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	≈	ḥ	ṭ
4.5	ḥ		162
5	≈		164
5.1	ḥ		164
5.2			167
5.3			168
5.4	ḥ		169
5.5			170
5.6			171
6			173
6.1			173
6.2			176
6.3			180
7	ḥ		185
7.1			185
7.2			185
8			186
8.1			186
8.2			189
8.3			190
8.4			192
8.5			192
9			193
9.1			193
9.2			193
9.3			193
9.4			194
9.5	ḥ		194
9.6			197

		2021		1	5		
						1000	
U	1					182.0	
204.0m		97.0		4.0		1	4.4
						3.6-12.5m	
15.2%							
5		182.0m		≈	≈	35m	16m
						U	
2020		8	3				
		y					
194.2m							
≈			غ				
		≈			130		U
14	U	6	U				
						σ g	
		≈					
		≈			707.2~707.3km		
		1000 U		1000 U		3000 U	
1		75m×20m×3.0m×1.2m		×	×		
×	٧٧			55.0m × 18.0m × 1.5m			
				+	+		

2

$$\begin{array}{ccccccc}
 & & & & \alpha & & \beta \quad \rho \\
 \hline
 & & + & & + & & +
 \end{array}$$

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 $\ddot{z}$

	π	$\tilde{\sigma}$	ρ
2	χ	$\tilde{\sigma}$	

2

3 p

A large, bold black number '20' is the central focus. Overlaid on and around it are several mathematical symbols and numbers: a less-than sign '<' to the left of the '2'; a tilde '~' above the '2'; a fraction '2/134' below the '2'; the year '2017' below the '2'; a tilde '~' above the '0'; a fraction '2/7' below the '0'; the year '2010' to the left of the '0'; and the number '7' to the right of the '0'. A horizontal line passes through the middle of the digits.

24		
	[2016]11≈	
25		
	2018 146≈	
26		
2019 40≈		
27		3
	2019 2≈	
28		
2017 9≈		
29		

α

β ρ

β

2 3

A

TSP

TSP PM₁₀

3

COD BOD₅ NH₃-N SS

3

		π	δ	ρ	
		1	200		
3					

α		β		ρ	
	λ	100	15m	1.5	1.0

GB8978-1996

U

GB12348-2008

4a

2

1.6-8

1.6-8	dB(A)	
2	60	50
4a	70	55

4

GB18599-2020

GB18599-2001

157

24

GB18597-2001

1.7

1.7.1

1

HJ2.2-2018

A

AERSCREEN

1.7-1

1.7-1		
	/	100
/		

站 名		备 注
/		41.3
/		-2.3
测 点		测 点
	/m	90
测 点		测 点

AERSCREEN1.7-2

1.7-2

		P_{max} %	m	D10% m
	TSP	3.28	10	0
	TSP	0.42	10	0

1.7-7 P_{max} 3.28% P_{max} 10%
站 名HJ2.2-2018

2

[2012]4^号

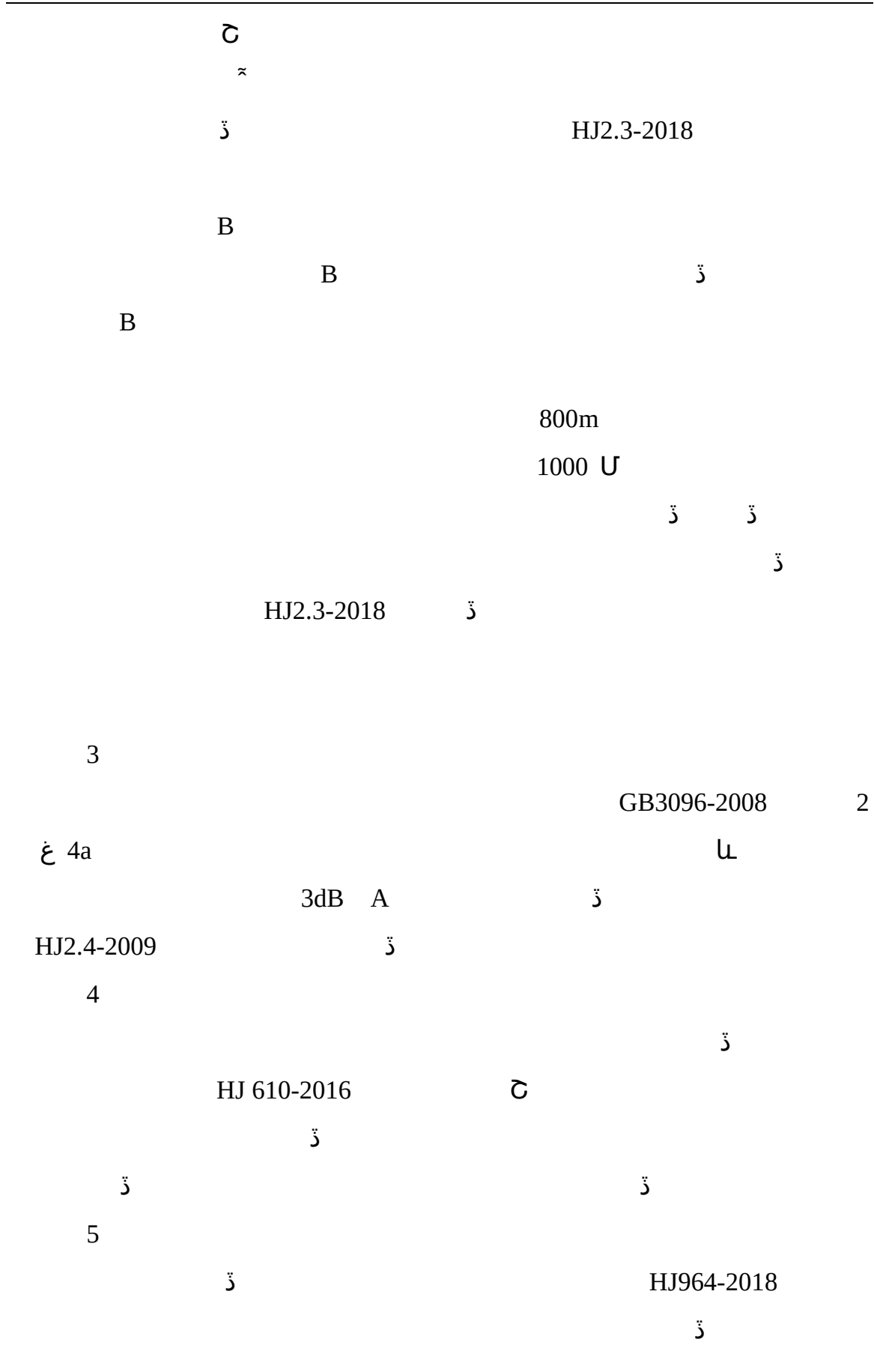
GB 11607-89(GB3838-2002)

15

10 O 2

2

GB8978-1996U
U



ζ

ذ

6

U

100m

 2000m^2 1000m^2

16

 $\ddot{z}$

HJ19-2011

 $\dot{z}$

1.7-3

3

3			
	2	2 km2-20 km ² 50 km-100 km	2 km

7

1000~3000DWT

60 U

²HJ 169-2018 ²²

غ

 Q^2

1

t

α
 β
 ρ

α
 O

m

1.9-3

2	O												
					□ /			□ /					
1		106.4166	29.3466	177	□	2.4km	12m	□	2.3km	15m		II	

1.9.5

19-4

1.9-4

--	--	--

3	1998	11		
4	1999	6		
5	2006			
6	2018			
7	2019	12		
8	2021	1		

2.1.1

2000m²

1000m²

100m

1 1000 U

90 t

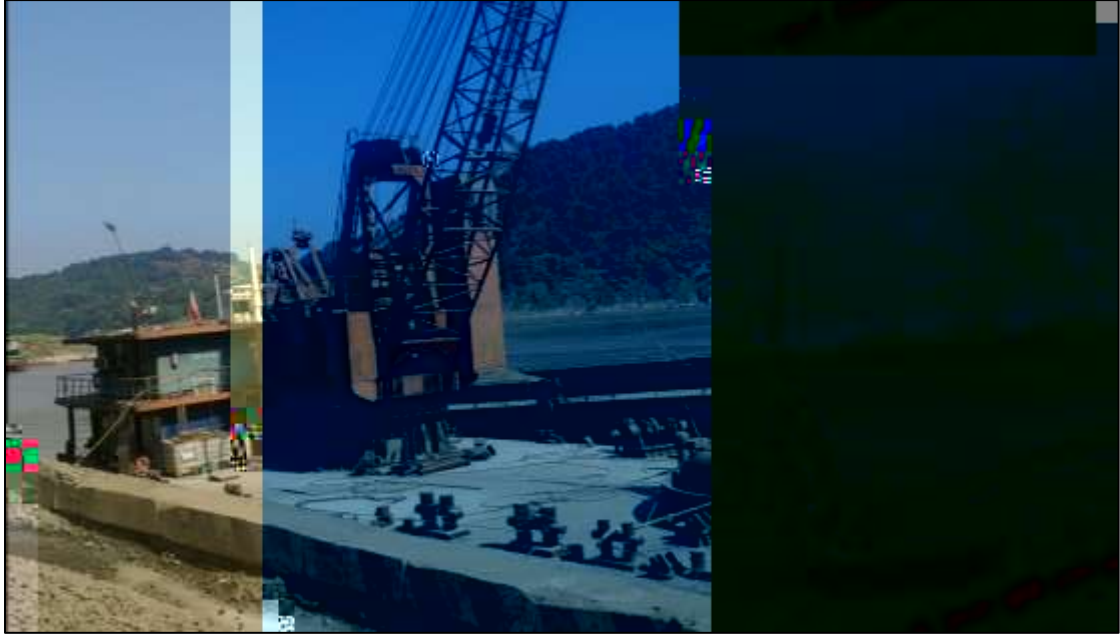
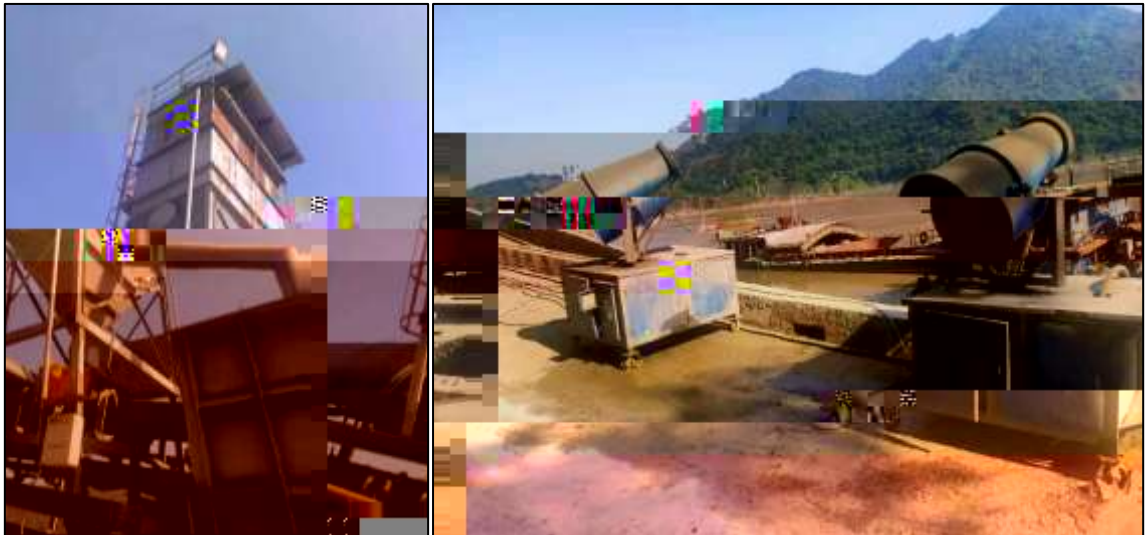
2.1-2 2.1-1

2.1-2

	O		
			1 1000 U 55.0m × 18.0m × 1.5m × ×
			182.0 204.0m 97.0 4.0 1 4.4 3.6-12.5m 15.2%
			3 4 12 2.5 × 2.5 × 2.5m × ×
			غ 709.3~709.9km
			غ > U U غ 2 U GB8978-1996 U
			غ
			U
			غ S106

		1
		γ
		ξ U
		κ U
		U U U
		U σ U
		2 3 ^κ





2.1-1

		m			
				2.6	
	1000 U	67	11	2.6	-16

	t/a	t/a	t/a
	63	63	0
	15	15	0
	12	12	0
90	90	90	0

2.1-5					
~	O	~			
1		55.0m×18.0m×1.5m		1	
2		25t-25m	~	2	
3		TB50	~	1	
4	BC01	B=1200mm V=1.6m/s Q=1000t/h		17	
5	BC02			37	
6	BC03			35	
7	BC04			80	
8		4 × 5m		1	

$$Q = 0.0523 \times 1.3 \times 2.01 \times -1.4 \times$$

Q kg

H m 1m

U 1.6m/s

W	8%
---	----

M	t/h	187.5t/h
---	-----	----------

4.72t/a

4.72t/a

1

2.7t/a

 $2^{\approx}$ $1^{\approx}$

99%

U

0.027 t/a 0.0031

kg/h

$$\tau \quad \text{NO}_2 \quad \text{CO}$$
 $\approx$

غ

90 t/a

 $20t/$

23

(30km/h)

20km/h

2.1-7

2.1-7

20km/h

表 2.1-8				
污染物名称	CO	NO _x	SO ₂	HC
排放速率 (g/s)	123.01	6.538	1.47	22.989

0.2km

2.1-8

2.1-8

污染物名称	CO	NO _x	SO ₂	HC
排放速率 (g/s)	123.01	6.538	1.47	22.989
排放速率 (kg/d)	0.566	0.030	0.006	0.106
排放速率 (t/a)	0.113			

		站 名		站 址		站 址	
1.0t/d	0.02	t/a	0.85t/d	0.017	t/a	U	
		GB8978-1996		U	COD	BOD ₅	
NH ₃ -N		SS	0.017/a	0.0051t/a	0.0026t/a	0.0034t/a	
0.0119t/a							
		JTS 149-2018			5L/m ²		
		2000m ²		U			
521.42m ³ /a	1.6m ³ /d	ρ		20%			
401.14m ³ /a	1.28m ³ /d				U		
		□			SS		
1000	3000mg/L	SS		2000mg/L		0.80t/a	
		SS	95%	SS	0.04t/a		
				□		1.36	
m ³ /h		24h/d			32.64m ³ /d		
→		U					
		站 址		站 址		站 址	
		V		H		F	
V		m ³					
		~	0.1	0.2	0.15		
H			m				
F		m ²					
		2000m ²				206.14m ³ /a	
站 址	0.56m ³ /d	SS		0.10t/a		0.005t/a	

U

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(JTT

879-2013)

151.2t

8

U

U

 $\approx$

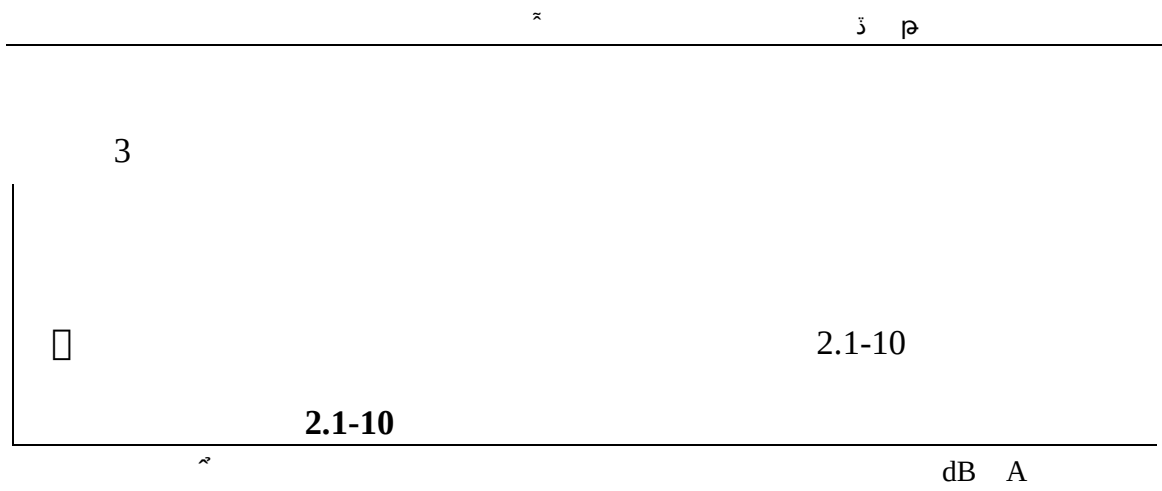
2

54t

$$= \left(\quad + \quad + \quad \right)$$

T_i_____

t/a



3.0t/a

74

2.1-11

2.1-11

2

3 2

≈

3 0

		CO	/	0.113 t/a	/	/	0.113 t/a	0
		NO _x	/	0.006 t/a		/	0.006 t/a	0
		SO ₂	/	0.001 t/a		/	0.001 t/a	0
		HC	/	0.021 t/a		/	0.021 t/a	0

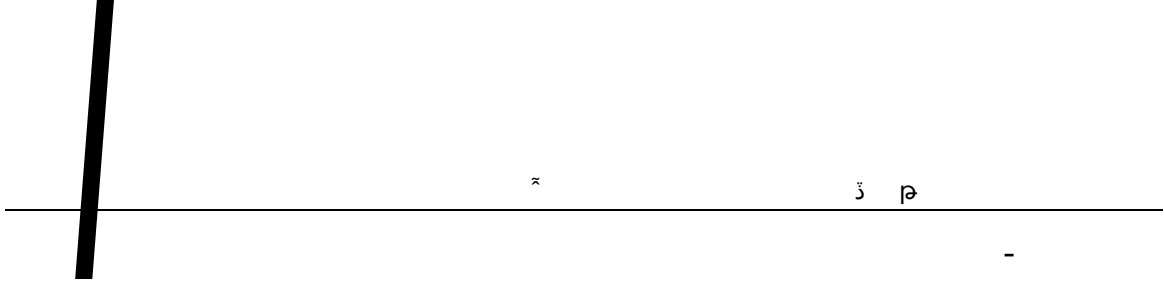
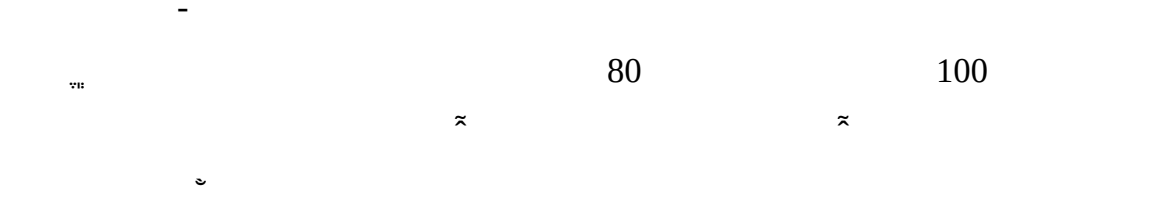
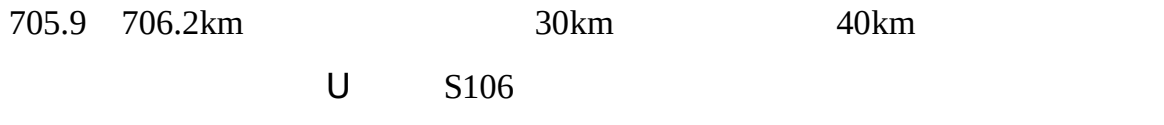
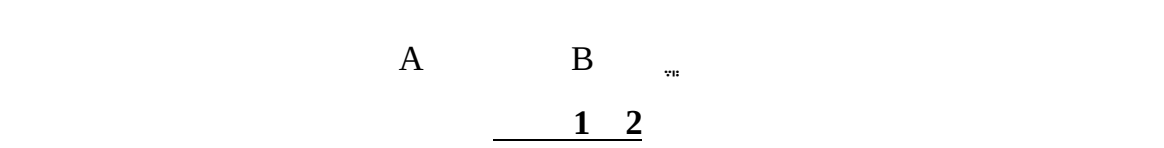
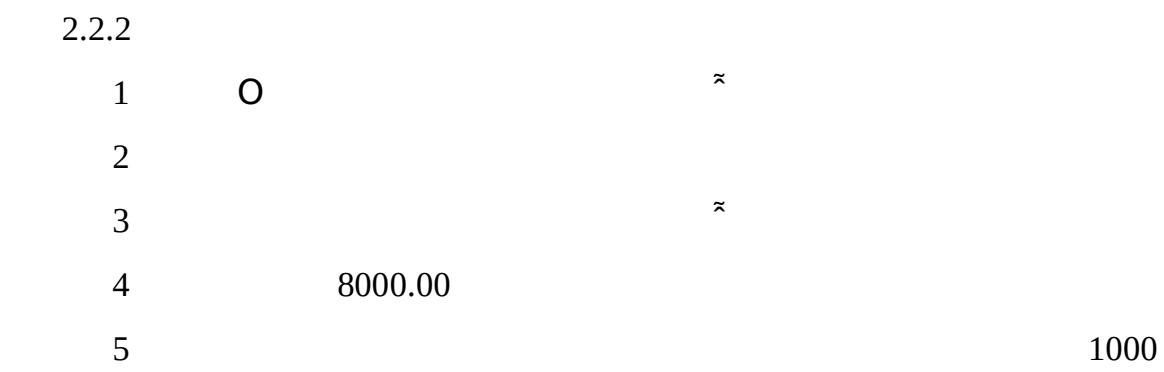
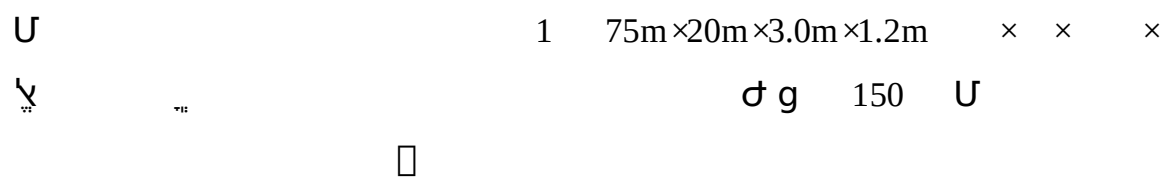
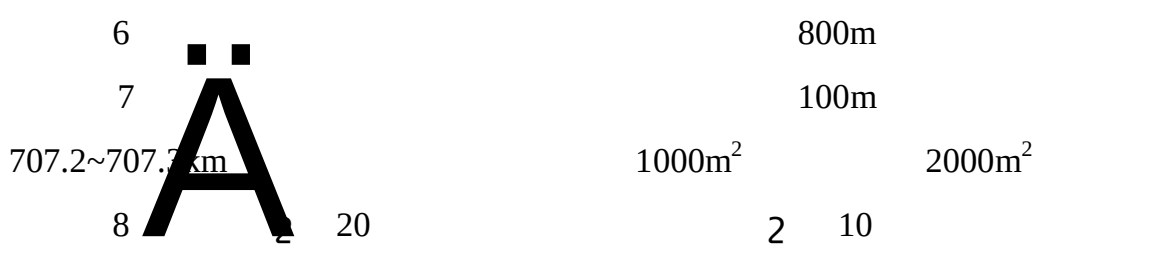
2.1.10

2.1-11

2.1-13

		/	Ⅶ
		TSP	123≈
	2	COD	ⅦGB8978-1996UUU
		BOD ₅	
		SS	
		SS	U
		/	hU CUU ≈
		/	UⅦ

U



f(‘#‘ @

≈

3 p

2.2-1

			/			3 12764.2m ³			

12

3

4

2.5

≈

3 ρ

		1		
		U	U	
		DN120	DN120	
		2	2	
		GB8978-1996	GB8978-1996	
		U	U	
		U	U	
		SS100/65-1.6	SS100/65-1.6	

1
≈

5500m³

Ġ 1

≈

3 p

				U	2 166m 0.4m 0.3m 3.6m 1.4m 1.7m 8.5m ³
				h U U	DN65
			с	с U ≈	DN50 ≈
				U	1 U
				p	p

		≈		3		p	
1		100m		1		1000 U	
		55.0m×18.0m×1.5m					
B	1.2m	V=1.6m/s	L	17/37/35/80m	U	1000 U	3000
U		75m×20m×3.0m×1.2		×		×	
× _٧		2 [≈]		25t-30m			
		U		4		3	
1)				3		≈	
1#		≈		13.2×10.6m		≈	
≈		7		C30		181.40m	
×		≈		4		9.2×1×2m	
		C30		2.2×1.5m		×	
		≈		h		4	
2#		h		10.6×9.6m		h	
				4		2000	
		2.0×2.0m		≈		4	
≈		h		≈		2.6×2.2m	
3#		h		≈		190.20m	
		5×5m		200.80m		4	
				4		1200	
1.7×1.2m		3.0m		1.5×1.2m		غ	
		50cm		C30			
5%		٧					
12764.2m ³				5			

2)

22.0m

٧

ذ

3)

h

L

167.5m

h

B 100.5m

4)

707.2~707.3km

100m

75m×20m×3.0m×1.2m

× ×

 $\times \dots$ $\times \dots$

८१:

 $2^{\approx}$

25t-30m

3

5 × 5m

غ

B

1.4m

V

2.5m/s

L

63.9m

U

4

1-3#

36m×4.5m(×

) 4#

30m×4.5m(×)

2

B 1.4m V 2.5m/s L 56.0m

B 1.4m V 2.5m/s L 122.8m

2

1)

DCS

U

U

غ

غ ٢ /

2)

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٢	٢	٣	٤	٥
٣	٣	٤	٥	٦
٤	٤	٥	٦	٧
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٦	٦	٧	٨	٩
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٨	٨	٩	١٠	١١
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٢٣	٢٣	٢٤	٢٥	٢٦
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٢٦	٢٦	٢٧	٢٨	٢٩
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٢٨	٢٨	٢٩	٣٠	٣١
٢٩	٢٩	٣٠	٣١	٣٢
٣٠	٣٠	٣١	٣٢	٣٣
٣١	٣١	٣٢	٣٣	٣٤
٣٢	٣٢	٣٣	٣٤	٣٥
٣٣	٣٣	٣٤	٣٥	٣٦
٣٤	٣٤	٣٥	٣٦	٣٧
٣٥	٣٥	٣٦	٣٧	٣٨
٣٦	٣٦	٣٧	٣٨	٣٩
٣٧	٣٧	٣٨	٣٩	٤٠
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٤٢	٤٢	٤٣	٤٤	٤٥
٤٣	٤٣	٤٤	٤٥	٤٦
٤٤	٤٤	٤٥	٤٦	٤٧
٤٥	٤٥	٤٦	٤٧	٤٨
٤٦	٤٦	٤٧	٤٨	٤٩
٤٧	٤٧	٤٨	٤٩	٥٠
٤٨	٤٨	٤٩	٥٠	٥١
٤٩	٤٩	٥٠	٥١	٥٢
٥٠	٥٠	٥١	٥٢	٥٣
٥١	٥١	٥٢	٥٣	٥٤
٥٢	٥٢	٥٣	٥٤	٥٥
٥٣	٥٣	٥٤	٥٥	٥٦
٥٤	٥٤	٥٥	٥٦	٥٧
٥٥	٥٥	٥٦	٥٧	٥٨
٥٦	٥٦	٥٧	٥٨	٥٩
٥٧	٥٧	٥٨	٥٩	٦٠
٥٨	٥٨	٥٩	٦٠	٦١
٥٩	٥٩	٦٠	٦١	٦٢
٦٠	٦٠	٦١	٦٢	٦٣
٦١	٦١	٦٢	٦٣	٦٤
٦٢	٦٢	٦٣	٦٤	٦٥
٦٣	٦٣	٦٤	٦٥	٦٦
٦٤	٦٤	٦٥	٦٦	٦٧
٦٥	٦٥	٦٦	٦٧	٦٨
٦٦	٦٦	٦٧	٦٨	٦٩
٦٧	٦٧	٦٨	٦٩	٧٠
٦٨	٦٨	٦٩	٧٠	٧١
٦٩	٦٩	٧٠	٧١	٧٢
٧٠	٧٠	٧١	٧٢	٧٣
٧١	٧١	٧٢	٧٣	٧٤
٧٢	٧٢	٧٣	٧٤	٧٥
٧٣	٧٣	٧٤	٧٥	٧٦
٧٤	٧٤	٧٥	٧٦	٧٧
٧٥	٧٥	٧٦	٧٧	٧٨
٧٦	٧٦	٧٧	٧٨	٧٩
٧٧	٧٧	٧٨	٧٩	٨٠
٧٨	٧٨	٧٩	٨٠	٨١
٧٩	٧٩	٨٠	٨١	٨٢
٨٠	٨٠	٨١	٨٢	٨٣
٨١	٨١	٨٢	٨٣	٨٤
٨٢	٨٢	٨٣	٨٤	٨٥
٨٣	٨٣	٨٤	٨٥	٨٦
٨٤	٨٤	٨٥	٨٦	٨٧
٨٥	٨٥	٨٦	٨٧	٨٨
٨٦	٨٦	٨٧	٨٨	٨٩
٨٧	٨٧	٨٨	٨٩	٩٠
٨٨	٨٨	٨٩	٩٠	٩١
٨٩	٨٩	٩٠	٩١	٩٢
٩٠	٩٠	٩١	٩٢	٩٣
٩١	٩١	٩٢	٩٣	٩٤
٩٢	٩٢	٩٣	٩٤	٩٥
٩٣	٩٣	٩٤	٩٥	٩٦
٩٤	٩٤	٩٥	٩٦	٩٧
٩٥	٩٥	٩٦	٩٧	٩٨
٩٦	٩٦	٩٧	٩٨	٩٩
٩٧	٩٧	٩٨	٩٩	١٠٠

1kV 6kV 380/220V

CEFR/DA 0.6/1kV 4×120mm²

ZRA-YJV22-0.6/1kV 3×4mm²

3)

U

DN100mm

120m

□

20L/s

2h

144m³

SS100/65-1.6

100mm

ξ 65mm

4

≈

U S106

1≈

□

5

٧

٨

٩

U

GB8978-1996

U

U

١٠

١١

2

U

١٢

2.2.4

١٣

١٤

□

١٥

١٦

1#	2#	12.0×9.0×1.8×0.6m	×	×	×	2000mm
		25mm				
		10.6×9.6m			1#	
	181.40m	2#				
190.20m	3#	5×5m				
	200.80m				1000mm	
		1200mm				

2.2-2

4

2.2-2

1			1
2		m	87.0
3	σ g / σ g	t/	150 / 161.8
4		m	
5			1 75m×20m
6			1 30m×4.5m
7			3 36m×4.5m
8	450KN		4
9		m ³	12764.2

2.2.5

		+	+	+
1	4		3	
2	25t-30m			U
3-				

		≈	≈	≈	≈
5		B 1.4m V 2.5m/s L 63.9m		1	EP200*5 4.5+1.5
6		B 1.4m V 2.5m/s L 56.0m	≈	1	EP200*5 4.5+1.5
7		B 1.4m V 2.5m/s L 122.8m	≈	1	EP300*5 4.5+1.5

2.2.6 ƒ g

1 ƒ g

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≈

≈

100 U/

150 U U

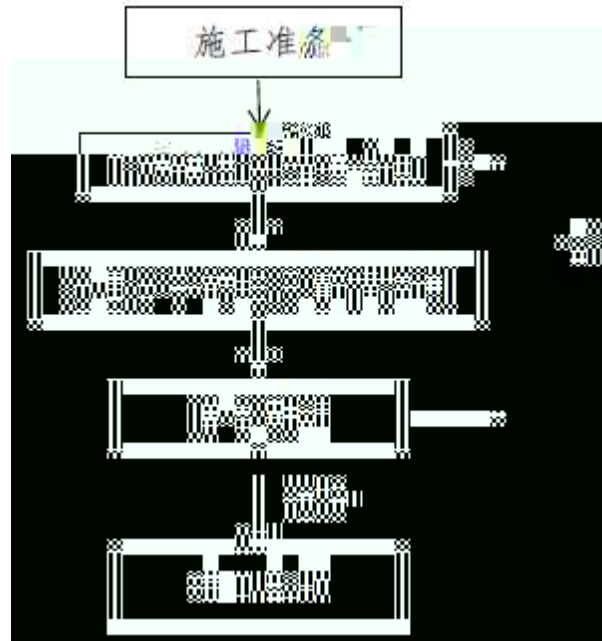
2.2-6

№	O						
		№			№		
1		55.0m×18.0m×1.5m	1		75m×20m×3.0m×1.2m	1	
2		1.5m/s 1.2m	120	m	/	/	/
3		/	/	/	B 1.4m V 2.5m/s L 63.9m	1	
4		/	/	/	B 1.4m V 2.5m/s L 56.0m	1	≈
					B 1.4m V 2.5m/s L 122.8m	1	≈
5		/	/	/	30m×4.5m	1	
					36m×4.5m	3	
6		2.5×2.5×2.5m 187kN	4		4.5×4.5×4.0m 450KN	4	
8		/	/	/	10.6×9.6m	2	
					5×5m	1	
9		DMC112,N=7.5KW	3	≈	/	3	≈
10	→	/	2	≈	/	3	≈
11		1.0m ³ /0.8MPa	1	≈	1.0m ³ /0.8MPa	1	≈
12		1×1m	1		/	/	/
13		6×6m	2		5m×5m	3	
		4×5m	1		/	/	/
		4×5m	1		/	/	/

		α	β	ρ
7		U	161.8	
		m	195.68	
8				

2

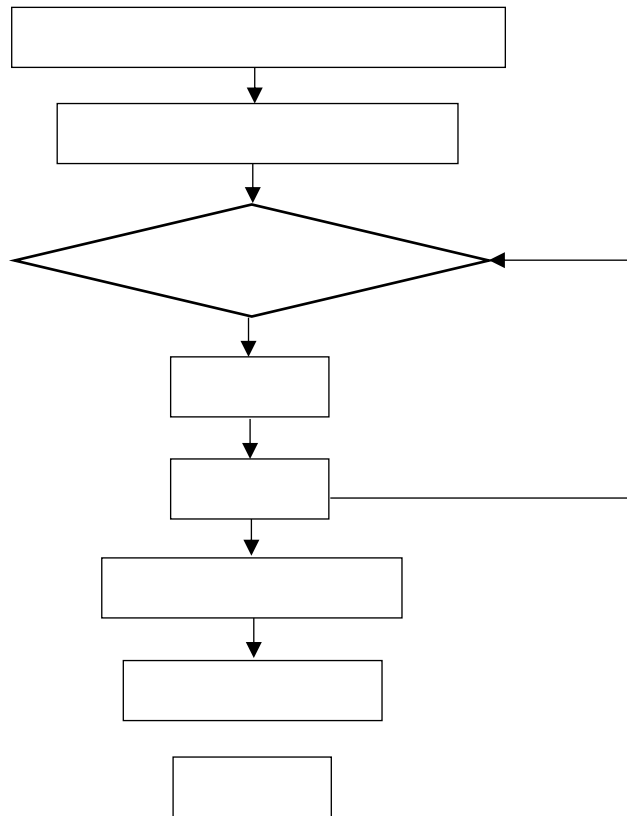
3 p



2.2-1

2.2-2

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2.2-2

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4)

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2.2-8

2.2-8

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1 2 3 4 5 6 7

[illegible]

~		3 p	
521.42m ³ /a	1.6m ³ /d	ρ	20%
401.14m ³ /a	1.28m ³ /d	□	
SS	1000 3000mg/L	SS	2000mg/L
0.80t/a	SS	95%	SS 0.04t/a

3)

	1.36 m ³ /h		24h/d		
32.64m ³ /d	➤	غ	U		
		2.3-2			

2.3-2

~	O				
1		100L/		20	2.0m ³
2		/	/	/	1.6m ³
3		1.36 m ³ /h	m ³	24h/	32.64m ³
3					36.24m ³

4)

س	SS	~	1500mg/L	
				SS
500mg/L				
		W		
		m ³ /a		
		m	1030.7mm	
		m ²		
		0.1		
	2000m ²			206.14m ³ /a
0.56m ³ /d	SS		0.10t/a	0.005t/a
D				

2	3	4
---	---	---

864t/a

145.8t/a

2.3-2

2.3-3

1		1.7m³/d 552.5m³/a	U
---	--	----------------------	---

2

	≈	đ	ð
			2000 m ²
U		đ	
	4		
	67-95dB(A)		2.3-4
		2.3-4	
≈		O	

2		26.285t/a	
---	--	-----------	--

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75

U									
				/	26.285t/a		/	0	
				/	0.2t/a		/	0	
				/	/				

2.3.3

2.3-7

≈				
1				
		/	غ خ	
2		3 ≈	3 ≈	

2.3.4

U

2.2-8

t/	2.3-8	U	t/a				
						U	
			170m³/a	382.5m³/a	0	552.5m³/a	382.5m³/a
		COD	0.0170t/a	0.0383 t/a	0	0.0553 t/a	0.0383 t/a
		BOD ₅	0.0051t/a	0.0115 t/a	0	0.0166 t/a	0.0115 t/a
		SS	0.0026t/a	0.0057 t/a	0	0.0083 t/a	0.0057 t/a
		NH ₃ -N	0.0034t/a	0.0077 t/a	0	0.0111 t/a	0.0077 t/a
			0.0119t/a	0.0268 t/a	0	0.0387 t/a	0.0268 t/a
		SS	0.04t/a	0	0	0.04t/a	0
		SS	0.005t/a	0	0	0.005t/a	0
			4.72t/a	0.314t/a	3.943t/a	0.786t/a	3.943t/a
			0.027 t/a	0.003 t/a	0	0.030 t/a	0.003 t/a

2.4-1	2019-2035				3	0	78	78
1	9	É	<	í	í	78		

		<p> [2020]14 </p>	
4	<p> </p>	<p> U </p>	

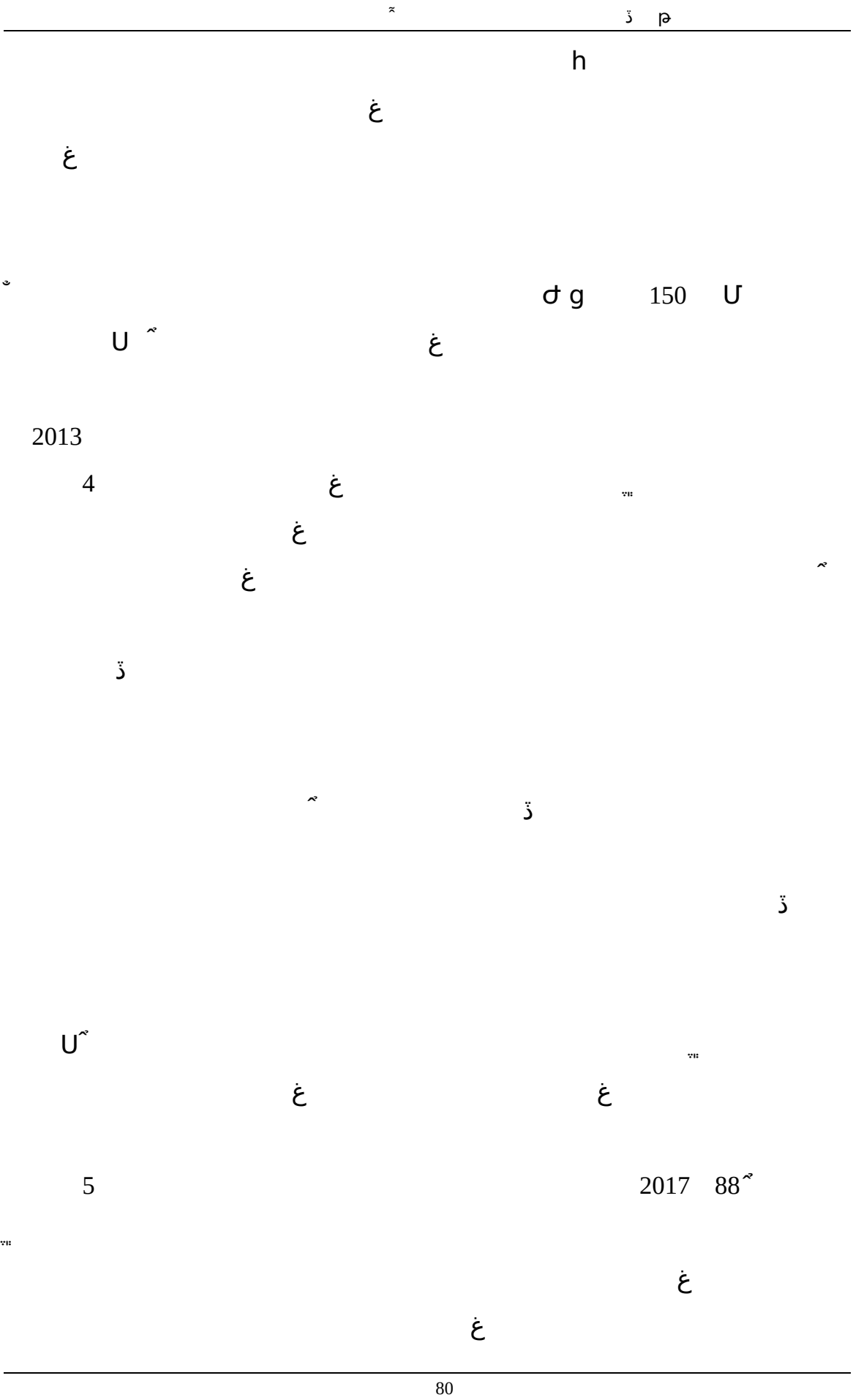
2019-2035

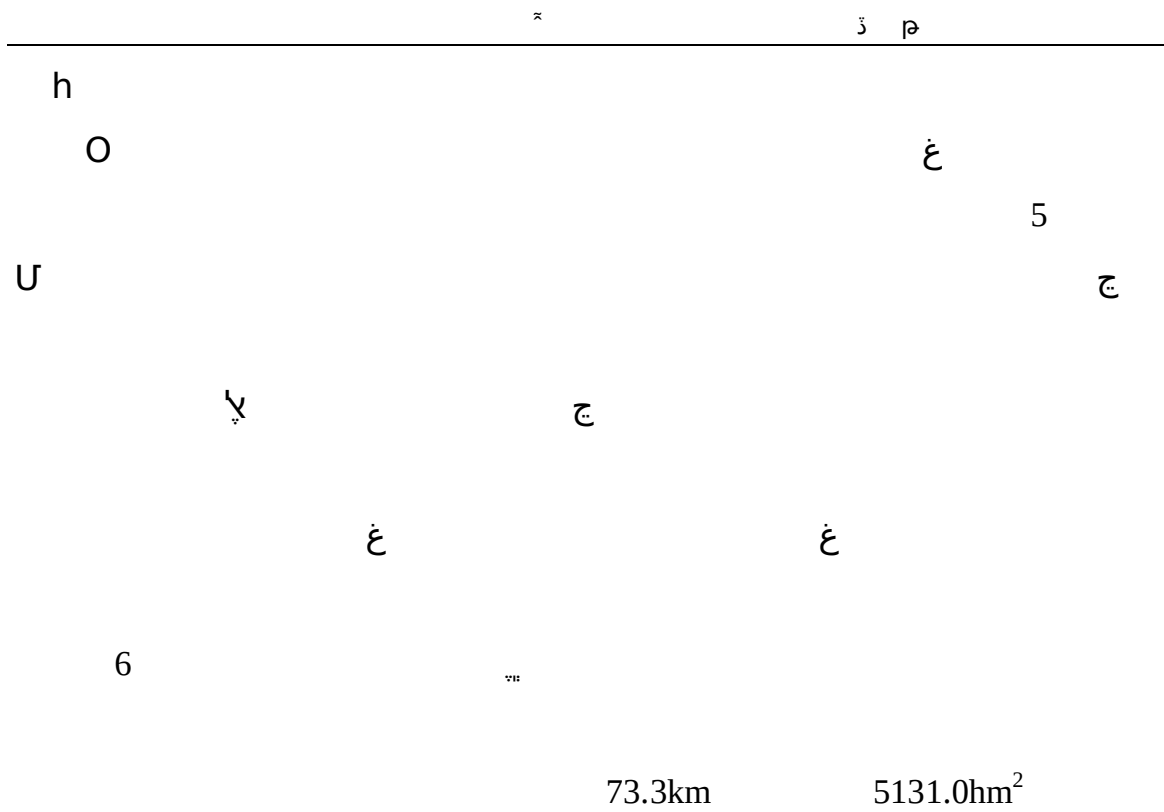
2

2011

2011

3





2

3 p

2

3 p

	2018	6	16	3	9
--	------	---	----	---	---

3 □

7 2015~2020
2015 133

序		3 0	注
1	0 h 0 GB 3552 2	0 2	注

2018-2020

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2019 42 ≈

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2017 49 ≈

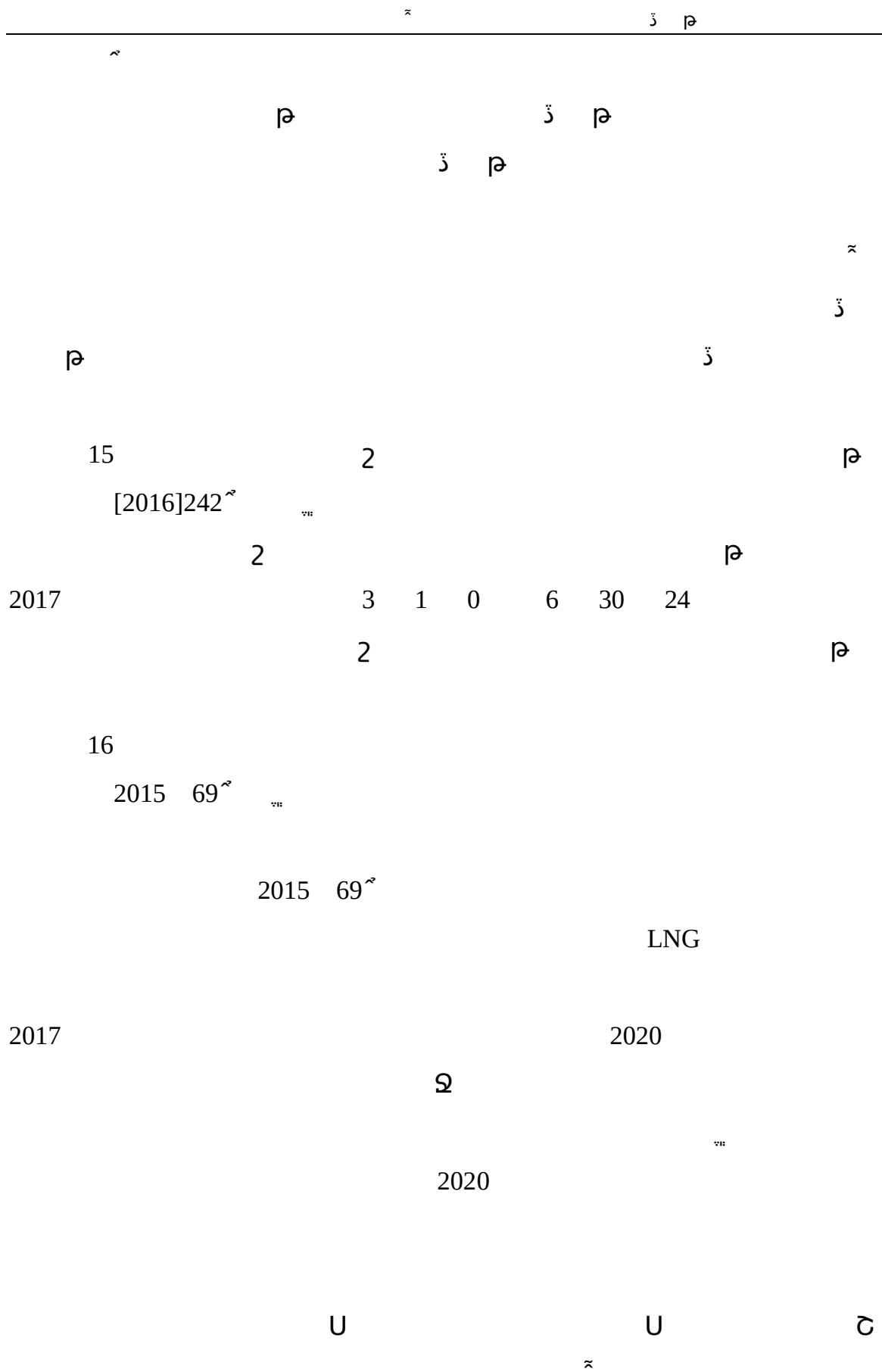
	60 U		
3	غ	2 2106-500116-04-02-309808 غ	٧١١

13
2
2
2017

12^٢
٧١١
2
2
غ

غ
h
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غ
U
4.20m³
٧١١
4.9m³
2
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2
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14
[2014]15^٢
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2.4-4

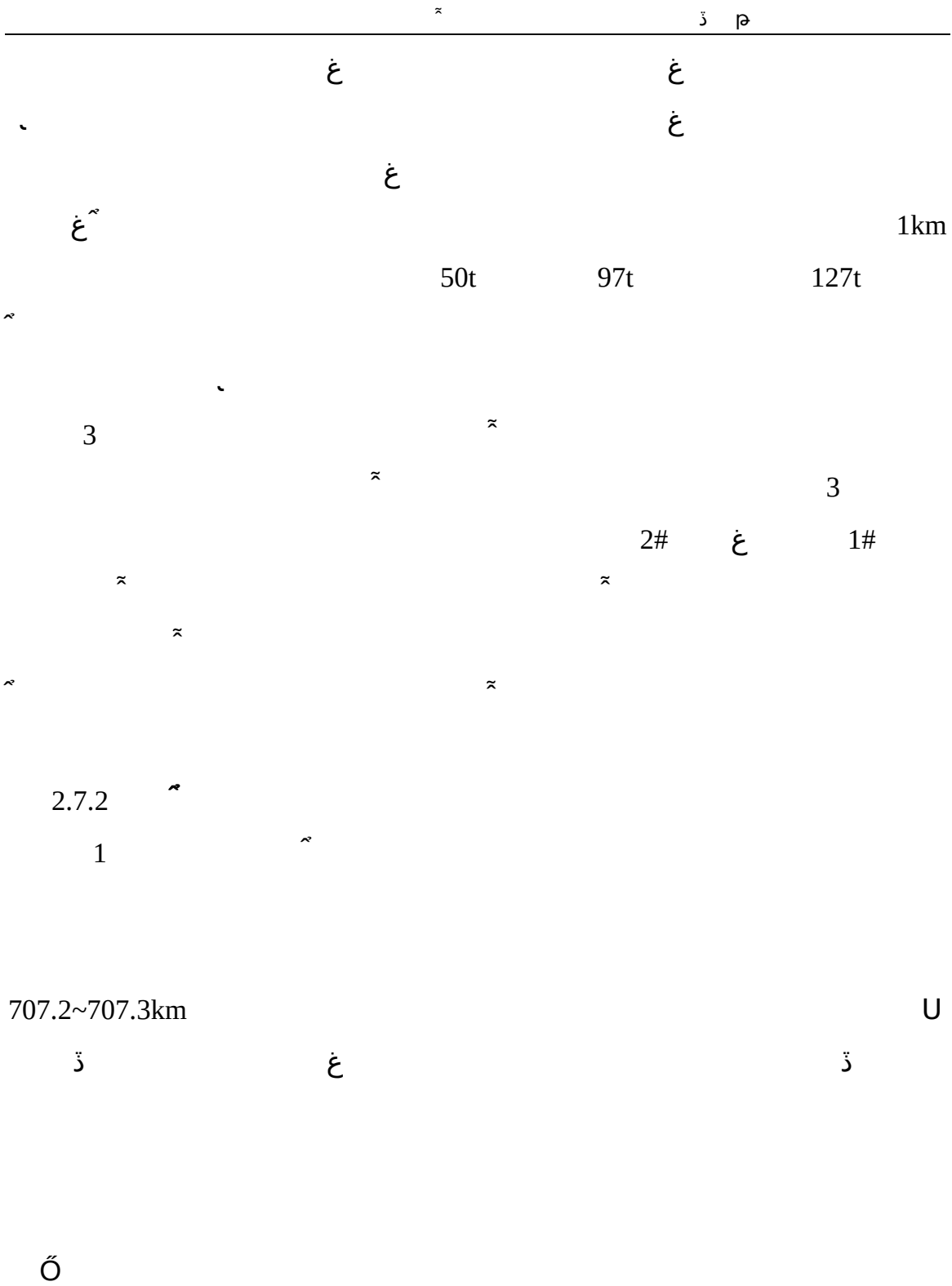
	O					
ZH50011610003		3				
ZH50011620004	-	4		ξ		

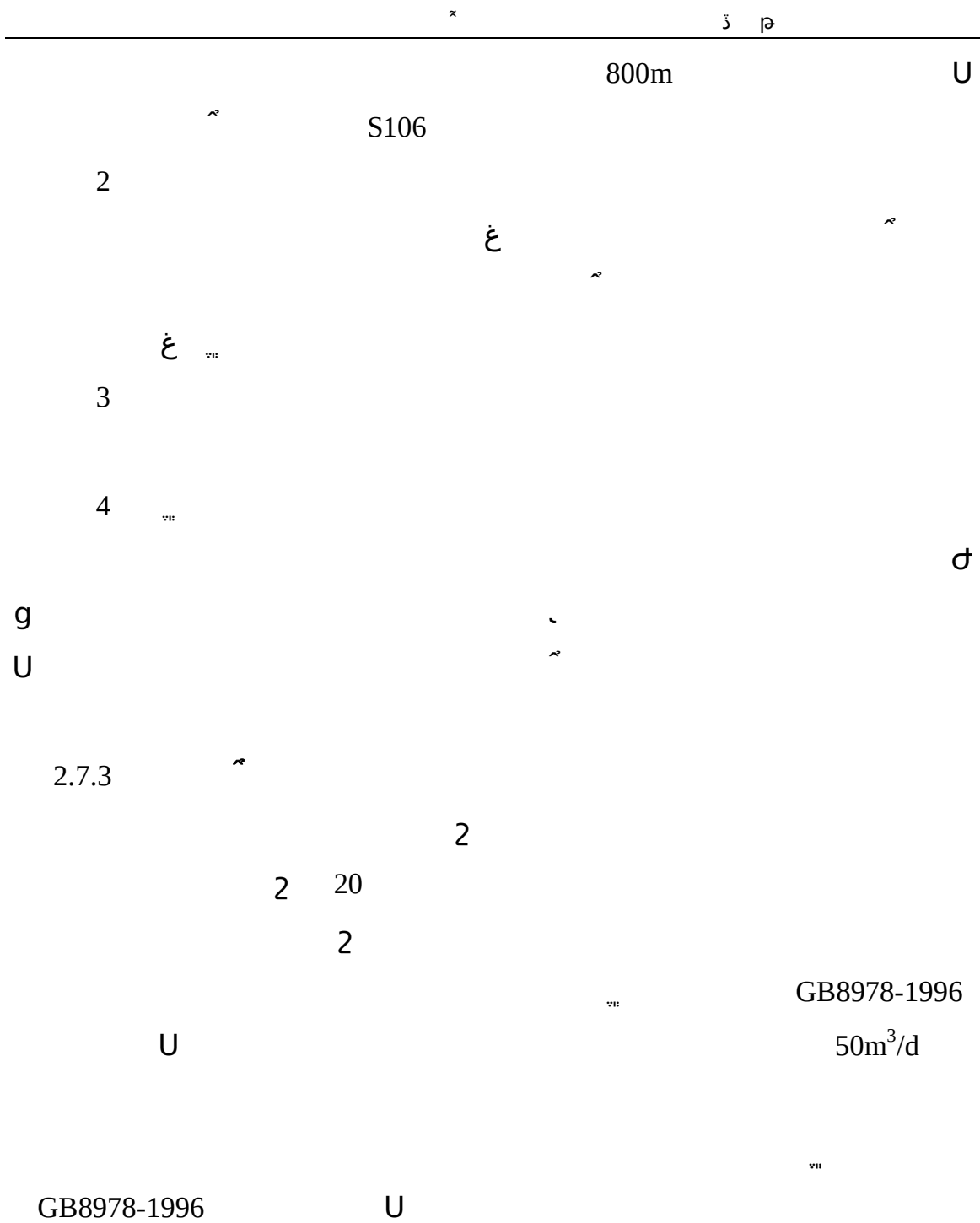
ZH50011610016 16 -

2.4-5

		VII		VIII	
				U	

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2.5	٢٨		
2.5.1		٢	٢
	٤		
707.2~707.3km	U		
2.5.2		٢	
		2007-2020	
		2015-2030	
2.5.3	٣	٢	U
			٣
2.6	٢٨		
		٢٨	
2.7	٢		
2.7.1			
1			
			٤
		U	
2			





3

3.1

		30° 60°		30° 60°	
92.70m					
2					
	h		ε		ε
	ε				
				u	
		2		λ	
J1	56° 79°	3.0m		2~5mm	10cm
	1.5 3.5m				
J2	168° 75°	3.0 5.0m		1~2mm	
8.0cm	1~4.0m				
3					
			Q4ml		Q4el+dl
	Q4al+dl		J2s		λ
	ε				
		Q4ml			
ε				30~560mm	ε
30~60%					u
0.5~6.9m			5~7		
		Q4el+dl			
		~		ε	
		2~10cm	10		
0~2.0m					
		Q4al+dl			
ε	ε 10~20%	ε		20~80mm	
		0.6~5.50m			
		J2s			

α

β ρ

J2s

1.0~2.0 m

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694725km2

1955

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140m

1967

1

1

450m

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1968

1

1

1971

4

29

1972

5

13

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1

1

ℓ

70m

1984

1

1

290m

ℓ

0.85

ℓ

ℓ

1

ℓ

1954

2016

3.2-1

55800m ℓs

2012

7

23

1920m ℓs

1999

3

18

29

2012

217.04m

1999

196.18m

20.8m

	(m)	217.04	2012.7.23	196.18	1999.3.18	200.09	
	(m ℓs)	55800	2012.7.23	1920	1999.3.18	8466	

1954~

2016

1954~2016

63

1820 73900m³s 1892 56800m³s 1905 64100m³s
1917 57700m³s 1936 62300m³s 1948 56300m³s

7~9

52.7% 78.3% ㄹ

3.1-1 □

P %	1	2	5	10	20
Q m³s	65400	60800	54400	49200	43800

56.5km 652.5km
866559km² 1953 2016 63
3475 m³ 5
10 2778 m³ 79.9% 7 9
1841 m³ 53.0% 66.3
20.1 4475 m³
1954 2659 m³ 1994 1.68
11000m³s 6 10 19510m³s
85700m³s 1981 □

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172.60m

2

15.4 kg/m³ (1972 5 28)

1.11kg/m ³	2.98	t
-----------------------	------	---

5 10

97.0 7 8 9 3 78.3

4.84 t

1998	1.73	t
------	------	---

1994 2.8

1987

1987 U -

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1987 U 2-3 ²

0.858 mm 0.011mm

0.043mm

1974

200mm 57mm 27.0 t

7 9 90%

3.1-3

										mm		mm		mm	
0.00 4	0.00 8	0.01 6	0.03 1	0.06 2	0.12 5	0.2 5	0.2 5	0.5	1.0	D50		Dcp		Dma x	
30.9	43.7	57.2	69.8	80.4	89.0	96.6	100	100	100	0.01 1	0.007 0.027	0.04 3	0.037 0.082	0.85 8	199 4

3.1.6

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	≈	3	ø
hm ²	104 ° 24 ' 51.34 " -106 ° 24 ' 19.19 "	28 ° 38 ' 6.96 "	
	-29 ° 20 ' 40.92 "		
	1138.31 km	h	1.80
km		362.76 km	
73.32 km		628.23 km	
	16.78 km		13.40 km
		6.18 km	
20.63 km		17.01 km	
10			
2)			
	⋈		
	ع		
a			
	4	500 m	
	□		
	349.25km	10803.48hm ²	
30.68%			
b			
	20		
		500m	
□			
15804hm ²		47.64%	

c

7

h

6566.11hm²

19.79%

7

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3 p

58			⌘ <i>Sinogastromyzon szechuanensis</i>
59			⌘ <i>Sinogastromyzon sichangensis</i> Chang
60			U <i>Metahomaloptera omeiensis</i> Chang
61			<i>Pseudobagrus medianalis</i> (Regan)
62			<i>Leiocassis longibarbus</i> Cui
63			<i>Liobagrus .kingi</i> Tchang
64			<i>Liobagrus marginatoides</i> (Wu)
65			<i>Euchiloglanis davidi</i> (Sauvage)
66			<i>Euchiloglanis kishinouyei</i> Kimura
67			<i>Pareuchiloglanis sinensis</i> (HoraetSilas)
68			<i>Pareuchiloglanis anteanalis</i> Fang Xu etCui
69			‘ <i>Rhinogobius szechuanensis</i> (Liu)
70			‘ <i>Rhinogobius chengtuensis</i> (Chang)

21

2 1 IUCN (1996)3 CITES

2 (1989)9

15

3.1-5		O	O				
			R	I	C	N	P
	‘	<i>Psephurus gladius</i> (Matens)	V	CR			
		<i>Acipenser dabryanus</i> Dumeril	E	CR			
		<i>Myxocyprinus asiaticus</i> (Bleeker)	V				

			$\tilde{\alpha}$		$\tilde{\beta}$	ϑ
			(Fang)			

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GB3095-2012

PM_{2.5}

2018-2025

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[2016]283 2

GB3095-2012

h h h 460m

1 TSP 7

3.2-2 12 3.2-3

3.2-2

O					/m
G1		TSP	7		h 460m

3.2-3

			mg/m ³	
2021	8	19	0.166	
2021	8	20	0.142	
2021	8	21	0.147	
2021	8	22	0.152	
2021	8	23	0.143	
2021	8	24	0.169	
2021	8	25	0.149	
			0.153	

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TSP

GB3095-2012

3.2.2 2

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[2012]4 ≈

(GB3838-2002)

III

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2020

15

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W1

		α	β
		0.05L	0.05L
		6~7	4~6
		0.5~0.8	0.5~0.8
		0.0003L	0.0003L
		0.01~0.02	0.02~0.03
(/L)		790~2400	3500~9200
		0.00004~0.00007	0.00004~0.00007

		Leq[dB(A)]		
C3	2021 8 19	60	50	
	2021 8 20	57	48	
		56	48	

C1 C3
 GB3096-2008 4a C2 2

3.2.4

1

4

pH ()
 1

(GB36600-2018)

3.2-6

			S1
			2021 8 19
		/	/
pH			8.52
	mg/kg	0.01	6.14
	mg/kg	0.01	0.57
	mg/kg	0.5	ND
	mg/kg	1	46
	mg/kg	0.1	46.6
	mg/kg	0.002	0.044
	mg/kg	3	42
C ₁₀ ~C ₄₀	mg/kg	6	167

(GB36600-2018)

1

1

2-2

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2

5401.14km²

63.03%

44.98% 33.40%

16.60% 5.02%

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30%

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31

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GDP

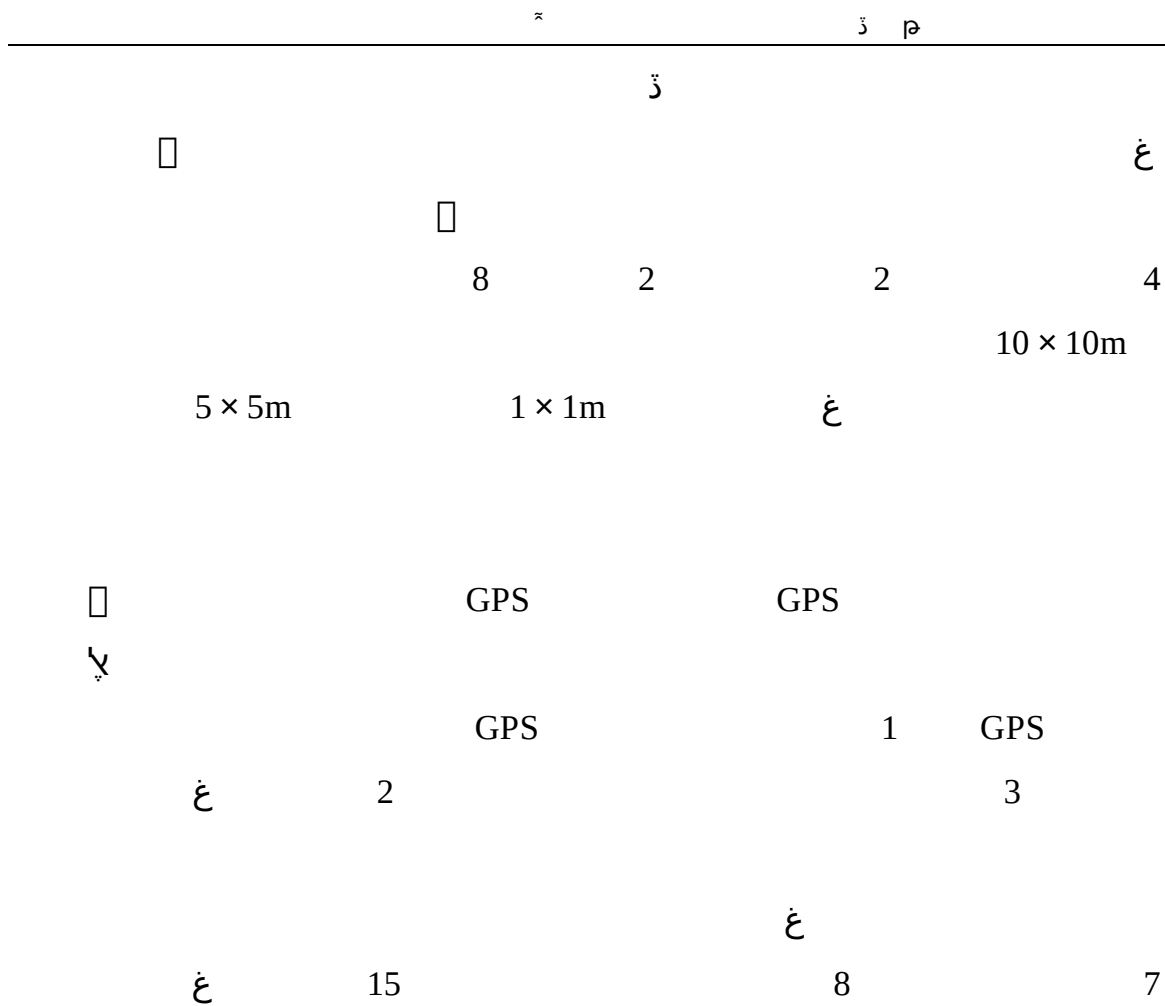
 2^2

	3.19	3500m ²
	2180m ²	
	<u>14</u>	
3		

25 °
 3.2-6
 3.2-7

	km ²	%
	951.14	53.09
	813.95	45.43
	22.26	1.24
	4.31	0.24
	1791.66	100.00

4
 7
 15
 18.89%



3.2-9

نقطة			m		
1	106.396834344	29.340316683	195		
2	106.396743772	29.340207692	198		
3	106.395250201	29.340318679	189		
4	106.393684387	29.339906692	180		
5	106.394107640	29.339763164	188		
6	106.394873772	29.338420808	210		
7	106.395721435	29.339862823	214		
8	106.398936987	29.340415954	236		
9	106.395297222	29.340255556	188		
10	106.395897222	29.339794444	208		
11	106.396966667	29.339644444	221		
12	106.395733333	29.338797222	238		

١)

		٣		٨٢	٢٢٨	٣٣١		
١٣	١٧	٢١		٤	٥	٥	٦٥	٢٠٦
٣٠٥								
		٦٩	٢١١	٣١٠				
	٤—٤						٣٨.٣٣%	١٧.٩٠%
٤	٥.٨٩%							

3.2-10

	٤	٥	٥	٧	٢٥	٤٢
	٦٥	٢٠٦	٣٠٥	١٧٣	١١٥٤	٥٢١٧
٢٣	٦٩	٢١١	٣١٠	١٨٠	١١٧٩	٥٢٥٩

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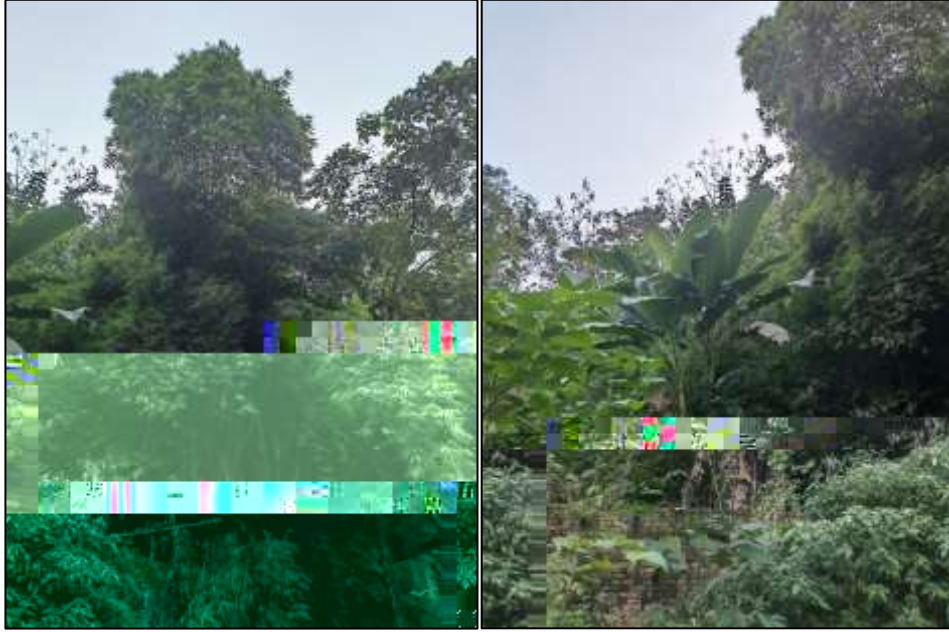
6)

A.

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3.2-5

C.

25 m² 4m
53.92
5—10% ~
~ 40%

D.

90% 1 m² 20%
၆

E.

1m 1m² 90%
၆ 30%

3.2-6

F.

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1m²

67.32

0.8m

93%

0.5m غ 0.4m

14.42

غ 7.35

G.

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4m²

67.32

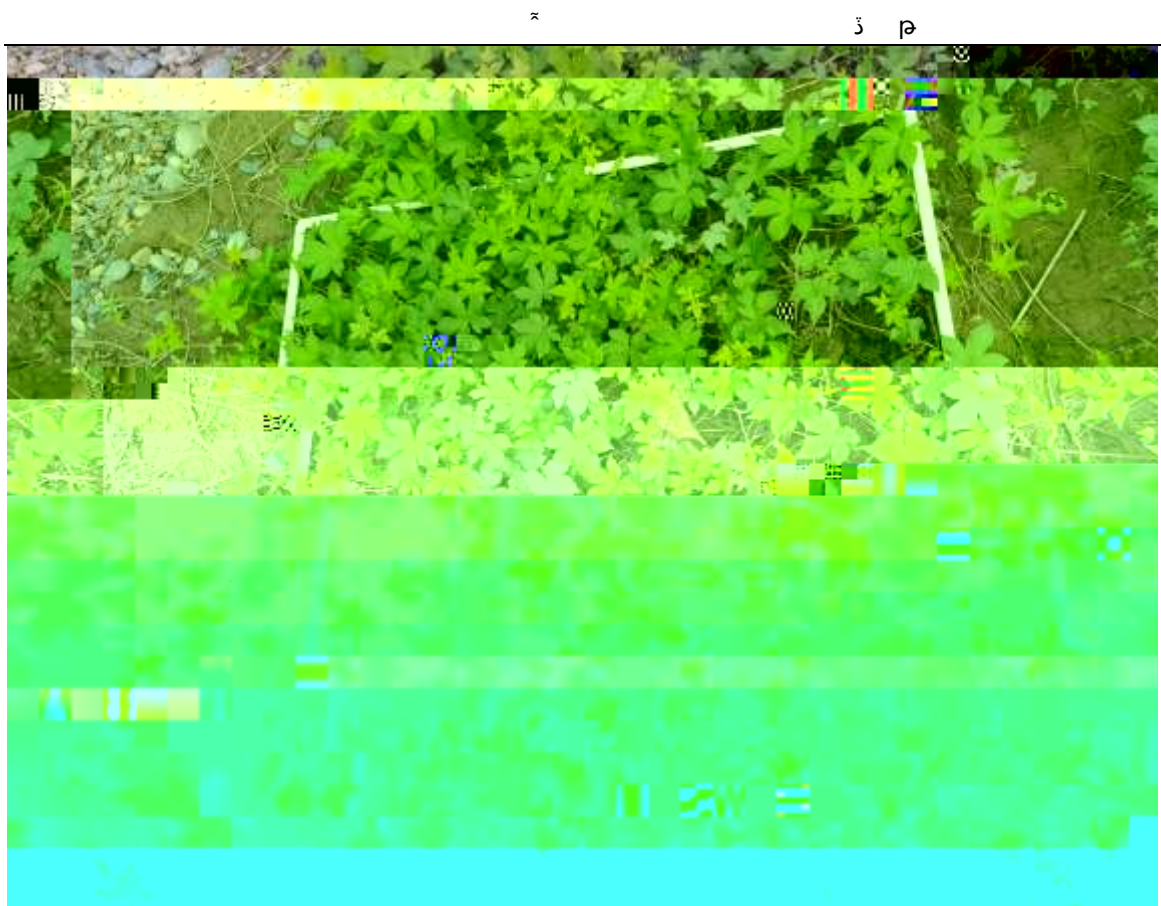
0.8m

93%

0.5m غ 0.4m

14.42 غ

7.35



3.2-6

G.

	1m^2		0.25m
95%		ថ្ម	0.15m



3.2-7

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	13.97	17.74	247.8	5.68	79.35
٧١١	35.46		1942.92		232.65

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76 4 13 35 63

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3.2-15

	1	3	5	5	0	2
	1	3	7	7	3	0
	9	27	48	61	5	1
	2	2	3	3	0	0
٧١١	13	35	63	76	8	3

1)

Bufo gargarizans

5

Bufo

gargarizans

Pelophylax nigromaculata

Hylarana guentheri غ

Fejervarya multistriata

Microhyla ornata

1999

Fejervarya multistriata

Hylarana

guentheri ا

Microhyla ornata

Bufo gargarizans

Pelophylax

nigromaculatus

Pelophylax

nigromaculatus

Fejervarya multistriata 2

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Sphenomorphus indicus

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Gekko subpalmatus

Zaocys dhumnades غ

Rhabdophis tigrinus 3

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π				δ	ρ
<hr/>					
			ξ		
61	9	27		42	

			1			1			1
			1		1				1
			1		1			1	
27	27		61	18	16	27	19	9	33
%				29.50	26.23	44.26	31.15	14.75	54.10

27

44.26%



(*Picus canus*)

Phylloscopus reguloides

16

26.23%

Phylloscopus inornatus

Phylloscopus proregulus)

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غ

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3.2-17

GPS

~		GPS
S1		
S2		
S3		

غ

غ

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a)

2021

8

36

6

24

66.7%

غ

4

11.1%

2

5.6%

 χ^2_1

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20

19

15

3.2-9

3.2-18

O

№	O	O			
1		<i>Cyclotella</i> sp.		+	+
2		<i>Cymatopleura stelligera</i> Cl. et Grun.			+

3		<i>Melosira granulata</i> (Ehr.) Ralfs		+	+
4		<i>Melosira varians</i>	+		+
5		<i>Navicula simplex</i> Krassk.		+	+
6		<i>Navicula exigua</i> (Greg.) O.Müll.		+	+
7		<i>Navicula angusta</i>	+		
8		<i>Navicula bacillum</i>	+		
9		<i>Navicula cuspidata</i>	+	+	
10		<i>Cymbella ventricosa</i> Kütz.		+	+
11		<i>Cymbella cistula</i>	+		

12

			3	ø	
34		<i>Cryptomonas ovata</i> Ehr.			+
35		<i>Monallantus brevicylindrus</i> Pasch.			+
36		<i>Tribonema</i> sp.	+	+	

	α	β	ρ
Shannon-wiener	H	Pielou	$(J)^{\wedge}$
	3		0.8-1
2-3	0.5-0.8		1-2
0.3-0.5		0-1	0-0.3
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3.2-20

Shannon-wiener

			α		β	ρ		
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ind./L	14.2	11.0	21.6
mg/L	0.1154	0.0951	0.1756

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2021 8

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6

42.9%

3 21.4%

2

14.3%

12-26 /m²

15 /m²

1.56-6.27 g/m²

4.52 g/m²

3.2-23

	<i>Sinopotamon</i>		+	+
	<i>Gammarus</i> sp.		+	+
	<i>Exopalaemon modestus</i>	+	+	
	<i>Lymnaea stagnalis</i> (Linnaeus)	+		+
	<i>Corbicula fluminea</i>	+	+	+
	<i>Radix swinhoei</i>	+		+
	<i>Semisulcospira</i>		+	+
	<i>Cipangopaludina</i>	+	+	+
	<i>Hua pallens</i>		+	+
	<i>Limnodrilus hoffmeisteri</i>	+	+	
	<i>Tubifex sinicus</i>	+	+	+
	<i>Branchiura</i> sp.		+	+
	<i>Tendipes</i> larvae	+	+	+
	<i>Ephemera</i> sp.	+		+

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26 cm	20 cm		115 g	11	3		
1			57 cm				

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		ᄡ		0.18% ᄡ	0.30%	2020	
7	2020		2				
7)	ᄣ						
2018		2			ᄡ		
	180mm 190mm		90.5g 121.3g				
8)	ᄣ						
2007-2008	ᄣ			ᄣ	ᄣ		ᄣ

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× 700m 2m

0.083mg/L × 300m × 700m × 2m ÷
1000=34.86kg

0.1278mg/L × 300m × 700m × 2m ÷ 1000=53.68kg

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169.4m

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$4.52\text{g/m}^2 \times 4370\text{m}^2 = 19.752\text{kg}$

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20 30m

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120m 150m

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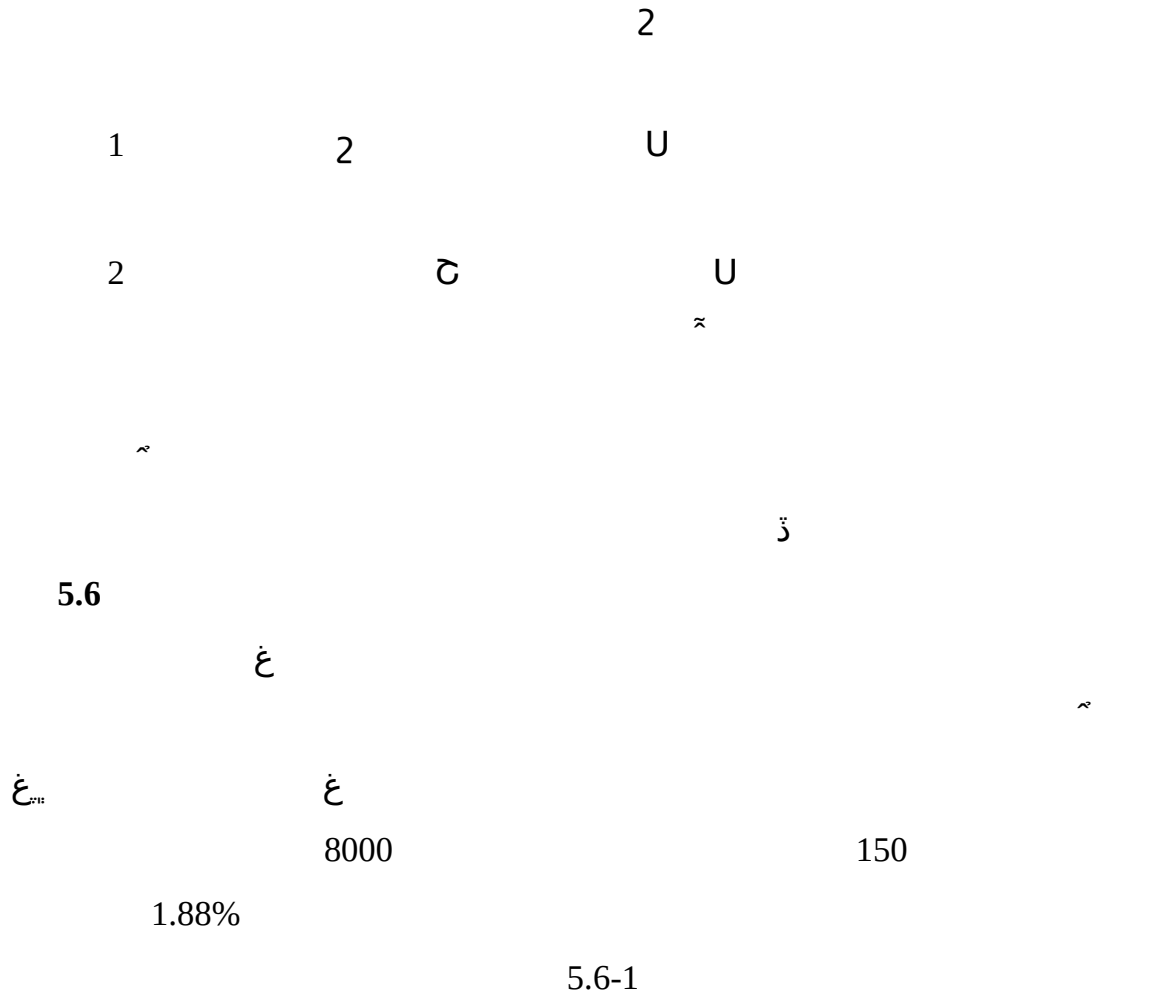
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		023-47601010		023-47521454
		023-47601120		023-66213120

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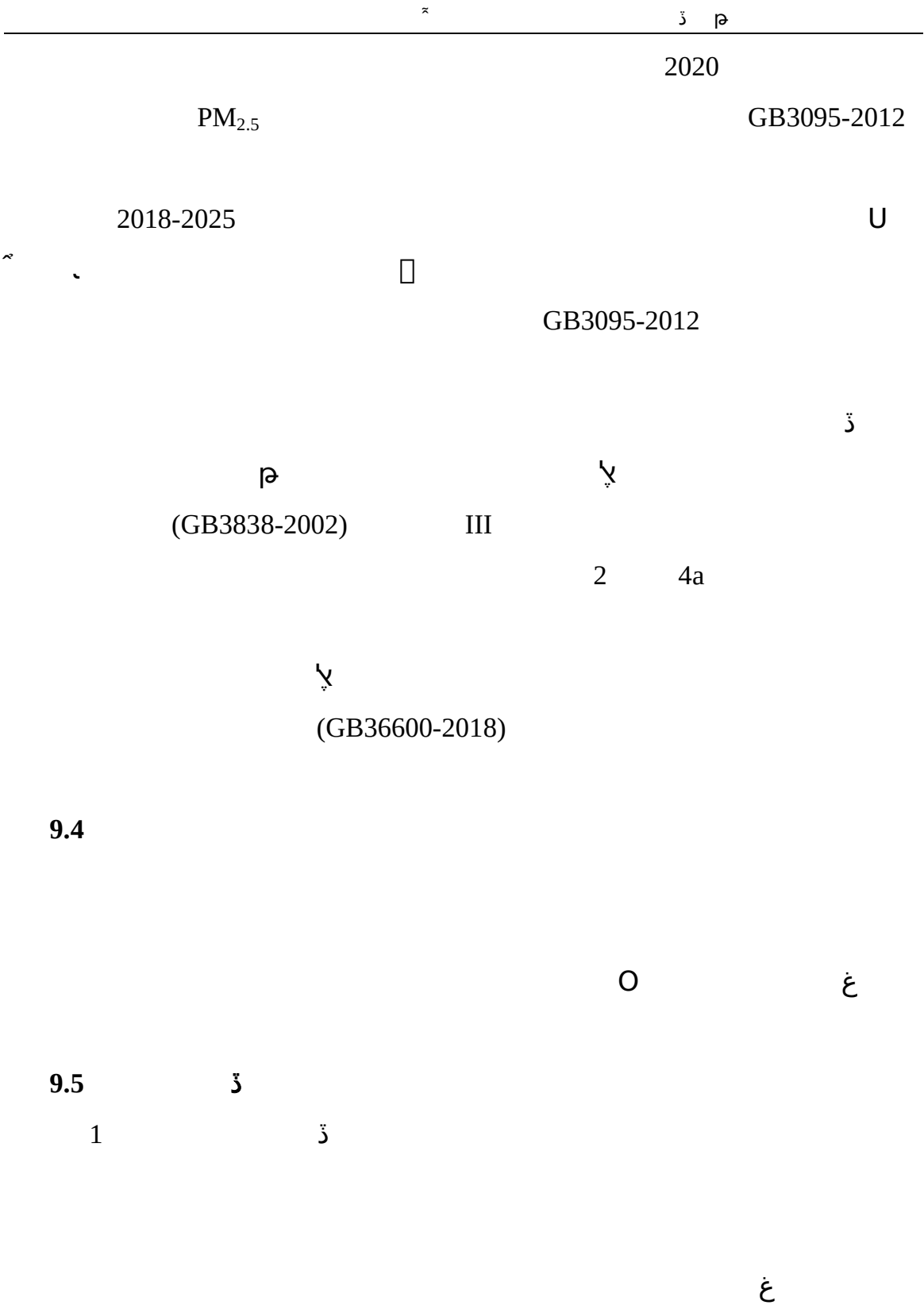
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