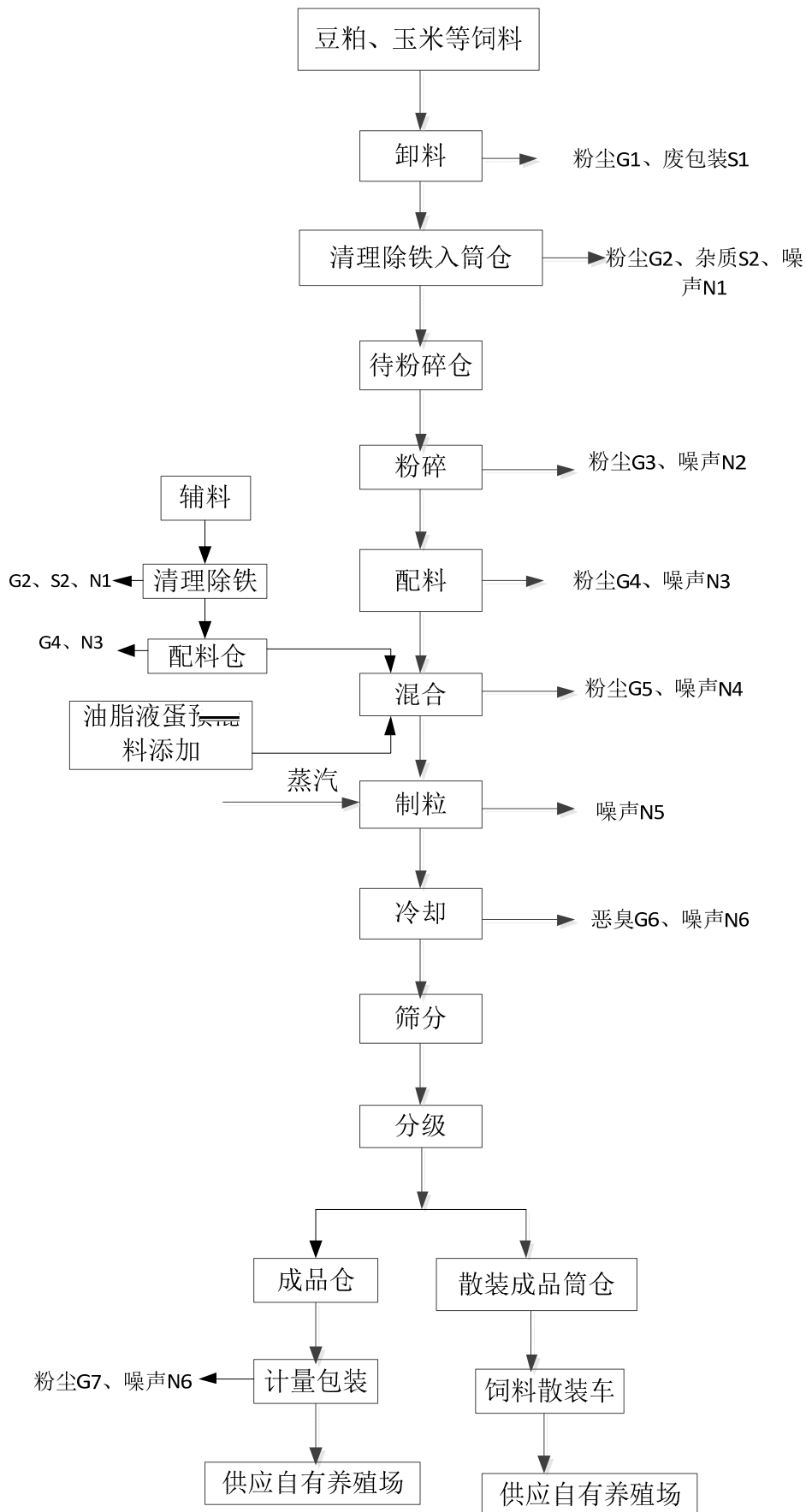
2.4-9

2.4-37

	G1				
	G2				
	G3				25

	W1		COD SS BOD ₅		
	W2		COD SS BOD ₅		
	W3		COD SS BOD ₅		
	W4		COD SS BOD ₅		
	W5		COD SS BOD ₅		
	S1				
	S2				
	S3				
	S4				
	S5				
	S6				
	S7				
	N1				

2.4.4.5



2.4-10

)\$

GPS

载体原料投料

载体原料清理
除铁

微量元素投料

载体原料配料

	G1				1
	G2				
	G3				
	G4				1
	G5				1
	G6				1
	G7				1
	G8				1
	W1		SS		
	W2		COD NH ₃ -N		
	S1				
	S2				
	S3				
	S4				
	S5				

2.4.5

2.4.5.1

93.6	63	11
65.45		
5000		
7301		
0.45	29.82	30.27
1579967.6m ³		
12581.89 kWh		

2079.28 m³

23

2.4-39

2.4-39

1			93.6	
2			5000	
3			0.45	5.1kg/ .
4			29.82	4.3kg/ .
5		m ³	1579967.6	
6		kWh	12581.89	
7		m ³	25480	
8			23	

2.4-40

2.4-41

2.4-40

1		0.01g	7000	700kg
2		0.04g	5000	2000kg
3		0.08g	6000	4800kg
4		0.05g	6000	3000kg
5		0.02g	3000	600kg
6		0.03g	3000	900kg
7		0.25ml	1000	2500L
8		0.05g	6000	3000kg
9		0.14g	8000	11200kg
10		0.05g	4000	2000kg
11		0.25ml	4000	10000L
12		0.25ml	4000	10000L
13		1.5	12000	
14		1	2000	

15		0.15ml	4000	10000L	
----	--	--------	------	--------	--

2.4-41

			#	# #%	# #%	#	#
[REDACTED]					, +"	, +&	%
					%(" (%((&
					(' *	%(()
					*- +"	&- S	(
					, +"	, +&	%
					, +"	, +&	%
					%(" (%((&
					%(" (, +&	&
					, +"	, +&	%
					%	AG	%SS #
%		%SS #	%	&%,	%(" (, +&	&
%		%SS #	%	%" -	, +"	, +&	%
%		%SS #	%	*)" () & " &) & &	*

4		kwh/a	160.07	/	
---	--	-------	--------	---	--

8000

2.565kg

2.4-43

1			8000	/	
2		t/a	16830		
3		t/a	794904	/	
4		kwh/a	3700	/	

42

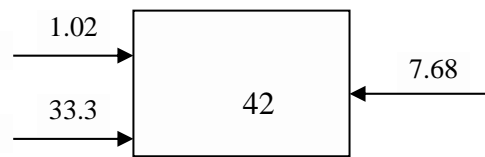
11

33.3

1.02

7.68

2.3-13



t/a

2.3-13

2.4-44

1		80%	42		
2			138.6		
3				t/a	
4		/	2974.96	/	
5		/	28.62	/	

2.4-45

	%	40
	59	236000
	20	80000
	3	12000
	4	16000
	3	12000

	5	20000
	1	4000
	1	4000
	1.5	6000
	2.5	10000
	/	
	/	20 kwh
	/	24000t

2.4-45

	%	
	44.4%	3200
	2.2%	160
	6.7%	480
	2.2%	160
	14.4%	1040
	6.1%	440
VC	1.7%	120
	5.6%	400
	13.9%	1000
	2.8%	200
	100%	7200

2.4.5.2

	9200		5000
3640		3661	7301
	7301		11

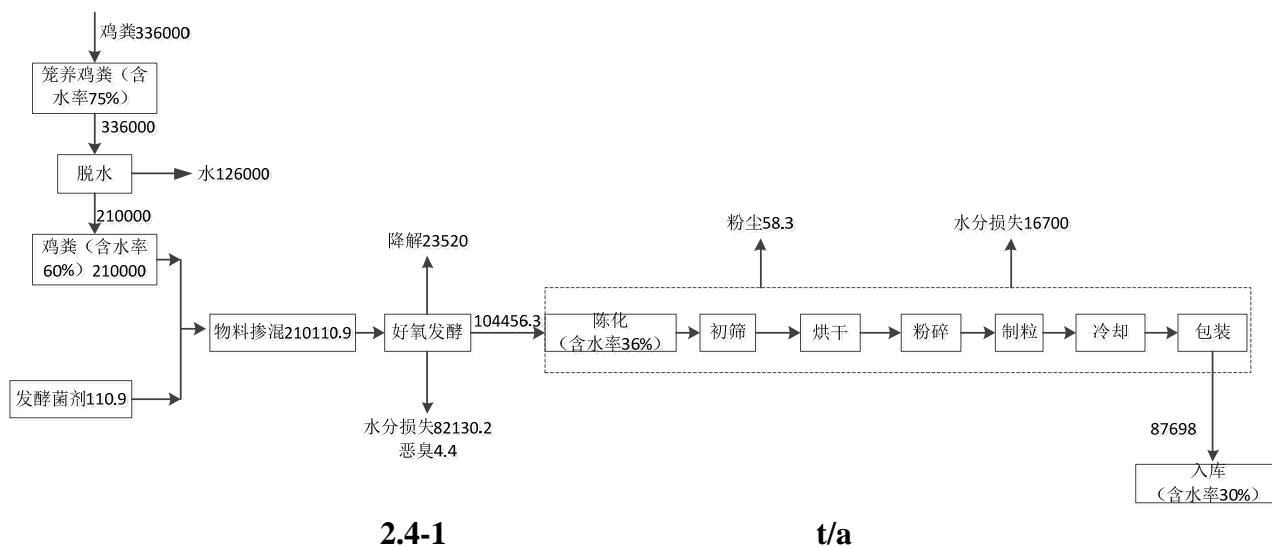
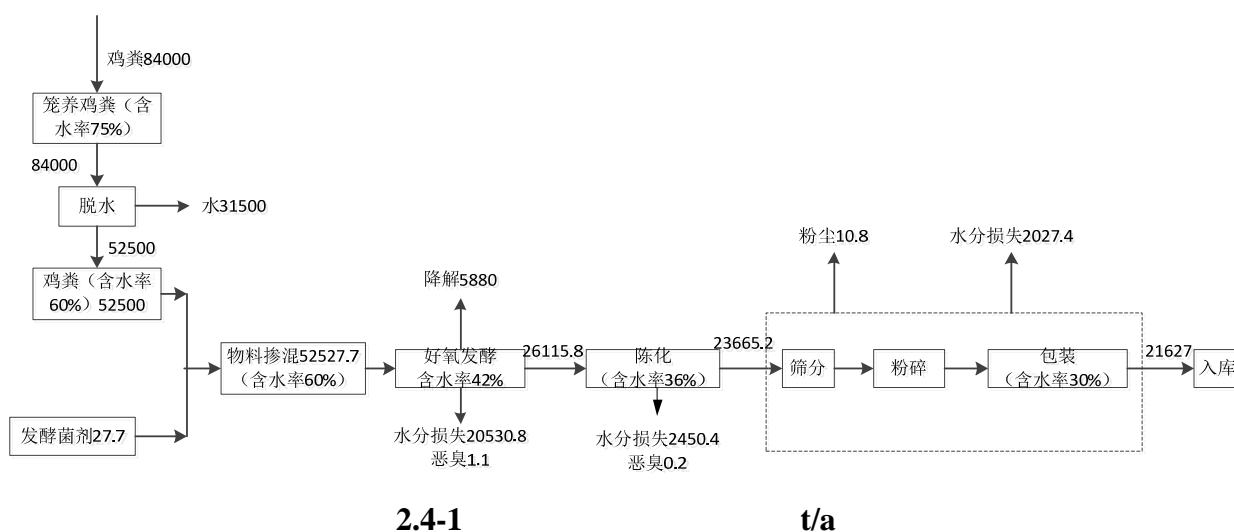
2.4-46

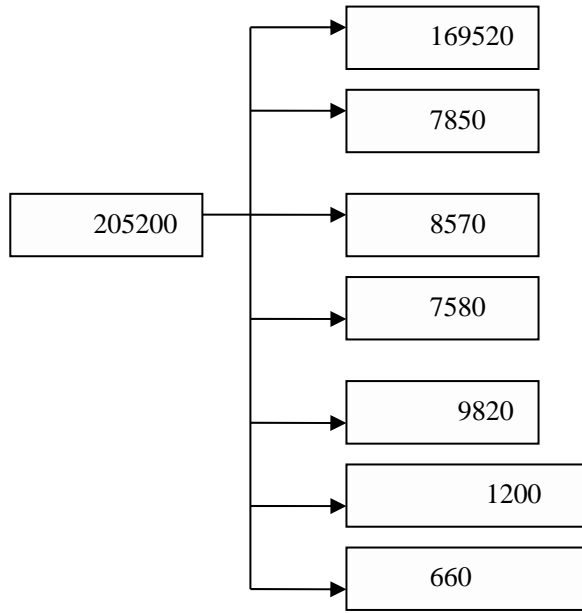
2.4-46

		9200						
		420.5						
		60.72						
		10151.66						
			3640					

				6935.95				
				332925.6				
					11			
						40		
							169520	
							33820	
							660	

2.4.5.3





2.3-5

t/a

2.4.6

2.4.6.1

	2010		1130
880	1955	30	25

2.4.6.2

	360		
			360
			320
330		300	10

2.4.7

2.4.7.1

1

45.5

45.5 3913m³ 27391m³/a

390 m³/ 2730 m³/a 720 m³/a 30841m³/a

85.67 m³/d

 576 m³/a 45.5

576 m³/a 1.6m³/d 45.5 2.4-47

2.4-47 45.5

	4.3kg×2.0/	45.5	3913m ³ /	0
	30m ³ /	13	390m ³ /	0
	100L/ .	20 360	720m ³ /a	576m ³ /a

40 15 7

35 1

35 3010m³ 21070m³/a

300 m³/ 2100 m³/a 540 m³/a 23710m³/a

65.86 m³/d

 432m³/a 35 432

m³/a 1.2m³/d 45.5 2.4-48

2.4-48 35

	4.3kg×2.0/	35	3010m ³ /	0
	30m ³ /	10	300m ³ /	0
	100L/ .	15 360	540m ³ /a	432m ³ /a

40 15 7

24.5 4

24.5 2107m³ 14749m³/a

210m³/ 1470 m³/a 252 m³/a 16471m³/a

45.75 m³/d

 201.6m³/a 24.5

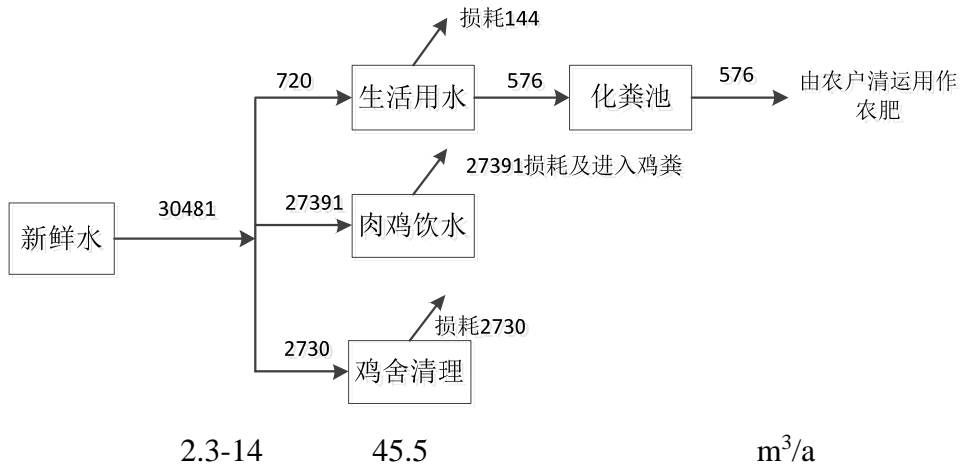
201.6 m³/a 0.56m³/d 24.5 2.4-49

2.4-49 24.5

	4.3kg×2.0/	24.5	2107m ³ /	0
	30m ³ /	7	210m ³ /	0

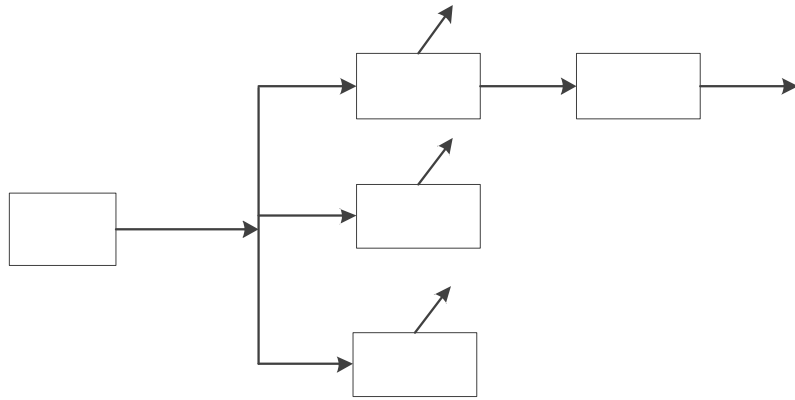
	100L/ .	7	360	252m ³ /a	201.6m ³ /a
40		15	7		

2



生活用水

新鲜水



. 2.3-14 6'TQ j k"d £>' .Ä m³/a Ä

Ä ¼ Ä È'

j 18= µ\$Y ÖEî `-(Ä, '\$Y Ö?±"r ÈTQ8=G÷+X"d HL}\$Y ÈTQ8= Æ 6G÷+X0ª"D7-
' # % È0ª"D7-' # % ÷+X+e7- È Î œ ÷+X0ªB3 È Æ Ä

. 2.3-2 0ª"D7-' # % œ İ*6 .

! j Q3 Ä9ç Ç, '7-Gÿ Ä =Q1 Ä+e7- Ä+Q2 Ä)ß³ ĵ Gÿ Ä
 ' "d9ç Ç, ' Gÿ k?± _ ~ \$)ß³ 0ª"D, ' Gÿ Ä Q2 Ä È AGÿ+e7- Ä Q1 Ä jEµ Ä
 Ä1 Ä œ İ*6
 »5Y j 6 #q, ' ~ » ç Ä »5Y > È @Q \$YQ », "D f Ä * ÈQ \$YQ », ' ç Ä"D f
 #q4ÿ5P5 X"d1á FM', 'K 1Ñ È Gÿ4ÿK 1Ñ P, "d1á µ È ç ; •, ' ç Ä X » È, ' 15
 œ+X; @#â 1 È4ÿ7Ø6ðL0 >F •:è ~ È+a ¾:è ~, ' » ÈPÔ'fL} ~ È !"#â 1, ' ç
 Ä X!"EöFO:è @ "D 1 È ! h f WGÿ, ' Gÿ Ä < & È XNp w, ' œ+X; È WGÿ, '0ª"D#q
 E÷:è ~ F>~M' È0ª"D j, '7-Gÿ>Û:è ~ h f È0ª"D\$Y ÖEöFOL} ~ È @ ç"D Ä * ÄLĵ
 > h f ¶ 0 È7-Gÿ, ' ç Ä #q ` »5Y j ÈF •; 0 Z Ú)ß Ä

2
+ =
“ ”

3
R410A R22
1.6 R410A R32
R125 50% hfc
R410A -51.6 -155

4
0.1t
20 1.5
10 kV
1 200kW
45.5 kWh 274.16 kWh 35 210.9
kWh 147.63 kWh

2.4.7.2

9

9

918m³ 646.5m³/a 100m³/

70.4m³/a 972m³/a 9 1688.9m³/a

4.69m³/d

777.6m³/a

9 777.6m³/a 2.16m³/d 9

2.4-50

2.4-50 9

	5.1kg×2.0/	9	918m ³ /
	10m ³ /	10	100m ³ /
	100L/ .	27 360	972m ³ /a

63 11 74 1.42

10.8

10.8

1101.6m³ 775.8m³/a 120m³/ 84.5m³/a

1080m³/a 10.8 1940.3m³/a 5.39m³/d

864m³/a 10.8

864m³/a 2.4m³/d 10.8 2.4-51

2.4-51 10.8

	5.1kg×2.0/	10.8	1101.6 m ³ /
	10 m ³ /	12	120 m ³ /
	100L/ .	30 360	1080 m ³ /a

63 11 74 1.42

12.6

12.6

1285.2m³ 905.1m³/a

140m³/ 98.6m³/a 1224m³/a 12.6

2227.7m³/a 6.19m³/d

979.2m³/a 12.6

979.2m³/a 2.72m³/d 12.6

2.4-52

2.4-52 12.6

	5.1kg×2.0/	12.6	1285.2m ³ /	0
	10m ³ /	1(	140m ³ /	0
	100L/ .	' (360	%88(m ³ /a	979.2m ³ /a

63 11 74 1.42

6.3

6.3

642.6m³ 452.5m³/a

70m³/ 49.3m³/a 972m³/a 6.3

1473.8m³/a 4.09m³/d

777.6m³/a 6.3

777.6m³/a 2.16m³/d 6.3

2.4-53

2.4-53 12.6

	5.1kg×2.0/	6.3	642.6m ³ /	0
	10m ³ /	7	70m ³ /	0
	100L/ .	27 360	972m ³ /a	777.6m ³ /a

63 11 74 1.42

2.7

6

275.4m³ 193.9m³/a

30m³/ 21.1m³/a 216m³/a 431m³/a

1.2m³/d

172.8m³/a 172.8m³/a

0.48m³/d

2.4-54

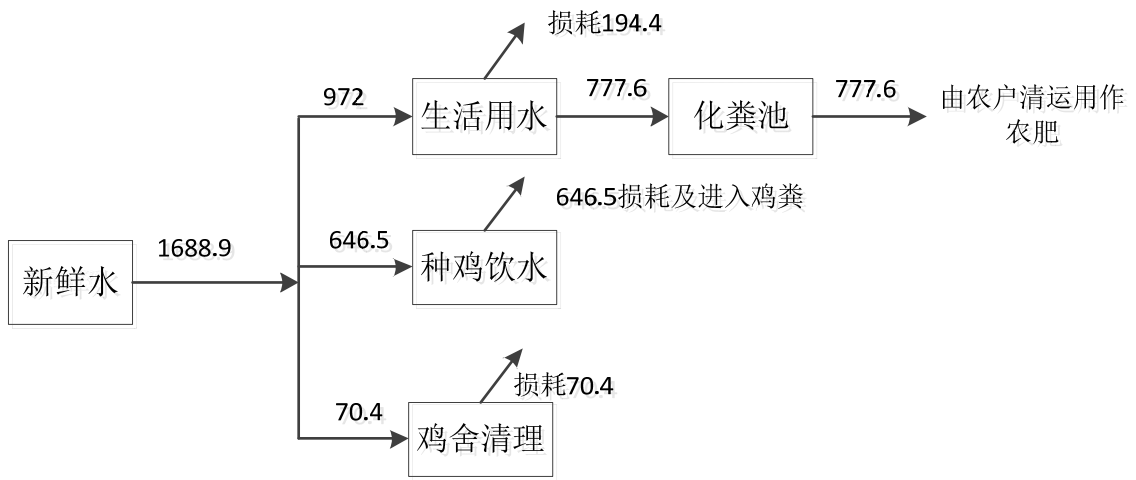
2.4-54

	5.1kg×2.0/	2.7	275.4m ³ /	0
	10m ³ /	'	30m ³ /	0
	100L/ .	* 360	88m ³ /a	172.8m ³ /a

63 11 74 1.42

2

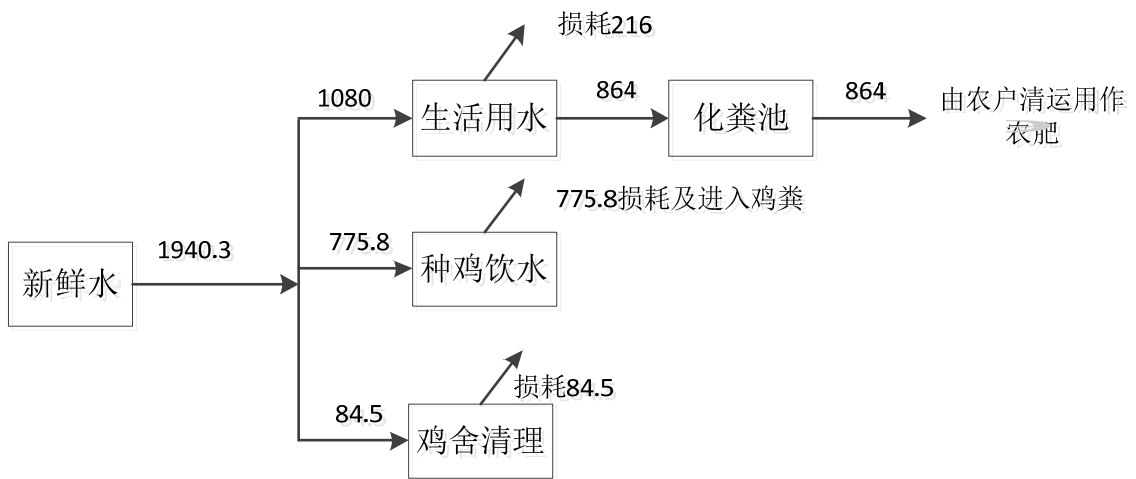
2.3-14



2.3-14

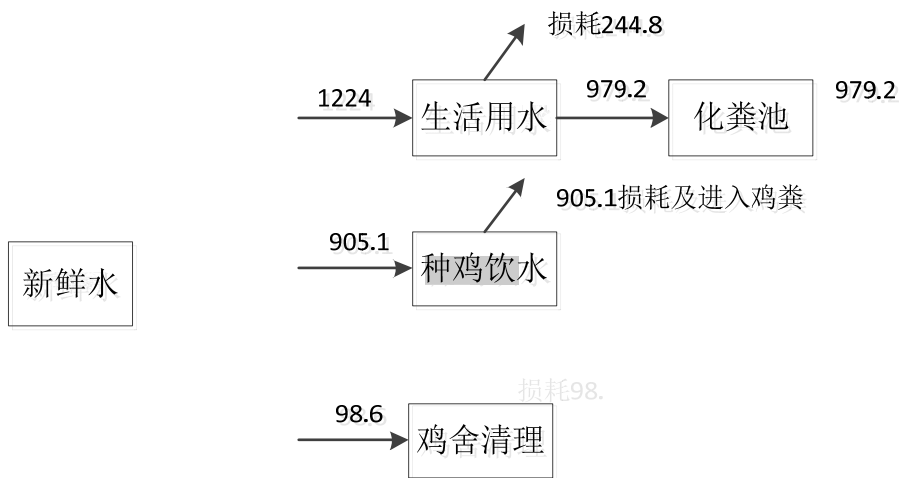
9

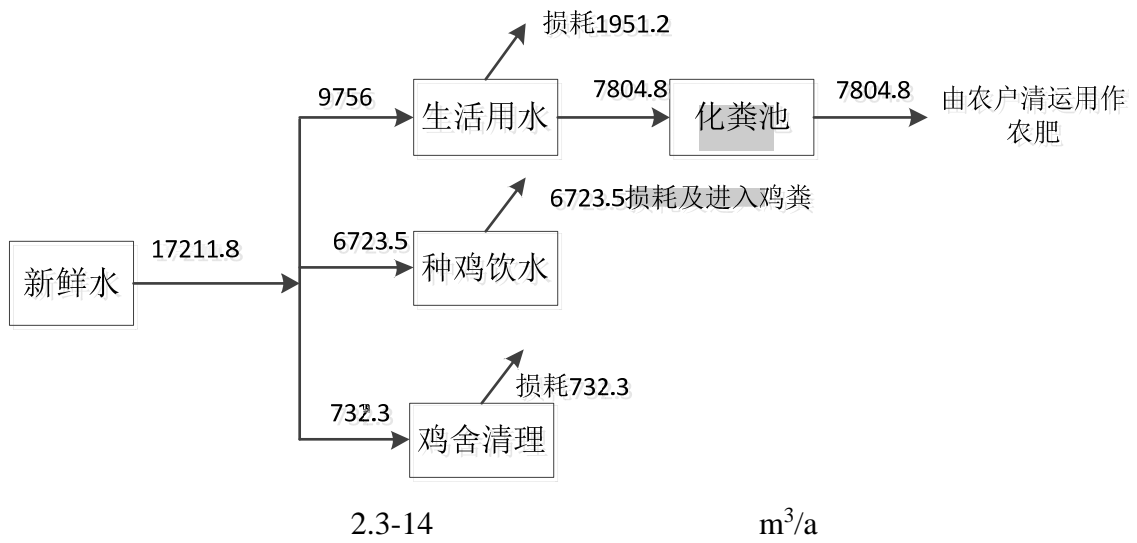
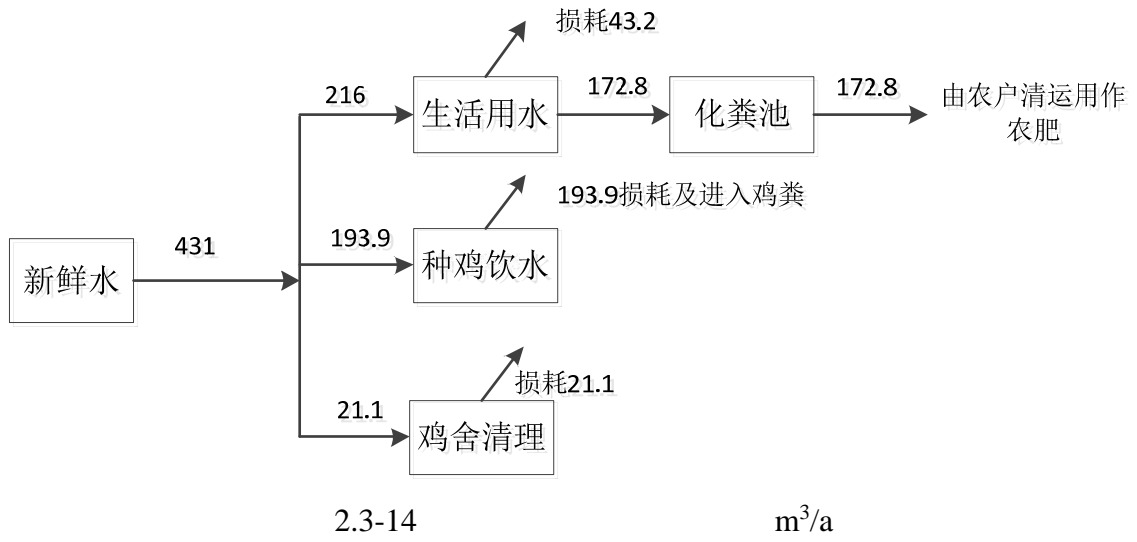
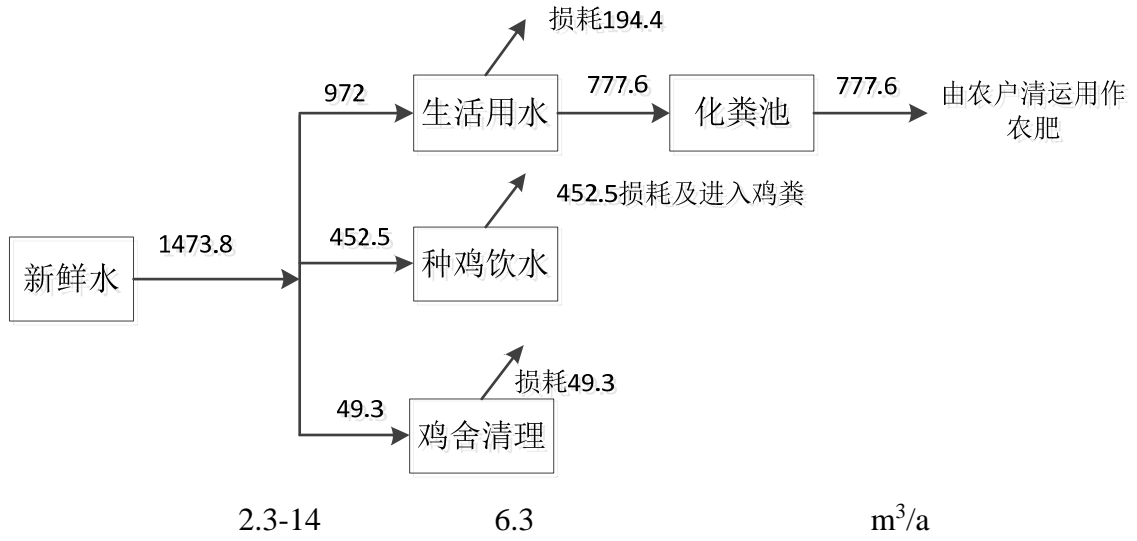
m³/a



2.3-14

m³/a





25480m³

245m³/a

2.4-14

1		3		40m ³
2		14		40m ³
3		10		40m ³
4		12		40m ³
5		12		
6		12		
7		12		40m ³
8		12		40m ³
9		10		
10		7		40m ³

10 kV

1

200kW

664.83 kwh

2.4.7.3

1

60m³/d

21600 m³/a

5.9m³/d

2124m³/a

65.9 m³/d

23724m³/a

48 m³/d

17280 m³/a

4.72m³/d

1699.2 m³/a

52.72m³/d

18979.2m³/a

2.4-55

2.4-55

--	--	--	--	--

	60m ³ /d	360	21600m ³ /a	360m ³ /a
	100L/ .	) - 360	360(m ³ /a	360m ³ /a

2

48m³/d

4.72m³/d

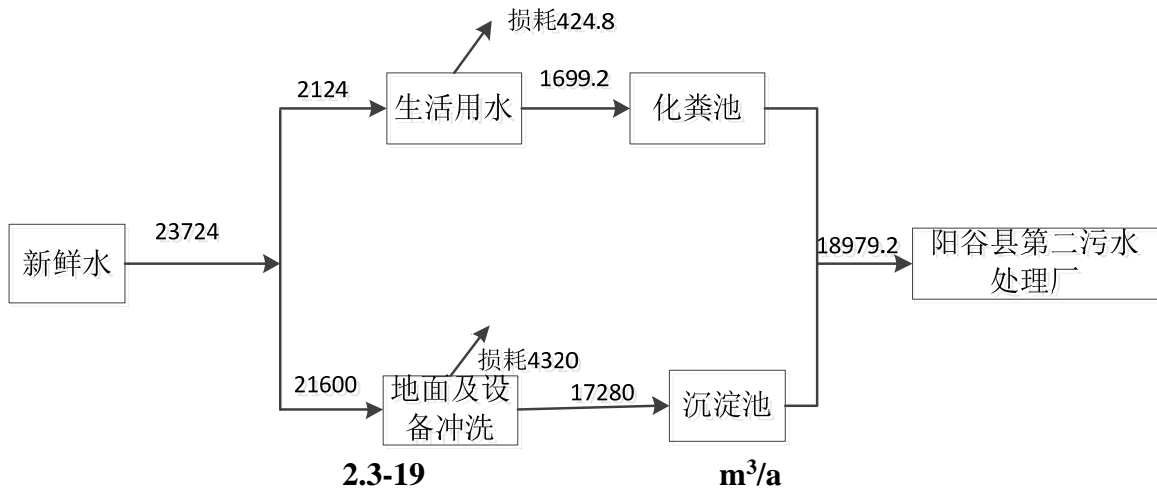
52.72m³/d

18979.2m³/a

50m³

2.1-3

2.3-19



20~34

161620m³

10kV

1000kW

160.07 kwh

2.4.7.4

1

1# 2#

2 5m³/h 3% 7.2m³/d 2304m³/a

2

5 / 20L/ .

1443.8 /d 289 5.78m³/d 1849.6m³/a

3

81

50L 4.86m³/d 1555.2m³/a 3.90m³/d

1248m³/a

2.4-56

	7.2 m ³ /d	360	2304m ³ /a	1536m ³ /a
	20L/ .	289	1849.6m ³ /a	1478.4 m ³ /a
	50L/ .	81 320	1555.2 m ³ /a	1248m ³ /a

2

75%

60%

157500m³/a 492.19m³/d

1m³/a

64m³/d

20480m³/a

28.62 t/a

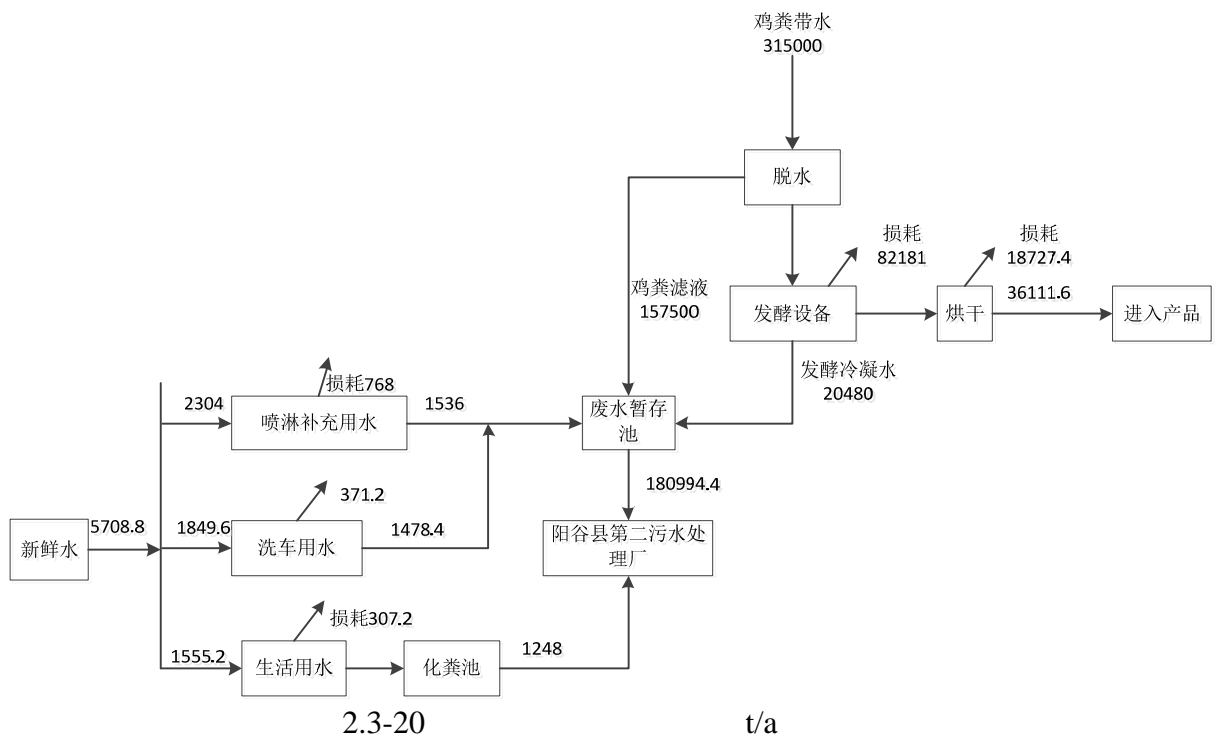
80%

228960t/a 715.5t/a

5 / 20L/ .
 1443.8 /d 289 5.78m³/d 1849.6m³/a 4.62m³/d
 1478.4m³/a

1# 2#
 2 5m³/h 2% 4.8m³/d 1536m³/a
 81
 50L 4.05m³/d 1296m³/a 3.24m³/d
 1036.8m³/a

2.3-20



28.62

t/a

10kV

1

200kW

139.17 Kwh

2.4.7.5

2.4.7.5.1

1

- - -

+

1888m³/d

623040m³/a

336 m³/d 110880 m³/a

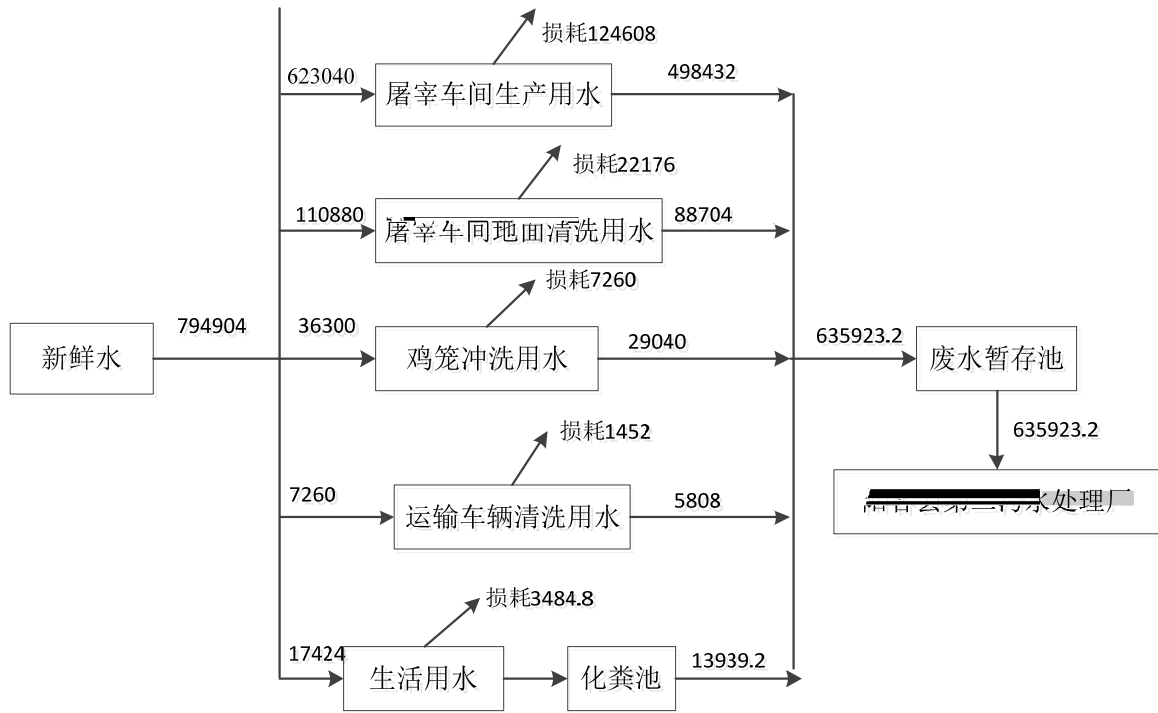
110m³/d 36300m³/a

22m³/d

7260m³/a

60L/

880	52.8m ³ /d	17424m ³	330
	794904 m ³ /a		
2			
	1888m ³ /d	623040m ³ /a	80%
1510.4m ³ /d	498432m ³ /a		
336 m ³ /d	110880 m ³ /a	80%	268.8m ³ /d
88704m ³ /a			
110m ³ /d	36300m ³ /a	80%	88m ³ /d 29040m ³ /a
			22m ³ /d
7260m ³ /a	80%	17.6m ³ /d	5808m ³ /a
	60L/		
880	52.8m ³ /d	17424m ³	330
80%	42.24m ³ /d	13939.2m ³ /a	
	635931.2m ³ /a	1927.04 m ³ /d	



2.3-20

51t/d 16830t/a

3700 kwh

10kv

AC380V/220V

2.4.7.6

1120m³/a

5m³/d 150 m³/a

38

[2014]14

(

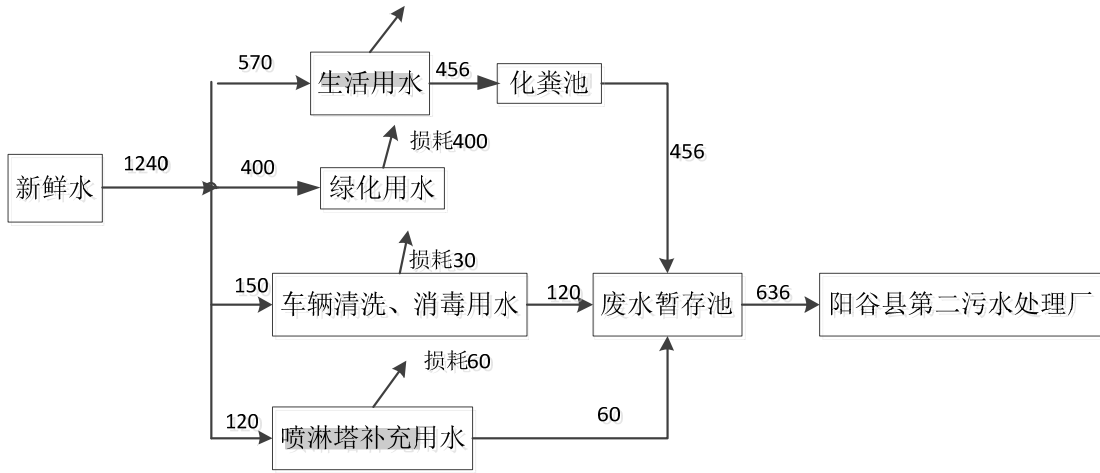
)

30~50L/ · d

50L/ · d

1.9m³/d

570m³/a



2.4-20

10 kWh/a

2.4.7.7

井場生活
用水

0.5 0.7mg/m³

80-110dB(A)

A.

92-95dB(A)

B.

85-90dB(A)

C.

95-102dB(A)

D.

85-90dB(A)

1.20-1.46

30-50% pH

6-7

2.5.2

2.6

2.6.1

2.6.1.1

1

EM

EM

2.6.1.2

13622.4m³/a 37.84m³/d

25

2.6-1

2.6-1

13622.4m ³ /a	COD	350mg/L 4.77t/a	0
	BOD ₅	200mg/L 2.72t/a	0
	SS	200mg/L 2.72t/a	0
	NH ₃ -N	25mg/L 0.34t/a	0
		50mg/L 0.34t/a	0
		5mg/L 0.07t/a	0

2.6.1.3

1

HJ

497-2009

A.2

0.12kg

40

4.8kg

6935.95

1189.02t/d 332925.6t/a

$$4.8 / \times 6935.95 \div 1000 / = 332925.6$$

2

7301

5% 365

243

40

75%

97.2

168

2kg/

2440

2537.2

2017 4 28

[2017]9

-

14600t/a

14600t/a

14600t/a

2537.2t/a

3

50

1

6.72

HW01

900-001-01

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

2.6.1.4

2.6-4

2.6-4

1		75 85	8	
2		75 85	1	
3		65 75		

2.6.2

2.6.2.1

1

EM

EM

0.058t/a H₂S 0.003t/a 10.8 9 NH₃
 H₂S 0.004t/a 12.6 NH₃ 0.081t/a H₂S 0.070t/a
 0.0045t/a
 2019 6 1~2 6.3
 2.2-8 11
 20 GB14554-93 1
 20 0.02mg/m³
 0.0005mg/m³
 0.2mg/m³ 0.01mg/m³

GB14554-93

1.5mg/m³

0.06mg/m³

2

GB17820-1999

S

200mg/m³

25480m³

SO₂ NO_x

136259.17 Nm³/ m³

SO₂

0.02S kg/ m³

200 mg/m³ SO₂

4 kg/ m³

NO_x

18.71 kg/

m³

P73

1.2 kg/ m³

10

SO₂ 0.01t/a NO_x0.048t/a

0.003t/a

2.6.2.2

7804.8 m³/a

10

2.6-5

2.6-5

7804.8m ³ /a	COD	350mg/L 2.73t/a	0
	BOD ₅	200mg/L 1.56t/a	0
	SS	200mg/L 1.56t/a	0
	NH ₃ -N	25mg/L 0.20t/a	0
		50mg/L 0.40t/a	0
		5mg/L 0.04t/a	0

2.6.1.3

16

$$\begin{aligned} & 0.12\text{kg/} \cdot 80\% \cdot 63 \\ 441 & 52.92\text{kg} \cdot 88 \cdot 63 \\ & 10\% \cdot 16 \cdot \times 104 = 1664 \\ & 1664 \cdot \times 1-10\% = 1497.6 \\ & 52.92 / \times 88 \cdot \div 1000 / = 46569.6 \\ & 46569.6 \cdot \times 1-80\% = 9313.92 \\ & 1497.6 + 9313.92 = 10811.52 \\ & 25\% \cdot 10811.52 \div 1-25\% = 14415.36 \\ & 63 \cdot 11 \cdot 74 \cdot 1.42 \\ & 25\% \cdot 14415.36 \div 1.42 = 10151.66 \end{aligned}$$

2

$$\begin{aligned} & 60.72 \cdot 69\% \cdot 2.0\text{kg/} \\ & 1214.4 \\ & 88 \cdot 5\% \cdot 4.4 \\ 2.93 & 40 \cdot 75\% \cdot 1.17 \\ & 1.47 \cdot 2\text{kg/} \cdot 29.4 \\ & 30.57 \cdot 68 \cdot 8 \cdot 76 \cdot 1.46 \\ & 20.94\text{t/a} \end{aligned}$$

2017 4 28

[2017]9

- 14600t/a 14600t/a 14600t/a
2537.2t/a 20.94t/a

3

50

1

0.50

4

420.5

5

10

271

1.0kg

360

97.56

2.6-6

2.6-6

			t/a		
S1			20.94	/	
S2			0.5	HW01	
S3			420.5		
S4			10151.66		
S5			97.56		

2.6-7

2.6-7

				t/a							
S3		HW01	900-001-01	0.5							

2.6.2.4

2.6-8
2.6-8

1		75 85	8	
2		75 85	1	
3		65 75		

75-90dB A

1 15dB A

20dB A

30dB A

2

30dB A

3

4

5

6

GB12348-2008 2

2.6.3

2.6.3.1

1

2

15m

GB17820-1999

S

200mg/m³

161620m³/a

SO₂ NO_x

136259.17 Nm³/ m³

SO₂

0.02S kg/ m³

200 mg/m³ SO₂

4 kg/ m³

NO_x

18.71 kg/ m³

NO_x

50mg/m³

P73

1.2 kg/ m³

2.6-9

2.6-9

	kg/ m ³					
	136259.17m ³	2.20×10 ⁶ m ³	/	2.20×10 ⁶ m ³	/	/
NO _x	4.09	0.11t/a	50mg/m ³	0.11t/a	50mg/m ³	50
SO ₂	4	0.065t/a	29.55mg/m ³	0.065t/a	29.55mg/m ³	50
	1.2	0.019t/a	8.64mg/m ³	0.019t/a	8.64mg/m ³	10

SO₂ 0.065t/a NO_x0.11t/a 0.019t/a

SO₂ NO_x

2018-2019

[2018]100

2018 224

SO₂ 50 mg/m³ NO_x

50 mg/m³

10 mg/m³

2.6.3.2

48 m³/d

17280 m³/a

4.72m³/d 1699.2 m³/a

52.72m³/d

18979.2m³/a

2.6-10

2.6-10

17280m ³ /a	COD	1000mg/L	17.28t/a	SS 50%
	BOD ₅	750mg/L	12.96t/a	
	SS	900mg/L	15.56t/a	
	NH ₃ -N	50mg/L	0.86t/a	
		100mg/L	1.728t/a	
		30mg/L	0.518t/a	
1699.2m ³ /a	COD	350mg/L	0.60t/a	
	BOD ₅	200mg/L	0.340t/a	
	SS	200mg/L	0.34t/a	
	NH ₃ -N	25mg/L	0.04t/a	
		50mg/L	0.085t/a	
		5mg/L	0.009t/a	
				COD 942.08mg/l 17.88t/a BOD ₅ 490.54mg/l 9.31t/a SS 418.88mg/l 15.9t/a NH ₃ -N 47.42mg/l 0.9t/a 95.52mg/l 1.813t/a NH ₃ -N 27.77mg/l 0.527t/a

2.6.3.3

1	10	5000	500
2	10%	5000	500
	2%	100	1%
50		3.3%	165
650			
	665		70
465.5			
	150		

3

59

1.0kg

21.24

2.6-11

			t/a		
S1			500		
S2			465.5	---	
S3			105		
S4			21.24		

2.6.3.4

2.6-12

2.6-12

1		75 85	30	
2		75 85	1	
3		65 75		

1

15dB A

20dB A

30dB A

2

30dB A

3

4

5

GB12348-2008 2

2.6.4

2.6.4.1

1

1

2

1

N S

2

20 2

5.5 /a 1# + 20m

P1 2# + 20m P2

NoHJWT190120

10

+

2.6-13

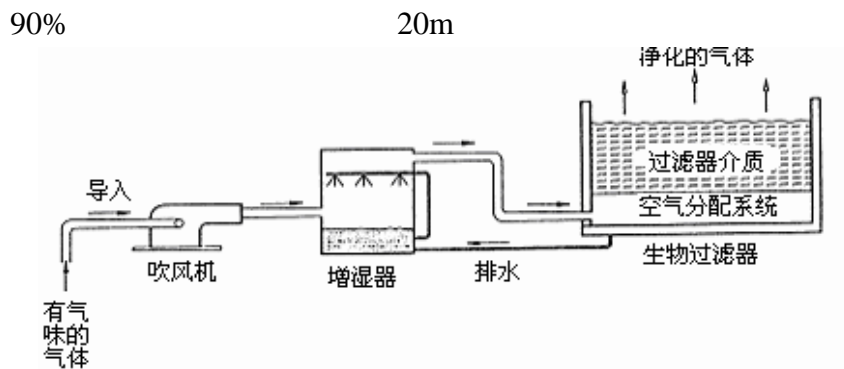
		2019.03.21		
		1	2	3
		1#	(m ³ /h)	5258	6521	6525
mg/m ³	12.4		11.8	12.0
kg/h	6.54×10 ⁻²		7.67×10 ⁻²	7.85×10 ⁻²
	20m		1.5m	
2#	(m ³ /h)	8517	8286	9572
	mg/m ³	0.42	0.46	0.46
	kg/h	3.6×10 ⁻³	3.8×10 ⁻³	4.4×10 ⁻³
	mg/m ³	2.82	3.38	3.73
	kg/h	2.4×10 ⁻²	2.8×10 ⁻²	3.0×10 ⁻²
		548	411	417
		20m		1.0m
3#	(m ³ /h)	18925	18278	17733
	mg/m ³	0.25	0.23	0.25

		kg/h	3.9×10^{-3}	4.2×10^{-3}	4.5×10^{-3}
		mg/m ³	2.82	3.38	3.73
		kg/h	2.5×10^{-2}	2.6×10^{-2}	2.9×10^{-2}
			411	411	417
				20m	1.0m

2.3-6

70000m³/h

NH₃ H₂S



2.6-1

2.6-15

2.6-15

					(t/a)	(kg/h)	(mg/m ³)
1#		2.58t/a	90% 70000 Nm ³ /h	90%	0.23	0.030	0.43
		0.39t/a			0.035	0.005	0.07
		6000			548		
2#		2.58t/a	90% 70000 Nm ³ /h	90%	0.23	0.030	0.43
		0.39t/a			0.035	0.005	0.07
		6000			548		

2

&

+

10

5

5

2.2

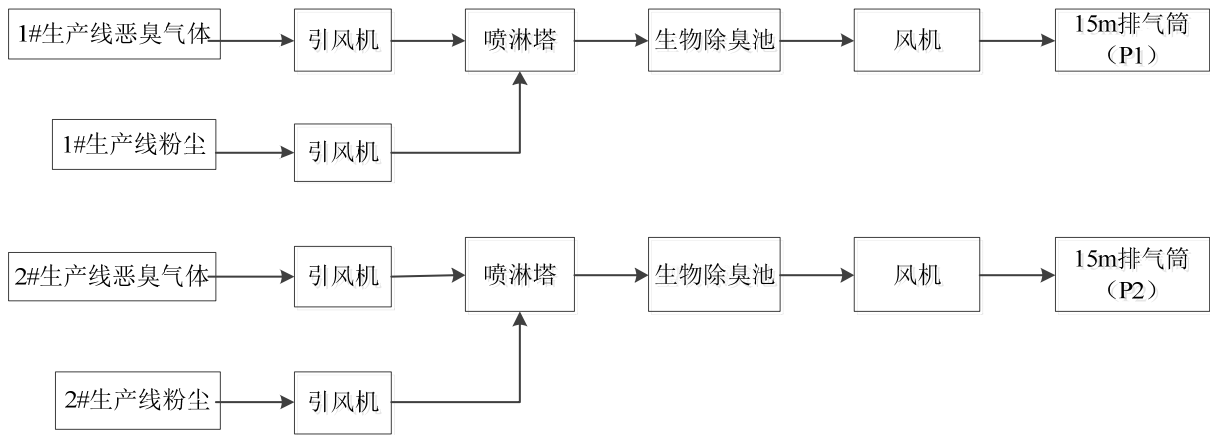
8.8

$8.09 \times 10^{-2} \text{kg/h}$ + 99% 90%
 320 24h 9.0kg/h 69.12t/a
 1# + + P1 2# + +
 P2

2.6-16

2.6-16

					(t/a)	(kg/h)	(mg/m ³)
1#		34.56t/a	90% 70000 Nm ³ /h	+	0.31	0.040	0.57
2#		34.56t/a	90% 70000 Nm ³ /h		99%	0.31	0.040	0.57



2.6-2

2.6.4.2

1

157500m³/a 492.19m³/d 75% 60%
 1m³/a 64m³/d

					100	0.148	
					30	0.045	
4		4.8	1536	COD	300	0.462	
				BOD ₅	100	0.154	
				SS	500	0.768	
5		3.24	1036.8	COD	350	0.363	
				BOD ₅	200	0.207	
				SS	200	0.207	
					30	0.031	
					50	0.052	
					5	0.005	
6		568.85	182031.2	COD	1400.51	254.937	
				BOD ₅	557.32	101.449	
				SS	726.55	132.254	
					92.73	16.879	
					142.13	25.873	
					46.91	8.539	

700m³

2.6.4.3

				S1	S2
	S3		S4	81	
0.5kg/			12.96t/a		

2.6-18

2.6-18

		t/a		
S1		225		
S2		5t/10a		
S3		59.10		
S4		12.96		

2.6.4.4

2.6-19

2.6-19

			dB(A)		dB(A)
1		4	80-85		55-60
2		4	85-90		60-65

3		4	80-85		55-60
4		4	80-85		55-60
5		1	80-85		55-60
6		1	80-85		55-60
7		2	80-85		55-60
8		4	80-85		55-60

NoHJWT190120

2.6-20

		Leq dB(A)			
		1#	2#	3#	4#
2019.03.21		51.8	51.0	51.6	50.6
		44.3	43.7	44.0	44.4
2019.03.22		51.1	52.8	53.5	50.7
		44.4	42.7	44.2	42.5

GB12348-2008 2

2.6.5

2.6.5.1

1

2

NH₃

0.50 t/a H₂S

0.01 t/a

%

1.5t/a
20mg/m³
15m
0.21kg/h
DB37/2376-2013
20mg/m³
(GB14554-93)

2.6.5.2

1888m³/d 623040m³/a 80%
1510.4m³/d 498432m³/a
336 m³/d 110880 m³/a 80% 268.8m³/d
88704m³/a
110m³/d 36300m³/a 80% 88m³/d 29040m³/a
7260m³/a 80% 17.6m³/d 5808m³/a 22m³/d
60L/
880 52.8m³/d 17424m³ 330
80% 42.24m³/d 13939.2m³/a
635931.2m³/a 1927.04 m³/d

2.6-21

2.6-21

		m ³ /d	(mg/l)	
W1		1510.4	COD 1200 BOD ₅ 800 SS 500 80 100 20	
W2		268.8	COD 300 BOD ₅ 100 SS 100 10 30 5	
W3		88	COD 1000 BOD ₅ 600 SS 300 80 100 10	
W4		17.6	COD 300 SS 1000	
W5		42.24	COD 350 BOD ₅ 200 SS 200 30 50 5	
		1927.04	COD 1038.2mg/L BOD ₅ 672.7 mg/L SS 433.0mg/L 68.4mg/L 88.2mg/L 16.9mg/L	

1927.04m³/d

COD 1038.2mg/L BOD₅ 672.7 mg/L

SS 433.0mg/L 68.4mg/L 88.2mg/L 16.9mg/L COD 2.0t/d

BOD₅ 1.30t/d SS 0.83t/d 0.13t/d 0.17t/d 0.03t/d 2000m³

2.6.5.3

S7		145.2	
----	--	-------	--

2.6.5.4

2.6-23

2.6-23

			dB A		dB A
1		1	80-85		55-60
2		2	80-85		55-60
3	/	2	80-85		55-60
4		2	80-85		55-60
5		2	80-85		55-60
6	/	2	80-85		55-60
7		2	80-85		55-60
8		2	80-85		55-60
9		2	80-85		55-60
10		2	80-85		55-60
11		2	80-85		55-60
12		2	80-85		55-60
13		2	80-85		55-60
14		2	80-85		55-60
15		2	80-85		55-60
16		2	80-85		55-60
17		2	80-85		55-60
18		2	80-85		55-60
19	1	2	80-85		55-60
20	2	2	80-85		55-60
21		2	80-85		55-60
22		2	80-85		55-60
23		2	80-85		55-60
24		2	80-85		55-60
25		2	80-85		55-60
26		1	80-85		55-60
27		2	80-85		55-60
28		2	80-85		55-60
29		1	80-85		55-60
30		3	80-85		55-60
31		2	80-85		55-60
32		2	80-85		55-60
33		2	80-85		55-60
34		2	80-85		55-60
35		4	80-85		55-60

36		2	80-85		55-60
37		2	80-85		55-60
38		2	80-85		55-60
39		2	80-85		55-60
40		2	80-85		55-60
41		2	80-85		55-60
42		2	80-85		55-60
43		2	80-85		55-60
44		2	80-85		55-60
45		4	80-85		55-60
46		1	80-85		55-60
47		4	80-85		55-60
48		2	80-85		55-60
49		4	80-85		55-60
50		8	80-85		55-60
51		4	80-85		55-60
52		4	80-85		55-60
53		4	80-85		55-60
54		4	80-85		55-60
55		1	80-85		55-60
56		8	80-85		55-60
57		8	80-85		55-60
58		4	80-85		55-60
59		4	80-85		55-60
60		4	80-85		55-60
61		8	80-85		55-60
62		2	80-85		55-60
63		4	80-85		55-60
64		1	85-90		60-65

2.6.6

2.6.6.1

1

7

2

13

3

3

3.5m

1

10

1

5

1.34t/

0.23t/a

1.57t/a

25000m³/h

+UV +

NoHJWT190394

2.6-24

			1#	2#	3#	4#
mg/m ³	2019.05.24	1	0.180	0.318	0.332	0.352
		2	0.173	0.322	0.347	0.384
		3	0.187	0.326	0.304	0.372
		4	0.172	0.322	0.346	0.358
	2019.05.24	1	11	19	17	18
		2	12	18	19	18
		3	11	19	17	18
		4	12	17	19	18
	1#	2# 3# 4#				

GB14554-93

20

GB16297-1996

1.0mg/m³

2.6.6.2

38

[2014]14

()

30~50L/ · d

50L/ · d

1.9m³/d 570m³/a

80%

1.52m³/d 456m³/a

3m³

4m

5m³/d 150 m³/a

80%

4m³/d 120m³/a

1%

60m³/a 0.2m³/d

5

2017 8.24 8.25

2.6-25

2.6-25

pH

mg/L

			pH	COD mg/L	BOD ₅ mg/L	mg/L	mg/L
08.24		1	7.36	345	126	76	12.6
		2	7.12	312	105	68	11.4
		3	7.24	337	114	72	12.2
08.25		1	7.28	316	109	65	12.0
		2	7.16	325	113	70	11.7
		3	7.30	331	117	58	11.2

COD 350mg/L BOD₅

150mg/L NH₃-N 15mg/L SS 100mg/L

2.6-26

2.6-26

636m ³ /a	COD	350mg/L 0.22t/a	350mg/L 0.22t/a
	BOD ₅	150mg/L 0.09t/a	150mg/L 0.09t/a
	SS	100mg/L 0.06t/a	100mg/L 0.06t/a
	NH ₃ -N	15mg/L 0.01t/a	15mg/L 0.01t/a
		50mg/L 0.03t/a	50mg/L 0.03t/a
		5mg/L 0.003t/a	5mg/L 0.003t/a

2.6.6.3

1

6.4t/a

9.6t/a

0.096t/a

25.04t/a

2

38

0.5kg

320

5.7

2.6-27

2.6-27

		t/a			t/a
1		6.4			0
2		9.6			
3		25.04			
4		5.7			

2.6.6.4

1

85 90dB A

2.6-28

2.6-28

		dB A		dB A
	1	80-85		55-60
	3	80-85		55-60

	2	80-85	55-60
	1	80-85	55-60
	1	80-85	55-60
	1	80-85	55-60
	2	80-85	55-60
	2	80-85	55-60
	2	80-85	55-60
	1	80-85	55-60
	1	80-85	55-60
	1	85-90	60-65
	1	80-85	55-60
	1	80-85	55-60
	3	80-85	55-60
“968”	2	80-85	55-60
	3	85-90	60-65
	3	80-85	55-60
	3	80-85	55-60
	3	80-85	55-60
	1	80-85	55-60
	2	80-85	55-60
“968”	1	80-85	55-60
	1	80-85	55-60
	1	80-85	55-60
	1	80-85	55-60
	2	80-85	55-60
	1	80-85	55-60
	1	80-85	55-60
K35	3	80-85	55-60
	3	80-85	55-60
	3	80-85	55-60
	3	80-85	55-60
	3	80-85	55-60

	3	85-90	55-60
	6	80-85	55-60
	3	80-85	55-60
" "	3	80-85	55-60
	3	80-85	55-60
	3	80-85	55-60
	3	80-85	55-60
	3	80-85	55-60
	1	80-85	55-60
	1	85-90	60-65
	1	80-85	55-60
T	1	80-85	55-60
	1	80-85	55-60
	1	80-85	55-60
	2	85-90	60-65
	1	80-85	55-60
	1	80-85	55-60
	3	80-85	55-60
	2	80-85	55-60
	1	80-85	55-60
	1	85-90	55-60
	2	80-85	55-60
	1	80-85	55-60
	1	80-85	55-60
	1	80-85	55-60
	4	80-85	55-60
	4	85-90	60-65
	2	80-85	55-60
	1	85-90	60-65

2

1

2

3

4

5

6

7

20~25dB(A)

NoHJWT190394

2.6-29

		Leq dB(A)			
		1#	2#	3#	4#
2019.05.24		53.6	53.5	53.6	52.9
		42.5	43.3	42.9	43.1
2019.05.24		53.4	53.1	54.1	52.6
		43.2	43.2	45.6	43.0

GB12348-2008 2

2.6.7

2.6.7.1

18979.2m³/a

COD 942.08mg/L BOD₅ 490.54mg/l SS 418.88mg/l NH₃-N 47.42mg/l
95.52mg/l 27.77mg/l

SS 50% COD 1400.51mg/L BOD₅
557.32mg/l SS 435.93mg/l NH₃-N 92.73mg/l 142.13mg/l 46.91mg/l

COD
350mg/L BOD150mg/L SS 100mg/L 15mg/L 50mg/L 5mg/L

COD 2000mg/L SS 500mg/L

NH₃-N 100mg/L

627.29m³/d 201646.4m³/a

30000m³/d

3500m³/d

2010 7

30000m³/d

15000m³/d

GB18918-2002

A

14.3 km

A/A/O

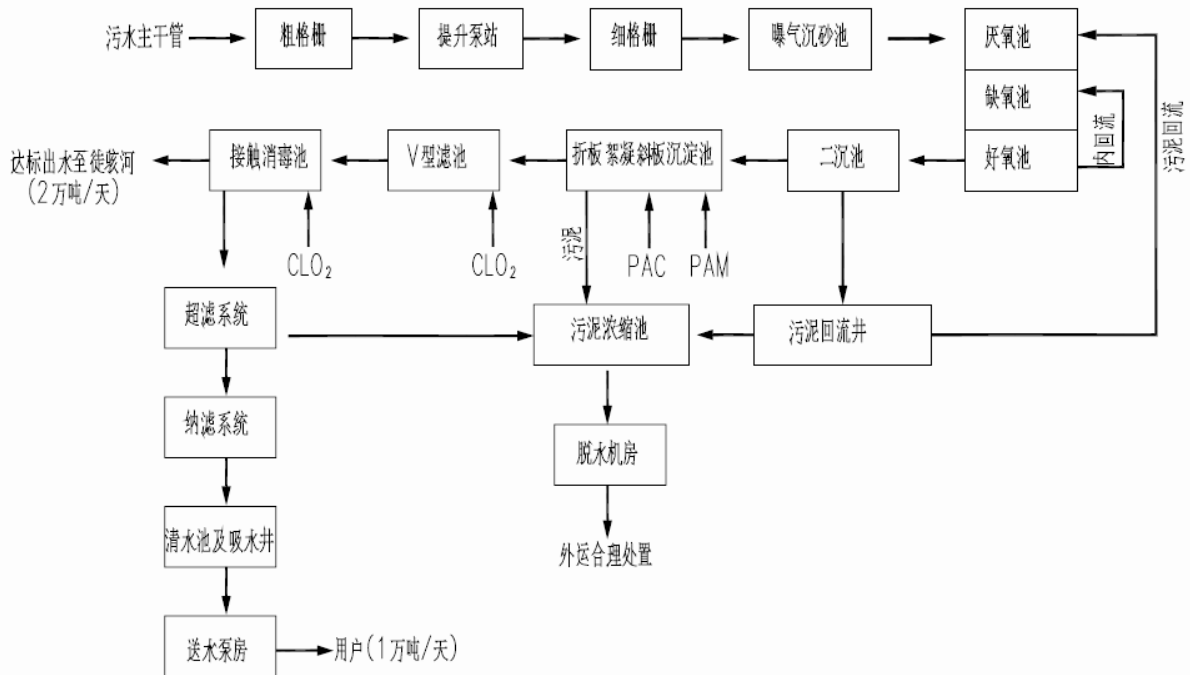
V

PAM

V

“A/A/O + + +”

“ + ”



2.6-3

2.6-30

2019 6

mg/L

	COD	NH ₃ -N	TP	COD	NH ₃ -N	TP
2019.6.1	20.75	0.42	0.13	1275	38.39	15.5
2019.6.2	25.62	0.39	0.11	1407	70.38	9.50
2019.6.3	15.84	0.39	0.16	1153	71.10	11.50
2019.6.4	17.47	1.24	0.36	1588	82.78	8.35
2019.6.5	23.99	1.84	0.30	2244	67.68	17.50
2019.6.6	15.84	1.03	0.23	1385	38.76	5.74
2019.6.7	15.84	0.68	0.15	1448	37.34	6.10
2019.6.8	22.36	0.26	0.36	851	23.04	3.70
2019.6.9	15.84	0.72	0.36	1275	21.07	9.47
2019.6.10	17.47	0.68	0.32	1334	63.08	15.05
2019.6.11	<10	1.19	0.28	1334	84.32	14.55
2019.6.12	12.58	1.20	0.34	1588	68.98	17.3
2019.6.13	19.10	0.96	0.30	1204	67.44	18.25
2019.6.14	15.84	0.58	0.35	530.5	48.08	24.75
2019.6.15	17.47	0.84	0.26	1062	41.60	15.2
2019.6.16	19.10	0.68	0.34	1385	25.30	12.45
2019.6.17	30.51	1.10	0.31	1252	78.88	18.75

2019.6.18	30.51	1.10	0.28	3654	57.88	14.55
2019.6.19	22.36	1.40	0.30	1227.5	116.66	20.75
2019.6.20	25.62	5.92	0.34	1342	87.62	17.5
2019.6.21	23.99	1.98	0.33	1023	85.38	16.45
2019.6.22	19.10	0.72	0.31	1303	82.36	17.7
2019.6.23	27.25	0.75	0.32	1793	75.46	18.95
2019.6.24	25.62	0.93	0.24	1588	91.90	11.7
2019.6.25	22.36	0.68	0.32	1711	86.32	21.05
2019.6.26	33.76	0.74	0.29	3121	89.74	14.60
2019.6.27	17.47	0.48	0.31	1711	115.50	23.50
2019.6.28	17.47	0.46	0.42	1326	80.42	37.60
2019.6.29	19.10	0.80	0.31	1684	92.34	24.14
2019.6.30	17.58	0.92	0.40	1219	58.12	30.95

2.6-4

COD<50mg/L NH₃-N<1.15mg/L

2.6.7.2

COD 1038.2mg/L BOD672.7 mg/L

SS 433.0mg/L 68.4mg/L 88.2mg/L 16.9mg/L

COD 2000mg/L SS 500mg/L NH₃-N 100mg/L

1927.04m³/d 635931.2m³/a

4000m³/d

2006 12 2007

2999.78

12000m³/d

6000m³/d

“A/A/O +

+ + ”

“ + ”

2019

030127

2.6-31

mg/L

pH()	6.92	7.40
COD _{Cr}	1020	18
BOD ₅	410	3.8
	50.8	1.54
	90.6	2.78
	18.4	0.125
SS	126	10
	7.50	0.06L
	7.45	0.06L

2.6-31

COD<50mg/L NH₃-N<1.15mg/L

2.7

“ ”

2.7-1

2.7-1

“ ”

t/a

	SO ₂	0.215	0.075	0.003	0.287	+0.072
	NO _x	0.228	0.158	0.001	0.385	+0.157
		0.065	0.022	0.0002	0.0868	+0.0218
		0.535	0.535	0.535	0.535	0.535
	H ₂ S	0.535	0.535	0.535	0.535	0.535
	NH ₃	0.535	0.535	0.535	0.535	0.535
		0	0	0	0	0
	COD _{Cr}	0	0	0	0	0
		0	0	0	0	0
		0	0		0	0

		0	0		0	0
--	--	---	---	--	---	---

2.8

“ ”

2.8.1.2

2.8.1.3

1

20%

2

CJ%(! &\$\$&

*@

2.8.1.4

12.2-1

1		kWh	12581.89
2		m ³	1579967.6
3		m ³	25480

2.8.1.5

DB37/2376-2013

2

20mg/m³

GB16297-1996

2

3.5kg/h

GB14554-93

1

2

DB37/2376-2013

2

20mg/m³

GB16297-1996

2

3.5kg/h

2018-2019

[2018]100

2018 224

SO₂ 50 mg/m³ NO_x 50 mg/m³

10 mg/m³

10

25

50m³

2.8.1.6

2.8.2

2.8.2.1

“ ”

2.8.2.2

1

2

3

2.8.2.3

(1)

(2)

“ ”

(3)

(4)

2.9

2.9.1

2.9.1.1

“ ”

“ ”

2.9.1.2

“ ”

[2018]16

[2017]61 2018 6

48

[2017]84

A0321

[2017]84

C1351

2.9.2

837577.6m³/a

COD

SO₂ NO_x

SO₂ 0.075t/a NO_x 0.158t/a

SO₂ NO_x

0.075t/a 0.158t/a

3.1

3.1.1

35°55' 36°19' 32km 39km 1064km² 115°39' 116°06'

3.1.4

60 150m

(1) ————— 60m

(2) 60 200m 1000mg/L 2000mg/L

(3) 200 400m 1000mg/L

1
17 25m -2 -8m

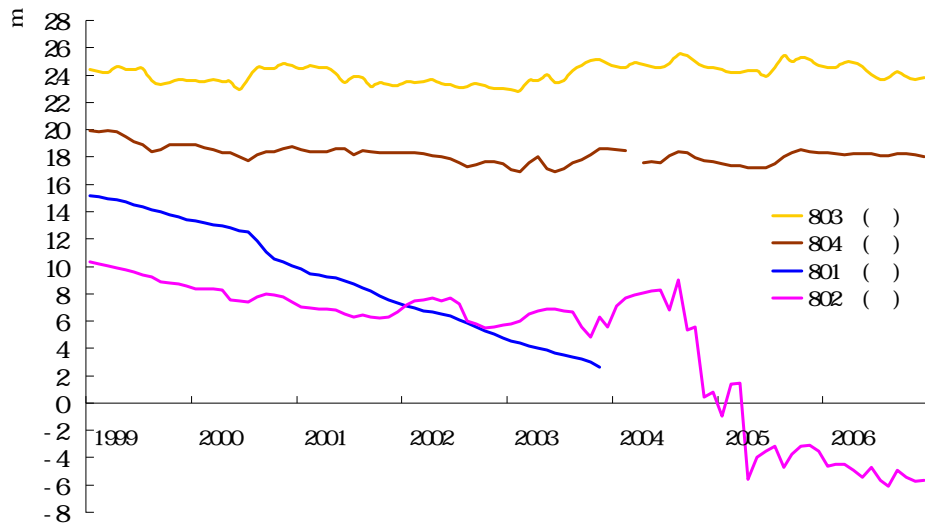
2

2m

10 20m

1

3.1-1



3.1-1

3.2m

2.1 m³

3.1-2

3.1.5

13.2

41.7 2002

-17.3 2001

213

551.9mm

851.8mm

1991

2235.5h

70%

0.5m

2.7 m/s

3.1.6

3.9853 m³

3.1.8.2

106400hm² 72094.78hm²
2371.16hm² 1837.84hm² 1620.4hm²
8592hm²

3.1.8.3

554
13 66 12 10
44 125 100 12
63 53 10

3.1.9

3
4 86
68.5% 1.5%
36.1% 45.5% 17.8% 1

3.2

3.2.1

2018-2035

2018-2035 2018 11 7

	2018	2035		2018	2022	2023
2035		2050				
				1065.73		
1			1065.73			
2			2			16
	126		112.48			
			2035	58%		
			2035	49		
			“	”		
1	“	”_____				
2	“	”_____				
3	“	”_____				

4 “ ”—— -

”

1

“ ”

“ ”

2

“ ”

2018-2035

3.2-1

3.2.2

3.2.2.1

487km

9

“ ”

3.2.2.2

3.3

3.3.1

- 1 GB3095-2012
HJ 2.2-2018 D
- 2 GB3838-2002
- 3 GB/T 14848-2017
- 4 GB3096-2008 2
- 5
GB36600-2018

3.3.2

2016-2020

2016-2020

3.3-1

3.3-1

3.3-1

						km ²					
								km ²			
480		SD-15-B 1-13				6.99	50m	0.16			
481		SD-15-B 1-14				1.64	--	--			
503		SD-15-B 4-16			S324	0.15					

2016-2020

3.3.3

3

3.3-2 3.3-2

3.3-2

	15 5 m ³ /d		1 50m	
			2 500m	2.4km

	m ³ 2278		2km	5.6km
	4 4000m ³ /d			0.7km

2.4km

0.7km

5.6km

3.3.4

39

1994

AAA

3.3.5

1.4-9

1.4-2

3.4

3.4.1

3.4.1.1

2015 11 ~2018 10

3.4-1

3.4-1

	PM ₁₀	SO ₂	NO ₂	PM _{2.5}	CO-95per	O ₃ -8H-90per
	(mg/m ³)	(mg/m ³)	(mg/m ³)	(mg/m ³)	(mg/m ³)	(g/m ³)
2015.01	281	64	64	183		
2015.02	256	49	38	151		
2015.03	233	50	47	111		
2015.04	163	37	35	84		
2015.05	162	42	32	86		
2015.06	167	26	22	88		
2015.07	123	25	20	78		
2015.08	105	16	21	68		
2015.09	132	26	29	80		
2015.10	211	47	46	134		
2015.11	179	31	26	133		
2015.12	296	46	68	200		
2015	192	38	37	116		
2016.01	249	51	62	172		
2016.02	185	56	56	121		
2016.03	216	64	57	111		
2016.04	195	32	45	94		
2016.05	133	36	42	70		
2016.06	115	47	38	66		
2016.07	94	27	25	63		
2016.08	93	26	41	63		
2016.09	138	36	43	91		
2016.10	113	34	32	78		
2016.11	172	24	25	117		
2016.12	225	21	45	171		
2016	161	38	43	101		
2017.01	221	20	43	161		
2017.02	195	33	64	131		
2017.03	160	37	59	92		
2017.04	140	24	60	75		
2017.05	140	24	57	59		

2018/1/17	18	67	2.2	387	273	34
2018/1/18	27	78	2.4	425	294	45
2018/1/19	20	49	1.5	367	266	92
2018/1/20	13	54	1.2	308	220	69
2018/1/21	8	46	1.4	270	167	39
2018/1/22						47
2018/1/23	16	32	0.3	83	43	
2018/1/24	23	49	0.5	83	46	59
2018/1/25	25	53	0.4	101	45	61
2018/1/26	20	51	0.6	107	66	53
2018/1/27	23	55	0.7	135	92	47
2018/1/28	14	52	1.1	192	155	62
2018/1/29	18	54	1.2	236	178	69
2018/1/30	28	62	0.9	165	107	43
2018/1/31	30	64	1.3	159	100	62
2018/2/1	39	70	0.9	164	88	60
2018/2/2	18	44		146	52	74
2018/2/3	27	64	0.8	111	61	65
2018/2/4	40	68	1.1	146	92	75
2018/2/5	29	61	0.7	118	65	61
2018/2/6	29	53	0.5	103	51	64
2018/2/7	21	47	0.4	147	60	78
2018/2/8	21	48	0.4	135	48	84
2018/2/9	28	50	0.5	239	100	75
2018/2/10	20	38		166	40	78
2018/2/11	38	53	1.2	211	75	80
2018/2/12	34	34	1	115	42	87
2018/2/13	23	29	0.8	172	70	132
2018/2/14						91
2018/2/15						
2018/2/16						
2018/2/17						
2018/2/18						
2018/2/19						
2018/2/20						
2018/2/21						
2018/2/22	13	27	1.1	170	104	112
2018/2/23	19	32	0.6	117	67	122
2018/2/24	24	38	0.7	166	45	71
2018/2/25	20	49	0.9	141	75	117
2018/2/26	19	37	0.7	185	114	140
2018/2/27	24	59	1	227	146	103
2018/2/28	10	39	1	198	154	103

2018/3/1	13	36	0.4	132	52	93
2018/3/2	14	31	0.3	111	59	119
2018/3/3	10	30	0.3	114	84	71
2018/3/4	10	35		92	68	69
2018/3/5	14	49	0.3	80	37	87
2018/3/6	23	78	0.9	163	88	64
2018/3/7	16	53	0.5	122	67	103
2018/3/8	12	49	0.5	114	71	109
2018/3/9	15	49	0.4	141	77	137
2018/3/10	13	52	0.4	191	117	126
2018/3/11	21	85	1	281	183	154
2018/3/12	17	41		158	84	187
2018/3/13	14	32		114	63	180
2018/3/14	20	32		107	64	130
2018/3/15	11	35	0.2	166	54	88
2018/3/16	15	51	0.3	63	25	107
2018/3/17	18	83	0.6	112	60	64
2018/3/18	8	52	0.6	110	86	69
2018/3/19	15	50	0.8	144	103	134
2018/3/20	14	36	0.2	61	20	99
2018/3/21	17	59	0.4	76	33	101
2018/3/22	28	77	0.7	152	89	111
2018/3/23	31	49	0.5	188	111	156
2018/3/24	14	36	0.4	87	55	143
2018/3/25	37	48	0.4	142	80	183
2018/3/26	23	18	0.2	153	85	188
2018/3/27	19	17	0.2	138	67	154
2018/3/28	25	22	0.2	159	70	154
2018/3/29	17	29	0.4	203	64	105
2018/3/30	22	34	0.2	131	45	152
2018/3/31	21	18		126	68	166
2018/4/1	21	29	0.6	202	123	169
2018/4/2	24	21	0.4	209	95	177
2018/4/3	16	23	0.3	288	52	84
2018/4/4	14	25	0.2	50	17	79
2018/4/5	8	27	0.3	61	39	72
2018/4/6	10	28	0.4	203	36	112
2018/4/7	19	30	0.3	91	20	127
2018/4/8	23	37	0.4	166	45	102
2018/4/9	26	34	0.3	196	59	166
2018/4/10	27	44	0.4	263	75	94
2018/4/11	21	39	0.3	184	46	122
2018/4/12	24	25	0.2	111	39	88

2018/4/13	10	29	0.3	51	32	67
2018/4/14	11	33	0.1	111	31	102
2018/4/15	21	47	0.3	175	44	124
2018/4/16	26	30	0.3	296	69	166
2018/4/17	21	23		227	50	162
2018/4/18	25	25	0.2	210	67	177
2018/4/19	22	23		153	54	184
2018/4/20	26	30	0.2	152	69	220
2018/4/21	19	26		125	73	158
2018/4/22	7	20		29	24	77
2018/4/23	13	28	0.2	70	52	89
2018/4/24						149
2018/4/25	16	23		89	44	173
2018/4/26	17	24	0.1	119	82	162
2018/4/27	20	38	0.3	155	95	200
2018/4/28	20	27		132	60	186
2018/4/29	21	27		107	50	190
2018/4/30	18	32		157	80	169
2018/5/1						136
2018/5/2	12	22		57	42	128
2018/5/3	21	35	0.7	89	41	132
2018/5/4	21	26	0.7	186	48	186
2018/5/5	12	20	0.6	81	36	124
2018/5/6	11	30	0.7	80	63	140
2018/5/7	17	47	0.8	121	60	185
2018/5/8	32	43	1.3	160	64	183
2018/5/9	25	33	1	175	55	232
2018/5/10	20	17	0.7	161	83	182
2018/5/11	16	15	0.7	107	71	138
2018/5/12	14	14	0.8	107	77	145
2018/5/13	19	10	0.7	112	63	193
2018/5/14	15	7	0.6	99	41	179
2018/5/15	16		0.6	81	40	113
2018/5/16	9		0.3	34	26	127
2018/5/17	8		0.4	69	44	87
2018/5/18	20	21	0.7	99	49	198
2018/5/19	21	29	0.8	105	58	123
2018/5/20	9		0.3	42	28	139
2018/5/21	9	11	0.3	47	29	
2018/5/22	9	12	0.3	76	28	130
2018/5/23	41	17	0.4	172	52	202
2018/5/24	17	14	0.3	133	47	169
2018/5/25	27	28		114	68	158

2018/5/26	19	30	0.5	114	77	212
2018/5/27	25	25	0.4	181	66	183
2018/5/28	32	27	0.4	162	62	211
2018/5/29	27	34	0.7	167	46	198
2018/5/30	22	45	0.6	111	43	225

2018/7/8	20	22		47	31	102
2018/7/9		26		55	42	91
2018/7/10		24		59	52	123
2018/7/11		21		87	69	161
2018/7/12	6	15		57	34	109
2018/7/13	5	15		46	35	117
2018/7/14	3	13		32	22	110
2018/7/15	5	15		42	32	151
2018/7/16	8	15		49	31	149
2018/7/17	8	18		68	44	179
2018/7/18	10	20		70	42	161
2018/7/19	10	16		66	38	209
2018/7/20	10	12	0.1	71	46	186
2018/7/21	11	14	0.1	72	50	215
2018/7/22	10	16		62	46	143
2018/7/23	10	19		65	44	97
2018/7/24	7	8		43	28	170
2018/7/25	13	14		60	37	239
2018/7/26	6	9		47	36	179
2018/7/27	8	18	0.1	47	34	163
2018/7/28	5	23	0.5	68	58	136
2018/7/29	5	14	0.1	66	57	119
2018/7/30	4	15	0.2	68	55	134
2018/7/31	4	17		46	36	146
2018/8/1	6	33	0.2	78	60	189
2018/8/2	7	33	0.4	92	72	194
2018/8/3	9	27	0.4	89	68	208
2018/8/4	10	28	0.3	70	50	172
2018/8/5	7	15		55	42	145
2018/8/6	7	25		63	45	153
2018/8/7	9	21		74	55	161
2018/8/8	12	21		63	46	162
2018/8/9	4	15	0.4	70	58	134
2018/8/10	4	17	0.7	71	57	221
2018/8/11	4	17	0.6	85	64	198
2018/8/12		16		62	37	182
2018/8/13	3	9	0.2	56	39	86
2018/8/14	4	16	0.3	26	17	85
2018/8/15	5	11	0.3	26	18	117
2018/8/16						107
2018/8/17	8	13	0.1	37	20	153
2018/8/18	7	18	0.4	46	37	72
2018/8/19	4	13		11	11	52

2018/8/20	6	9		18	11	84
2018/8/21	11		0.7	49	35	178
2018/8/22	8		1.4	94	77	128
2018/8/23	6			47	30	164
2018/8/24	7			67	38	179
2018/8/25	10	13	0.3	83	52	181
2018/8/26	7	7	0.3	76	52	190
2018/8/27	8	12		74	45	196
2018/8/28	6	13		69	47	157
2018/8/29	8	10	0.3	76	55	186
2018/8/30	7	8	0.6	51	42	111
2018/8/31	5			32	23	106
2018/9/1	6	35	0.6	62	38	152
2018/9/2	8	34	0.5	77	37	102
2018/9/3	7	19		80	33	163
2018/9/4	10	43		67	19	128
2018/9/5	15	51	0.4	96	39	176
2018/9/6	8	17		86	23	167
2018/9/7	6	23		46	9	106
2018/9/8	16	46	1	85	36	165
2018/9/9	8	41	1	85	35	147
2018/9/10	11	32	1	89	30	125
2018/9/11	10	29	0.8	90	35	164
2018/9/12	13	39	0.6	109	49	165
2018/9/13	10	30	0.4	93	42	117
2018/9/14	5	35	0.3	62	32	130
2018/9/15	7	44	0.6	87	50	70
2018/9/16	6	41	0.5	67	25	52
2018/9/17	8	44	0.7	80	38	132
2018/9/18	6	48	0.8	82	49	75
2018/9/19	3	19	1.1	39	33	67
2018/9/20	4	20	0.7	62	41	117
2018/9/21	10	41	0.7	120	64	156
2018/9/22	14	42		94	25	122
2018/9/23	15	59	0.6	92	31	127
2018/9/24	12	54	0.6	68	21	95
2018/9/25	7	47	0.9	59	32	44
2018/9/26	10	47	0.7	73	43	163
2018/9/27						196
2018/9/28	12	27	0.6	116	56	141
2018/9/29	21	38	0.7	120	40	150
2018/9/30	9	34	0.5	75	10	94
2018/10/1	8	26	0.5	59	13	110

2018/10/2	18	30	0.6	96	44	120
2018/10/3	18	26	0.8	124	61	175
2018/10/4	36	48	0.8	128	70	191
2018/10/5	22	87	0.9	148	84	214
2018/10/6	21	83	0.9	175	85	130
2018/10/7	20	62	0.9	128	45	112
2018/10/8	20	57	0.8	169	78	153
2018/10/9	9	50	0.7	163	67	85
2018/10/10	12	61	0.6	108	34	106
2018/10/11	15	62	0.7	114	48	92
2018/10/12	26	49	0.7	138	67	144
2018/10/13	17	30	0.6	131	69	166
2018/10/14	17	32	0.7	128	68	129
2018/10/15	15	30	0.7	123	69	108
2018/10/16	13	26	0.8	138	92	129
2018/10/17	8	37	0.8	100	58	100
2018/10/18	18	64	0.8	88	42	96
2018/10/19	21	81	1.1	100	49	115
2018/10/20	23	77	1	120	66	98
2018/10/21	16	55	0.7	105	56	90
2018/10/22	21	49	1	150	106	154
2018/10/23	17	49	0.6	108	36	97
2018/10/24	24	67	0.7	150	66	143
2018/10/25	13	79	0.9	189	132	112
2018/10/26	10	64	0.7	130	39	71
2018/10/27	30	66	0.6	93	31	89
2018/10/28	26	77	0.8	85	31	85
2018/10/29	18	77	0.7	83	25	66
2018/10/30	19	82	0.9	106	49	79
2018/10/31	25	79	0.8	129	65	89
2018/11/1	20	74	0.8	142	82	132
2018/11/2	19	70	0.8	158	102	147
2018/11/3	14	61	0.7	135	90	119
2018/11/4	12	63	0.7	134	84	102
2018/11/5	3	50	0.9	58	43	23
2018/11/6	7	58	0.7	62	43	45
2018/11/7	11	64	0.7	82	44	43
2018/11/8			0.5			59
2018/11/9	15	55	0.7	120	93	66
2018/11/10	19	70	1.2	143	103	57
2018/11/11	16	57	0.7	92	65	76
2018/11/12	21	75	1.1	145	109	94
2018/11/13	24	76	1.3	212	165	116

2018/11/14	20	68	0.8	155	112	85
2018/11/15	20	71	0.8	155	114	52
2018/11/16	16	42	0.5	59	37	44
2018/11/17	17	52	0.7	91	57	49
2018/11/18	21	69	1.1	130	90	30
2018/11/19	18	60	1	136	93	85
2018/11/20	14	55			115	61
2018/11/21	17	61	1.1		114	62
2018/11/22	19	67	0.8	140	85	69
2018/11/23	21	68	0.8	169	101	91
2018/11/24	19	92	1.6	256		45
2018/11/25	15	91	0.9	304	223	71
2018/11/26	6	60	0.5	244	189	100
2018/11/27	9	73	1.2	376	195	45
2018/11/28	12	75		446	165	16
2018/11/29	9	73	1.3	341	125	21
2018/11/30	9	76	1.5	322	147	26
2018/12/1	18	99	2.8	401	221	26
2018/12/2	6	74		295	193	20
2018/12/3	5	55	1.8	318	125	26
2018/12/4	10	49	0.8	209	54	43
2018/12/5	6	35	0.8	113	45	45
2018/12/6	2	32	0.6	93	50	45
2018/12/7	9	44	0.5	64	24	50
2018/12/8	11	43	0.8	82	43	56
2018/12/9	15	53	1.4	120	70	45
2018/12/10	19	69	2	201	124	39
2018/12/11	19	57	1.6	182	121	42
2018/12/12	25	57	1.9	183	112	56
2018/12/13	13	53	1.3	162	102	44
2018/12/14	26	43	1.6	159	95	46
2018/12/15	14	40	0.8	130	83	57
2018/12/16	12	44	1.6	236	180	26
2018/12/17	23	62	2	301	215	56
2018/12/18	22	60	1	209	121	45
2018/12/19	25	97	2	284		
2018/12/20	35	104	3	287		
2018/12/21	29	80	3	297		
2018/12/22	29	85	2	206		
2018/12/23	17	48	1	131		
2018/12/24	21	62	1	149		
2018/12/25	14	62	1	194		
2018/12/26	15	49	1	105		

2018/12/27	11	38	1	74		
2018/12/28	13	39	1	94		
2018/12/29	37	53	2	123		
2018/12/30	35	65	2	128		
2018/12/31	33	71	2	122		
	16	40	0.7	126	68	125

2018

3.4-3

3.4-3 2018

		(mg/m ³)	(mg/m ³)	%	
SO ₂		0.016	0.06	26.67	
	98	0.036	0.15	24.00	
NO ₂		0.0399	0.04	99.75	
	98	0.085	0.08	106.25	
PM ₁₀		0.126	0.07	180.00	
	95	0.295	0.15	196.67	
PM _{2.5}		0.068	0.035	194.29	
	95	0.167	0.075	222.67	
CO	95	1.9	4	47.50	
O ₃	90 8h	0.208	0.16	130.00	

“ ” 2018

GB3095-2012

2018-2020

2017

VOCs

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2.4.1.2

3#				
4#				
5#				
6#				

2018 1 —2018

12

3.4-5

		3.4-5				pH		mg/L	
		pH	COD	BOD ₅	NH ₃ -N				
2018.1	1#								
	2#	7.87	19	3.2	1.99	8.94	0.16	9.4	2800
	3#	8.17	62	7.6	2.22	8.46	0.76	8.2	5400
	4#	8.38	37	4.7	0.623	1.31	0.09	8.3	630
	5#	8.37	19	3.8	0.2	1.42	0.07	8.2	20
	6#								
2018.2	1#	8.08	18	2.9	0.14	0.47	0.06	13.0	20
	2#	8.14	29	7.0	1.74	11.3	0.16	9.0	230
	3#	8.89	52	9.0	0.24	7.36	0.11	8.7	230
	4#	8.62	46	8.2	0.808	4.16	0.08	9.0	170
	5#	8.58	19	3.4	0.17	0.97	0.05	10.6	20
	6#								
2018.3	1#	8.43	20	2.9	0.047	0.34	0.03	11.6	20
	2#	8.26	42	8.0	1.38	10.8	0.21	9.4	330
	3#	7.67	47	7.2	0.814	4.94	0.22	5.6	170
	4#	8.55	26	3.0	1.02	4.22	0.06	9.6	50
	5#	8.35	18	3.6	0.11	0.95	0.06	8.4	20
	6#	8.44	19	4.3	0.047	4.70	0.10	10.1	140
2018.4	1#	8.96	12	1.7	0.21	0.34	0.03	9.0	1400
	2#	8.76	16	3.9	0.24	5.16	0.06	9.0	230
	3#	8.29	38	7.2	0.15	3.90	0.18	8.8	460
	4#	8.34	20	3.8	0.10	3.40	0.05	9.8	1100
	5#	7.95	19	3.8	0.09	0.64	0.05	9.3	170
	6#	7.82	16	1.6	0.26	4.97	0.06	8.4	630
2018.5	1#	8.09	21	4.2	0.078	0.23	0.08	8.2	1100
	2#	8.92	45	11.2	0.14	2.20	0.07	10.2	1100

		pH	COD	BOD ₅	NH ₃ -N				
	3#	8.43	44	9.4	1.94	9.80	0.55	9.0	24000
	4#	8.01	37	5.0	0.099	1.81	0.10	7.8	3500
	5#	8.12	18	3.8	0.078	0.51	0.13	6.2	940
	6#	8.15	22	4.5	0.12	4.95	0.05	5.2	90
2018.6	1#	8.68	20	6.1	0.043	0.64	0.21	8.2	24000
	2#	8.13	48	7.0	0.080	4.02	0.23	8.9	24000
	3#	8.18	46	8.5	0.887	3.87	1.31	5.8	24000
	4#	8.15	21	8.2	0.083	0.90	0.17	8.8	2800
	5#	8.62	19	3.8	0.099	0.93	0.15	8.4	24000
	6#	8.07	8	2.5	0.065	3.85	0.15	7.6	1700
2018.7	1#	7.89	24	6.0	0.20	1.52	0.31	8.0	1400
	2#	8.59	25	3.5	0.099	1.61	0.12	8.6	340
	3#	8.65	24	6.4	0.31	2.34	1.39	8.0	140
	4#	8.43	34	4.2	0.365	1.04	0.15	7.6	2800
	5#	8.68	19	3.7	0.11	0.98	0.11	9.0	1100
2019.8	1#	8.02	43	12.6	0.10	2.84	0.21	7.7	9200
	2#	7.74	39	7.0	0.058	1.68	0.20	7.7	24000
	3#	7.87	77	9.5	0.18	3.04	0.48	7.7	24000
	4#								
	5#	8.42	42	3.8	0.043	1.96	0.17	8.0	24000
	6#								
2019.9	1#	8.82	38	4.2	0.28	3.26	0.06	8.6	1400
	2#	7.45	16	4.4	0.17	1.04	0.83	7.6	1300
	3#	8.56	38	5.8	1.11	3.34	0.15	6.2	24000
	4#	8.14	28	5.8	0.21	2.80	0.21	8.1	5400
	5#	8.43	26	5.6	0.18	4.65	0.13	7.9	1300
	6#	8.75	23	4.0	0.096	0.79	0.04	8.0	700
2019.10	1#	8.7	38	5.9	0.055	0.78	0.33	11.68	24000
	2#	8.15	32	8.1	0.2	5.23	0.09	10.2	16000
	3#	8.02	20	5.8	0.15	1.25	0.47	7.7	3500
	4#	8.45	22	5.0	0.11	0.65	0.14	10.6	16000
	5#	8.08	26	7.0	0.068	0.97	0.09	10.2	24000
	6#	7.82	14	2.0	0.12	3.11	0.03	8.8	9200

		pH	COD	BOD ₅	NH ₃ -N				
2019.11	1#	8.13	25	3.8	0.17	1.0	0.37	9.7	330
	2#	8.46	37	5.5	0.23	4.92	0.1	10.1	24000
	3#	8.37	24	1.8	0.24	1.55	0.32	11.2	9200
	4#	8.34	30	5.0	0.087	1.04	0.17	9.4	1400
	5#	8.76	20	3.9	0.13	0.86	0.1	8.8	24000
	6#	7.98	37	8.4	0.19	2.04	0.08	10.6	5400
2019.12	1#	8.24	20	4.6	0.12	1.36	0.12	13.7	330
	2#	8.31	23	5.0	0.377	8.54	0.07	10.4	1100
	3#	7.91	39	8.9	0.799	1.82	0.27	11	3500
	4#	8.27	26	5.0	0.19	1.44	0.09	10.1	460
	5#	7.92	19	3.8	0.11	1.12	0.04	11.4	940
	6#	8.17	12	1.4	0.11	3.31	0.11	10.0	1700

3

GB3838-2002

3.4-6

3.4-6

1	pH	---	6~9	GB3838-2002 1
2	COD	mg/L	≤30	
3	BOD ₅	mg/L	≤6	
4		mg/L	≤1.5	
5	TN	mg/L	≤1.5	
6	TP	mg/L	≤0.3	
7		mg/L	≥3	
8		/L	≤20000	

3.4-7

		pH	COD	BOD ₅	NH ₃ -N				
2018.1	1#								
	2#	0.435	0.633	0.533	1.327	5.96	0.533	0.14	
	3#	0.585	2.067	1.267	1.48	5.64	2.533	0.27	

		pH	COD	BOD ₅	NH ₃ -N			
	4#	0.69	1.233	0.783	0.415	0.873	0.3	0.032
	5#	0.685	0.633	0.633	0.133	0.947	0.233	0.001
	6#							
2018.2	1#	0.54	0.6	0.483	0.093	0.313	0.2	0.001
	2#	0.57	0.967	1.167	1.16	7.533	0.533	0.012
	3#	0.945	1.733	1.5	0.16	4.907	0.367	0.012
	4#	0.81	1.533	1.367	0.539	2.773	0.267	0.009
	5#	0.79	0.633	0.567	0.113	0.647	0.167	0.001
	6#							
2018.3	1#	0.715	0.667	0.483	0.031	0.227	0.1	0.001
	2#	0.63	1.4	1.333	0.92	7.2	0.7	0.017
	3#	0.335	1.567	1.2	0.543	3.293	0.733	0.009
	4#	0.775	0.867	0.5	0.68	2.813	0.2	0.003
	5#	0.675	0.6	0.6	0.073	0.633	0.2	0.001
	6#	0.72	0.633	0.717	0.031	3.133	0.333	0.007
2018.4	1#	0.98	0.4	0.283	0.14	0.227	0.1	0.07
	2#	0.88	0.533	0.65	0.16	3.44	0.2	0.012
	3#	0.645	1.267	1.2	0.1	2.6	0.6	0.023
	4#	0.67	0.667	0.633	0.067	2.267	0.167	0.055
	5#	0.475	0.633	0.633	0.06	0.427	0.167	0.009
	6#	0.41	0.533	0.267	0.173	3.313	0.2	0.032
2018.5	1#	0.545	0.7	0.7	0.052	0.153	0.267	0.055
	2#	0.96	1.5	1.867	0.093	1.467	0.233	0.055
	3#	0.715	1.467	1.567	1.293	6.533	1.833	1.2
	4#	0.505	1.233	0.833	0.066	1.207	0.333	0.175
	5#	0.56	0.6	0.633	0.052	0.34	0.433	0.047
	6#	0.575	0.733	0.75	0.08	3.3	0.167	0.005
2018.6	1#	0.84	0.667	1.017	0.029	0.427	0.7	1.2
	2#	0.565	1.6	1.167	0.053	2.68	0.767	1.2
	3#	0.59	1.533	1.417	0.591	2.58	4.367	1.2
	4#	0.575	0.7	1.367	0.055	0.6	0.567	0.14
	5#	0.81	0.633	0.633	0.066	0.62	0.5	1.2
	6#	0.535	0.267	0.417	0.043	2.567	0.5	0.085
2018.7	1#	0.445	0.8	1.0	0.133	1.013	1.033	0.07

		pH	COD	BOD ₅	NH ₃ -N			
	2#	0.795	0.833	0.583	0.066	1.073	0.4	0.017
	3#	0.825	0.8	1.066	0.207	1.56	4.633	0.007
	4#	0.715	1.133	0.7	0.243	0.693	0.5	0.14
	5#	0.84	0.633	0.617	0.073	0.653	0.367	0.055
2019.8	1#	0.51	1.433	2.1	0.067	1.893	0.7	0.46
	2#	0.37	1.3	1.167	0.039	1.12	0.667	1.2
	3#	0.435	2.567	1.583	0.12	2.027	1.6	1.2
	4#							
	5#	0.71	1.4	0.633	0.029	1.307	0.567	1.2
	6#							
2019.9	1#	0.91	1.267	0.7	0.187	2.173	0.2	0.07
	2#	0.225	0.533	0.733	0.113	0.693	2.767	0.065
	3#	0.78	1.267	0.967	0.74	2.227	0.5	1.2
	4#	0.57	0.933	0.967	0.14	1.867	0.7	0.27
	5#	0.715	0.867	0.933	0.12	3.1	0.433	0.065
	6#	0.875	0.767	0.667	0.064	0.527	0.133	0.035
2019.10	1#	0.85	1.267	0.983	0.037	0.52	1.1	1.2
	2#	0.575	1.067	1.35	0.133	3.487	0.3	0.8
	3#	0.51	0.667	0.967	0.1	0.833	1.567	0.175
	4#	0.725	0.733	0.833	0.073	0.433	0.467	0.8
	5#	0.54	0.867	1.167	0.045	0.647	0.3	1.2
	6#	0.41	0.467	0.333	0.08	2.073	0.1	0.46
2019.11	1#	0.565	0.833	0.633	0.113	0.667	1.233	0.017
	2#	0.73	1.233	0.917	0.153	3.28	0.333	1.2
	3#	0.685	0.8	0.3	0.16	1.0333	1.067	0.46
	4#	0.67	1	0.833	0.058	0.693	0.567	0.07
	5#	0.88	0.667	0.65	0.087	0.573	0.333	1.2
	6#	0.49	1.233	1.4	0.127	1.36	0.267	0.27
2019.12	1#	0.62	0.667	0.767	0.08	0.907	0.4	0.017
	2#	0.655	0.767	0.833	0.251	5.693	0.233	0.055
	3#	0.455	1.3	1.483	0.533	1.213	0.9	0.175
	4#	0.635	0.867	0.833	0.127	0.96	0.3	0.023
	5#	0.46	0.633	0.633	0.073	0.747	0.133	0.047

		pH	COD	BOD ₅	NH ₃ -N			
	6#	0.585	0.4	0.233	0.073	2.207	0.367	0.085

COD BOD₅

0.433 1.1 1.173 0.233 0.2

GB3838-2002

COD BOD₅

0.6 0.867 2.487 6.533

1.767 0.2

GB3838-2002

COD BOD₅

1.567 0.583 0.293 5.533 3.633

0.2

GB3838-2002

COD BOD₅

0.533 0.367 1.813

GB3838-2002

COD BOD₅

0.4 0.167 2.1 0.2

GB3838-2002

COD BOD₅

0.233 0.4 2.313

GB3838-2002

GB3838-2002

3.4.2

3.4.2.1

1

3 3
3.4-8 3.4-1

3.4-8

1#		
2#		
3#		
4#		
5#		
6#		

2

NH₃ H₂S

3

GB3095-2012

3.4-9

3.4-9

	HJ 533-2009		0.01mg/m ³
H ₂ S	GB 11742-1989		0.001mg/m ³
	GB/T 14675-1993		10

4

2019 5 29 ~6 4 7
7 7

5

3.4-10 3.4-11 3.4-12

3.4-10

			kPa)		m/s	%		
2019.5.24	02:00	23	102.4	S	1.6	52	—	—
	08:00	27	102.2	S	1.3	46	4	3
	14:00	33	102.1	S	1.2	41	7	2
	20:00	25	102.3	S	1.4	51	—	—
2019.5.25	02:00	22	102.5	S	3.5	48	—	—
	08:00	26	102.4	S	3.1	45	5	2
	14:00	34	102.2	S	3.0	38	6	3
	20:00	28	102.4	S	3.3	34	—	—
2019.5.26	02:00	18	102.5	S	1.6	42	—	—
	08:00	26	102.2	S	1.3	41	3	1
	14:00	33	102.2	S	1.4	38	4	2
	20:00	27	102.3	S	1.9	42	—	—
2019.5.27	02:00	18	102.4	N	4.0	50	—	—
	08:00	23	102.2	N	4.1	45	8	3
	14:00	27	102.2	N	4.2	41	6	2
	20:00	20	102.3	N	3.8	47	—	—
2019.5.28	02:00	17	102.6	SW	1.4	48	—	—
	08:00	23	102.4	SW	1.6	41	4	3
	14:00	28	102.5	SW	1.3	36	5	2
	20:00	22	102.4	SW	1.7	40	—	—
2019.5.29	02:00	16	102.3	S	1.2	40	—	—
	08:00	21	102.1	S	1.5	38	3	1
	14:00	29	102.1	S	1.3	35	6	3
	20:00	24	102.4	S	1.4	27	—	—
2019.5.30	02:00	17	102.5	S	1.5	31	—	—
	08:00	23	102.3	S	1.7	28	5	3
	14:00	29	102.3	S	1.4	22	7	1
	20:00	25	102.4	S	1.4	21	—	—

3.4-11

		mg/m ³			mg/m ³					
		1#	2#	3#	1#	2#	3#	1#	2#	3#
2019.5.29	02:00	<0.01	0.02	0.01	<0.001	<0.001	<0.001	<10	<10	<10
	08:00	0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	14:00	0.01	<0.02	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	20:00	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
2019.5.30	02:00	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	08:00	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	14:00	<0.01	0.02	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	20:00	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
2019.5.31	02:00	0.01	0.02	0.01	<0.001	<0.001	<0.001	<10	<10	<10
	08:00	<0.01	0.02	0.02	<0.001	<0.001	<0.001	<10	<10	<10
	14:00	<0.01	0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	20:00	0.01	0.02	0.02	<0.001	<0.001	<0.001	<10	<10	<10
2019.6.1	02:00	<0.01	0.02	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	08:00	<0.01	0.02	0.01	<0.001	<0.001	<0.001	<10	<10	<10
	14:00	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	20:00	<0.01	0.01	0.02	<0.001	<0.001	<0.001	<10	<10	<10
2019.6.2	02:00	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	08:00	0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	14:00	<0.01	0.02	0.01	<0.001	<0.001	<0.001	<10	<10	<10
	20:00	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
2019.6.3	02:00	<0.01	0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	08:00	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	14:00	0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	20:00	0.01	0.02	<0.01	<0.001	<0.001	<0.001	<10	<10	<10

2019.6.4	02:00	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	08:00	0.01	0.02	0.01	<0.001	<0.001	<0.001	<10	<10	<10
	14:00	0.01	0.02	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	20:00	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10

3.4-12

		mg/m ³			mg/m ³					
		4#	5#	6#	4#	5#	6#	4#	5#	6#
2019.5.29	02:00	<0.01	0.02	0.01	<0.001	<0.001	<0.001	<10	<10	<10
	08:00	0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	14:00	0.01	<0.02	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	20:00	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
2019.5.30	02:00	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	08:00	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	14:00	<0.01	0.02	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	20:00	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
2019.5.31	02:00	0.01	0.02	0.01	<0.001	<0.001	<0.001	<10	<10	<10
	08:00	<0.01	0.02	0.02	<0.001	<0.001	<0.001	<10	<10	<10
	14:00	<0.01	0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	20:00	0.01	0.02	0.02	<0.001	<0.001	<0.001	<10	<10	<10
2019.6.1	02:00	<0.01	0.02	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	08:00	<0.01	0.02	0.01	<0.001	<0.001	<0.001	<10	<10	<10
	14:00	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	20:00	<0.01	0.01	0.02	<0.001	<0.001	<0.001	<10	<10	<10
2019.6.2	02:00	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	08:00	0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	14:00	<0.01	0.02	0.01	<0.001	<0.001	<0.001	<10	<10	<10

	20:00	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
2019.6.3	02:00	<0.01	0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	08:00	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	14:00	0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	20:00	0.01	0.02	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
2019.6.4	02:00	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	08:00	0.01	0.02	0.01	<0.001	<0.001	<0.001	<10	<10	<10
	14:00	0.01	0.02	<0.01	<0.001	<0.001	<0.001	<10	<10	<10
	20:00	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<10	<10	<10

2.4.2.2

1

H₂S

3.4-13

3.4-13

		0.2	TJ36-79
		0.01	
	/	20	GB14554-93

2

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

P_i —— i

$P_i \leq 1$

P_i 1

C_i —— i

mg/m³ C_{si} —— i

mg/m³

3

3.4-14

3.4-14

			mg/m ³	mg/m ³	%	%	
1#			0.2	0.005~0.01	5	0	
			0.01	0.0005~0.0005	5	0	
			20	5~5	25	0	
2#			0.2	0.005~0.02	10	0	
			0.01	0.0005~0.0005	5	0	
			20	5~5	25	0	
3#			0.2	0.005~0.02	10	0	
			0.01	0.0005~0.0005	5	0	
			20	5~5	25	0	
4#			0.2	0.005~0.01	5	0	
			0.01	0.0005~0.0005	5	0	
			20	5~5	25	0	
5#			0.2	0.005~0.02	10	0	
			0.01	0.0005~0.0005	5	0	
			20	5~5	25	0	
6#			0.2	0.005~0.02	25	0	
			0.01	0.0005~0.0005	5	0	
			20	5~5	25	0	

3.4-14

4

7

3.4-15 2.4-4

3.4-15

1#			
2#			
3#			
4#			
5#			
6#			
7#			

2

K⁺ Na⁺ Ca²⁺ Mg²⁺ CO₃²⁻ HCO₃⁻ Cl⁻ SO₄²⁻

pH

3

2019 06 04

1

4

GB/T 14848-2017

3.4-16

3.4-16

pH	GB/T 6920-1986	pH	——
	HJ 535-2009		0.025mg/L
	HJ 503-2009	4-	0.0003mg/L
	HJ 84-2016	PO ₄ ³⁻ SO ₃ ²⁻ SO ₄ ²⁻ F ⁻ Cl ⁻ NO ₂ ⁻ Br ⁻ NO ₃ ⁻	0.007 mg/L

	GB/T 16489-1996		0.005mg/L
	HJ 84-2016	F ⁻ Cl ⁻ NO ₂ ⁻ Br ⁻ NO ₃ ⁻ PO ₄ ³⁻ SO ₃ ²⁻ SO ₄ ²⁻	0.018mg/L
	GB/T 7467-1987		0.004 mg/L
	GB/T 7494-1987		0.050mg/L
K ⁺	GB/T 11904-1989		0.05mg/L
Na ⁺	GB/T 11904-1989		0.01mg/L
Ca ²⁺	GB/T 11905-1989		0.02mg/L
Mg ²⁺	GB/T 11905-1989		0.002mg/L
CO ₃ ²⁻	2002	/ /	—
HCO ₃ ⁻	(2002)()	B	—
	GB 7477-1987	EDTA	0.05mmol/L
	GB/T 5750.4-2006		10 mg/L
	GB/T 11892-1989		0.5mg/L
	HJ 84-2016	F ⁻ Cl ⁻ NO ₂ ⁻ Br ⁻ NO ₃ ⁻ PO ₄ ³⁻ SO ₃ ²⁻ SO ₄ ²⁻	0.006mg/L
	HJ 84-2016	F ⁻ Cl ⁻ NO ₂ ⁻ Br ⁻ NO ₃ ⁻ PO ₄ ³⁻ SO ₃ ²⁻ SO ₄ ²⁻	0.016mg/L
	GB/T 7493-1987		0.003mg/L
	GB5750.12-2016		—

5

3.4-17

3.4-18

3.4-17

		pH	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
2019.6.4	1#	7.61	329	372	0.74	0.095		
	2#	7.36	673	129	1.55	0.034		
	3#	7.48	552	157	1.47	0.104		
	4#	7.86	257	239	1.39	1.52		
	5#	7.85	327	51.4	0.98	3.32		
	6#	7.50	303	412	1.22	2.99		
	7#	7.41	989	463	1.71	1.18		
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	/L
2019.6.4	1#	539	0.517				809	
	2#	88	1.00				2479	
	3#	88	0.984				1218	
	4#	238	1.11				1573	
	5#	30.8	0.576				451	
	6#	583	0.386				802	
	7#	651	1.90				1929	

3.4-17

		K ⁺ mg/L	Na ⁺ mg/L	Ca ²⁺ mg/L	Mg ²⁺ mg/L	CO ₃ ²⁻ mg/L	HCO ₃ ⁻ mg/L
2019.6.4	1#	0.55	194	41.2	53.8		299
	2#	1.63	681	83.4	110		329
	3#	1.88	207	74.4	88.5		251
	4#	2.49	483	54.7	28.7		161
	5#	0.96	32.3	57.6	41.2		229
	6#	0.55	196	41.2	53.6		198
	7#	2.19	446	142	152		211

3.4-18

				m	m
2019.5.30	1#	10:32	16.4	15	6.0
	2#	9:50	16.2	500	42.7
	3#	10:50	16.3	18	5.2
	4#	13:40	16.2	18	4.6
	5#	12:30	16.1	6.5	3.9
	6#	13:10	16.4	17	5.8
	7#	14:36	16.9	21	6.9

3.4.3.2

1

3.4-19		GB/T14848-2017		mg/L	pH
1	pH	---	6.5	8.5	GB/T 14848-2017
2		mg/L	≤450		
3		mg/L	≤1000		
4		mg/L	≤0.5		
5		mg/L	≤20		
6		mg/L	≤1.0		
7		mg/L	≤250		
8		mg/L	≤250		
9		mg/L	≤1.0		
10		mg/L	≤0.05		
11		mg/L	≤0.002		
12	COD _{Mn} O ₂	mg/L	≤3.0		
13		mg/L	≤0.3		
14		MPN CFU/100mL	≤3.0		

2

$$S_i = \frac{C_i}{C_{si}}$$

S_i ——

C_i ——i mg/L

C_{si} ——i mg/L

pH

$$S_{pHj} = \frac{7.0 - pH_j}{7.0 - pH_{sd}} \quad pH_j \leq 7.0$$

$$S_{pHj} = \frac{pH_j - 7.0}{pH_{su} - 7.0} \quad pH_j > 7.0$$

S_{pHj} ——pH

pH_j ——j pH

pH_{sd} —— pH



pH_{su} —

pH

1

1

3

3.4-20



3.4-20

		pH						
2019.6.4	1#	0.305	0.731	1.488	0.247	0.005	0.0015	0.025
	2#	0.18	1.496	0.516	0.517	0.002	0.0015	0.025
	3#	0.24	1.227	0.628	0.49	0.005	0.0015	0.025
	4#	0.43	0.571	0.956	0.463	0.076	0.0015	0.025
	5#	0.425	0.727	0.2056	0.327	0.166	0.0015	0.025
	6#	0.25	0.673	1.648	0.407	0.150	0.0015	0.025
	7#	0.205	2.198	1.852	0.57	0.059	0.0015	0.025
2019.6.4	1#	2.156	0.517	0.04	0.075	0.083	0.809	
	2#	0.352	1.00	0.04	0.075	0.083	2.479	
	3#	0.352	0.984	0.04	0.075	0.083	1.218	
	4#	0.952	1.11	0.04	0.075	0.083	1.573	
	5#	0.123	0.576	0.04	0.075	0.083	0.451	
	6#	2.332	0.386	0.04	0.075	0.083	0.802	
	7#	2.604	1.90	0.04	0.075	0.083	1.929	

3.4-20

2# 3# 7#

0.496 0.227 1.198

1# 6# 7#

0.488 0.648 0.852

1# 6# 7#

1.156 1.332 1.604

4# 7#

0.11 0.9

2# 3# 4# 7#

1.479 0.218

0.573 0.929

GB/T 14848-2017

3.4.4

3.4.4.1

1

4

3.4-1 3.4-21

3.4-21

1#		
2#		
3#		
4#		
5#		
6#		
7#		

5# 6#

[2019]05 7#

300

2

2019 05 29

1

1

3

A LAeq

A LeqdB(A)
GB12348-2008

4

4

3.4-22

3.4-22

dB(A)

		Leq	
		dB	A
2019.5.29		50.3	44.9
		51.4	42.7
		48.9	43.5
		50.3	46.7

2019.5.30		52.1	48.5
		50.9	47.1
		50.4	44.7
		53.6	46.2
L_{eq} dB A			
2019.5.30		51.2	44.9
		50.9	45.8
		52.2	43.9
		51.0	45.4

3.4-23

dB(A)

		dB A	dB A
5#	2018.12.19	41.5	38.8
6#	2018.12.19	47.3	44.2
7#	2018.5.20	56.8	44.3

3.4.4.2

1

(GB3096-2008)

2

60dB(A)

50dB(A)

2

60dB(A)

50dB(A)

2

$$P = L_{eq} - L_b$$

P— dB A

L_{eq} —

A

dB A

L_b —

dB A

2.4-26

3.4-24

dB(A)

Leq dB A							
	50.3	60	-9.7		44.9	50	-5.1
	51.4	60	-8.6		42.7	50	-7.3
	48.9	60	-11.1		43.5	50	-6.5
	50.3	60	-9.7		46.7	50	-3.3
Leq dB A							
	51.9	60	-8.1		44.5	50	-5.5
	50.8	60	-9.2		46.7	50	-3.3
	52.7	60	-7.3		45.5	50	-4.5
	50.6	60	-9.4		43.7	50	-6.3
Leq dB A							
	52.1	60	-7.9		48.5	50	-1.5
	50.9	60	-9.1		47.1	50	-2.9
	50.4	60	-9.6		44.7	50	-5.3
	53.6	60	-6.4		46.2	50	-3.8

	L _{eq}							
	dB			A				
	51.2	60	-8.8		44.9	50	-5.1	
	50.9	60	-9.1		45.8	50	-4.2	
	52.2	60	-7.8		43.9	50	-6.1	
	51.0	60	-9		45.4	50	-4.6	
	41.5	60	-18.5		38.8	50	-11.2	
	47.3	60	-12.7		44.2	50	-5.8	
	56.8	60	-3.2		44.3	50	-5.7	

3.4-24

GB3096-2008 2

2

3.4.5

3.4.5.1

1

4

3.4-25 3.4-1

3.4-25

1#		
2#		
3#		
4#		
5#		
6#		
7#		
8#		

9#		
----	--	--

5# 6# 7#
 [2019]05 8# 420
 9# 300

2

2019.5.29
 pH
 [a]

1 1

3

3.4-26

3.4-26

pH	NY/T 1377-2007	pH	—
	GB/T 17141-1997		0.01 mg/kg
	HJ 491-2009		5mg/kg
	HJ 680-2013	/	0.01 mg/kg
	GB/T 17138-1997		0.5 mg/kg
	GB/T 17138-1997		1.0 mg/kg
	GB/T 17141-1997		0.1 mg/kg
	HJ 680-2013	/	0.002 mg/kg
	GB/T 17139-1997		5 mg/kg
	GB/T 14550-2003		—
	HJ 736-2015	/	2μg/kg
	HJ 736-2015	/	2μg/kg

	HJ 736-2015	-	/	3μg/kg
1,1-	HJ 736-2015	-	/	2μg/kg
1,2-	HJ 736-2015	-	/	3μg/kg
1,1-	HJ 736-2015	-	/	2μg/kg
-1,2-	HJ 736-2015	-	/	3μg/kg
-1,2-	HJ 736-2015	-	/	3μg/kg
	HJ 736-2015	-	/	3μg/kg
1,2-	HJ 736-2015	-	/	2μg/kg
1,1,1,2-	HJ 736-2015	-	/	3μg/kg
1,1,2,2-	HJ 736-2015	-	/	3μg/kg
	HJ 736-2015	-	/	2μg/kg
1,1,1-	HJ 736-2015	-	/	2μg/kg
1,1,2-	HJ 736-2015	-	/	2μg/kg
	HJ 736-2015	-	/	2μg/kg
1,2,3-	HJ 736-2015	-	/	3μg/kg
	HJ 736-2015	-	/	2μg/kg
	HJ741-2015		/	0.01mg/kg
	HJ741-2015		/	0.005mg/kg
1,2-	HJ741-2015		/	0.002mg/kg
1,4-	HJ741-2015		/	0.008mg/kg
	HJ741-2015		/	0.006mg/kg
	HJ741-2015		/	0.02mg/kg

	HJ741-2015	/	0.009mg/kg
+	HJ741-2015	/	0.009mg/kg
	HJ741-2015	/	0.02mg/kg
	HJ834-2017	-	0.09mg/kg
	HJ834-2017	-	0.09mg/kg
2-	HJ703-2014		0.04mg/kg
[a]	HJ805-2016	-	0.12mg/kg
[a]	HJ805-2016	-	0.17mg/kg
[b]	HJ805-2016	-	0.17mg/kg
[k]	HJ805-2016	-	0.11mg/kg
	HJ805-2016	-	0.14mg/kg
[a h]	HJ805-2016	-	0.13mg/kg
[1,2,3-cd]	HJ805-2016	-	0.13mg/kg
	HJ805-2016	-	0.09mg/kg

4

3.4-27 3.4-30

3.4-27

	2019.5.29			
	1#	2#	3#	4#
	pH	7.46	7.47	7.51
	7.81	7.64	8.03	8.17
	0.18	0.15	0.10	0.12
	45	28	30	36
	24	30	14	17
	20.2	16.6	16.2	15.1
	0.047	0.059	0.039	0.046
	28	23	22	26

	76	67	52	66
	<0.00005mg/kg	<0.00005mg/kg	<0.00005mg/kg	<0.00005mg/kg
	<0.00005mg/kg	<0.00005mg/kg	<0.00005mg/kg	<0.00005mg/kg
	<2µg/kg	<2µg/kg	<2µg/kg	<2µg/kg
	<2µg/kg	<2µg/kg	<2µg/kg	<2µg/kg
	<3µg/kg	<3µg/kg	<3µg/kg	<3µg/kg
1,1-	<2µg/kg	<2µg/kg	<2µg/kg	<2µg/kg
1,2-	<2µg/kg	<2µg/kg	<2µg/kg	<2µg/kg
1,1-	<3µg/kg	<3µg/kg	<3µg/kg	<3µg/kg
-1,2-	<2µg/kg	<2µg/kg	<2µg/kg	<2µg/kg
-1,2-	<3µg/kg	<3µg/kg	<3µg/kg	<3µg/kg
	<3µg/kg	<3µg/kg	<3µg/kg	<3µg/kg
1,2-	<3µg/kg	<3µg/kg	<3µg/kg	<3µg/kg
1,1,1,2-	<2µg/kg	<2µg/kg	<2µg/kg	<2µg/kg
1,1,2,2-	<3µg/kg	<3µg/kg	<3µg/kg	<3µg/kg
	<3µg/kg	<3µg/kg	<3µg/kg	<3µg/kg
1,1,1-	<2µg/kg	<2µg/kg	<2µg/kg	<2µg/kg
1,1,2-	<2µg/kg	<2µg/kg	<2µg/kg	<2µg/kg
	<2µg/kg	<2µg/kg	<2µg/kg	<2µg/kg
1,2,3-	<2µg/kg	<2µg/kg	<2µg/kg	<2µg/kg
	<3µg/kg	<3µg/kg	<3µg/kg	<3µg/kg
	<0.01mg/kg	<0.01mg/kg	<0.01mg/kg	<0.01mg/kg
	<0.005mg/kg	<0.005mg/kg	<0.005mg/kg	<0.005mg/kg
1,2-	<0.002mg/kg	<0.002mg/kg	<0.002mg/kg	<0.002mg/kg
1,4-	<0.008mg/kg	<0.008mg/kg	<0.008mg/kg	<0.008mg/kg
	<0.006mg/kg	<0.006mg/kg	<0.006mg/kg	<0.006mg/kg

	<0.02mg/kg	<0.02mg/kg	<0.02mg/kg	<0.02mg/kg
	<0.009mg/kg	<0.009mg/kg	<0.009mg/kg	<0.009mg/kg
+	<0.009mg/kg	<0.009mg/kg	<0.009mg/kg	<0.009mg/kg
	<0.02mg/kg	<0.02mg/kg	<0.02mg/kg	<0.02mg/kg
	<0.09mg/kg	<0.09mg/kg	<0.09mg/kg	<0.09mg/kg
	<0.09mg/kg	<0.09mg/kg	<0.09mg/kg	<0.09mg/kg
2-	<0.04mg/kg	<0.04mg/kg	<0.04mg/kg	<0.04mg/kg
[a]	<0.12mg/kg	<0.12mg/kg	<0.12mg/kg	<0.12mg/kg
[a]	<0.17mg/kg	<0.17mg/kg	<0.17mg/kg	<0.17mg/kg
[b]	<0.17mg/kg	<0.17mg/kg	<0.17mg/kg	<0.17mg/kg
[k]	<0.11mg/kg	<0.11mg/kg	<0.11mg/kg	<0.11mg/kg
	<0.14mg/kg	<0.14mg/kg	<0.14mg/kg	<0.14mg/kg
[a h]	<0.13mg/kg	<0.13mg/kg	<0.13mg/kg	<0.13mg/kg
[1,2,3-cd]	<0.13mg/kg	<0.13mg/kg	<0.13mg/kg	<0.13mg/kg
	<0.09mg/kg	<0.09mg/kg	<0.09mg/kg	<0.09mg/kg

3.4-28 ()

		pH	mg/kg	mg/kg	mg/ kg	mg/ kg	mg/ kg
2018.12.19	5#	8.61	0.07	0.013	8.6	12.6	73
	6#	8.48	0.05	0.017	9.3	11.4	95
	7#	8.94	0.12	0.014	8.5	9.3	63
		mg/ kg	mg/ kg	mg/ kg	mg/kg	mg/kg	[a] mg/ kg
2018.12.19	5#	22	40	70			
	6#	15	34	57			
	7#	15	36	67			

3.4-29 ()

		pH	mg/kg	mg/ kg	mg/ kg	mg/ kg	mg/ kg

5.23 1# 7.82

			pH 5.5	5.5<pH 6.5	6.5<pH 7.5	pH>7.5
10		mg/kg	0.10			

3.4-32

mg/kg

1		mg/kg	60	GB36600-2018	
2		mg/kg	65		
3		mg/kg	5.7		
4		mg/kg	18000		
5		mg/kg	800		
6		mg/kg	38		
7		mg/kg	900		
8		mg/kg	2.8		
9		mg/kg	0.9		
10		mg/kg	37		
11	1,1-	mg/kg	9		
12	1,2-	mg/kg	5		
13	1,1-	mg/kg	66		
14	-1,2-	mg/kg	596		
15	-1,2-	mg/kg	54		
16		mg/kg	616		
17	1,2-	mg/kg	5		
18	1,1,1,2-	mg/kg	10		
19	1,1,2,2-	mg/kg	6.8		
20		mg/kg	53		
21	1,1,1-	mg/kg	840		
22	1,1,2-	mg/kg	2.8		
23		mg/kg	2.8		
24	1,2,3-	mg/kg	0.5		
25		mg/kg	0.43		
26		mg/kg	4		
27		mg/kg	270		
28	1,2-	mg/kg	560		
29	1,4-	mg/kg	20		
30		mg/kg	28		

31		mg/kg	1290	
32		mg/kg	1200	
33	+	mg/kg	570	
34		mg/kg	640	
35		mg/kg	76	
36		mg/kg	260	
37	2-	mg/kg	2256	
38	[a]	mg/kg	15	
39	[a]	mg/kg	1.5	
40	[b]	mg/kg	15	
41	[k]	mg/kg	151	
42		mg/kg	1293	
43	[a, h]	mg/kg	1.5	
44	[1,2,3-cd]	mg/kg	15	
45		mg/kg	70	

2

S_i C_i/C_{si}

S_i—— C_i——i mg/kg

C_{si}——i mg/kg

3

3.4-33

3.4-33

	2019.5.29			
	1#	2#	3#	4#
	0.130	0.127	0.134	0.136
	0.003	0.002	0.002	0.002
	0.225	0.14	0.12	0.144
	0.001	0.002	0.0008	0.0009
	0.025	0.021	0.020	0.019
	0.001	0.002	0.001	0.001

	0.031	0.026	0.024	0.029
	0.304	0.268	0.173	0.22
	ND	ND	ND	ND
	ND	ND	ND	ND
	ND	ND	ND	ND
	ND	ND	ND	ND
	ND	ND	ND	ND
1,1-	ND	ND	ND	ND
1,2-	ND	ND	ND	ND
1,1-	ND	ND	ND	ND
-1,2-	ND	ND	ND	ND
-1,2-	ND	ND	ND	ND
	ND	ND	ND	ND
1,2-	ND	ND	ND	ND
1,1,1,2-	ND	ND	ND	ND
1,1,2,2-	ND	ND	ND	ND
	ND	ND	ND	ND
1,1,1-	ND	ND	ND	ND
1,1,2-	ND	ND	ND	ND
	ND	ND	ND	ND
1,2,3-	ND	ND	ND	ND
	ND	ND	ND	ND
	ND	ND	ND	ND
	ND	ND	ND	ND
1,2-	ND	ND	ND	ND
1,4-	ND	ND	ND	ND

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

3.4-34

2018.12.19	5#	0.117	0.004	0.344	0.074	0.292	
	6#	0.083	0.005	0.372	0.067	0.380	
	7#	0.200	0.004	0.340	0.055	0.252	
							[a]
2018.12.19	5#	0.220	0.211	0.233			
	6#	0.150	0.179	0.190			
	7#	0.150	0.189	0.223			

3.4-35

	10#
	0.005

	0.004
	0.42
	0.05
	0.01
	0.069
	0.08
	0.117

3.4-36

	9#
	0.005
	0.007
	0.432
	0.037
	0.004
	0.058
	0.065
	0.093

4

4.1

4.1.1

4.1.1.1

115°7667'E

36°15'N

41.2

20 1997 2016

23.1m/s 2015

41.7 2002 -17.3 2001

160.7mm 1998

786.30mm 2004

1

20

4.1-1 3

2.88m/s 8

1.62m/s

4.1-1

20

SSE C S SE

SSE

13.3%

4.1-1

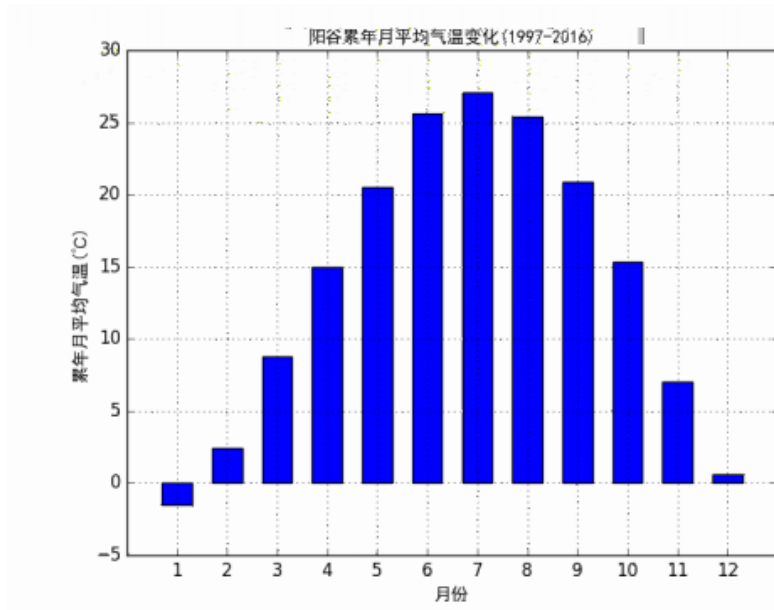
20 (1997

2

a

7	27.05	1	-1.48	20
2002	7	15	41.7	20
				2001

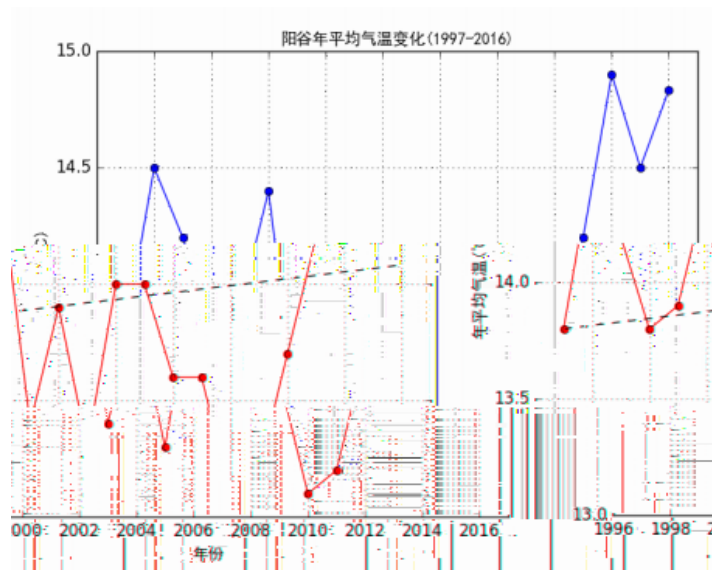
14 -17.3



4.1-2 20 (1997-2016)

b

20	2014	14.9
2010	13.1	

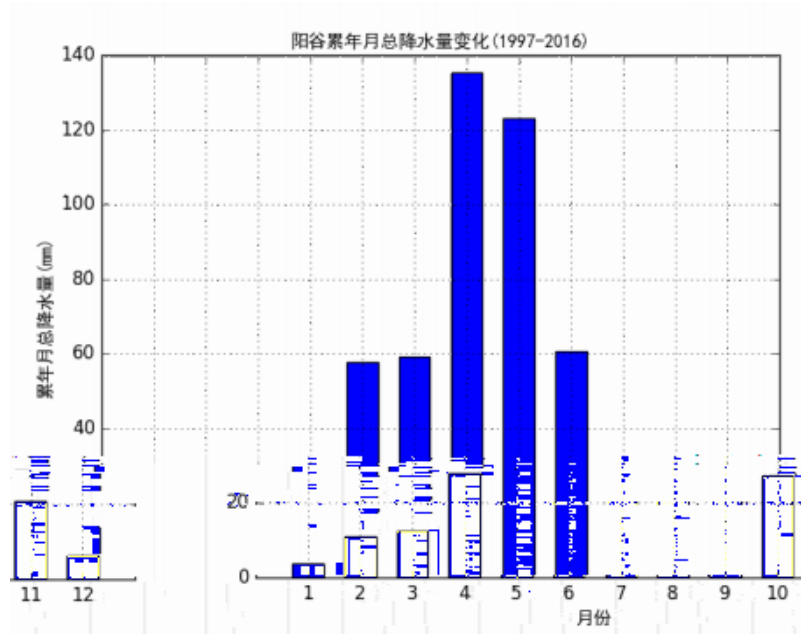


4.1-3 20 (1997-2016)

3

a

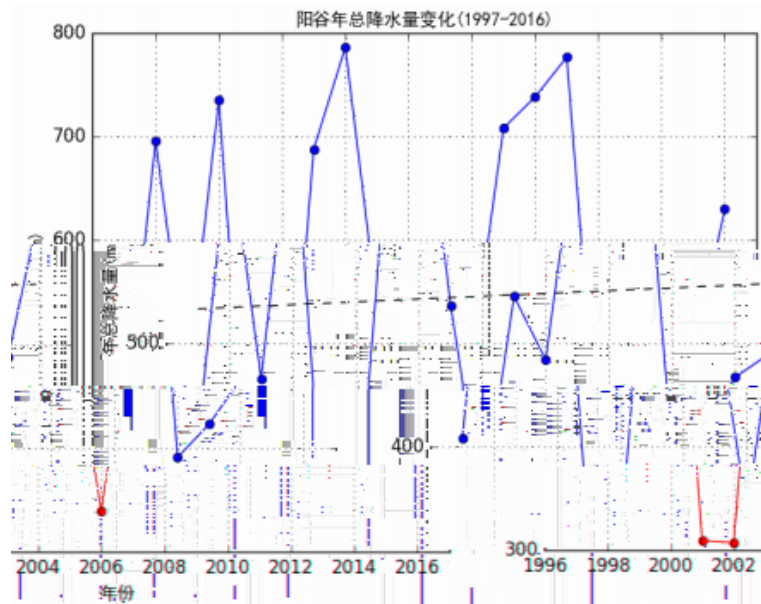
7 135.24mm 1 3.82mm 20
1998 8 4 160.7mm



4.1-4 mm

b

20 2004
786.30mm 2002 307.20mm 10

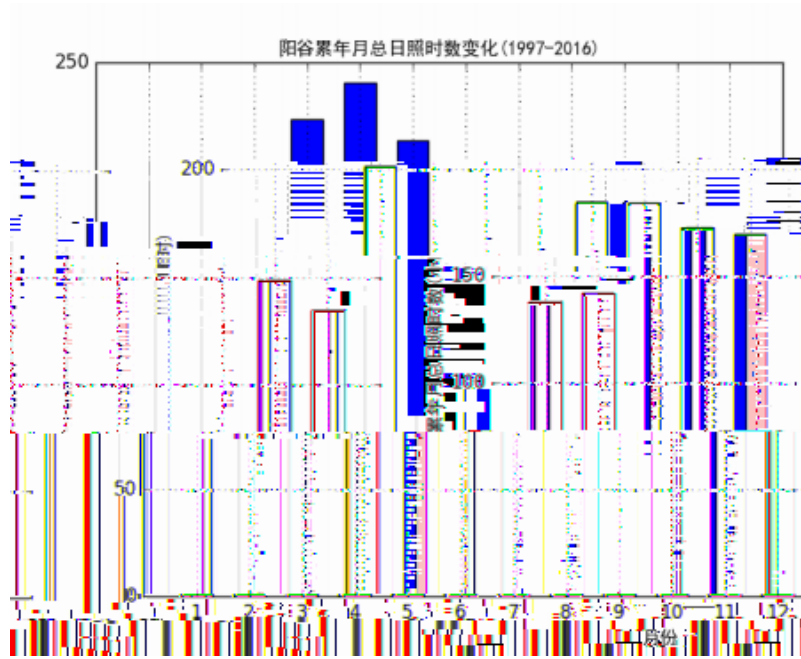


4.1-5 1997-2016 mm

4

a

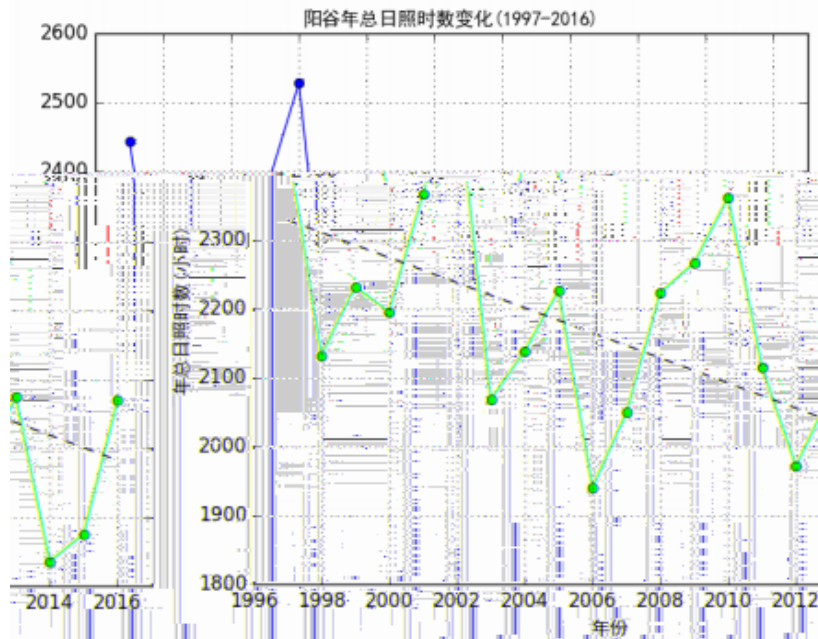
5 240.85h 12 135.14h



4.1-6 1997-2016 h

b

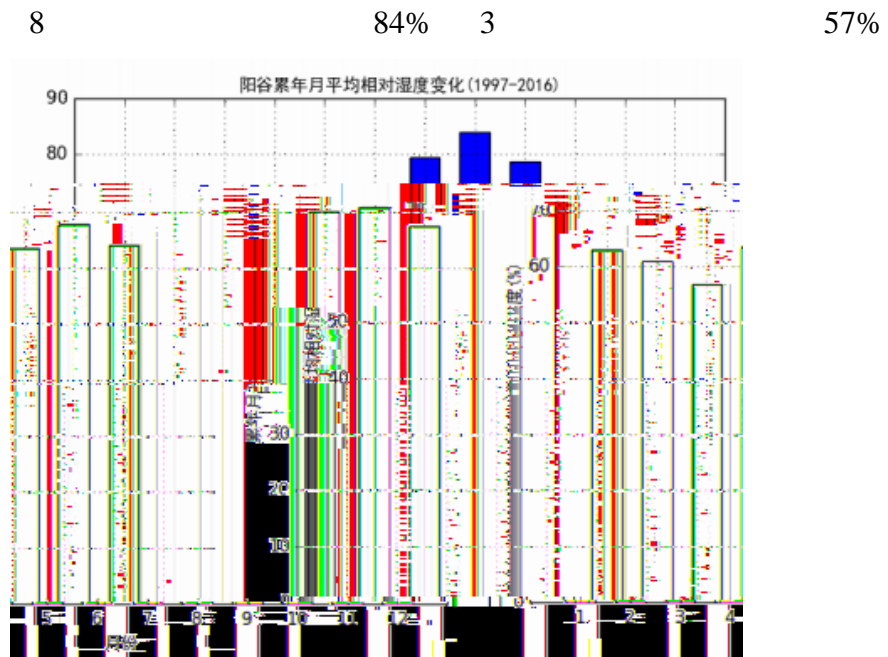
20 18.24h 2002
2528.00h 2014 1835.30h



4.1-7 1997-2016 h

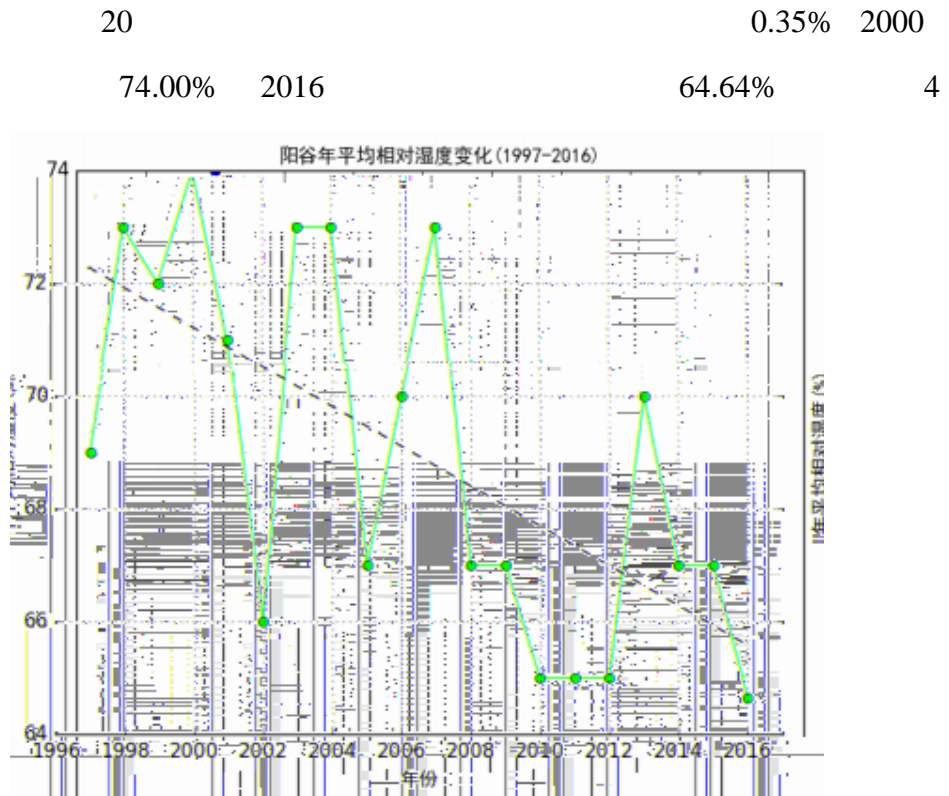
5

a



4.1-8 1997-2016

b



4.1-9 1997-2016

4.1.2

4.1.2.1

NH₃ H₂S

NH₃ H₂S

NH₃ H₂S

H₂S NH₃

4.1.2.2

5.1-2 5.1-3

5.1-2

		H ₂ S				
		kg/h	t/a	kg/h	t/a	
		0.0008	0.005	0.007	0.049	≥90%
		0.0004	0.003	0.004	0.026	

5.1-3

		HCl		VOCs
2030	t/a	0.19	4.65	6.97
	hm ²	46.48	46.48	46.48

1 465×1000m

5.1-4 5.1-5

5.1-4

		m	m		m ³ /h	m/s	h	H ₂ S	
								g/s	g/s
								1	

5.1-5

							H ₂ S	HCl	VOCs

		m	m	m		h	g/s	g/s	g/s	g/s	g/s
1		60	15	8	0	7200	0.00 100	0.00 011	/	/	/
2		1000	465	8	0	7200	/	/	0.179 32	0.007 17	0.26898

5.1.2.3

HJ2.2-2018

A

AERSCREEN

5.1-6

1h

5.1-6

	mg/m ³	
	1	
TSP	0.9*	GB3095-2012
	0.2	HJ 2.2-2018 D
	0.01	
HCl	0.05	
TVOC	1.2*	

HJ2.2-2018

AERSCREEN

10%

D_{10%}

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

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

$$C_i = \text{concentration of pollutant } i \text{ in } \mu\text{g}/\text{m}^3$$

$$C_{oi} = \text{concentration of pollutant } i \text{ in } \mu\text{g}/\text{m}^3$$

- HJ2.2-2018

5.1-7

5.1-7

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

5.1-8

1km

1km

5.1-8

/	/	/
		41.7
		-17.3
	/m	90
	/km	/
	/°	/

5.1-9

5.1-9

			(μg/m ³)			D _{10%} (m)
				C _{max} (μg/m ³)	P _{max} (%)	
			200.0	4.1901	2.0951	/
			10.0	0.4609	4.6091	/
			200.0	0.7642	0.3821	/
			10.0	0.0845	0.8446	/
	VOCs		900.0	72.97	8.1078	/
			1200.0	109.455	9.1212	/
		HCl	50.0	2.9177	5.8353	/

VOCs

P_{MAX}=9.12% <10%

HJ2.2-2018

5.1-11

		2030 μg/m ³	μg/m ³	μg/m ³	μg/m ³	
	NH ₃	1.29	50	51.29	200	
	H ₂ S	0.14		0.14	10	
	HCl	2.04		2.04	50	
	VOCs	76.53	56.1	132.63	1200	
	NH ₃	1.27	50	51.27	200	
	H ₂ S	0.14		0.14	10	
	HCl	2.89		2.89	50	

Tc5.1385 Tw[(54415303b4ea.5())]Tj/TT3 12004415303b4ea025 Tc3.0675 Tw[(

2

3

4

3

1

2

3

4

5

6

7

4.1.2

4.1.2.1

NH₃ H₂S

NH₃ H₂S

NH₃ H₂S

4.1-6 4.1-7

4.1-6 1

/	/		
	()		
		6 7 ℃	2
		9	℃
	(m) 9		
	/km		
	/°		

4.1-7 1

	(°)		(m)							
				(m)	(m)	()	(m/s)			
H ₁	117.35997	35.865358	134.0	15.0	1.0	25.0	12.38	NH ₃	0.09	kg/h
								H ₂ S	0.006	
								PM ₁₀	0.005	

4.1-7 2

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

	X	Y	/m						
	117.35997	35.865358	134.0	605	445	4.5	NH ₃	0.028	kg/h
							H ₂ S	0.002	
	117.35997	35.865358	134.0	39.04	20.04	5.0		0.05	

4.1.2.2

1

HJ2.2-2018

AERSCREEN

1

2

4.1-8

4.1-8

		mg/m ³	
		0.20	HJ2.2-2018 D D.1
		0.01	
	/	0.45	GB3095-2012PM ₁₀ 3
	/	0.9	GB3095-2012TSP 3

3

HJ2.2-2018

AERSCREEN

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

4.1-9

4.1-9

		($\mu\text{g}/\text{m}^3$)	C_{max} ($\mu\text{g}/\text{m}^3$)	P_{max} (%)	m
	NH ₃	200.0	7.946	3.97	128
	H ₂ S	10.0	0.53	5.3	128
		450.0	13.243	2.94	128
	NH ₃	200.0	2.50	1.25	200
	H ₂ S	10.0	0.179	1.79	200
		900.0	61.692	6.85	47

$P_{\text{max}}=6.85\% < 10\%$

HJ2.2-2018 1

2

HJ2.2-2018 5.4

5km

5km

4.1.2.3

HJ2.2-2018 8.1.2

1

4.1-10~ 4.1-11

4.1-10 1

(m)	H ₁							
	NH ₃	$\mu\text{g}/\text{m}^3$	NH ₃	%	H ₂ S	$\mu\text{g}/\text{m}^3$	H ₂ S	%
100.0		6.955		3.48		0.464		4.64
128.0		7.946		3.97		0.53		5.3
200.0		7.567		3.78		0.504		5.04
300.0		6.482		3.24		0.432		4.32
400.0		5.328		2.66		0.355		3.55
500.0		4.702		2.35		0.313		3.13
600.0		4.105		2.05		0.274		2.74
700.0		3.692		1.85		0.246		2.46

800.0	3.401	1.7	0.227	2.27
900.0	3.12	1.56	0.208	2.08
1000.0	3.0	1.5	0.2	2.0
1100.0	4.153	2.08	0.277	2.77
1200.0	5.556	2.78	0.37	3.7
1300.0	5.38	2.69	0.359	3.59
1400.0	4.854	2.43	0.324	3.24
1500.0	4.101	2.05	0.273	2.73
1600.0	3.86	1.93	0.257	2.57
1700.0	3.774	1.89	0.252	2.52
1800.0	3.474	1.74	0.232	2.32
1900.0	3.197	1.6	0.213	2.13
2000.0	3.108	1.55	0.207	2.07
2100.0	2.924	1.46	0.195	1.95
2200.0	2.441	1.22	0.163	1.63
2300.0	2.595	1.3	0.173	1.73
2400.0	2.339	1.17	0.156	1.56
2500.0	2.088	1.04	0.139	1.39
	7.946	3.97	0.53	5.3
	128.0	128.0	128.0	128.0
D10%	/	/	/	/

4.1-10 2

(m)	H ₁	
	PM ₁₀ ug/m ³	PM ₁₀ %
100.0	11.592	2.58
128.0	13.243	2.94
200.0	12.612	2.8
300.0	10.803	2.4
400.0	8.88	1.97
500.0	7.837	1.74
600.0	6.842	1.52
700.0	6.154	1.37
800.0	5.669	1.26
900.0	5.2	1.16
1000.0	5.0	1.11
1100.0	6.922	1.54

1200.0	9.259	2.06
1300.0	8.967	1.99
1400.0	8.089	1.8
1500.0	6.836	1.52
1600.0	6.434	1.43
1700.0	6.29	1.4
1800.0	5.789	1.29
1900.0	5.329	1.18
2000.0	5.18	1.15
2100.0	4.873	1.08
2200.0	4.069	0.9
2300.0	4.325	0.96
2400.0	3.898	0.87
2500.0	3.48	0.77
	13.243	2.94
	128.0	128.0
D10%	/	/

4.1-11

	m				
		ug/m ³	%	ug/m ³	%
1	100	1.66	0.83	0.119	1.19
2	200	1.99	0.99	0.142	1.42
3	300	2.29	1.14	0.163	1.63
4	400	2.50	1.25	0.179	1.79
5	500	2.42	1.21	0.173	1.73
6	600	2.21	1.1	0.158	1.58
7	700	2.15	1.08	0.154	1.54
8	800	1.96	0.98	0.140	1.4
9	900	1.79	0.89	0.128	1.28
10	1000	1.64	0.82	0.117	1.17
11	1100	1.52	0.76	0.109	1.09
12	1200	1.42	0.71	0.101	1.01
13	1300	1.32	0.66	0.0946	0.95
14	1400	1.24	0.62	0.0887	0.89
15	1500	1.17	0.58	0.0835	0.83
16	1600	1.10	0.55	0.0789	0.79
17	1700	1.05	0.52	0.0749	0.75
18	1800	0.999	0.5	0.0714	0.71
19	1900	0.955	0.48	0.0682	0.68

20	2000	0.913	0.46	0.0652	0.65
21	2100	0.874	0.44	0.0625	0.62
22	2200	0.838	0.42	0.0598	0.6
23	2300	0.804	0.4	0.0574	0.57
24	2400	0.771	0.39	0.0551	0.55
25	2500	0.741	0.37	0.053	0.53

4.1-12

(m)	TSP ug/m ³		TSP %	
	47.0	61.692	6.85	
100.0	45.041	5.0		
200.0	29.876	3.32		
300.0	22.631	2.51		
400.0	18.333	2.04		
500.0	15.414	1.71		
600.0	13.299	1.48		
700.0	11.662	1.3		
800.0	10.368	1.15		
900.0	9.392	1.04		
1000.0	8.499	0.94		
1100.0	7.748	0.86		
1200.0	7.107	0.79		
1300.0	6.553	0.73		
1400.0	6.07	0.67		
1500.0	5.646	0.63		
1600.0	5.271	0.59		
1700.0	4.938	0.55		
1800.0	4.639	0.52		
1900.0	4.37	0.49		
2000.0	4.128	0.46		
2100.0	3.907	0.43		
2200.0	3.706	0.41		
2300.0	3.522	0.39		
2400.0	3.354	0.37		
2500.0	3.199	0.36		
	61.692	6.85		
	47.0	47.0		
D10%	/	/		

4.1.2.4

4.1-13

4.1-13

	8	8	8	8
	30	290	270	420

4.1-14

4.1-14

	ug/m ³	1.35	1.35	1.35	1.35
	mg/m ³	1.5			
	ug/m ³	0.0965	0.0965	0.0965	0.0965
	mg/m ³	0.06			
	ug/m ³	51.354	23.098	24.06	17.506
	mg/m ³	1.0			

4.1-14 NH₃ H₂S

GB14554-93

1

1.5mg/m³ 0.06mg/m³

GB16297-1996

2

1.0mg/m³

4.1.2.5

0%

4.1-15 4.1-16

4.1-15

	(°)									
			(m)	(m)	(m)	()	(m/s)			
	117.35997	35.865358	134.0	15.0	1.0	25.0	12.38	NH ₃	0.89	kg/h
								H ₂ S	0.06	
								PM ₁₀	16.67	

4.1-16(1)

(m)	
-----	--

	NH ₃ ug/m ³	NH ₃ %	H ₂ S ug/m ³	H ₂ S %
100.0	68.77	34.38	4.636	46.36
128.0	78.568	39.28	5.297	52.97
200.0	74.826	37.41	5.044	50.44
300.0	64.092	32.05	4.321	43.21
400.0	52.683	26.34	3.552	35.52
500.0	46.494	23.25	3.134	31.34
600.0	40.593	20.3	2.737	27.37
700.0	36.508	18.25	2.461	24.61
800.0	33.633	16.82	2.267	22.67
900.0	30.851	15.43	2.08	20.8
1000.0	29.662	14.83	2.0	20.0
1100.0	41.069	20.53	2.769	27.69
1200.0	54.934	27.47	3.703	37.03
1300.0	53.2	26.6	3.587	35.87
1400.0	47.993	24.0	3.235	32.35
1500.0	40.555	20.28	2.734	27.34
1600.0	38.17	19.09	2.573	25.73
1700.0	37.319	18.66	2.516	25.16
1800.0	34.346	17.17	2.315	23.15
1900.0	31.594	15.8	2.13	21.3
2000.0	30.734	15.37	2.072	20.72
2100.0	28.908	14.45	1.949	19.49
2200.0	24.14	12.07	1.627	16.27
2300.0	25.663	12.83	1.73	17.3
2400.0	23.126	11.56	1.559	15.59
2500.0	20.646	10.32	1.392	13.92
	78.568	39.28	5.297	52.97
	128.0	128.0	128.0	128.0
D10%	2825.0	2825.0	3800.0	3800.0

4.1-16(2)

Ž, ÷ Žg}L"ā (m)	Šb,	
	PM ₁₀ | €O ug/m ³ ?	PM ₁₀ Š^ö ...^ % ?
100.0	1288.085	286.24
128.0	1471.605	327.02
200.0	1401.516	311.45
300.0	1200.465	266.77
400.0	986.77	219.28

500.0	870.848	193.52
600.0	760.321	168.96
700.0	683.807	151.96
800.0	629.957	139.99
900.0	577.85	128.41
1000.0	555.579	123.46
1100.0	769.236	170.94
1200.0	1028.932	228.65
1300.0	996.454	221.43
1400.0	898.925	199.76
1500.0	759.609	168.8
1600.0	714.937	158.87
1700.0	698.997	155.33
1800.0	643.312	142.96
1900.0	591.766	131.5
2000.0	575.658	127.92
2100.0	541.457	120.32
2200.0	452.15	100.48
2300.0	480.677	106.82
2400.0	433.158	96.26
2500.0	386.707	85.93
Ž í ŽgŸ€5€O	1471.605	327.02
Ž í ŽgŸ€5€O€L"ã	128.0	128.0
D10%ŸL"ã	/	/

4.1.3

4.1.3.1

4.1-17

4.1-17

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

			/ mg/m ³	/ kg/h	t/a
1	H ₁	NH ₃	--	0.09	0.64
2	H ₁	H ₂ S	--	0.006	0.05
3	H ₁		--	0.007	0.005
		NH ₃	--	0.09	0.64
		H ₂ S	--	0.006	0.05
			--	0.007	0.005
		NH ₃	--	0.09	0.64
		H ₂ S	--	0.006	0.05
			--	0.007	0.005

4.1.3.2

4.1-18

4.1-18

				t/a
1		NH ₃	EM	0.206
2		H ₂ S		GB14554-93	0.014
3		/		0.075
			GB16297-1996	

4.1.3.3

4.1-19

4.1-19

		t/a
1	NH ₃	0.846
2	H ₂ S	0.064
3		0.082

4.1.3.4

4.1-20

4.1-20

				kg/h	h	/	
1	H ₁		NH ₃	0.89kg/h	1	1-2	
2	H ₁		H ₂ S	0.06 kg/h	1	1-2	
3	H ₁			0.5kg/h	1	1-2	

4.1.4

1

				160	
	Acid	Alcohls	Phenols		Kelones
Esters	Amines		Mercaptans		
					NH ₃ H ₂ S
					47.5mg/m ³
		75	150mg/m ³		

30mg/m³

75

300mg/m³

900mg/m³

4.1-21

4.1-21

	ppm	mg/m ³	
	0.1	0.15	
	0.0005	0.00076	

2

6

4.1-22

4.1-22

0	
1	()
2	()
3	()
4	
5	

23

0.000915mg/m³ 0.00389mg/m³

1

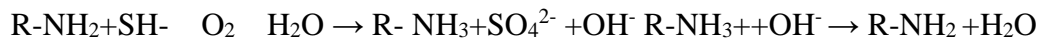
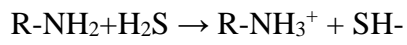
()

(GB14544-93)

air Solution®

B

air Solution®



C

air Solution®

D.

air Solution®

0.04

3

25%-40%

35%-67%

30-60%

5

()

()

NH₃

EM

“ ”

NH₃

H₂S

CH₄

6

EM

15m

GB14554-93

(GB18596-2001) 7

4.1.5

290

4.1.5.1

-
- 1
 - 2
 - 3
 - 4
 - 5

500m

4.1.5.2

2005 5 1

“ ”

500

4.1.5.3

GB13201-1991

$$\frac{Qc}{Cm} = \frac{1}{A} (BL^C + 0.25r^2)^{0.50} L^D$$

L—

m

r—

m

S m²

$$r=(s/\pi)^{0.5}$$

A B C D—

GB/T13201-1991

Qc—

kg.h⁻¹

NH₃ H₂S

Qc/Cm

GB/T13201-1991

4.1-23

		(kg/h)	(m)	(m)	(m)	m	m	m

	NH ₃	0.028	4.5	145	252	0.392	50	100
	H ₂ S	0.002	4.5	145	252	0.861	50	
		0.05	5	10	80	8.674	50	50

Qc/Cm

Qc/Cm

100m

HJ/T81-2001

500m

4.1-1

500.21m

4.1.7

1

SO₂ NO₂

GB3095-2012

TSP

2#

PM_{2.5}

1# 2#

GB3095-2012

2

6.29%

10%

(3)

500m

500

4.2

4.2.1

13622.4m³/a 37.84m³/d

25

4.2-1

4.2-1

13622.4m ³ /a	COD	350mg/L 4.77t/a	0
	BOD ₅	200mg/L 2.72t/a	0
	SS	200mg/L 2.72t/a	0
	NH ₃ -N	25mg/L 0.34t/a	0
		50mg/L 0.34t/a	0
		5mg/L 0.07t/a	0

4.2.2

7804.8 m³/a

10

4.2-2

4.2-2

7804.8m ³ /a	COD	350mg/L 2.73t/a	0
	BOD ₅	200mg/L 1.56t/a	0
	SS	200mg/L 1.56t/a	0
	NH ₃ -N	25mg/L 0.20t/a	0
		50mg/L 0.40t/a	0
		5mg/L 0.04t/a	0

4.2.3

48 m³/d 17280 m³/a 4.72m³/d 1699.2 m³/a
 52.72m³/d 18979.2m³/a

4.2-3

4.2-3

17280m ³ /a	COD	1000mg/L	17.28t/a	SS 50%
	BOD ₅	750mg/L	12.96t/a	
	SS	900mg/L	15.56t/a	
	NH ₃ -N	50mg/L	0.86t/a	
		100mg/L	1.728t/a	
		30mg/L	0.518t/a	
1699.2m ³ /a	COD	350mg/L	0.60t/a	SS 50%
	BOD ₅	200mg/L	0.340t/a	
	SS	200mg/L	0.34t/a	
	NH ₃ -N	25mg/L	0.04t/a	
		50mg/L	0.085t/a	
		5mg/L	0.009t/a	
				COD 942.08mg/l 17.88t/a BOD ₅ 490.54mg/l 9.31t/a SS 418.88mg/l 15.9t/a NH ₃ -N 47.42mg/l 0.9t/a 95.52mg/l 1.813t/a NH ₃ -N 27.77mg/l 0.527t/a

1.2 m³

3500m³

4.2.4

4.2-4

4.2-4

		m ³ /d	m ³ /a		mg/L	t/a
1	492.19	157500	COD	1500	236.25	
			BOD ₅	600	94.5	
			SS	800	126	
				100	15.75	
				150	23.625	
				50	7.875	
2	64	20480	COD	800	16.384	
			BOD ₅	300	6.144	
			SS	200	4.096	
				50	1.024	
				100	2.048	
				30	0.614	
3	4.62	1478.4	COD	1000	1.478	
			BOD ₅	300	0.444	
			SS	800	1.183	
				50	0.074	
				100	0.148	
				30	0.045	
4	4.8	1536	COD	300	0.462	
			BOD ₅	100	0.154	
			SS	500	0.768	
5	3.24	1036.8	COD	350	0.363	
			BOD ₅	200	0.207	
			SS	200	0.207	
				30	0.031	
				50	0.052	
				5	0.005	
6	568.85	182031.2	COD	1400.51	254.937	
			BOD ₅	557.32	101.449	
			SS	726.55	132.254	
				92.73	16.879	
				142.13	25.873	
				46.91	8.539	

700m³

15mg/L

50mg/L

5mg/L

COD 2000mg/L SS 500mg/L NH₃-N 100mg/L

627.29m³/d

201646.4m³/a

30000m³/d

3500m³/d

2010 7

30000m³/d

15000m³/d

GB18918-2002

A

14.3 km

A/A/O

V

PAM

V

“A/A/O + + + ”

“ + ”

1.6 m³/d

0.4 m³/d

1.2

m³/d

2019 6

4.2-1

4.2-1

4.2-7

2019 6

	COD	NH ₃ -N	TP	COD	NH ₃ -N	
2019.6.1	20.75	0.42	0.15	1275	38.39	
2019.6.2	25.62	0.39	0.11	1407	70.38	
2019.6.3	15.84	0.39	0.16	1153	71.10	11.50
2019.6.4	17.47	1.24	0.36	1588	82.78	
2019.6.5	23.99	1.84	0.30	2244	67.68	17.50
2019.6.6	15.84	1.03	0.23	1385	38.76	5.74
2019.6.7	15.84	0.68	0.15	1448	37.34	6.10

2019.6.14	15.84	0.58	0.35	530.5	48.08	24.75
2019.6.15	17.47	0.84	0.26	1062	41.60	15.2
2019.6.16	19.10	0.68	0.34	1385	25.30	12.45
2019.6.17	30.51	1.10	0.31	1252	78.88	18.75
2019.6.18	30.51	1.10	0.28	3654	57.88	14.55
2019.6.19	22.36	1.40	0.30	1227.5	116.66	20.75
2019.6.20	25.62	5.92	0.34	1342	87.62	17.5
2019.6.21	23.99	1.98	0.33	1023	85.38	16.45
2019.6.22	19.10	0.72	0.31	1303	82.36	17.7
2019.6.23	27.25	0.75	0.32	1793	75.46	18.95
2019.6.24	25.62	0.93	0.24	1588	91.90	11.7
2019.6.25	22.36	0.68	0.32	1711	86.32	21.05
2019.6.26	33.76	0.74	0.29	3121	89.74	14.60
2019.6.27	17.47	0.48	0.31	1711	115.50	23.50
2019.6.28	17.47	0.46	0.42	1326	80.42	37.60
2019.6.29	19.10	0.80	0.31	1684	92.34	24.14
2019.6.30	17.58	0.92	0.40	1219	58.12	30.95

4.2-7

COD<50mg/L NH₃-N<1.15mg/L

4.2.7.2

COD 1038.2mg/L BOD672.7

mg/L SS 433.0mg/L 68.4mg/L 88.2mg/L 16.9mg/L

COD 2000mg/L SS 500mg/L NH₃-N

100mg/L

1927.04m³/d 635931.2m³/a

4000m³/d

2006 12

2007

2999.78

12000m³/d

6000m³/d

“A/A/O + + + ”

“ + ”

”

2019

030127

4.2-8

4.2-8

mg/L

pH()	6.92	7.40
COD _{Cr}	1020	18
BOD ₅	410	3.8
	50.8	1.54
	90.6	2.78
	18.4	0.125
SS	126	10
	7.50	0.06L
	7.45	0.06L

4.2-8

COD<50mg/L NH₃-N<1.15mg/L

4.2.8

		km	km	²
			7 2	1 0
		km	km	²

			ta	/ mg L	
		CODcr	0		
		NH ₃ -N	0		
				ta	mg L / /
		$\frac{m \cdot s^3}{m} \quad \frac{m \cdot s}{m} \quad / \quad \frac{m^3 \cdot s^3}{m}$			

				pH COD BOD ₅ SS
	“ ”	“ ”	“ ”	“ ”

4.3

4.3.1

4.3.1.1

HJ 610-2016 A “
” “14 ” “98 ”
“94 ” “152
”

4.3.1.2

4.3-1

4.3-1

a“	”

2.4km

0.7km

5.6km

4.3-2

4.3-2

	I	II	III

III

6km²

4.3.2

4.3.2.1

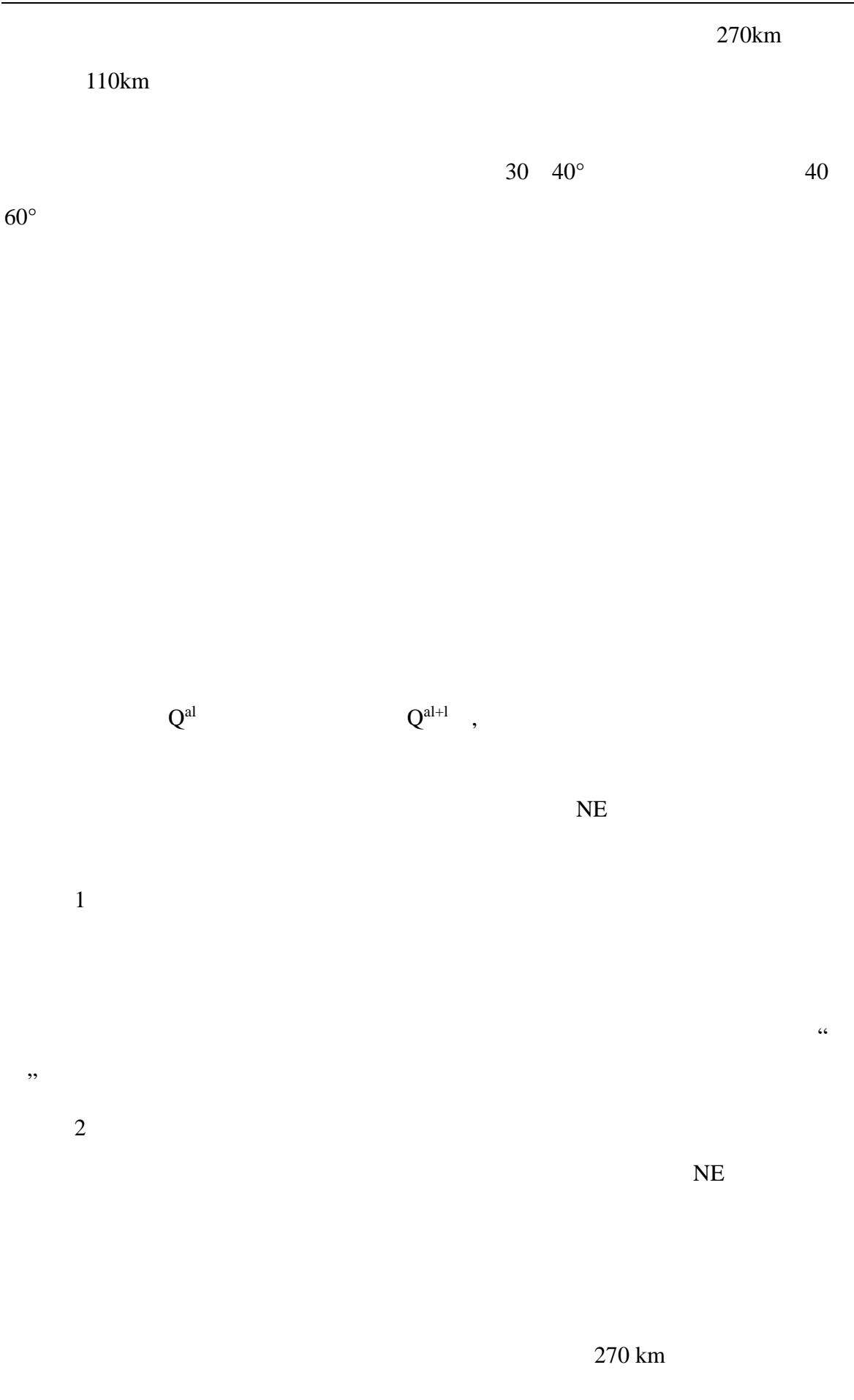
22.8 47.8m

4.3.2.2

1

1200~3000m

	-		
1	(Qp)		
		230~240 m	230~240 m
2	(NhM)		
960~980 m	650~690 m		
3	(NhG)		
			1350~1380 m
300~380 m			
4	(EjD)		
1600~1650 m	290~350 m		
5	(EjŜ)		
		2100 m	800 m
2			
			2



NE
40°~60°

NE30°~40°

NW

37 km

4.3.2.3

1

10~20m

50~90m

250~600m

90~120m

828~928m

0~60m

60~250m

1

100 m

50 m

10 m

15~20 m

30~35 m

-

	2 g/L			500 m ³ /d
	2		()	60~200
m		30 m	2~5 g/L	
				500 m ³ /d
	3			
		300 m		
	200~380 m		18~80 m	
			204 m	30~60 m
	2			
	1	-		
		-		

-
0.1‰~0.2‰

-

-

-

2

-

-

2~3

3

5.3-2

2017 07

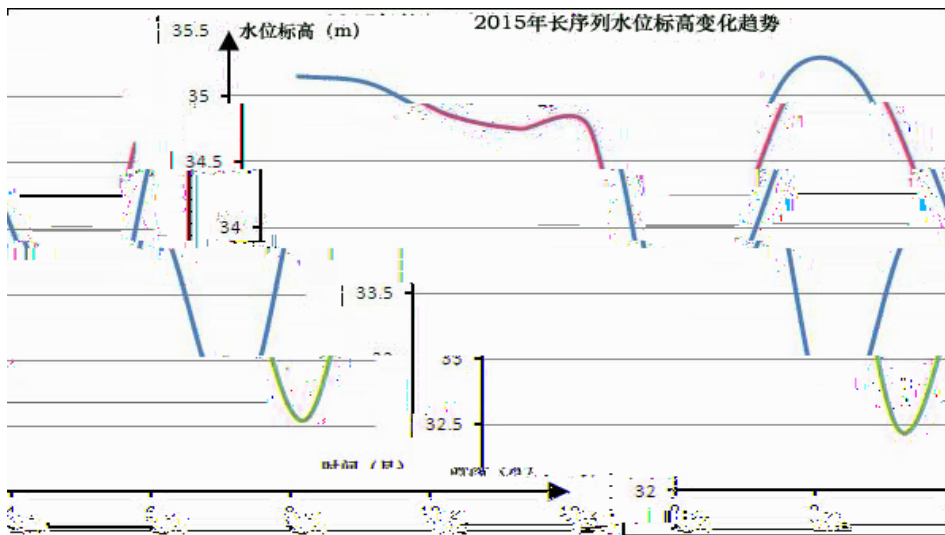
K6 K9 K47

3

((

W1

W2 W3)



4.3-1

4.3.2.4

6m

6m

14m						$1 \times 10^{-3} \text{cm/s}$
0.86m/d			$1.16 \times 10^{-2} \text{cm/s}$		10m/d	
		6m				
						6m
			[Q ^{ml}]		[Q ^{al}]	
[Q ^{al+l}]						
			5			
		0.30 0.60m	0.40m		30.70	31.32m
30.98m		0.30 0.60m	0.40m			
3.30 3.90m	3.66m		27.03 27.58m	27.31m		3.70
4.40m	4.06m					
1.00 1.80m	1.42m		25.53 26.26m	25.90m		5.10
6.00m	5.48m					
					3.10	3.90m
3.45m		22.18 22.70m	22.45m		8.50	9.30m
8.93m						
		20.4				

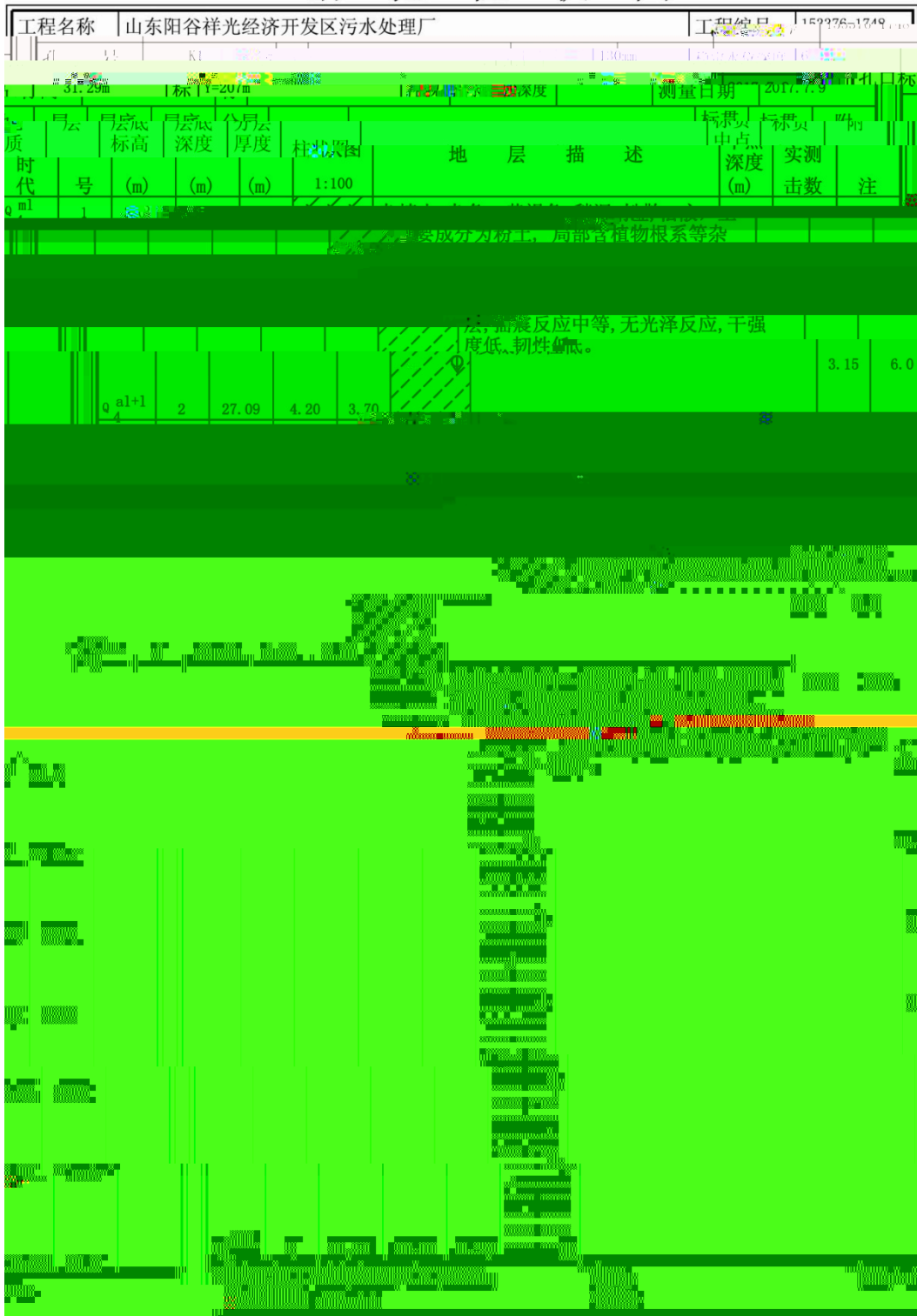
4.3-2

4.3-3

4.3-4

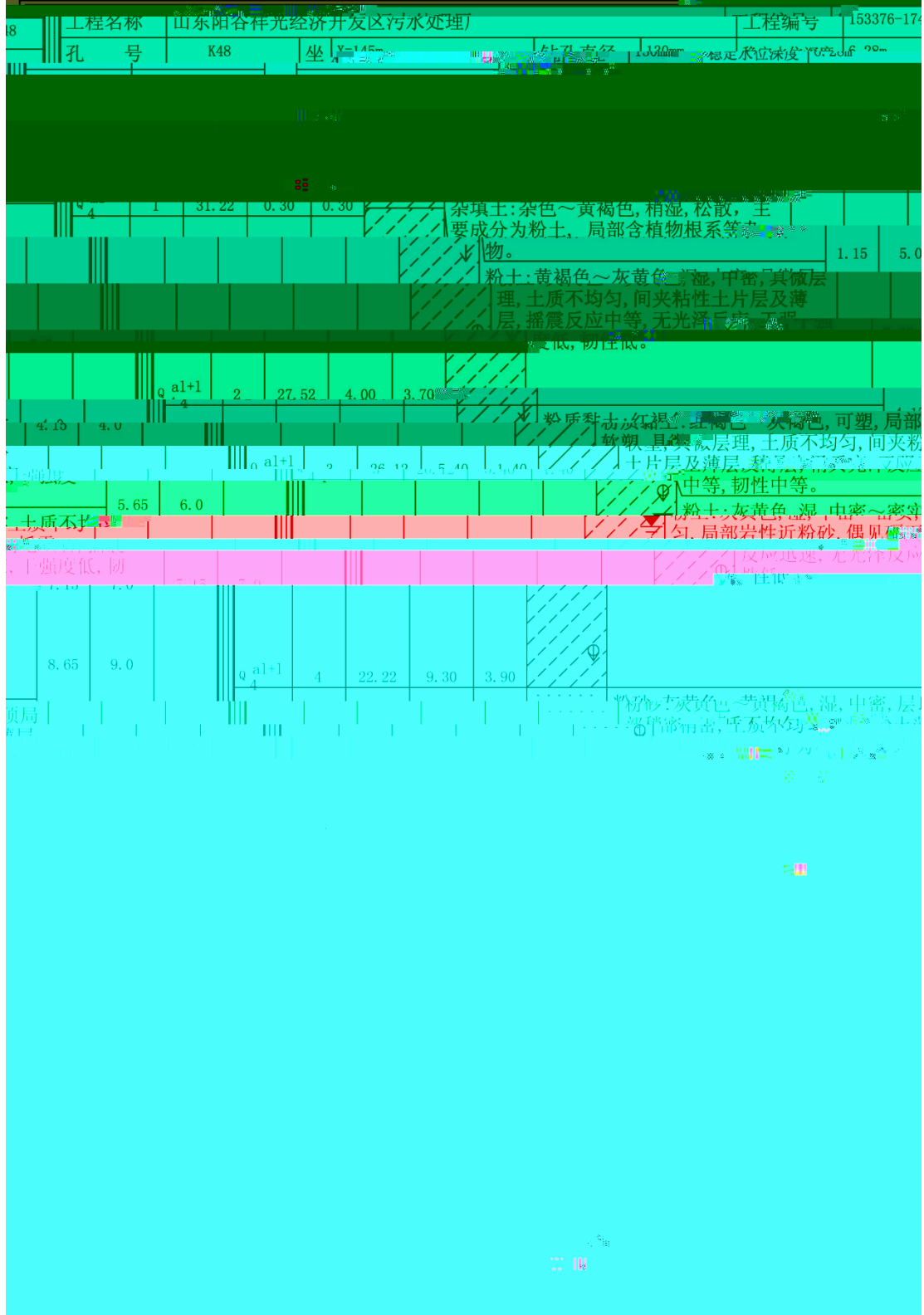
4.3-5

钻孔柱状图

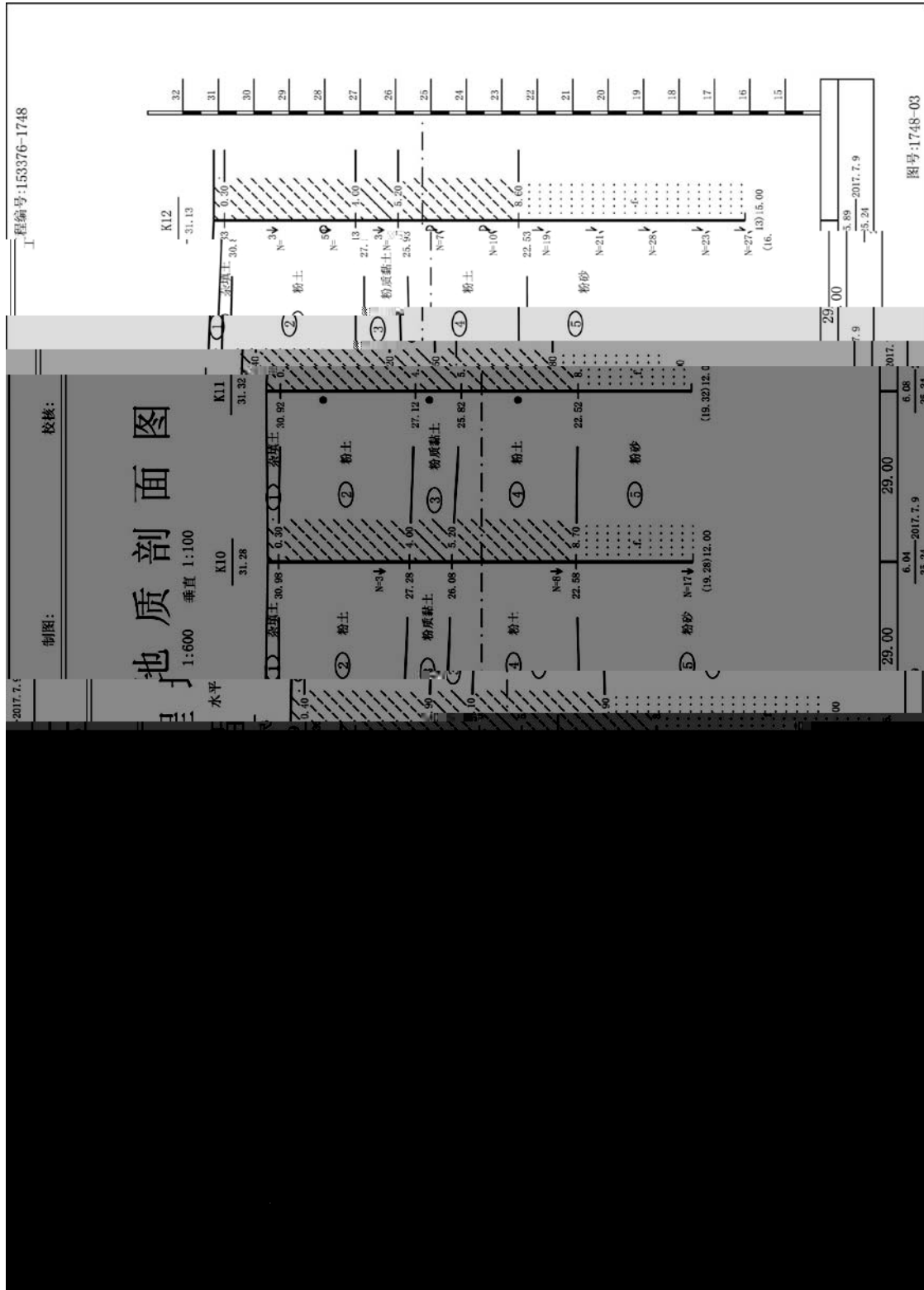


4.3-2

钻孔柱状图

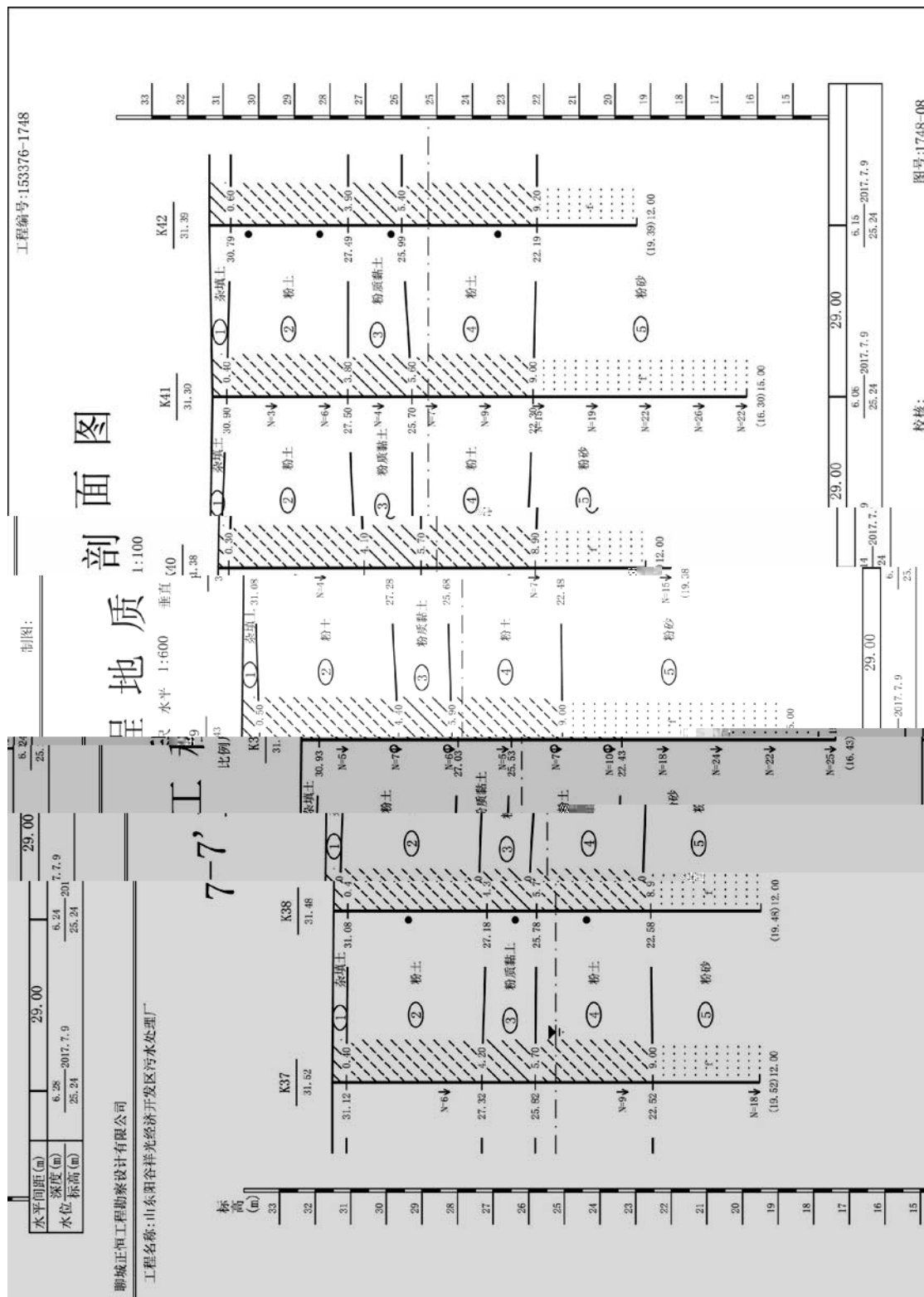


4.3-3



4.3-4

4.3.2.6



4.3-5

4.3.3

(1)

(2)

(3)

4.3.4

4.3.4.1

“

”

“

”

“ ”

4.3.4.2

1

“ ”

“ ” “ ”

”

“ ”

2

4.3-3

4.3-3

		$Mb \geq 6.0m$ $K \leq 1 \times 10^{-7} \text{cm/s}$ GB18598

		$Mb \geq 1.5m$ $K \leq 1 \times 10^{-7} \text{cm/s}$ GB16889

$1.0 \times 10^{-7} \text{cm/s}$

6.0m

GB18596-2001

2001

GB18599

10^{-7}cm/s

1.5m

$1.0 \times 10^{-7} \text{cm/s}$

3

4

4.3-4

4.3-11

4.3-4

1#			pH	30 50m		2
2#						
3#						
4#						

1

2

3 2m

4 0.1m

5 1m

6 10min

7 0.25m

8 0.05m

() 0.5 1.0m ()

() ()

2

(1)

(2)

(3)

4.3.5

1

-

(HJ 610-2016)

A

III

2

GB14848-2017

3

4.4

4.4.1

4.4.1.1

4.4-1

4.4-1

1		75 85	8	
---	--	-------	---	--

4.4-2

1		75 85	8	
2		75 85	1	
3		65 75		

4.2.1.3

4.4-3

4.4-3

1		75 85	30	
2		75 85	1	
3		65 75		

4.2.1.4

7.2-4

>ž ? p6Û Ö , &\$Æ 0 b û ë 6?p>ž

			dB(A)		dB(A)
1		4	90		70
2		4	90		70
3		4	80		60
4		4	75		55
5		1	90		70
6		1	80		60
7		2	80		60

1		75	4	
2		85	2	
3		80	2	
4		80	1	

4.2.1.5

7.2-4

表 7.2-4 噪声源强调查清单 (声源)

序号	声源名称	声源位置	声源声功率级 [dB(A)]	声源运行时段
1			75	4
2			85	2
3			80	2
4			80	1

4.2.1.6

7.2-4

表 7.2-4 噪声源强调查清单 (声源)

序号	声源名称	声源位置	声源声功率级 [dB(A)]	声源运行时段
1			75	4
2			85	2
3			80	2
4			80	1

4.4.2

4.4.2.1

— (HJ/T2.4-2009)

A

$$L_A(r) = L_{Aref(r_0)} - (A_{div} + A_{bar} + A_{atm} + A_{exc})$$

$$L_A(r) \text{ --- } r \text{ A dB(A)}$$

$$L_{Aref(r_0)} \text{ --- } r_0 \text{ A dB(A)}$$

$$A_{div} \text{ --- } A \text{ dB(A)}$$

$$A_{bar} \text{ --- } \text{dB(A)}$$

$$A_{atm} \text{ --- } \text{dB(A)}$$

$$A_{exc} \text{ --- } \text{dB(A)}$$

b (L₀)

r > L₀ r₀ > L₀

$$A_{div} = 20Lg(r/r_0)$$

r < L₀/3 r₀ < L₀/3

$$A_{div} = 10Lg(r/r_0)$$

L₀/3 < r < L₀ L₀/3 < r₀ < L₀

$$A_{div} = 15Lg(r/r_0)$$

A_{atm}

A_{bar}

0 30dB(A)

0

A_{exc}

4.4.2.3

7.2-2

>ž 7.2-2 q? · & \$Æ / , + , & 4ÝCW)d û ë 6? p>ž

	dB(A)	(m)				dB(A)			
	55	12	77	12	25	33.4	17.3	33.4	27.0
	65	12	67	12	95	43.4	28.5	43.4	25.5
	65	128	19	31	134	22.9	39.4	35.2	22.5

7.2-2

7.2-3

>ž 7.2-3 / : , + , & § E¹],⁰ q? · EœL* & CW)d û ë 6? p>ž

		100m
		52m
		100m
		99.5m

7.2-4

7.2-5

>ž7.2-4 q?· &\$Æ / 6] &N°#• r 0)æ f5α,° &4ÝCW)d û ë 6?p>ž

	dB(A)	(m)					dB(A)			
1	55	12	77	12	25	33.4	17.3	33.4	27.0	
2	65	12	67	12	95	43.4	28.5	43.4	25.5	
3	65	136	19	55	138	22.3	39.4	30.2	22.2	
	--	--	--	--	--	43.8	39.8	44.0	30.1	

4.4.2.4

(GB12348-2008) 2

$$P=L_{Aeq}-L_b$$

P dB(A)

L_{Aeq} dB(A)

L_b dB(A)

7.2-6

>ž7.2-6 ,+, &N°#•5 ÒÁú - 6?p>ž (f Æ dB(A))

	43.8	60	-16.2	43.8	50	-6.2
	39.8		-20.2	39.8		-10.2
	44.0		-16.0	44.0		-6.0
	30.1		-29.9	30.1		-19.9

(GB12348-2008) 2

1030m

4.4.3

4.4.3.1

— (HJ/T2.4-2009)

A

$$L_A(r) = L_{Aref(r_0)} - (A_{div} + A_{bar} + A_{atm} + A_{exc})$$

$$L_A(r) \text{ --- } r \text{ --- } A \text{ --- } dB(A)$$

$$L_{Aref(r_0)} \text{ --- } r_0 \text{ --- } A \text{ --- } dB(A)$$

$$A_{div} \text{ --- } A \text{ --- } dB(A)$$

$$A_{bar} \text{ --- } dB(A)$$

$$A_{atm} \text{ --- } dB(A)$$

$$A_{exc} \text{ --- } dB(A)$$

a.

$$L_A = L_w + 10 \lg(Q/4\pi r^2 + 4/R)$$

L_A

L_w

r

R

Q

b.

$$L_1(T) = 10 \lg \left[\sum_{i=1}^n 10^{0.1 L_{A(i)}} \right]$$

c.

$$L_2(T) = L_1(T) - (TL - 6)$$

$$TL \text{ --- } dB(A)$$

d. $L_2(T)$

L_w :

Tab. 7.2-2 Výsledky měření úrovně hlavy v závislosti na směru šíření zvuku

	dB(A)	(m)				dB(A)			
		12	77	12	25	33.4	17.3	33.4	27.0
	55	12	77	12	25	33.4	17.3	33.4	27.0
	65	12	67	12	95	43.4	28.5	43.4	25.5
	65	128	19	31	134	22.9	39.4	35.2	22.5

7.2-2

7.2-3

Tab. 7.2-3 Výsledky měření úrovně hlavy v závislosti na směru šíření zvuku

		100m
		52m
		100m
		99.5m

7.2-4

7.2-5

Tab. 7.2-4a Výsledky měření úrovně hlavy v závislosti na směru šíření zvuku

7.2-6

ž7.2-6 , &N°#•5 ÓÁú - 6?þ>ž (f Æ dB(A))

	43.8	60	-16.2	43.8	50
	39.8		-20.2	39.8	
	44.0		-16.0	44.0	
	30.1		-29.9	30.1	

(GB12348-2008) 2

1030m

4.4.5

4.4.5.1

— (HJ/T2.4-2009)

A

$$L_A(r) = L_{Aref(r_0)} - (A_{div} + A_{bar} + A_{atm} + A_{exc})$$

$$L_A(r) \text{ — } r \text{ A dB(A)}$$

$$L_{Aref(r_0)} \text{ — } r_0 \text{ A dB(A)}$$

$$A_{div} \text{ — } A \text{ dB(A)}$$

$$A_{bar} \text{ — } \text{dB(A)}$$

$$A_{atm} \text{ — } \text{dB(A)}$$

$$A_{exc} \text{ — } \text{dB(A)}$$

a.

$$L_A = L_w + 10 \lg(Q/4\pi r^2 + 4/R)$$

L_A

L_w

r

R

Q

b.

$$L_1(T) = 10 \lg \left[\prod_{i=1}^n 10^{0.1 L_{A(i)}} \right]$$

c.

$$L_2(T) = L_1(T) - (TL - 6)$$

$$TL = \dots \text{ dB(A)}$$

d. $L_2(T)$

L_w :

$$L_w = L_2(T) + 10 \lg S$$

$$S = \dots \text{ m}^2$$

e.

L_w

$$L_{eq}(T) = 10 \lg \left(\frac{1}{T} \left[\sum_{i=1}^N t_{in,i} 10^{0.1 L_{Ain,i}} + \sum_{j=1}^M t_{out,j} 10^{0.1 L_{Aout,j}} \right] \right)$$

4.4.2.2

A

$$a \quad A_{div} = 20 \lg(r/r_0)$$

$$b \quad (L_0)$$

$$r > L_0 \quad r_0 > L_0 \quad A_{div} = 20 \lg(r/r_0)$$

$$r < L_0/3 \quad r_0 < L_0/3 \quad A_{div} = 10 \lg(r/r_0)$$

$$L_0/3 < r < L_0 \quad L_0/3 < r_0 < L_0 \quad A_{div} = 15 \lg(r/r_0)$$

A_{atm}

A_{bar}

0 30dB(A)

0

A_{exc}

4.4.2.3

7.2-2

>ž 7.2-2 q?· &\$Æ / ,+, &4ÝCW)d û ë 6?>ž

		dB(A)	(m)				dB(A)			
		55	12	77	12	25	33.4	17.3	33.4	27.0
		65	12	67	12	95	43.4	28.5	43.4	25.5
		65	128	19	31	134	22.9	39.4	35.2	22.5

7.2-2

7.2-3

>ž 7.2-3 / : ,+, & § E'],° q?·EœL* &CW)d û ë 6?>ž

		100m
		52m
		100m
		99.5m

7.2-4

7.2-5

>ž 7.2-4 q?· &\$Æ / 6] &N°#• r 0)æ f5α,° &4ÝCW)d û ë 6?>ž

		dB(A)	(m)				dB(A)			
1		55	12	77	12	25	33.4	17.3	33.4	27.0

2		65	12	67	12	95	43.4	28.5	43.4	25.5
3		65	136	19	55	138	22.3	39.4	30.2	22.2
		--	--	--	--	--	43.8	39.8	44.0	30.1

4.4.2.4

(GB12348-2008) 2

$$P = L_{Aeq} - L_b$$

P dB(A)

L_{Aeq} dB(A)

L_b dB(A)

7.2-6

>ž 7.2-6 , +, &N°#•5 ÒÁú - 6?p>ž (‹ f Æ dB(A))

	43.8	60	-16.2	43.8	50	-6.2
	39.8		-20.2	39.8		-10.2
	44.0		-16.0	44.0		-6.0
	30.1		-29.9	30.1		-19.9

(GB12348-2008) 2

1030m

4.4.6

10

7.2-7

>ž)Á e ž ±lì p , +, &- #•5 Ò>ž ´ ‹ f Æ G % \$ μ

		43.3	60	-16.7	35.7	50	-14.3
		42.5		-17.5	35.1		-14.9
		43.1		-16.9	35.8		-14.2
		42.2		-17.8	35.0		-15.0

7.2-7

(GB12348-2008) 2

1000

4.4.7

1

2

3

4

5

6

7

4.4.8

GB12348-2008

2

4.5

4.5.1

8.1-1

>ž 0N-\$ 0 %o Ō(Ÿ Ý+U :5α û ë

	t/a			
	134.4t/a	0		
	3360t/a	0		
	1423.2t/a	0		
	1182.3t/a	0		
	266.7t/a	0		
	6.86 t/a	0		
	1270t/a	0		
	16.08 t/a	0		
	388.58t/a	0		
	168832.04t/a	0		

4.5-2

4.5-2

				t/a							
S2		HW01	900-00 1-01	0.8							

8.1-1

16.08

1270

40.7

4.5.2

4.5.2.1

1

GB18597-2001

1

2

3

2mm

1.0×10^{-10} cm/s

4

5

24h

6

7

4.5-3

1			HW01	900-001-01		25m ²		5t	1

1

2

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

3

GB1556.2-1995

4

4.5.2.2

1

1

2

50%

2

3

GB18597-2001

4

5

GB18599-2001

GB18598-2001

6

344

1

2

3

4

5

1

2

4.5.3

1

GB18597-2001

2

4.6

4.6.1

4.6.1.1

1

HJ964-2018

A

“

”

600

30

60

III

A

2

50hm²

5~50hm²

5hm²

5hm²

3

4.6-1

4.6-1

“ ”

4.6.1.2

4.6-2

4.6-2

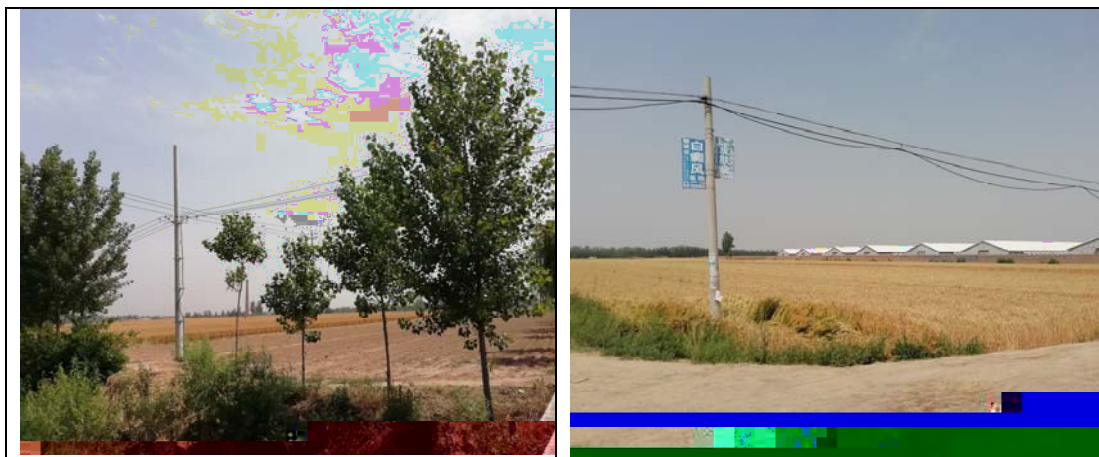
	I			II			III		
									-
							-	-	-

4.6.2

4.6.2.1

0.05km

4.6.2.2





4.6.2.3

GB15618-2018 “ ”

GB36600-2018

4.6.3

4.6.3.1

1

2

4.6.3.2

1

“ ”

2

4.6.4

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2

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4.6.5

1

GB15618-2018 “ ”

GB36600-2018

2

4.7

98.82

2km²

HJ 19-2011

4.7-1

	()		
	≥20km ²	2 km ² ~20 km ²	≤2 km ²

4.7.1

4.7.2

4.7.3

4.7.3.1

4.7.3.2

4.7.3.3

		105m
	500m	500

4.7.3.4

4.7.4

4.7.4.1

of 570 e0f > Pdf 850 P 2 0 3 7 8 5 0 4 9 6 0 2 0 e d d < 9 0 f . 6 0 4 1 0 b 7 0 2 c 8 5 2 8 2 5 1 a 0 4 3 6 3 2 b 4 f É ! ¶

1\51)ß³ NpL™ Aô '

5.1 ²F

5.1.1 08\W Ī I

)ß³ NpL™ Aô ' Ä 0± W » u ,8\$, ' ĵ L™(™CX)ß³ U W • ãLb x j- 7 È)
 *AîN©- ,)ß³ NpL™ F >| 6 Ä Ñ'#{ ¼Aô ` È *)ß³ NpL™ N'Lb Ñ x f Ñ ÿ5C Ú
 í È >.ž)ß³ NpL™- x ú Ä U *Aþ?±"r È j *AîN©-)ß³ NpL™ Lb x È0 - Í ž È
) ¼ \N©- , ' » u NpL™ 2« » .ž È j#â F Yf"D1Ñ4i"ô%? Ñ Yf"D Ø5€ +O"D f"ô
 %? È Fw&›\$À 6 +O&›&®(6&è » u ú ›+OLb+Û éM', 'NpL™ Ñ » u Ī"d"ôMb1y Ä

5.1.2 Aô ' CEO; ĵ

Aô ' CEO; ĵ?ñ . 1-1 Ä

. 5.1-1 Aô ' CEO; ĵ

5.2 NpL™B3

5.2.1 *AÎN©- NpL™\$ÅB3

i ž *N©- 0; 6 Å úN©- p ¯+X, 'IEµ € É Ã7-\$À È *N©- , '(™CX
NpL™Aö [j ; Z éM' Ö

E-L\$, ' i8 "D f"X"D Å› F"R ú Yf"D Ø5€"ôMb +O&&®(6&è È !" *
N©- NpL™Aö 'Gý&é63<• İ Yf"D Ø5€ +O&&® » u ú !Q+O&® ã Å u İ"d, ' f
Lö 4*61y Å

\ 0;#¹ ú, ' iL™(™CX j Yf"D úTQ2Ú] J U * [H2S ¼ NH3 Å Yf
"D ÅH2S ú NH3*6 F WCX?ñ ;>~ Å

Yf"D _ 0/y " 8ç £, "D f È i k?± @ - _+b" Å CH4 ÅÈ4Ö • Yf
"D, ' 96% Å f0 " Å È FF [9 AGÿ %" Å l"1y i &ó2« Å Yf"D] 4 k?±
4ô 6, ' * \ WCX?ñ>~ 5.2-1È) \N©- İ É(™CX Yf"D Å+b" Å Å x ñ#â F Yf"D
ÄLNG Å, '(© WF >|EØAö 6 Å È(© W>~ 6 [?ñ>~ 5.2-2 5.2-4Å

>~ 5.2-1 Yf"D] 4 k?±4ô 6, ' * \ WCX

N©- \ 4ô 6	+b"	%"	l"	! 3&ó2«	.› F"R
	CH4	C2H6	C3H8	C4-C6	H2S
4ô @V%)	96.226	1.77	0.3	0.226	2x†0
ö Ö Å kg/m³ Å	0.72	1.36	2.01	3.45	1.54
(6&è :L€(V%)	4.9	2.9	2.1	1.4	4.30
(6&è ;L€(V%)	15.4	13.0	9.5	8.3	45.5
8 'ó&é ()	645	530	510	/	290
*6Aê'ó' \$Y Ö ()	1830	2020	2043	/	/
'ó' 1m³"D f pM00ª"DGÿ Åm³ Å	9.54	16.7	23.9	38.18	1900
0 W&›` P ÝFO Ö Åm/sÅ	0.67	0.86	0.82	/	7.16

Ö>~], ' 4 l j 0 Å 101.325kPa&, ' l Å

>~ 5.2-2 Yf"D Å+b" Å(© W>~

7Aö	] · = Ö+b"	9! · = Ö methanex Marsh gas
	6 € ? Ö CH4	6 €Gÿ Ö16.04
	i?ð ' Ö 21007	UN5F ' Ö 1971

*6 F WCX	F?ò > W(æ Ö 8ç 8 "D f	\$æ@ W Ö P\$æ ¾"d È\$æ ¾G· Ā %GĒ
	'Ä&é Ā Ā Ö -182.5	"è&é Ā Ā Ö -161.5
	-() ö Ö Ā"d Û 1 Ā Ö0.42	-() ö Ö Ā0ªD Û 1 Ā Ö0.55
	Oj ¼:è"- » Ā KPaĀ Ö53.32Ā-168.8 Ā	/± ü(TM Ö j"W F r Ā"O Ā" _
	d+| » Ē Ā MPaĀ Ö4.59	d+|\$Y Ö Ā Ā Ö -82.6
0c Ē W Ö0c Ē	6Š 8 j ā Ö =6Š 8	
įL™ (© W	įL™ W2« [Ö1\2.12« C'ó"D f	'ó' W Ö C'ó
	E'ó\$Y Ö Ā Ā Ö 538	L &é Ā Ā Ö -188
	(6&è ;L€ Ā Ā Ā Ö 5.3	(6&è :L€ Ā Ā Ā Ö 15
	LC50 Ö Ct É	LD50 Ö Ct É
	'ó' Ā KJ/mol Ā Ö889.5	'ó' 6@ x(TM Ö 0"W F.ā Ā ¼"W F.ā
	įL™(© W Ö C'ó C(6"D f Ē >0ªD\$' 87- ' @ (6&è W\$' 8(TM ĒFw >& ĀQ }7- EC\$	'ó' (6&è Ā
	&•& ě# Ö 7 Ý"D\$Ā Ā9 =7-0û £ 7 Ý"D\$Ā Ē l = qAè'&•!" X'ó' , "D f Ā ç"d ç ¢ é Ē 7- , 'B 6 é Ē p& , j0+8#0ª ' 4 Ā	&•& r ÖM.(æ"d Ā# "Ü Ā ¼"W F.ā Ā ç2' Ā
•ç i ā	ā •FD ' Ö h •	
	+b") è * \ " È v#f ÖE÷Q & È 0ª"D]"W [Gÿ > nL] ~ È - è0Ā Ÿ Ā f0ª"D]+b"Ei 25%-30%& È EC\$ d, Ād ... Ā • Ē Ā# ? Ē =Lö] Ā - h ¼ óD# ÐFO Ā j#~ aB3 Ā9 = ú &7a/è È 8\$0Ā Ÿ!" Ē Ā , p6Ô Ö@ #ā F \ ñ È 8\$ è T Ā	
	œ j p 0Q qAè#f Ö Ö }8ÿ6,, E-L\$0ª"D] 9 ā(TM CX, ' 0Q éAè#f Ö 300mg/m³	
U •	h • ÖEöFO7a/è)à j8#0ª"D àRì 4 Ā 1 - hFfFJ+u Ā ² - h Lî È5 EĀ"W Ā ² - h œ!' È0û £F >| è - h Ā a k Ā , p6Ô Ö@ Ö9 9 è T È a k"è+ç Ā	
"ó%? 4*6	EöFO Ö/è"ó%?" j è 8# :Np 4 È |F >|LĀ/è È U lL€ f * • Ā 7 Ý&,\$Ā Ā *Āp Ā U 4*6 è ^ d8 5 !" » ? - h ~ È0-# , LbLb Ô = Ām 7- 7 Ý"ó%?\$Ā Ā8*6FJNp È ÐFO™ " Ā çM.(æ"d00Gú Ā\$æ@ Ā '1• \$ T F F • f é x+O, ' WGÿ ĩ"d Ā ² 9 7- È 6%? *"D+X ĀNp jF18#0ª ' ' é F>öAîF2 f ç d' 1 Ā • 6%?"D, ' é 0+8#0ª ' 4 È# ?FJNp Ā%?"D é ~?± Ö ' 4*6 È = Ā ðP¼ > ½+X Ā	
ý œ 45ž > Ø ^	ý œ# ? »N@ Ö öL ý œ È "M'FJNp Ā ý œ è ^ ðN«4ÿE÷ CL)AÝ È U IF¥ , ý œ ?ð0; ĀF /è& /ý Ā ' \$Ā È œ j p U/± h' Ā -XLb(6 » , FJNp3+5 ¼Āi 7 ĀLb!' "D f"ó%? ` œ j p 0ª"D] ĀF- } >"W F r Ö@ Ā X PF1E÷0;] ÈJÖ+& ¼ é Ē ðN« Ö ` ¼D Ö ÈLb!' x+OM%+e Ā |F &E«>ðE« " ÈLb!'JÖ+& úLt & .d • ĀG} 7-(Ā ñ /ý ¼ Gÿ, #, Lb ~ € ú"ó%? Ā U 4*6Āi 7 Ā Ø ^# ? »N@ Ö Ø ^ ¾Ld ù ĀFJNp, ' Ā o ĀF /è& /ý Ā ' \$Ā Ā Ā\$Y = ìCpE÷ 30 Ā Ā >"W F r 1y 6 0 ^ n È 7 ü\$' Ø ĀG÷+XLb(6 » — > ĀFJNpĀi í Ā/±!' -+X C x+O &8á, ' j āi 7 ¼ \$ Ā Ø j Ā 7 9"ó%? Ā U 4*6Āi 7 Ā	

>~ 5.2-3 #ā F Y f "D Ā LNG Ā(© W>~

N@-	W 62 «	C X (© W
LNG , ' 0	4ô @	LNG _ +b" j k?±4ô 6, ' &ó2«\$' 8(TM È !;] [9FJ h ^ X ¾ Y f "D] AGÿ, ' %" Ā l" Ā ^1y ! 4ô 6 Ā
8\W	ö Ö	LNG, ' ö Ö ā ¾ i4ô 6 ĒFJ h X 430 kg/m³ 470 kg/m³ {L\$ È v _ X È ö

CX	<p>å ; Eî 520kg/m³ Äö ÖF _#â f\$Y Ö, ' - È ¡ F ß Ö4Ö j 1.35 kg/m³. Ä</p> <p>\$Y Ö LNG , "è7@ \$Y Ö ã ¼ |4ô 6 È X W"D » È ; FJ h X -166 ` -157 {L\$ Ä"è 7@ \$Y Ö Lç : è"D » È, ' F ß Ö4Ö j 1.25x10⁴ È PaÄ</p>
LNG	<p>LNG œ j 0/ý"è7@ #â f WGÿ, ' Ø ^ ¼5 ' Ø5€] Ä + ... P ,8# Ø5€], ' GyG- J ,8\$</p> <p>0 È#â f : è j"D f ÈF /ý"D f 0 j : è "D Ä |4ô 6 >#â f, '4ô 6 9 £ Ä 08\ ö å ; È</p> <p>: è "D 5 20 Á, " ^ È 80 Á, ' +b" ¼ pGÿ, ' %" Ä | [" ^Gÿ _#â f LNG] [" ^Gÿ, ' "D, ' 20 = Ä f LNG : è & È " ^ ¼ +b" OÆ x p#â f] "D F È ™ %, ' #â f] E³ Q - () 6 € CX</p> <p>(™ *6 Gy, ' & 62 «4ô 6 Î W Ä) ¼ : è "D f È = Aê _\$Y Ö ~ ¼ -113 , '4ß +b" ÈF _\$Y Ö ~ ¼</p> <p>WCX 85 [20 Á " ^, ' +b" È³ G - " ~ \$, ' 0ª DGÿ Ä X 7 ö ' & ; ÈF È : è "D f, ' ö Ö</p> <p>W4Ö _0ª D, ' 0.6 = Ä</p>
LNG, ' \$Ö * (© ±	<p>f LNG n B8# `M' : & (» ² » u\$Ö *) È 0 M J) K&ø"è7@ È f > : è FO) . 6EöFO > ÿ</p> <p>8# 0 Z * È I ÈB I ã ¼ `M', ' WCX ¼ ~ \$0ª D È' ö å Ä f\$Ö * +O & È AGÿ</p> <p>#â f 7- x+O WGÿ" D f ÈF J h ' & ; 1 Z f 0 , #â f 6 x+O 600 Z f 0 , "D f Ä f\$Ö *</p> <p>+O X "d : & È "d], ')#qMž h j&ø È Cã - p#¹ ú93 \$ µ, ' : è FO) . 1 = Ä LNG</p> <p>, ' \$Ö * 93 \$ 6 = Ý ™ ... È - \$ "D f, ' : è kGÿ 1y ¼ "ô % ? x+O , #â 1" D f kGÿ Ä</p>
p& ¼ (6&è	<p>) ¼ Y f "D È 0ª D, ' Á È f Y f "D, ' f 0 # f Ö j 5 Á -15 Á & a > Û E' ö ¼ E</p> <p>(6 Ä</p>
5 é	<p>Y f "D X h\$Y ; = 7-FJE ÷ Ð » #â F È Î Lu : È ö N « 6\$Y Ö L } ~ `4Ö -80 ; } 7- X +</p> <p>? » È ; #â F ÄF ? £ - p 5 é + ... Gy, ' LNG È » ² X T ZL0L {L\$ F „ é ~] È</p> <p>G- 9 7-Lç - p\$Y Ö, ' Q - » È Î Ð È - \$, 8\$ 5 é 3 + 5 F ` . d • Ä ! " È @ † > ö 5ž</p> <p>¼ Ä î 7G- Ä Ä î Ä Ñ 9F2 f j (, ' Ä n „ F"ô » L0 Ä</p>
6+%	<p>X Ø ^ LNG , ' é ~] 7- ^ X T Z0c È, ' 6 r F ... s ÈF _+a ¼ à# • , ' LNG > ö Ö = < , ' ÅG LNG \$' 8 = u 6FP @ , ' Ä X ! ÿ Z ... s µG ö Ö _w 0 , ' È v _ ÅG ... s #â f, ' ö Ö = W ¼ : G ... s #â f, ' ö Ö Ä Lç > È +a ¼ ' GyEÄ</p> <p>• ` é ~] 6 < x+O ... s L\$, ' P' Ä PCX ú #â f > `M', ' : è È ... s {L\$, ' ö Ö 6</p> <p>Ei ` w > ' ! D 04ø\$' j 0 f ÄF /ý 8 , '\$' 80 {j 6+ % È 6 < D > 4ÿ h *) à , ' ö å 0 g È ² î ÅG ... s #â f, ' \$Y Ö ÷ Q Ä - () ¼ é ~ : è " - 0ª L\$, ' » È 6 < @ 0 Ä</p> <p>6+ % 6 d Lç - p : è " - Fh * , ' Î Ð È 9 & F /ý Î Ð FO Ö DGÿ W Ä X 9 È ö å ; È é ~ µG , ' » È Î Ð ` 0 È Ö ; Ö 6 EC\$ "ô » L0, ' 0 _ Ä</p>
)àB'	<p>FO- (f\$Y Ö = < , ' T /ý #â f X 0 È ' & ; Ö @ & È x+O (6&è È Ä f LNG > "d Ö</p> <p>@ & ÈF /ý 0 j FO- (,) àB' a J +O Ä m1Ñ = +O'ó' È v _F /ý) àB' \$</p> <p>9(6&è, ' p 9 ! (© ± Ä</p>
È	<p>" è 7 @ # 7 @ #â f 7 Ø ð ð : è "D (6&è X LNG > ö 5ž : +O, ' 7- W ± ? ÄF _+a ¼ Ø ^ LNG</p> <p>f 7 Ø ð 6, ð é ~ 6 X ~ » ; +O . d • È 6 < D : è "D x+O FO) . , ~ x F65 _+a ¼ LNG _ X</p> <p>: è "D (6 , ' » È é ~ ¼ 1Ñ f f] Ø ^ ¼ EÄF1 ÈF 2 « é ~ ¼ 1Ñ f f § 9 µ X, ' Lb& Ö 7-</p> <p>& è È Ä</p>

0Ä Ÿ	Yf"D_ 0/ý0Ä Ÿ r Ä"WDFJ h •0ª"D f0 ,´ 20.9Á Ä W"D],"W"D [Gÿ ~ ¼ 18 Á & È J ECŞ0Ä Ÿ ÄX0ª"D] [Q #f Ö Yf"D &+a ¾5j"W J x+O ! ó ¼ d ... Ä f6< 0 p äMb)ß³] Ô/ë È l+÷(æ J , #, a Ä
• ç ĭ ä	LNG Ö@ ` ,p6Ô & È FP @ >' T2« l, 'CŞ+á&- T Ä p LNG]%? *, "D f • MŽ h ç È ! D7-8Ş&- T Ä ² äMb ¾F /ý ç"D f] È £ - &L\$,. È=Cã ĭ ýM'G ¼ {G , ,p6Ô È v _ ÈB'-l- 02«76 a, '4ô4÷ ý J ` T ä Ä ê f Z Ô, 'G 6 = qAè Ö@ >õ 9 LNG 6< Z4ÿLÄ/ë, '1ÑFf ¼ é ~ ÈF /ý ± ç, 'H Ž J2È •, p6'6< D ù 0 & 6 J 6 ! Ä>ò Ä
ë T	UGý FK- &L\$ ` äMb X ç, :è"D ¼"D f]7- ECŞ ë T ÄpG +i, 4ÿ h5 * ë T, 'A-j È v 9 & J O?ù = `+i, Ä

9" 9 ä"D f ÖýTQ Ä6'TQ «!Æ Ž ¾ ĭ J+O xN©- È \N©- p -X, ' ĭ É w "Ñ 9" W È v _TQ2Ú] J U * [H₂S ¼ NH₃ _ 9 j%đ W8 £ Ä 9" "D f Ä H₂S ¼ NH₃ %œ X ĭL™ W?ñ5.2-4

>~ 5.2-4 \N©- ĭL™(™CX%œ X ĭL™ W

č ,	=0	ĭL™2« [	(© W
1	.) F "R	9" "D f	!" h õ á ; _ 0/ý C'ó, 'G" W"D f È LC50 Ö618 mg/m³ (WUP h •) Ä f.) F"R#f Ö 10mg/m³ 300mg/m³Ä6.6 198ppmÄ& È *)à-l U W j%đ+÷(æ È0=K- &L\$ Ö@ ECŞ6ê"d6i x f.) F"R#f Ö ù ¾300 760mg/m³ Ä198 502ppmÄ & È E 6ê"d6i Ä _"D1Ñ&¾ ú6ê&¾ Ä d, Ä d ? Ä ! ó Ä ... @ Ä Ä o Lî x f#f Ö •760mg/m³ Ä502ppmÄ & È ê J , *)à U W]" È - hTë,)6<!« Ñ Ä
2	"X"D	9" "D f	h\$Y ; j"D f È 8ç 9 j%đ W !8 , "D £ È C\$æ ¾"d Ä h • LCL 5000 ppm/5MÈ WUP h • LC50: 2000 ppm/4HÄ ?UP h • LC50: 4230 ppm/1HÄ)2È7ì ¼, p6Ô 9.á W j%đ ú7€<° œ+X FP @4ô4÷\$æ@ W •!« ÄQ #f Ö & ECŞ ý 4 W - h œ!' ¼ ó7? œ ? Ä Ö@ 553mg/m³ +O j&ø, ' j%đ+÷(æ , 6@ 1.25 6Jĭ x 3500 7000mg/m³ #f Ö ; 0û £!« Ñ Ä"XFJ h "D f ' ? h •ê f È"X>Ú h •6ê > é CFJE÷6ê# F •>p#â È >>p4Ö<û, -5 8 È .d •F "W ĭ7- ÄF •6ê# µ, "X È AG 6 j ¼"W F.ã p] ¼ È %œ ;>Ú h f8#>p#â È AGÿ, "X Lč "‡#â Ä o#â F - h Ä * f F Ä

5.2.2)ß³ • O- 7B3

ĭ ž ĭL™(™CX 7-, ' ĭ ýFD ' È>.ž)ß³ • O- 7 È5 *)ß³ • O- 7 j } 6 3 . È G>~ >.žB3)B' Ä Ž W Ä-() é } úD /ë1y Ÿ Ä \N©- 1 jAô '93 \$µ • O- 7 õ á>~?ñ>~ 2-4 Ä

>~ 2-4Aô '93 \$ μ • O- 7 õ å>~

2« [	)ß³ • O- 7				
	²+|j] ó 3km93 \$ μ				
ı'	• O- 7 =0	-() é }	D /ë /m	Ž W	ê
1	G4 p/• ç kL'	W	111.05	kL'	105
2	L9 Lõ u	E	102.03	u"A j	856
3	M ŸOÆ ì				

)ß³
0ª"D

	32	W g H •	SE	2153	•´	2076
	33	G4 p 0]	W	2200	- Q	/
	34	Kw]-	ESE	2247	- Q	/
	35	à •	E	2370	•´	631
	36	WC¥´•	SW	2470	•´	581
	37	Eé´	SE	2473	•´	339
	38	)»7 <•	NW	2510	•´	763
	39	G4 p1\ 9 ? -	W	- Q	•´	/
	40	•	NE	2580	•´	521
	41	W ~ ¬•	NW	2650	•´	503
	42	?¬:" ¬•	SW	2660	•´	495
	43	a ~ ´	NE	2653	•´	526
	44	Lõ¨ p	WNW	2740	u"A j	1036
	45	y•	S	2750	•´	536
	46	U€ Ÿ•	E	2780	•´	469
	47	]~•	NW	2800	•´	817
	48	Ñ6 : ì	SW	2810	u"A j	1128
	49	?´	S	2814	•´	633
	50	MJ› p	SW	2930	u"A j	905
	51	?¬)´	SSE	2964	•´	528
	52	L)´	SSE	2975	•´	607
	53	8L p -Lu	SW	3000	u"A j	1627
˘>™d	54	8ÿ G 0 ¢\$P	S	375	˘>™d	/
	55	8ÿ G ¢\$P	N	2350	˘>™d	/

5.3 Aô´ Œ1y4x B 6

5.3.1)ß³ NpL™%Œ ĩ M T

5.3.1.1 įL™(™CX Gÿ > d+|Gÿ" I Ā Q Ā

6 Ā *AîN©- +O x Ā¬+X Ā Ø ^E÷0;]#¹ ú,´ 9" 9 ã Ā C'ó C(6(™CX È ò
 ?ñLt ...B .ž Ê įL™(™CX,´ d+|Gÿ Ā

AÑ1Ç p#¹ ú,´!ÿ/ý įL™(™CX X²+| µ,´ 0 W ^ X kGÿ > | XLt ... B]) Ā
 d+|Gÿ,™ I Q ĀX = <² j,´ < 0/ý(™CX È 9 | X²+| µ,´ 0 W ^ X kGÿAÑ1Ç Ā
) ¼K-EĀ1Ñ4iN©- È 9'— T Z Z ÝL0 Ô {L\$1Ñ!â įL™(™CX 0 W ^ X kGÿAÑ1Ç Ā

f #1 ú 0/ý iL™(™CX & ÈAÑ1ÇB (™CX,´ kGÿ > | d+|Gÿ" | È £ j Q x

?] Ö q1 Èq2 È... Èqn ü ü!ÿ/ý iL™(™CX,´ 0 W ^ X kGÿ È t x

Q1, Q2, ..., Qn ü!ÿ/ý iL™(™CX,´ d+|Gÿ È t Ä

f Q Ø1 & ÈB N©-)ß³ NpL™%œ ï j Ä

f Q 11 & È 6 Q | B 6 j Ö Ä 1 Å 1 0 Q Ø 10 x Ä 2 Å 1 0 Q Ø 100 x Ä 3 Å Q
1 1 0 0 Ä

i ž È *AîN©-)ß³ NpL™Aô ' ° _ , | È (HJ/T169ü 2004)],´ 9" (™CX Ä
C'ó(™CX ú(6&è W(™CX =0 ú d+|Gÿ,´?ð È È 8 \N©- +O x 8ª(© ± ú \Aô '
.ž È,´)ß³ NpL™Aô ' € È) \N©- Gÿ W iL™\$ÄF >|Aö [È?ñ>~ 5.3-1 Ä

>~ 5.3-1 Gÿ W iL™\$ÄAö [>~

... s =0	iL™(™CX	d+|Gÿ t		ÎLuGÿ t		7 #
		+O x j p	C ^ j	+O x >ð5ž j	5€ j	
LNG Ø5€	LNG	1	10		6.075Ä 0 W Å	1 Z 15 m³ ~ 5 é Ø5€ È 0 W ^ ØGÿ j 5d

\N©- LNG Ø5€ é 0 j 15m³ È i ž GB18218-200É iL™ F – ñGÿ W iL™\$Ä
EØAö È È Yf"D,´ d+|Gÿ j 10tÄB ?ñ>~1 Å È \N©- 1 Z 15m³LNG Ø"D5€ Ø"DGÿ
j 6.075tÈ ? ¼?ð È,´L€ | È !" \ 0; Yf"D ^ Ø = Ž ¼ È *AîN©-)ß³ NpL™
Aô ' ° _ , | È?ð È,´Gÿ WNpL™\$Ä Ä

i žAÑ1Ç Q Ù È !" Q Ø1 ÈB N©-)ß³ NpL™%œ ï j Ä

5.3.2 *AîN©-)ß³ NpL™Aô ' œ1y4x B 6

)ß³ NpL™Aô ' œ1y4x B 6 j 04x Ä ¼4x Ä 94x Ä i ž *AîN©- #1 ú,´(™CX
ú 8ª3+5 iL™ W ¼ p X ` ,´)ß³ • O W.ž È)ß³ NpL™%œ ï È 9'—>~ 1 .ž ÈAô
' œ1y4x ÄNpL™%œ ï j ú : ÈF >| 04xAô ' xNpL™%œ ï j ÈF >| ¼4xAô
' xNpL™%œ ï j ÈF >| 94xAô ' xNpL™%œ ï j È 0 ...1° ... 6 Ä Ä

>~5.3-1 Aô ' œ1y4x B 6

)ß³ NpL™%œ ï	Ä +			
Aô ' œ1y4x	0	¼	9	1° ... 6 Äª
ª _(-) ¼B 4öAô ' œ µ é6<@0 È X ýF iL™(™CX Ä)ß³ i ýFD ´ Ä)ß³ i ä > ÄNpL™Lb93 Ú í1y éM'5 * È W,´B\$ > Ä?ñLt ... A Ä				

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* 0;+O xE-L\$], ' Yf"D Ø5€"ðMbFw >& C'ó È ECŞ&&® 6 x+O 0 È, '
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5.5.1 W"DNpL™ 6 Ä

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F D /èM•F &) j JFP @ 0"W F.ã]" , ' ĭ L™ Äž ° ÖFf ÈX&)&@6<FP @, ' ê ^
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ý Èv&)&@ +O & 9 ã"D f) ~ \$ • O&é)ß³ 30ª"DCXGÿ x+O² & W ĭ ý È &
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5.5.2.2 » u Ĩ"d Ā nNpL™ 6 À

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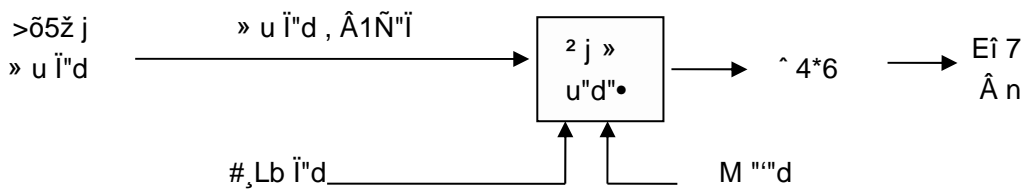
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fLö3+5 F •² j » u"•² ^ È =-\$ Ö F Ä Äž +O » u & È&•& & x+O, ' İ

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Ä1 Ä » u Ĩ"dÄiÄÑ 6 Ä

» u Ĩ"d, ' 9 x é0 ÄÑ1Ç Ö

$$V_{.k} = \ddot{A}V_{.1} + V_{.2} - V_{.3} \dot{A}_{.max} \dot{A}_{.max} + V_{.4} + V_{.5}$$

ÖÄ V_{.1} + V_{.2} - V_{.3} \dot{A}_{.max} _ 7) fLö3+5 93 \$ µ = <5€4ô F>ö5ž 6 [ÄÑ1Ç
V_{.1} + V_{.2} - V_{.3} È ĵ ĵ 0 W Ĩ Ä fLö3+5 93 \$ *N©- 7 ² ZMb Y+O x>ö5ž ĵ Ä

V_{.1} Ö fLö3+5 µ +O » u & 0 Z5€4ô F>ö5ž 0 W(™ È"ð%?Gÿ x5€4ô » u"ð
%?Gÿ 9 0 W Ø5€ éGÿ>Ä5ž » u"ð%?Gÿ 9 0 W ý Ä é ~ éGÿÄÑ xN©- V_{.1}=0m³ Ä

V_{.2} Ö +O » u, '>ö5ž#, Lb"dGÿ x

i ž !?ô È ÈB N©- &)&® ĵ L™ ĵ %o4x È² o6@&›1y4x ĵ ¼4x È =63<• *1•
(™ \DÛ, ' &•&›+X"dGÿ È6< 63<• ç ²+X"d ¼ *1•(™ µ 'ó(™, ' &•&›+X"dGÿ Ä&)&®
!Q 9'— 0!Q63<• È Ô F#, Lb+X"dGÿ ĵ 15L/s È Ô µ#, Lb+X"dGÿ ĵ 10L/s È-p&› &
&•&› &L\$ ĵ 2h È Ĩ#, Lb"d+XGÿ ĵ 180m³ Ä

V_{.3} Ö +O » u &(™ ÈEœ0+8# ! é ~ ú ... sGÿ ÈN©- (™ ÈEœ0+ ÈV_{.3}=0m³ Ä

V_{.4} Ö +O » u & ðN«F •B 3+5 , '+O x Ĩ"dGÿ È !" V_{.4}=0m³

V_{.5} Ö +O » u & 7-F •B fLö3+5 , L}M Gÿ È Ä p 9 ý Ö w XE-L\$ µF
>ĵ È ;M &M "d = J â g(™ È È !" =63<• V5 ÄÄV5=0m³

*N©- +O » u & ÈÄÑ1Ç Ç V_{.k}=180m³ È63<• ` *ÄiN©- , ' 0;©&é È »

u ĩ"d] k?±, "" € 7- 9 Ö COD ĀBOD ĀSS 1y È j µAî 9 1 Z 200m³ »
u"d"•• È7- O é4ā \N©- x+O, ' » u ĩ"d Èž =) FG "d)ß³FP @ » u W"

Ä

Ä2 Å !³ Ú í

ú `K*Ai, '1Ñf f ĀL0L Ai C+XLb\$G1Ñ"ĩ È1Ñ"ĩ :Ai#k Ø?ò Ni- È i *)à
\$G%?L NÈ ú &?ò Ā@ ã È1Ñ"ĩ >""dLö"d Å-(F È !AiAÑ 8*6, ' Ā"d ' Ö È i
¾ ĩ"d Ā8#Lö"d Å Ä

Ä3 ÅG÷ Lb93 Ú í > ÈNpL™ » u"d)ß³NpL™ 6 Ä

N©- jG÷ U I, 'Lb\$G Ú í È!Ai 9 ¼ ' , ' ĩ"d fLö3+5 È²).E³ W, ""ò%?
» u +O > È" (™ ~G FJE÷ ĩ"d fLö3+5 F • » u"d"• È= J *)à"ò%?, '(™
CX ¼# ,Lb"d%[#q, ' õ å È p6< = JFJE÷ ;\$G" N©- j ~ \$ ` ;"d ú O Ä

5, : ÈXG÷ ¶-(Ä, 'Lb93 Ú í > È²NpL™ » u +O È= J)N©- ~ \$, ' ` ;
;"d)ß³ • O- 7 x+O j ý Ä

Ä4 Å 94xLb x Ú í

i ž - æ)ß³ Ô k p)ß [2005]152 ' . & È XF 0!• ¼ ')ß³NpL™ Ä U
Ú íE÷0;] È \N©- 6 Ä ULb93 Ú í 6 j 94xLb x f3+ È £ Ö 04xLb x Ú í 6
" (™ x f XTQ8= j x¼4xLb x Ú í 6" (™ x f X4ø1 ""d 4*61 x94xLb x
Ú í _ XM Ā 4 Ð Q - ĀL0L È.ž » u(æ 1 ; = +O" » & Ä § f² ; Ö

04xLb x Ú í Ö• à²+O xE-L\$ Ā¥ F µE-L\$Aî \$ ` È œ j 04xN'Lb > x f
f3+ ÈLb!" M "d ¼E« Þ » u"òMbFP @, ')ß³" Ä

¼4xLb x Ú í ÖNpL™ » u õ å ; È 6 » u ĩ"dFJ • » u"d"• ÈLb!" (™F
• `>~"d" d f Ä

94xLb x Ú í Ö) «!Æ j Ā 9 j 6Ö² Ā • à² ĀOç É² Ā¥ F j""d úM "d
k Ā Ai5ž 7 Ý Ú í œ j 94xLb x Ú í È Lb! ' » u õ å ; ĩ"d4yM "d ú""d1Ñ4i
F • `>~"d" d f È.ž ~Eé `>~"d f 1 ~ Ä

. 5.9-1 » u Ī"d , Â ú f é3+5 /j ? .

>130< e9eeT3 86a6381dT 88.5 T<22445a1009b>2b7ca28>1e3701c4c

1 Ê O, ' ~ ĵ#, " ¼ VTQ#, " È +õ OL\$?± Y Y#, " x Š -#, " &•UP&•<°=w œ Ä
 +õ!«TQ ¼@ †+õ É õN« Š ã F 4*6 È = Ç + !''')ß³ ÈFP @ ê j+î+õ +O Ä
 90 -+î+õLb"ë Ä - k)+õ!«TQ?± ¾@ † È+õ É ÄF >| ÎP¼ Ô õP¼ È Í ž
 9Ÿ •5 ì+X9ŸLb"ë Ä M O Á9Ÿ > - k Ä ýF >|D DZ"ë+Ç È-\$ `+õ 8 j!' Ä - k i
 ž9Ÿ •B P¼ È d °+X9Ÿ õ à È +õ U' ¼ "8²5 8+O x ÎD% È9ç Ç \j, '+X9Ÿ0;
 ĵ ÄXF99Ÿ & ÈF- } -+X w Â Z Ó -9Ÿ6<FP @ "ë+Ç ¼ }+Û aCU ÈFP @ UGý4Ÿ#~ •
 a Ä

: Š - *.p }+Û œ Äj ¶N'Lb P +õ, ' +O ÈÿTQ }+Û Ä63<•!ý\$Ä Ç f, '
 ^ X Ä -+X"é £ r&•#k9 &?±N'\$Y ÈV l# 4 ` ,p ;, '+Û9 ' @+Û9 6< = C h
 f x ? "± Añ uCãOž"d ÈF9 ù(m &F >| }+Û Ä

(2) +O+Û õ &, '3W ULb f Ú í

7 Ä0û £4ô @Lb+Û ?4ô ě Š *.ž 7Aú Ý È EõFO A 9 £ :4xG L Œ z+Û õ Ä
 8EõFOLÄ/ë+õTQ È) ĵ ãE³Gý, ' P +õ Ä ú & B j 1K1 È*0û 1K1 V È* ê
 ê ^ ¼E-E¶?± U l#, " È< & U l#, "''')ß³ Ä@ L" 1K1, ' ' & _ X 0 > 0
 +õTQ+ú 8 F • à > T Z%œ ? O µ ½ à+õ » *)à È4ŸE÷ ~M' W#, " È Œ :4x k1Ñ
 G L © ö È é @ L" 1K1 Ä

9)+õTQ ú 1K1 j µ, 'TQ Î>| 8*6, '5, 8Lb f Ú í È 5 +Û9 , '3W U Œ
 /ý Ä Ç+O3P+Ç# ÄQ }>p\$5, '(© 2 W+Ç# ÄF -+Ç# Ä Î j fCX ¼+O*6 j7-, 'Eµ
 Û+Ç# 1y Ä

:TQ j)+õTQ Ä 0 WL€ ŒF >| ú &, '5, 8 k"ë È) 7-, '!« Ñ Ä } 0 - õ
 7 Ä9 +O+õ!« È+õ!«TQ h f?± U l 9'— É+œ/í «!Æ"' Lb"ë1Ñ*6 Î# È ¼ ÉGý
 W Ø(™+Û õ Ä U ' » ÈF >| 45ž ÄTQ ² *)à+õ!«TQ & k?± Ä) é# 9 Œ ú & 45ž
 +õ!«TQ h f ÈU/±Lĵ ? R 3 È UBX * ^ F œ jOç È ½ Y+X x \N©- 6+õ!«TQ X ²
 ^ j+X+O.#& #, " >² ^ > ^ 9CtCX ... }F >| 45ž Ä

; *)àGý W+Û õ & õN« U l —>| ÉGý W Ø(™+Û õ Ä U ' » È j-(£?õ È Ä

5.6.4 +Û+õ » uNpL™Lb93 Ú í

7 X+O x j Ä Š 1 "Lb+õGý ¾"ë+õ' éJ, È i Ī •, 'Û Ø"ë+Ç j)à X, ' k
 ØN'Lb Ä²TQ j+î+õ, ' FP¼ >N'# { x+Û9 , # 4 Ä9Ÿ(™N'Lb1y1y ÈG- _ 6+î+õ
 {L F, ' 9 x Î# Ä

8 1 J Ä 6 «!Æ j >+O#k j 6 0 Ä «!Æ jL Aî5ž#, " "• È#, " "• μ Ä h α
1 0.1%Q K`G`Ji\$æ#â1y#, " r Ä
9 U l x fMŽ+O x ê ^F •+O x j È ðN«F • & Ä \$ ' œ = úM» m È4ÿ#,
" "#, " > }7-F • Ä
: - k ðN«Eœ ?ò % È)à F «TQ ðN« A0û - k à?ò % Ä
- kL" ¶) h?ñ+î+ðF >|"ë+Ç F ÈF ðN«4ÿ h)TQ5Ô d °+÷(æF >| fLö Ä6
Ä Ä *6 È ' @ 0 £ Ä 0 , 'B 4öCt É È ½ i ž#q>|+ð -, ' * \(\© ± ë ÄL" TQ
j 0 È ' W+ð ¼ È d °+÷(æ+î+ð È AñTQ5Ô • ç ÈÈ î `N´ O, '+OK` W7- ÄP5 , '
"ë+Ç - k 6 @Lb+Û - k È ½ ... @)à X, ' • - k Ä 9F g È }7- XTQ+ðLb
x œ : Ç0±.d WF ... Ä
; 8*6 3 p Ä ¼ 'Aî í ú U l#, " _N`Lb+î+ð, ' *.p Ä
TQ jF9 p 08?±"r` ĩQ ÈF /è k çFf ÈFJNp ALc È"dCX - È Ä""ë"" é ĩ
, ` é Ä)à F «TQ ° °FJE÷ i´ «TQAî 7 • x f F ŷ A+î+ð Ä²%?2Ú ` - ¼ Ô
?, ` -X x? ... s, ` ~F ~ * xFJNp3+5 ú\$Y xAî 71y1y Ä £ - _ ?TQ j • =
-?öLÄ/ë È ÄLÄ/ë"Ī Ä#, " "• ¼ Ä" Ff, ' *Aî Ä4ÿ h 0 ... h?ð, '#, " È 18ÿ
-, '#, " x ì • ŷ A+î+ð, ' O j J ÈF 0!• óF TQ5Ô • ç Ä
< Ð jOç «1Ñ*6 È N -)ß³ ›+O _N`Lb+î+ð, ' ' & Ä
~ ' £> , ' :U « _ AñTQ5Ô U+O x W7-, 'Gý?± 3P È 8ÿ -, 'Oç «)ß³ 9 Y
¾TQ5Ô+O x W7-, '!" h U Ä0 -0; ; F, '1Ñ*6 TQ5Ô+O x W7-9ç Ç 0 W4ÿ#~ x
, ú Ä- (ý È:U « =8ÿ Ä)ß³ ! Ó Ä1Ñ*6 = ' ÈG-7-L} ~TQ5Ô, ' Ç O 7- È F65 E
CŞTQ5Ô+î+ð ÐGý Ä £ ĩ _ , • ç Ä}+Û7- È , j, 'TQ5Ô X ± ! ! Ó, ')ß³ ; • ,
LÍF` }+î+ð, ' +O Ä F ú &\$ " ' l, ' Z f È) ŷ A+î+ðMŽ hGý?± Ä
=Oç « ê ^!ÿ α Ä8# AF >| 0!Q f l ð È²)à Ó 9 j ã ê ÄTQ, ' P +ð
65 È Ä ú &B3/ë È Lb P Ä
>4ÿ h 1TQ8=, '\$5#1 ÈTQ8=F Ä 1 £ α Ä ç(Ä ""(™ (².F ‡ Ä.# d Ä
Ī 3 • É>»1y) Ä

5.6.5&® ¼(6&è, 'N`Lb

1 Ä È O)Aî 7F >| 1 ~ ð#{ È ð#{ μ é Ä &L\$ Ä ê ^ Ä 9Aà ... ^ Ä 1 ~
ð#{ Ä i žAî 7, ' 1 ~ W Ä ĵ L™ WAî È ð#{NÁ!Q Ä

2 Ä&›\$À,´1Ñ*6

Ä1 Å U/±&›\$ÄF • Ø5€ j È) >&› U l x f È X Ø5€ jL f 20m µ = ö 9
>&› È >&› +O\$Ä j&› \$ Ä f&› j1y Ä

Ä2 Å)Aî 75\$ ð ÈM0F >|5\$ ' : Ō È Ä4ÿ´1~G L .žAŌ Ä öAè ! 9Aà
... X x x F È X ĵL™ j œ J & =7- ¯+X7- x+O Î +&›8á,´H Ž(™ f È Ä+XK
§ È>~M' Ä#²Tô"é Ä

Ä3 Å"-E- Ä ù j1y j ØE- X>ö5ž j µ >|P! ÈN« 1>öLk&› ~ È ö?±Aî 7´1
>öLb&› ÄLb(6>ö5ž Ä

3 Ä X Ø5€Aî 7 :Aî5ž" h u W Ō `>ö5ž È X ĵL™ ý œ & È ý œ ê ^ Ä ¯+X Ç
M%+e œ m ¼ § 9 ,+e W,´ œ JM» È?± 9LbM'>ö5ž È(© [Lb!M' + Ä

4 Ä X>ö5ž j µ,´ p 9F :UAî 7 Ä+e"D>ö5žG- Ä% CãLb(6Lb&›,´?±"r Ä

5 Ä ê ^,´1Ñ*6

Ä1 Å Ð j´1. Aö,´ Ó P È Ð j) 9 £ ê ^,´)AÝ %ö6â ¼63 h Ä

Ä2 Å U l?ð1 f Ō ¼´1~ý œ?ð0; È j F´1~-" ð ¼1Ñ*6 Ä

Ä3 Å Yf"D Ø5€ jAî C6| ê ^F >| - *6 ¼5\$ Ô È U/± ! ê ^F • Ä

Ä4 Å ý œ ê ^F • Yf"D Ø5€ j & È U /±0¯ F4Ô>" = È ĵL™ ý œ & Ä ¯+X
ÇM%+e œ m ¼ § 9 ,+e W,´ œ JM» Ä

6 Ä X Ø5€ j A F & h 10m 4 ÈAî \$? \$ • È !Aî5ž 7/j(| È U/± C6| ê ^
F • È U/± h' ú j V 'ó(™1y Ä

5.6.6 Yf"D"D"ð%? Ä&›&® Ä(6&èNpL™1Ñ*63+5

1 Ä#,Lb3+5

X Yf"D Ø5€ ~ \$ ú 4Lt Ž *1•(™ µG)5ž 0 È Gÿ,´ ØE- ? ¼ { ? ç2¹
&•&› ~ È •&• M OM& O&›&® Ä Î œ - ÄTQ8=1y `G} f 9 ? »&•&› ~ € È •• ?
»&›&® ÈE³ W,´&›&® +X Ø5€ j,´#,Lb C Ä1á ?#,&› C Ä#,LbE-1y0+ Ø#,LbAî
7F >|&•&› Ä ! Ä X 4 Z £K^G } 1>ö#,Lb ŌA->ö5ž Ä

2 Ä k+Ç • Ô

Ø5€ jD /ë œ j p =F 4Aî5ž 9#G-l ~ Ä j j µ ÄF @0û k+Ç • Ô4ô !

G} 7 9-(Ä,´ U •9ÿ ñ Ä9 *)à ê ^Gý T Ā J" õ å & È 6,,3+LtF ,´ k
L' Ä

3 Ā Ä U 4*6 Ú í

Ä1 Ā"ô%? » u Ä U 45ž0; ĵ

7 Œ ê ^Pœ : £L 9 £1ÑD ,´ ~G L0L È9 # £L È ĀĀî# e • Ä

8 £L ĵ jL" L D FJNp3+5 F,´ ĵ FJNpĀî 7 È Ð ĵ ĵ µ,´ & › \$Ā1Ñ*6 È/±

!´ h' ¼ ĵ >& › È0Ū £ 0FJLb& › T >""d 4*63+5 ,´ F FJL0 Ä

9² ĵ ĵ ĵ µ 'ó:è"D#f ŒE³ W È -+X"d:è"- F65 çM. ÚPĵ " Ā h f:è

"D È ŷ A ' @ (6&è:è"D Ā,´ ĵ J È < & ° ê ^+ĵ " ` :Np A F65 xNp A }5ž Ä

: Ä U>| Ø ĀF >| ` "ô%?,´ #â f(™ É>Ū « Ā\$5L" ç ð È ĵ ŷ 'ó Ō#{ ~

ð#{ ÈĀñ > ¼.ž ĵ ĵ ĵ L™ ĵ!' Ä

Ä2 Ā(6&è » u Ä U Ú í

7 0 +O F65(6&è » u È ĀPœ : * & › & @ A- Ō ÈEõFO+ĵ "Mž Ä U ê ^ Ä

8 Œ!' ĵ ĵ,´ ~G +O x#k Ø È £L p 91Ñ4ĩ Ä

9 A Ä U ĵ ó"w Ō » õ,´ » 1 È M!•N'# { 7-) ê ^ Ā1Ñ4ĩ ¼Āî 71yFP @

,´ ĵ ā Ä

5.7

< & Ä f Ê-(Ä, 'NpL™1Ñ*6 Ú í È ÿ ANpL™ » u, ' +O Ä

5.7.2 Ä U • \$4ô @

1 Ä • \$ 7 U ?4ô

Ä1 Ä 7 U ?4ô j '

N¶ , ?4ô+a œ (k4ÿ*6 Äÿ k4ÿ*6 ú í³ œ (G L COCS ê4ô @ ÈCOCS h

œ Ä0±)ß³ » & Ä U • \$N¶ , ?4ô @ ^ ² ; Ö

4ôK⁻ Ö œ (k4ÿ*6

ÿ4ôK⁻ Ö ÿ k4ÿ*6

@ ^ Ö œ (p ŽG L COCS ê ú k?±PØ ø 6 € Ä

Ä2 Ä 7 U j '6|CS

7COCS \ œ (É0±)ß³ » & Ä UN' x Ê, ' f Ê Ä AÖ Ä

84ô * Ä U • \$ C JLO = È !4ô4÷ Î í ¼%D4ó Ä

9 ð -“ ó Š -)ß³ NpL™ » u, 'N'lb Ú í ¼ Ä U • \$, ' 4N© ö 7 œ Ä

: +O » u & È 3 ¼@ L" Ä U • \$ - Ä ' Ä

;4ô4÷ 7 U • \$LO = Î í • \$>| Ø Ä

< A :4x"w Ö ¼ A ûFë ... }FJ Ö » u õ å È ð?± & A 9 £ ... } * • \$B'

"r Ä

=4ô4÷ » uB3 È k5 Ä U • \$ œ4ÿP¼ %oAÝ Ä

Ä3 ÄN¶ , ?4ô ê ^ 6

4ôK⁻ Ö4ô4÷ 7 U ~ œ (,)ß³ NpL™ Ä U • \$ œ Ä

ÿ4ôK⁻ Ö •B34ôK⁻COCS)ß³ NpL™ Ä U • \$, ' § f 7 U œ Ä

N¶ , ?4ô @ ^ Ö

ÿ k4ÿ*6 ÖCOCS ~ ² » u 45ž &+O x3+5 0 ÄœE-, 'B3 Ö œ ÈŽAÖ0±)ß

³ » &1y4x È » u)à jFJAß6,5 ¼) F6,,3+ Ä » uFJ Ö ú » u 45ž œ Ä

!³ œ (p ŽG L ÖCOCS 0; ÒL™ Ä Ò ,')à j 7 U x » u)à j, '- #{ Ä#G

#, œ x

• \$ ê », 'B3G} Ä> _ \$ œ ú ÒL™ Ò • \$(™Ct, ' È Ä œ x&•&› ÄA-

B Ä"ë ¹ › Ä+; " ÄFfD 1Ñ f œ xE-L\$ µ » u : Ö Ä)à j ÒL™ œ Ä

2 Ä • \$LO =, '4ô @

~ œ (46|7-G L ¼ ~ f6| G-CO 9)ß³ NpL™ » u Ä U, 'CS + È 4 • \$ C J
LO = _)ß³ NpL™ » u Ä U • \$, 'PØ ø ËGÿ È! + Ñ k?± _ öCO \ œ (42«Gý Ä©
W » u, ' • \$ ú 45ž Ä

• \$LO = Ä 5 ÖFJ 6,5 LO È"ë¹ ›LO È ÒL™ Ò LO È#,LbLO È(TM Ct È
ÄLO ú+O#k > LÌLO1y Ä

5.7.3 Ä U • \$ LÌ

œ (M0 § 7 Ä U • \$ LÌâ 7 ú ~ € È 5 Lb Ô = Ä#,Lb"d#% Ä&•&› ~ € Ä
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1y È+a œ (¹ ~+O x ^ J È È+O xG COCS Ø 7 Ä 1Ñ ¼5\$ Ô ÄL!" { F È œ
(F ÄG} 7 0 È h?ô ð ~ § ú e%? ö 1 7 &1y È ï ð#{ ú ÄL" » u & -+X Ä

5.7.4 N' x 64x-(Ä ' & ú ý Ä 4*6 é x

1 Ä 04xN' x _ Ø ' & ú ý Ä 4*6 é x

04xN' x j² µ » uN' x È£ +O, ' » u j 4 jL™\$Ä 1ÑFf ÄL0L Ä Ö d"ô
%? È õ pL€ X² j93 \$ µ È) ~Eé ú! ` j"Ñ 9 i ý È ?± _ Ø!"N' x £7- Y
+X \ ... } Ä U • \$ ËGÿ f! » u Ä

2 Ä ¼4xN' x _ Ø ' & ú ý Ä 4*6 é x

¼4xN' x _ p +O, ' » u j 4 jL™\$Ä +O&® È ! i ý `AÑ # ú ~Eé93 \$
µ6| 1y È j!" õN« _ Ø!"N' x È f 110Ä120 U •+eB È !EõFOFJ. ûFë ...
} Ä j1Ñ J Äœ¹ ú ` é o Ì È X _ Ø!"N' x, ' < & _ Ø 04xN' x È = a &
j `)N©- ~Eé u • j u"A Ä² j ê ^1yF >| Ä U+¿ " Ä • \$ È© [_ ;Np A93
\$ µ ²6| Ä ~Eé u"A, ' ,+¿ " ÖE+a² µ • \$?4ô @ ^G} 8 i o Ì Ä#n * p
1yG L 4ô4÷ È ~ \$ 1 J ê ^+¿ " Ä • \$+a² µ • \$?4ô @ ^G} 8 4 1 J ¹ ~Lb93
?4ô4ô4÷ Ä ûFë ... } Ä/n J \$ ÛLO =F •² j & ÈN¶ , ?4ô ÄCS @ C ê6,5 È E
, i z. ¹ ~ Ä)ß # ? »N© Ä \ œ (, ' • \$ C JLO È • _ F ... } » u, ' • \$LO
¼/n J • \$ ËGÿ, 4ô @G 6 È 0 Ö ` • \$ + Ñ È?±0û £4ô4÷ ê ^ È ú &C!Cœ »
u)à j Ä

5.7.5 Ä U • \$ ý Ä0; ¿

Ä1 Ä 0)à65 Ä0û £ A œ (+O x Ý k 4ÿ*6 F k4ÿ*6 ÄLb Ô1 Ä#,LbLO Ö

A- È < & A 9 £E-L\$ ĀG Ō Ō z ÈG÷ 0 7 Ĩ# 7 Ý » u\$À Ā

Ā2 Ā Ÿ k4ÿ*6 F k4ÿ*6 Ō ` ŌA-> È Ā EōFOFJ. E-L\$ ĀG Ō È?±"r >& &@G } ¼ Ĩ È;Eĭ Ā U • \$ 45ž 7 È < & *A- Ō ÈFJ. N¶ , ?4ô @ ^ ú# , LbLO ¼ 4 C J • \$LO =EōFOCI ° » u)à j Ā

Ā3 Ā Ÿ k4ÿ*6 `Eĭ » u)à j > È J < +O » uE-L\$ k + F)à j ê >& &@G } ¼93 \$ > È Ā œ *7- V x f Ā pG F ~G œE-, 'ã È È²N«3W U œE- È œ (+O xG -\$ ŌFJ. 4 Ç } È ! Ō z • \$N¶ , ?4ô 9 £N¶ , È6< >EōFO —>| Ā

Ā4 ĀN¶ , ?4ô @ ^FJ. p XG Ō È 9 C J) EōFO A :4x k1Ñ)ß Ā 1 ~ Ā œ 1 Ā# ,Lb Ā ›+O1y :4x j £ Ō z » u õ à Ā

Ā5 Ā Ā U • ŌLO Ā# ,LbLO ĀLb Ō1 Eĭ ` » u)à j > È ²)à j-p&?±0`Lb& LĀ' = ÈOÆ x?± >)à j j 9 T ê ^ È² 9?± 0 , 'FO Ō 6 T ê ^ Ō • *)à j È UGý65?± m F1 0F kL' Ō • Ā

Ā6 Ā 4E-L\$?± *0û Ō • ?4ô Èÿ Z6| G- Ā - J!“.ž, 'ê - h é# È 0 +O » u *)à T ^OÆ x?± Š8 • Ā • œ Ā

Ā7 Ā Ā U • \$N¶ , ?4ô `Eĭ » u)à j > È i ž » u(œ 1 ú j ã0; Ō Š *-(Ā, ' Ā U ã È È! - 4 Ā U • \$LOû £ 0 ... • \$ Ā² » u™ W & È ĀB"r 2 9 £G L Ā 9 £ ... } _ \$ Ā

5.7.6 ŌA- Ā6,,5 é ?

1 J Ā œ 3 œ (44xG L 6,,5 +eB È! PCd œ 3 ĭ 1 ~ p Āĭ)ß p1yG L 6,,5 +eB È ĭ ¾ ú &6,,5 Ā

5.7.70±)ß³ » & Ō z é ? > µ é

4E-L\$COCS0±)ß³ &L\$, ' M Ō Ā5 Ō ¼ 4*65 ì Ō z Ā0±)ß³ » & +O > È4ÿ+O xG .žAŌ)ß³ » &1y4x > È 10 6Jĭ µ Ō z j1Ñ J È 9'-0±)ß³ » &1y4x _ Ø o ì ú j 6,, Ø)ß³ » &N' x !F@4x : Ō Ā M Ō p)à » & >C\$ 10 6Jĭ µ : Ō x5 Ō X \$5 9 £ * \ õ à >Lĭ & : Ō x 4*65 ì Ō z X » & 4 *6 ¼" >0û £ : Ō Ā Ō z ĀG÷+XF2 f é ? ÈF- }5 f `5Ō GFP @ = Y į ý Ā

M Ō+X+eB -\$ Ō Ō z È k?± µ é 5 Ō)ß³ » &, '2« » Ā +O » & Ā `&é Ā " \$À Ā k?±" (™CX Ā ê ^ ã õ à Ā » &%œ X, ' ĭ ã0; Ō Ā™ " é ? Ā 7- # ú ê ^ Ā93 \$ ĀEœ F é ?C» A1y M!• õ à Ā5 ŌFJE÷5•5 F -M' Ō z Ō X M Ō

,´*.p : Ő z 9 £.ž 7 ž ¼ » & +O,´ ĩ ÆE÷0; ÆF ... õ å úG÷ ,´ Ä U Ú
 í1y * \ õ å Ä4*65 ì Ő zG÷+X -M' Ő z Ö4*65 ì Ő z X M Ő ¼5 Ő,´*.p
 : È Ő z 4*6 » &,´ Ú í ÆE÷0; ¼5 ì È » &%œ X FL\$ Ő ĵ ã Æn J ĵ ý Ä4*6
 >,´F‡+%oL NÈ È ð Ð 4*6,´ 9 £G L ¼ œ µ é È* § 9 £ ĵ ã > • a,´Añ > .
 &1yB 4ö õ å Ä 4G L {L\$,´ Ÿ Ő ' 9'—(£?ð È0; ĵ —>| Ä

5.7.8 » u 4*6 Ú í » u- #{

*N©- Ä x > ~² 7- +O)ß³ NpL™ » u j Yf"D"ôMb E ,´&&® » u È
 » u ; Ä i ž +O,´ = < » u 9J,) W,´ 35ž- #{ Ä
 Ä1 Ä +O)ß³ ³"" » u & È `>~"d)ß³- #{ é x
 - #{ € Ő » u NpL™ +O > Ä)#,Lb1y Ĩ"dF >| 9J,) W,´- #{ È- #{ €
 5 pH Ä
 SSÄCODcr Ä"X"^\ ú.#"é2«1y"" (™ Ä
 - #{ 3&é Ő » u"d"•
 - #{ &L\$ ¼NÁ!Q Ő i ž » u UGý W ã È- #{NÁ!Q È08\ õ å ;!ÿ ? & g 0
 !Q ÄLĵ » u x f Ÿ a ÈF2 f Ÿ A- #{NÁ!Q Ä

>~ 5.7-1 NpL™ Ä U"d)ß³- #{ é x

)ß³?±3P	- #{ }5ž	- #{N©-	- #{NÁ!Q
`>~"d	» u"d"•	pH ÄCOD ÄBOD ÄSSÄ"X"^\ Ä .#"é2«	!ÿ ? & 0!Q ÈLĵ » u x f ÿ a

Ä2 Ä +O)ß³ ³"" » u & È W"D)ß³- #{ é x
 *N©- Ä x > 7- +O)ß³ NpL™ » u j&&®(6&è » u È » u ; Ä i ž +O
 ,´ » u 9J,) W,´ 35ž- #{ Ä
 - #{ € Ő©± € Ä i ž +O » u,´ ÎLu õ å 35ž- #{ È©±"" (™Mž+b
 " k&ó Ä 0"W F.ã Ä"^\ W F(™1y õN« œ j- #{ €F >|- #{ Ä
 - #{ 3&é Ő » u Ĩ&é j] ó ;Np A ¼ x é A w '93 \$ µ!ÿLÄ 500m 3Aî 0
 Z- x&é È ; é A 0F • O&é 3Aî 0 Z- x&é Ä
 - #{ &L\$ ¼NÁ!Q Ő 9'— » u 15 &L\$ ã È- #{ &L\$ Èi ž » u UGý W ã È-
 #{NÁ!Q Ä08\ õ å ;©± €!ÿ 1h g 1 !Q ÈLĵ » u x f Ÿ a ÈF2 f Ÿ A- #{
 NÁ!Q Ä

>~ 5.7-2NpL™ Ä U)ß³ 0a"D)ß³ - #{ é x

)ß³ ?±3P	#{&é =0	- #{&é }	- #{N@-	- #{NÁIQ
)ß³ 0a"D	f &Np A, ' ;Np A	!ÿLÄ 500m 3Aî 0 Z- x&é È ; 3Aî 3 Z	SO ₂ ãNO _x ãNÇ2Ä(™!ÿ ? & 0!Q È 8 "D#f Ö ÄH ₂ S Ä NH ₃	Lç » u x f ÿ a
	f &Np A, ' ;Np A	T x 4 3Aî 0 Z- x &é È ; 3Aî 2 Z		
	LtF u"A&é			

Ä3 Ä Ä U- #{Aî 7

J,) » u Ä U- #{M0?± È œ (G} 7, ' Ä U- #{Aî 7?ñ>~ 5.7-3Ä

>~ 5.7-3 1 J Ä U- #{Aî 7>~

¿'	Aî 7 =0	‡	+XFD
1	"dCX Ä U ð#{1á	1	» u ï"d ð#{
2	"D fG÷ g~	1	"D fG÷ g
3	ð"D1Ñ	9 ¢	Ä U ï"D- #{
4	3[F 6 y y ÖÄÑ	1	6 Ä g ñ

5.7.9 3W U 1 ~+¿ “

+O&)&@(6&è » uM0?±3W U+¿ “ Ô/è6| & È ›G Ä+O xG ÄFP¼ ÔCOCS ê?±4ô4÷

ê ^ >" (™#f Ö ¼ ™ “ ò á È i ž f &Np A Ä NpFO T Ý ™ “, ' é A ¼FO Ö È 4ô4÷ ê ^ mGÿ A » u"ô%?&é :Np A Ô/è Ä 7- 16ñ ` œ (F u"A F² F6| 1~ & È'e¹ ›LO ÄÄ U • ÔLO i ž : ï ï Š -+¿ “5Ô G, ' œ È œ (~Eé ò á ?± ú & A • \$N¶ , ?4ô Õ z Ä

5.7.10 » u Ä U4ø!'

Ä1 Ä)à j Ä U • \$ 7 UG .žAÔ4ø!' & jÄ F » &COCS ... } * Ä È4ÿ)à j Ä U • \$ 7 UG © ö Ä U4ø!' Ä

Ä2 Ä)à ^ Ä U • \$ 7 UG A p Ž 4 C J Ä U • \$LO = ;Eî Ä U4ø!' - Ä

Ä3 Ä Ä U(æ 14ø!' > È)ß³ » & Ä U 7 UG Ä i ž ÎLu ò á ¼ :4x Ä U 7

U j ' 9 £ 7/j È 5 F >|)ß³ - #{ ¼Að' œ È \$8# ! >•• Ú í M05 5 F

>|j!' Ä

Ä4 Ä Ä U(æ 14ø!' > È X+O x ÿ k4ÿ*6 7 U ;4ô @+a+O x Ä¹ ~)ß ¼ +O » u ... } ò Ð, ' » uB3 ?4ô xB3 _ » u +O, ' ï ¼.D0! f ÊLb93 Ú í x

Ô » u)à j ÈM0?±0+ Ø)à j(™ ñ & È Ä f Š * 7Aà ¼ -M'Aà ... È Õ ´ 1Ñ 9 £

Añ(™ x) » uE÷0; JFP @, ' ê ^ T Ñ ¼CR x • a Š flö5 AÑ Ā ,4ā Ā ' @ . & È
jF 0!• 4*6 » u, ' œ ÈCt É È ĵ 9— - œ 9 £?ô È ú & A 9 £G L F >| »
u Ū z Ā

Ä5 Ā Ā U(œ 14ø!' > Ū ' 4*6 - X » u ĵ T Ñ ê ^, ' ' > œ È m 4ô4÷
' =!' h, ' +O x ¼ œ Ā

Ä6 Ā) Ā UN' x X » u +O Ī í, ' ~E÷ 0; ÈAÔ-O0 -, ' œ * k5 È ¼ ' N'
x], ' =Cā ¼5jLŠ È ĵ ú >, ' N' x *0û Ā f È È4ÿP¼ ¼ ¼ ', ' Ī ž Ā

5.7.11 Ā U • \$)AÝAÑ B

Ä1 Ā Ā U • \$ ê ^)AÝ

*Aî ... } Ā È O) Ā U • \$ ê ^ F >| Ā U » u 4*6 ú3W U • \$)AÝ È Ā U •
\$ ê ^, ')AÝ+aN¶ , ?4ô5 0' Ā f È C ê F >| Ā

Ä2 Ā ^ Ā U ý Ā, ')AÝ

+a œ (4ô4÷ Ā U • \$ ê ^ È O) ^ F >| Ā U » u 4*6 ú3W U • \$)AÝ È

Q ^ NpL™Lb93 ?Aö ú8 •7- È Ā

Ä3 Ā %D4ôAÑ B

*Aî ... } N« È OF >|0± » &3W U ý Ā%D • È%D •8# Aÿ z 4ô4÷ 0!Q È+a
œ (Ā U • \$N¶ , ?4ô4ô4÷ Ā

5.8 NpL™ 6 Ā5 Aê

Ä1 Ā *N©- p#1 ú(™CX Y'f"D Ž ¼ É ĵ L™ F - ñGý W ĵ L™\$ÀEØAö È
(GB18218-2018)ô È, ' ĵ L™(™CX È Ø1 È Z ' @Gý W ĵ L™\$À È.ž È *N©- Np
L™Aô '1y4x j1° ... 6 Ā Ā

Ä2 Ā N©- » uNpL™2« » .ž È j Y'f"D Ø 5€"ôMb E & & @ (6&è È 1 J Ā Ð j
hLb93 ?Aö È ÿ ANpL™LÀ Ó Ā

Ä3 Ā • à ² Ā/ýTQ jAî5ž » u"d"• È+X » u(œ 1 ; ~²#Lb Ī"d flö È
.ž » u"d =-\$ Ū Ā •LtF `>~"d f È » u"d4ÿ""d 4*61 4*6 > +X ¼+O x Ā

Ä4 Ā *Aî ... } XAÔ-O:m Ī 4N©NpL™Lb93 Ú í ¼NpL™ » u Ā UN' x, ' õ ā ; È
*N©- NpL™ » u +O, ' ²).E³ ? È *AîN©-)ß³ NpL™ Lb x Āj ¶Lb93 » u ¼
ÿ A » u, ' ĵ Ā È Ā Ð j ĵ L™(™ É1Ñ*6 Ā ¼ ' 1~+O x f Ū Ā3+5 Ā)à 9 0;
^ X, ')ß³ NpL™ È œ5)ß³ NpL™ » u +O Ā f *)à » u & È?±G÷ 3W U, ' 0; Ā

) Ú í È² 9 ò?± È?±G÷ /n J Ä U Ú í È! i ž î & ò å ¼ » u/ý2«.ž È è5Ö

+ž "93 \$ È x f » u ¼ ý A))ß³ FP @, ' j ä Ä

5.9)ß³ NpL™ Aô '8 >~

>~ 5.9-1 *AîN©-)ß³ NpL™ Aô '8 >~

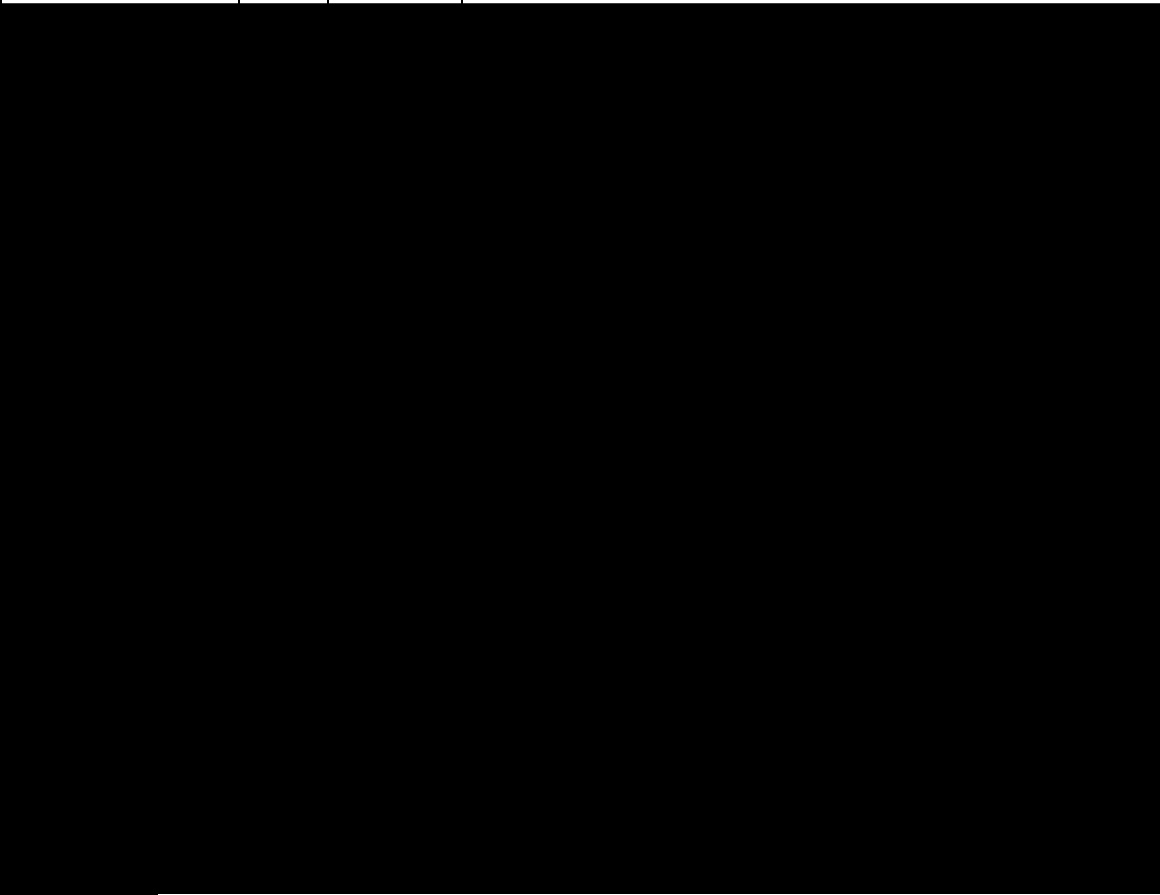
œ µ é		¼ @ ò å				
Np L™ B3)ß³ • O W	iL™(™CX ^ X kgÿ /t	=0				
		W"D	500m93 \$ µ è	è	5km93 \$ µ è	è
	`>"d	!ÿ œGü1Ñ!ä ~Eø200m93 \$ µ è		Ä 0 W Å	è	
		`;"d	5"D Vlb" W7-	D1'	D2'	D3'
		QI	QØ1 O	1 QØ10'	10 QØ100'	QÚ100'
(™CX ú 8³+5 jL™ W	MI	M1'	M2'	M3'	M4'	
	PI	P1'	P2'	P3'	P4'	
	W"D	E1'	E2'	E3'		
)ß³ • O0; Ö	`>"d	E1'	E2'	E3'		
	`;"d	E1'	E2'	E3'		
)ß³ NpL™œCE İ	=+'	='	<'	;'	I5	
Aô '1y4x	04x'		¼4x'	94x'	1° ... 6 Å 5	
Np L™ Aö [	(™CX jL™ W	9" 9 ä '		C'ó C(6 5	
	)ß³ NpL™ 2« »	"ò%?'		&)&@ Ä(6&è E d+O!Q+O" (™ Ä n 5	
	i ýFD'	W"D5		`>"d 5	`;"d'	
» u ò '6 Å	\$Ä jAi È é#	AÑ1Ç#'	4ÿP¼ `1Ç#'	! `1Ç#'		
Np L™ N' #{ > Aö ,	W"D	N#{ Q »	SLAB	AFTOX	!'	
		N#{5 ì	W"D" W4ø&é#f Ö 0 W j ý93 \$ m			
	W"D" W4ø&é#f Ö 0 W j ý93 \$ m					
	`>"d	0F)ß³ • O- 7		È `Ei &L\$ h		
`;"d			;\$h² jEé+| `Ei &L\$ d			
	0F)ß³ • O- 7		È `Ei &L\$ ____d			

Gý&éNpL™Lb93 í	Ú A1 Ā *0û » u ĩ"d 94xLb x f3+ Ā 2 Ā Ð j+O x1Ñ*6
Aô '5 Aê > *Ap	*Aî ... } XAÔ-O:m Ā 4N©NpL™Lb93 Ú í ¼NpL™ » u Ā UN' x, ' õ ā ; È *N©- NpL™ » u +O, ' ²)·E³ ? È *AîN©-)ß³ NpL™ Lb x Ā
# Ő“ ” j .F9N© È “” j › ÉN© Ā	

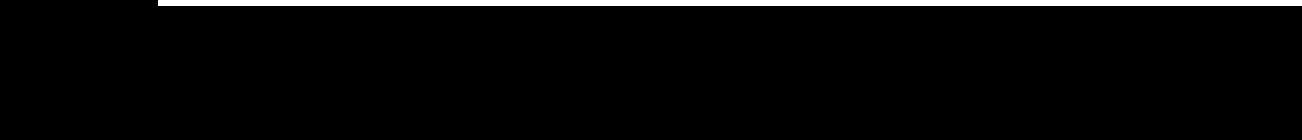
6

~

11.1-1



1



	1 2 3	

6.2

6.2.1

6.2-1

356.2m ³ /a	COD	1000mg/L	0.36t/a	0
	BOD ₅	750mg/L	0.27t/a	0
	SS	900mg/L	0.32t/a	0

6.2.2

6.2-2

16800m ³ /a	COD	1000mg/L	16.80t/a	0
	BOD ₅	750mg/L	12.60t/a	0
	SS	900mg/L	15.12t/a	0
	NH ₃ -N	50mg/L	0.84t/a	0
24336m ³ /a	COD	350mg/L	8.52t/a	0
	BOD ₅	200mg/L	4.87t/a	0
	SS	200mg/L	4.87t/a	0
	NH ₃ -N	25mg/L	0.61t/a	0

20

200m³

40

2

200m³

6.2.3

6.2.4

6.2.5

6.2.6

6.3

0.03t/a

DB37/1996-2011 3

6.3.4 3

6.4.3

1

2

3

4

6.4.4

6.4.4

6.4.4

6.5

1

2

GB12348-2008 2

62.4

6.6

“ ”

6.7

“ ”

7.2-1

6.8

1

2

“ ”

“ ”

6.9

11.6-1

6.6-1

		EM	
			GB14554-93 1 2
		EM	
			DB37/2376-2013 2

		=	20mg/m ³ GB16297-1996 2 3.5kg/h
			2018 224 SO ₂ 50 mg/m ³ NO _x 50 mg/m ³ 10 mg/m ³
	1 2 3		1m (GB3096-2008) 2

7

7.1

149394 122917
2138 24339 79536
35751

7.1-1

7.1-1

1				
1.1		/	40	
1.2			5000	
1.3			94	
1.4			292	
1.5			8000	
1.6			11	
1.7			153189	
1.8			110000	
1.9			4516	
2			149394	
2.1			122917	
2.2			2138	
2.3			81331	
2.4			24339	
3				
3.1			234621.00	
3.2			85760.00	
3.3			6218.00	
3.4			73389.00	
3.5			1999.00	
4				
4.1		kwh	12581.89	
4.2			219.54	
4.3		m ³	1278.47	

4.4			590.5	
4.5			2.5	
5			2105.5	
6			2010	
7			185266	
8			32071	
9			147224	
10		%	22.17%	
		%	22.00%	
11			6.66	
			6.68	
12			83681	
		ic=12%	82292	
13		%	13.68%	
14		%	18.77%	
15		%	31.81%	

7.1-1

185266

32071

293

31778

22%

82292

(Ic=12%)

6.68

7.2

7.2.1

7.2-1

7.2-1

		()	%
1		256.8	12.4
		200	16.45
2		320	32.90
		180	13.16

3			100	6.75
4			82.5	5.40
5			125	13.50
			1264.3	100
()			149394	
%			0.77	

1264.3

0.77%

“ ”

7.2.2

7.3

1

3

2010

4

7.4

8

8.1

1

2

3

4

8.1.1

2

8.2

8.2.1

1

1

2

3

4

5

6

7

8.2.2

HJ819-2017

(HJ2.2-2018)

8.2-1

8.2-1

		SO ₂ NO _x
		SO ₂ NO _x

		3	SO ₂ NO _x
		1	SO ₂ NO _x
			DB37/2376-2013 GB16297-1996 2 7
		DB37/2801.7—2019 1	
		pH COD BOD ₅ SS	
			1
			COD 2000mg/L SS 500mg/L
		NH ₃ -N 100mg/L	
		pH	
			1

1

8.2.3

8.2-2

8.2-3

8.2-2

1		/				
2			SO ₂	NO _x		(GB3095-2012)

2.2-3

1				15-20m		Φ160mm 1.5m() 2.0m	pH	1

8.2.4

8.2.5

1 2

8.2-4

8.2-4

6			1
7			2
8			3
9			1
10			1
11			1
12			

8.2.6

1

2

3

8.3 “ ”

8.3.1

GB16297-1996

8.3.2

8.3.3

8.3.4

GB18599-2001

GB18597-2001

8.3.5

1

1

GB15562.1-1995

2

GB15562.2-1995

2

1

2m

2

3

1

SO₂ NO_x COD NH₃-N

2

4

8.4-1 2

8.4-1

8.4-2

					/
					

8.4

8.4.1

8.4.2

8.4-1.

8.4-1

“ ”

/

EM

					/	
					20mg/m ³ GB16297-1996	2 3.5kg/h
			pH COD BOD ₅ SS		/	
			pH COD BOD ₅ SS		/	
			pH COD BOD ₅ SS	50m ³	COD 2000mg/L SS 500mg/L NH ₃ -N 100mg/L	
			pH COD BOD ₅ SS			
			pH COD BOD ₅ SS			
			pH COD BOD ₅ SS			
			pH COD BOD ₅ SS			
			pH COD BOD ₅ SS			
			pH COD BOD ₅ SS			
			pH COD BOD ₅ SS			
			pH COD BOD ₅ SS			
			pH COD BOD ₅ SS			

					/	
	1000m ³					
					SO ₂ NO _x	

8.4-2 “ ”

			2	3		
			()			

			2	3
				()
			2	3
				()
			H ₂ S	NH ₃
			2	4
				()
			H ₂ S	NH ₃
			2	4
				()
			2	4
				()

			H ₂ S NH ₃
			2 4
		()	
			H ₂ S NH ₃
	2 4		
		2 4	
			pH COD BOD ₅ SS
2 4			
		pH COD BOD ₅ SS	
		2 4	

			pH	COD	BOD ₅	SS
			2		4	
			pH	COD	BOD ₅	SS
			2		4	
			LeqdB(A)			
			1m			
			2		2	
			GB3096-2008			
					75%	

9

9.1

(2013)

					5	
			13			30
					32	
					21	
	2011		2013		“	”
“	”	32	“	15	1	15
		1000				”
		16				

表 6A

2018-2035

2004 199

2004 [14-5-017]

9.2.1.2

“ ”

“ ”

		10	39		10	1
25	1		1		1	

2006-2020

2019 475 ()

13 2006-2020

9.2.2

9.2.3

9.2-1

9.2-1

	15 5 m ³ /d		1 50m 2 500m	2.4km

m³ 2278

2km

Lö { @ , P

TQ j L † é A
1 ÷ 4 k ñ { @ , P

9.3

9.3.1

()

500 ()

()

500 ()

1500

()

3000

()

500m

500m

1500m

3000m

9.3.2

9.3.3

HJ/T81-2001

HJ/T81-2001

“

500m”

500m

9.3.4

2010 7

500

1000

200

500

3000

500

500

1000

3000

2010 7

9.3.5

2017 2

2017 2

9.3-1

9.3-1

2017 2

	1. 324 254	333	

--	--	--	--

9.3.6

9.3-2

9.3-2

4			
5	5.1 ; HJ/T338-2007		
	5.2		
	5.3 ;		
	5.4		

	5.5		

9.3-2

9.4

9.4.1 [2016]150

[2016]150

9.4-1

9.4-1

[2016]150

	[2016]150		
		2016-2020	
“ ”		500m 100m	

	[2016]150		
		50m	
	”	“	
	“ ”		
“ ”			
	“ ”		

	[2016]150		
	“ ”		
	“ ” 2016 12 31 2017 1 “ ” “ ” “ ”	“ ”	
	“ ”		
”			
	“ ”		

[2016]150

9.4.2 [2018]17

2013-2020

2018-2020

[2018]17

9.4-2

9.4-2

[2018]17

	[2018]17		
	<p>7</p> <p>7</p> <p>“ ”</p>		
	<p>“ ”</p> <p>“ ” “ ”</p>	<p>“</p> <p>”</p>	
	<p>“ ”</p> <p>” “ ”</p> <p>“ ”</p> <p>“ ” “ ”</p>	<p>“</p> <p>“</p> <p>”</p>	
	<p>7</p> <p>7</p>		
	<p>10 /</p> <p>35 /</p> <p>7</p> <p>35 /</p> <p>7 30</p> <p>15</p> <p>65 /</p>	<p>2020</p>	

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9.4.3 [2018]31

[2018]31

9.4-3

9.4-3

[2018]31

	[2018]31		
		500	
		500m	

	" "		

9.4.4 [2016]141

[2016]141 9.4-4

9.4-4 [2016]141

	2016 141		
	()		
	2006 11) () ()		
) (

--	--	--	--

[2016]141

9.4.5 [2012]98

[2012]98

9.4-5

9.4-5 [2012]98

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9.4.6 [2012]77

2012 7 3

[2012]77

9.4-6

9.4-6 [2012]77

	[2012]77		
		2006 28	
“ ”	GB50483		/

9.4.7 [2012]130

2012 10 29

<

“ ” >

[2012]130

9.4-7

		150 /		
			4‰	
		90% /		
			80%	
		/		35
		50%		

9.4.8 [2015]31

< >

9.4-8

9.4-8 [2015]31

	[2015]31		
	()		
	“ ” 2016		

	2017		
	“ ”		
	“ ”		

9.4.9 [2018]16

[2018]16

9.4-9

9.4-9 [2018]16

	[2018]16		
	2017		
	2018 6	2017 61	

	“ ”	COD NH ₃ -N	
	2017 84	48	COD NH ₃ -N

9.4.10 [2017]48

[2017]48

9.4-10

9.4-10

[2017]48

	“ ” “ ”	EM	
[2017]48	“ ”		

	“	”	
	”	“	

9.4.11

643

9.4-11

9.4-11

	“	”

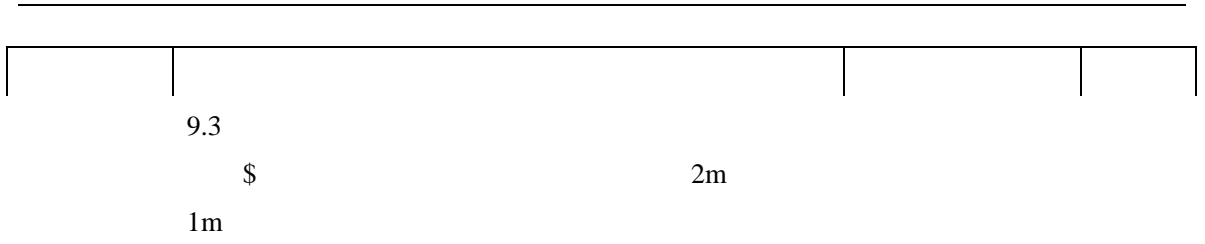
“ ”		
3.		
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	EM	

1 V 8 P > Y ïb9 ; - N 1 â™à!, }% 'ËD ð E % }E ÷0
 +X p XÀ ãm P

	3.1.1 3.1.2 3.1.3 3.1.4 3.2	3.1 3.1 500m	
4	4.1 4.2 4.3		
6	6.1 6.2 6.3 6.4		
9	9.1 9.2	\$	



	30 d		
	7.5.1		
	7.5.2		
	6		

	HJ/T 81—2001 9		
	15	15m	

9.4-13

HJ497-2009

9.4.15

[2016]144

9.4-15

9.4-15

	[2016]144		
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	5000 5000		
		2020	
		-	

9.4-14

[2016]144

9.4.16

9.4-16

9.4-16

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	() () () ()		
	() () ()		
	() 500 () () 500 () 1500 () 3000 ()	500m 500m 1500m 3000m	
	()		
	()	2010 7	
	()		
		EM	

		15m	
	() ()	()	
	()		

552B051BB0

	2 ()		
	()		

9.4.18 [2016]32

[2016]32 9.4-18

9.4-18 [2016]32

	[2016]32		
()			
()			

9.5

1 GB3095-2012
HJ2.2-2018 D D. 1

2 GB3838-2002

3 GB/T 14848-2017

4 GB3096-2008 2

5

GB15618-2018

() (GB36600-2018)

9.6

9.6.1

20mg/m³ DB37/2376-2013 2
2 3.5kg/h GB16297-1996
GB14554-93 1 2
DB37/2376-2013 2 20mg/m³
3.5kg/h GB16297-1996 2
2018-2019
[2018]100
2018 224 SO₂ 50 mg/m³ NO_x 50 mg/m³
10 mg/m³

9.6.2

10

25

50m³

9.6.3

9.6.4

GB12348-2008 2

9.6.5

1000m

9.6.6

1

500m

2

2.4km

0.7km

1.5km

3

643

[2010]151

232

[2017]48

[2016]32

4

500m

500m

100m

50m

100m

9.7

10

10.1

10.1.1

				13	38	
	11		1	1		9
8	5	16		4	97.76	
	1		1.27		1.06	
35		20		10	40	25
7896				2		16.38
	133924.71			1377		

10.1.2

10.1.2.1

(2013) “ ” “ ”
5 “ ” 13 “ ”
” 30 “ ”
” 32 “ ”
“ ” 36 “ ”

10.1.2.2

2018-2035

1

1065.73

2

16

126

2

112.48

2018-2035

35

2018-2035

2004

199

2004

[14-5-017]

10.1.2.3

10

39

10

1

25

1

1

1

2006-2020

2019

475 (

)

13

2006-2020

10.1.5

10.1.5.1

TSP

“ ”

2017

SO₂

NO₂

CO

O₃

GB3095-2012

PM_{2.5} PM₁₀

O₃

GB3095-2012

10.1.5.2

BOD₅

GB3838-2002

10.1.5.3

3

0.496 0.311

(GB/T14848-2017)III

(GB/T 14848-2017)

III

10.1.5.4

GB3096-2008 2

10.1.5.5

()

(GB36600-2018)

10.1.6

10.1.6.1

				DB37/2376-2013	2
		20mg/m ³			
GB16297-1996	2		3.5kg/h		
GB14554-93	1	2			
				DB37/2376-2013	2
		20mg/m ³			
GB16297-1996	2		3.5kg/h		
					2018-2019
				[2018]100	
					2018
224		SO ₂ 50 mg/m ³	NO _x 50 mg/m ³	10 mg/m ³	

10.1.6.2

10

25

50m³

10.1.6.3

10.1.6.4

GB12348-2008 2

10.1.6.5

10.1.12

10.1.13

15m

CODcr NH₃-N

SO₂ NO_x

10.1.14

06 17 2019 06 03 2019 4
06 17 2019 06 27 2019
7 10 2019 2019
6 5 2019 6 9
2019 3 25

10.1.15

10.2

“ ”

10.2-1

10.3

1

2

3

4

5

6

10.2-1

		EM	
			GB14554-93 1 2
		EM	
			DB37/2376-2013 2

		=	20mg/m ³ GB16297-1996 2 3.5kg/h
			2018 224 SO ₂ 50 mg/m ³ NO _x 50 mg/m ³ 10 mg/m ³
	1 2 3		1m (GB3096-2008) 2

		10-10cm/s	1.0×
	1		
	2	1.0×10 ⁻⁷ cm/s	1.0×10 ⁻¹⁰ cm/s
	3		
	4		
	5		
	6		
	7		
	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		