DATA BOOK CHAPTER 7 ENVIRONMENT

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モンゴル国自然環境省による環境影響評価の結果(勧告書)

БАЙГАЛЬ ОРЧИНД НӨЛӨӨЛӨХ БАЙДЛЫН ЕРӨНХИЙ ҮНЭЛГЭЭНИЙ ДҮГНЭЛТ

1998 оны 05 сарын 22

Улаанбаа. эр > эт

Теслийн дугаар

98071 🚲

төслийн товч тодорхойлолт

Төслийн нэр

Байршил:

Тесел хэрэгжүүлэгч:

Төсөл хэрэгжүүлэгчийн хаяг:

Төслийн хүчин чадал, товч тодорхойлолт: Алтай хотын усан хангамжийг сайжруулах төсөл

Говь-Алтай аймаг. Алтай хот

Дэд бүтцийн хөгжлийн яам

Утас: Факс:

Төсөлд тусгагдсанаар:

Алтай хотын усан хангамжийн уусвэр, ЭХ чанар, хүрэлцээ хангамж, геологийн болон гидрогеологийн нөхцөл байдлыг тодорхойлох, усны менежементийн асуудлыг боловсруулах, газрын доорхи усны түвшин түүний нөөц, чанар байдалд судалгаа хийж, хотын хүн амын унд-ахүйн усан хангамжийг сайжруулах асуудлыг оновчтой шийдвэрлэх.

ЕРӨНХИЙ ҮНЭЛГЭЭНИЙ ДҮГНЭЛТ

Говь-Алтай аймгийн Алтай хотын усан хангамжийг сайжруулах төслийн байгаль орчны урьдчилсан үнэлгээний тайланд Улсын Их Хурлын 1998 оны 1 дүгээр сарын 22-ны өдрийн тогтоолоор баталсан "Байгаль орчинд нөлөөлөх байдлын үнэлгээний тухай" ^{хуули}йн дагуу ерөнхий үнэлгээ хийоний үндсэн дээр уг төсөлд байгаль орчинд нөлөөлөх байдлын нарийвчилсан үнэлгээ хийлгэх шаардлагатай гэж үзэв.

нарийвчилсан үнэлгээ хийлгэх үндэслэл

- Байгаль орчинд нөлөөлөх байдлын нарийвчилсан үнэлгээ хийлгэсний үндсэн дээр байгаль орчныг хамгаалах арга хэмжээг тодотгон төлөвлөж хэрэгжүүлэх
- 2. Төсөл хэрэгжих орчмын нутаг дэвсгэрт байгаль орчны Сохирдол болон бусад асуудлаар онцгой анхаарах тохиолдол гараагүй боловч уг төсөл хэрэгжсэнээр үүсч болох нөлөөллүүдийг нарийвчилсан үнэлгээний үндсэн дээр тодруулах
- 3. Хотын төвийн хүн амд шаардагдах усны хэмжээ, түүнийг хэрхэн хангах эх үүсвэрийг тодорхойлох талаар мэргэжлийн байгууллагын дүгнэлт гаргуулах ба хэрэгжүүлэх арга замыг тодорхойлох

БУСАД АСУУДАЛ

- Цаашид судалгаа, шинжилгээг явуулах, нарийвчилсан үнэлгээ хийхтэй холбогдуулж орон нутгийн засаг захиргааны болон байгаль орчны хяналтын байгууллагаас тавигдах нэмэлт шаардлагыг цаг тухайд нь ханган биелүүлж байх
- Байгаль орчныг хамгаалах болон байгалийн нөөц баялгийг зохистой ашиглах, байгаль орчныг хамгаалахтай холбогдсон хууль тогтоомжийг биелүүлэх асуудлаар байгаль орчны болон эрүүл ахуй, халдвар судлалын хяналтын байгууллага, тэдгээрийн ажилтнуудтай байнга хамтран ажиллах
- 3. Ахуй-үйлдвэрлэлээс гарах хатуу, шингэн хаягдлаас ус хангамжийн эх үүсвэрт нөлөөлөх нөлөөллийг тогтоох
- Нарийвчилсан үнэлгээний тайланд шүүмж хийлгэж, дүгнэлт шийдвэр гаргуулах

1. Decos ЕРӨНХИЙ ҮНЭЛГЭЭ ХИЙСЭН:

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БАЙГАЛЬ ОРЧИНД НӨЛӨӨЛӨХ БАЙДЛЫН НАРИЙВЧИЛСАН ҮНЭЛГЭЭНИЙ ЧИГЛЭЛ-ХУВААРЬ

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	1998-0	5-22
Ажлын агуулга	Хугацаа	Тайлбар
1. Төсөл хэрэгжих орчны суурь нөхцөл байдал болон байгаль орчныг хамгаалах талаар авах арга хэмжээг тодорхойлох чиглэлээр дараахь нэмэлт судалгаа хийж дүгнэлт гаргуулах:	1998 оны 6 Дугаар сараас	
а. Усны асуудлаар		
-хөрсний болон гүний усны төлөв байдлыг тодорхойлж, үйлдвэрлэл-ахуйн зориулалтаар ашиглах усны хүрэлцээ, хангамжийг <u>мэргэжлийн байгууллагын тооцо</u> о, дүгнэлтийн үндсэн дээр тодорхойлох		
-усан хангамжийн эх үүсвэрийг ус хэрэглээний балансын тооцоонд тулгуурлан оновчтой сонгон авах		
-усан хангамжийн асуудлыг авч үзэхтэй холбогдуулан ахуй-үйлдвэрлэлээс гарах бохир усны хэмжээ, найрлагыг нарийвчлан тогтоож, байгаль орчныг бохирдуулах- гүйгээр зайлуулах арга замыг тодорхойлох		
-газрын дорхи усны түвшний хэлбэлзлийг тодорхойлох		
-усны шинж чанарыг тодорхой үе шаттайгаар хийсэн шинжилгээний дүнд тулгуурлан тогтоох		
-усны чанарыг сайжруулах, хатуулгийг багасгах боломжийг судлан тогтоох		
б. Хөрсний асуудлаар		
усан хангамжийн асуудлыг судлахтай колбогдуулан ус зүйн судалгаа явуулах үед арч болох газрын элэгдэл, эвдрэлийн байдлыг тодорхойлох		
-хөрсний судалгаа, шинжилгээ явуулах кугацаа, арга замыг тогтоох		·

	у ·	
в. Ургамал, амьтны асуудлаар		
Усан хангамтийн асуудлыг шийдвэрлэх үйл ажиллагааны явцад ховор болон нэн ховор урганаа	A 13333	
ховор ургамал, амътны тархалтыг тогтоох, ховор болон нэн ховор ургамлын талаар мэргэжлийн байгууллагын дүгнэлт гаргуудах,		
нь авч үзэх		
r. Түүх, соёлын дурсгалт зүйлсийн асуудлаар		
-түүх, соёлын дурсгалт зүйлсийн талаар мэргэжлийн байгууллагын дүгнэлт гаргуулах		
судалгаа авч нарийвчилсан үнэлгээний тайланд хавсаргах		
2. Байгаль орчныг хамгаалах төлөвлөгөө, орчны хяналт-шинжилгээний хөтөлбөр боловсруулах	Нариийвчил- сан үнэл-	-
3. "Байгаль орчинд нөлөөлөх байдлын үнэлгээний тухай" хуурийн даруу хийсээн	гээний хүрээнд 1998 оны 3 дугаар улирал	-
нарийвчилсан үнэлгээний тайланг БОЯ-нд ирүүлж, шүүмж хийлгэн шийдвэр гаргуулах		

ЗААВАЛ ХЭРЭГЖҮҮЛЭХ ШААРДЛАГАТАЙ ДЭЭР ДУРДСАН АРГА ХЭМЖЭЭГ ЦАГ ХУГАЦААНД НЬ ХАНГАН БИЕЛҮҮЛЭЭГҮЙ ТОХИОЛДОЛД УИХ-ЫН 1998 ОНЫ 1 ДҮГЭЭР САРЫН 22-НЫ ТОГТООЛООР БАТАЛСАН "БАЙГАЛЬ ОРЧИНД НӨЛӨӨЛӨХ БАЙДЛЫН ҮНЭЛГЭЭНИЙ ТУХАЙ" ХУУЛИЙН 12 ДУГААР ЗҮЙЛИЙН ДАГУУ ХАРИУЦЛАГА НОГДУУЛАХ БОЛНО.

Хянасаж Байгаль орчны хяналтын Улсын ерөнхий байцаагч ИДЛ

ДАМДИН

Еренхий үнэлгээ хийсэн: БОЯ-ны БХЗГ-ын Ахлах мэргэжилтэн, Улсын ахлах байцаагч

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M. Ders л. долгорыд

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Conclusion on Environmental Impact Assessment (EIA)

22 may 1998 Project No Briet information Project name :

Location : Project executor Address :

Project capacity, Bret introduction : Ulaanbaatar 98701

The study on groundwater Development for Altai city in Mongolia Gobi-Altai Aimag, Altai City Ministry of infrastructure Development

Tel :

Fax :

Project considered :

7 - 5

To clarity water supply resource of Altai city, water quality, water sufficiency and supply; and geological and hydrogeological condition; elaborate the water management problems, to study groundwater level, its resources and guality; to resolve groundwater development for the drinking & domestic purposes.

Conclusion on general assessment

On the base of the general assessment in accordance with the "Environmental Impact Assessment" Low, proven by the state Ikh Mural's resolution (22 Jan, 1998) in the Initial Environmental Examination (IEE) chapter of the study report on Groundwater Development for Altai City, it is considered to conduct the detailed Environmental Impact Assessment.

Basis of the detailed EIA

1. On the Basis of the detailed EIA nature nad environmental protection procedure and plan shall be clarified and implemented.

2. In the project implementation area there was not occasion on pollution of nature and environment and other cases. But it is necessary to clarify unexpected impacts during the project implementation on the basis of detailed EIA.

3. To get conclusion from the professional organization for clarifying of water demand for the people of city capital and supply resources and to clarify an implementation procedure.

<u>Other</u>

- 1. In accordance with the further study and conducting the detailed assessment, an additional request from the Local government and nature & environmental inspection organizations has to be executed in time.
- 2. To cooperate with the nature and environment and health and epidomology inspection organization and their staffs in accordance with the nature and environmental protection; sustainable development for nature resources and implementation of nature & environment protection lows and regulations.
 - 3 To determine the impact of solid and liquid waste from the household and industry to water supply resources.

7 - 6

4. To get an analyse and recommendation for the report of the detailed EIA.

general assessment done by: L.Dolgarmaa

Items and schedule for the

detailed EIA

22 may 1998

	Items	Date	Common
1	Below-mentioned additional study has to be done to clarify basic condition of project area and nature and environment projection procedure :	From June '98	
	a. Water		
-	to clarify surface and groundwater condition and industrial and domestic water sufficiency and supply on the base of assessment and conclusion of the professional organization.		
- '	to select the source of water supply on base of water use balance		
•	in consideration with the water supply shady, to determine quantity and quality domestic and industrial sewage water ; and methods to remove it without advent effect to the nature & environment.		
	to study groundwater level change		
•	to catty out water quality analysis in a varieties phases of study	• •	
•	to study the possibility of water greatly improving methods ie to decrease hardness.		
	<u>b. soil</u>		
	to determine land erosion, in connection to the g hydrographical study in a farina of water supply study		
	to clarity the date and method of soil study		

c. Flora and fauna

During the groundwater development and implementation of water supply improvement, to determine the distribution of rare and endangered fauna and flora to get recommendation from professional get organization on rate and endangered fauna & flora and to consider their protection procedure with the study

d. Historical and wltural property

- To get a conclusion on the historical cultural property and from the professional organizations
- 2. To make a nature and environment In a frame of the protection plan and environmental detailed assessment monitoring program
- 3. To send a report, made in accordance 3rd quarter of 1998 with the "Environmental Impact The end Assessment " low, to the ministry of September Nature & Environment and to get a recommendation

In case of not implementing above-mention necessary procedures, there shall be Bearing responsibly in accordance with the Chapter 12 of "Environmental Impact Assessment " law.

> Checked out : State general inspector, of Nature and Environmental Monitoring

General Assessment done : Senior Inspector

Ts. Damdin

of

L. Dolgormaa

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level.

DATA BOOK CHAPTER 8 WATER QUALITY

ltem			23-Jun-97	23-Jun-97		23-Jun-97	- 26-Jun-97	23-Jun-97	23-Jun-97	23-Jun-97
	item	Unit	SW-1	SW-2	SW-3	SW-4	SW-5	SW-8	SW-7	<u>SW-8</u> 7.9
	pH		7.9	7.4	7.9	8.1	7.6		<u>8.5</u> -3.5	7.8
	Temperature	°C	4.5	-2	5.5	4.5		-3	-3.5	
	Odor	dilution factor								
	Taste	dilution factor					20	10	20	10
	Color	mg/I Pt scale	6	4	2	20	20	3		
6	Turbidity	kaolin (JIS)	1	2	0.5	15	174.7	52.5	71.7	84.1
	Conductivity	mS/m(at 25°C)	276	115.4	238			210		31!
8	Hardness	mgCaCO ₃ /1	2500	425	890		1	840		28
9	Dry Residue	mg/l	1988	1706	3214	660	412		·····	20
10	COD(KMn04, alkali)	mg O ₂ /I	6	4.8	6.2	1.5				
	Nitrite	mg NO ₂ /I	0.24	0.14	0.25		0.05		·	0.02
12	Nitrate	mg NO ₃ /I	5.5	9.8	4.1	3.9	0.5			0.2
13	Ammonium	mg NH ₄ /I	0.44	<0.2	0.24	L	<0.2			<u>.</u>
	Orthophosphate	mg P0 ₄ /I	0.14	0.05	0.1	0.07	<0.05		·	0.1
15	Bicarbonate	mg HCO ₃ /I	305	256	262			· · · · · · · · · · · · · · · · · · ·		43
16	Carbonate	mg CO ₃ /1	0.61	0.16	0.52			1	1	1
17	Chloride	mg Cl/l	2	1 <u>9.</u> 9	0.8					
	Sulfate	mg SO ₄ /I	140	47	95					
	Sodium*	mg Na/I	49.3	47.4	54.6	52				
	Potassium	mg K/l	9.5							
	Calcium	mg Ca/l	100							
	Magnesium	mg Mg/1	540	74						
	Copper	mg Cu/i	0.14							
	iron	mg Fe/l	0.09							
	Manganese	mg Mn/l	0.6	0.1	<0.1	0.2	0.2	0.15	0.3	<u>-</u>
	Zinc	mg Zn/1			· · · · · · · · · · · · · · · · · · ·				<u> </u>	<u> </u>
	Lead	mg Pb/l						·		┨─────
28	Chromium(VI)	mg Cr(Vi)/I	<0.01	0.01	<0.01	<0.01	0.01			<u> </u>
29	Cadmium	mg Cd/l		<u> </u>						+
30	Arsenic	mg As/1					0.2			
31	Cyanide	mg CN/t	<0.01	<0.01	<0.01	<0.01	U.4			ł
	Mercury	mg Hg/I				_		0.4	0.7	0.6
33	Fluoride	mg F/1					+	0		
- 34	Silica	mg SiO ₂ /1	14							1
35	Molybdenum**	mg Mo/l	0.03	0.03	0.05	i 0.03	3 0.04	0.02	2 0.03	
36	Baryllium	mg Be/I						<0.01	0.11	<0.0
	Aluminum	mg Al/i	0.01					<u>(0.0</u>		
38	Total Coliforms	No. in 11	2380	180) 180	23	<u> </u>	+ <u>``</u>		<u> </u>
39	General Bacteria	No. in 1 ml				<u> </u>	·		+	1
40	Residual Chlorine	mg ClO/I		+			+	1	+	1
41	BOD	mg O ₂ /I						- }		+
42	SS	mg SS/I								; 1(
	Acidity	mg CaCO ₃ /I	12					9 9		
A	Alkalinity	mg CaCO ₃ /1	250	210	219	5 280	24	170	330	<u>ار عن</u>

Annex VIII-1 (1/20) Analysis Results for Wells (Phase 1) in 1997

* Flame Emission Spectrometric Method ** Colorimetry in Ulaanbaatar

Annex VIII-1 (2/20) Analysis Results for Wells (Phase 2) in 1997

Item		1	16-Jui-97		16-Jul-97			16-Jul-97 SW-6	16-Jul-97 SW-7	16-Jul-97 SW-8
	ltem	Unit	SW-1	SW-2	SW-3 7.7	SW-4	SW-5		8.1	
	рH		7.8	8		8		2.5		
2	Temperature	°C	7	6	6		4	2.5		
3	Odor	dilution factor					<u> </u>			
	Taste	dilution factor		6	10	20	4	20	20	20
	Color	mg/1 Pt scale	20	0	<1					
	Turbidity	kaolin (JIS)	3	100		288		46	· · · · · · · · · · · · · · · · · · ·	83
7	Conductivity	mS/m(at 25°C)	284						<u> </u>	
8	Hardness	mgCaCO ₃ /I	1825					3610	1	1
9	Dry Residue	mg/l	174	424	1084	120	1/52	3010		
	COD(KMnO ₄ ,alkali)	mg O ₂ /I		-	-		<u> </u>		6.7	• · · · · · · · · · · · · · · · · · · ·
	Nitrite	mg NO ₂ /I	0.2	0.5	0.01	0.08	0.04	0.25		2
	Nitrate	mg NO ₃ /I	5.5	5.4		8.4		4	4	0.0
	Ammonium	mg NH ₄ /1	0.43	0.4				0.37	0.28	1.0
14	Orthophosphate	mg P0 ₄ /I	0.3	0.15	0.1	0.1			0.2	
		mg HCO ₃ /I	329	220	281	35	1	207	738	
		mg CO ₃ /1	0.66	0.55	0.35	1	1			
	Chloride	mg Cl/1	18	16	17	17				
		mg SO ₄ /1	420		240	300			1	3
		mg Na/I	49,1	47	54.2	52.3	54.5			
	Sodium#	mg K/I	10			9				
	Potassium Calcium	mg Ca/l	150			28				
	Magnesium	mg Mg/l	300			170				
	Copper	mg Cu/l	0.1		<0.1	0.1				
	Iron	mg Fe/l	0.3		0,1	Q.35				
	Manganese	mg Mg/I	0.8		0.2	<u>0.1</u>	0.8	0.1	0.2	0.
	Zinc	mg Zn/l					_	ļ		<u> </u>
	Lead	mg Pb/I					ļ			0.0
28	Chromium(VI)	mg Cr(VI)/I	0.01	0.05	0.02	0.02	0.04	0.03	0.02	0.0
	Cadmium	mg Cd/I		<u> </u>		_				<u> </u>
	Arsenic	mg As/I		<u>.</u>	· · · · · · · · · · · · · · · · · · ·	L		0.05	0.05	0.0
31	Cyanide	mg CN/1	0.5	0.03	0.1	0.1	2.5	0.05	0.03	
32	Mercury	mg Hg/l					0.3	<0.01	<0.01	<0.0
33	Fluolide	mg F/I	<0.01			<0.01			11	
34	Silica	mg SiO ₂ /I	14			1				
35	Molybdenum**	Img Mo/I	0.02	0.03	0.05	0.03	0.04	0.02	0.03	
36	Beryllium	mg Be/l						0.03	<0.01	0.0
	Aluminum	mg Al/1	0.1							
38	Total Coliforms	No. în 11	>2380	960	230	>2380	2360		230	
39	General Bacteria	No. in 1 mi	·	 	·	+	<u> </u>			<u></u>
40	Residual Chlorine	mg CIO/I	· · · · ·		 	······		<u>}</u>	t	
41	BOD	mg O <u>₁</u> /I	<u> </u>	L	<u> </u>	<u> </u>		1	 	
42	SS	mg SS/I			 			95	105	10
43	Acidity	mg CaCO ₃ /1								
44	Alkalinity	mg CaCO ₃ /I	270	180	230	290) 115	170	805	38

* Flame Emission Spectrometric Method ** Colorimetry in Ulaanbaatar

tem			23-Jul-97	23-Jul-97	23-Jul-97	23-Jul-97		23-Jul-97 SW-8	23-Jul-97 SW-7	23-Jul-9 SW-8
No. H	-	Unit	SW-1	SW-2	SW-3	SW-4		SW-0 8.6	<u>8.1</u>	7.
110			7.4	8.1	7.8	8.1	8.4	2.4	3.5	5.
	emperature	°C	5.5	3.7	7	5		<u> </u>		
)dor	dilution factor	<1	<1	<1	<1	<u> </u>	<u> </u>		
	aste	dilution factor	<u> </u>			6	5	20	20	
	Color	mg/I Pt scale	4	2	2	3			3	0.
6 1	Furbidity	kaolin (JIS)	5	1	0.5	450		91.3	524	134
7 (Conductivity	mS/m(at 25°C)	436	186.7	360			300	1150	185
	lardness	mgCaCO ₃ /l	1375		1	3375		1660		77
- alr	Dry Residue	mg/l	344	480	1686	1490		1000	3.5	,
	COD(KMnO4,alkali)	mg O ₂ /I	-	-	-		7	4		0.0
	Vitrite	mg NO2/1	0.06	0.01	0.03			0.05		
	Vitrate	mg NO ₃ /I	9.6	9.8	9.6	28	0.8	5.6	6	0
		mg NH ₄ /I	0.6	0.3	0.35	0.35	1.2	0.45	0.45	1
	Ammonium	mg P04/1	0.22	0.08		0.08	0.04	0.04		0.
	Orthophosphate	Img HCO ₃ /I	427	281			153	214	1007	3
	Bicarbonate		0.27				0.96	2.14	3.18	0.
	Carbonate	mg CO ₃ /I		· · · · · · · · · · · · · · · · · · ·				5	17	
17	Chloride	mg Cl/1	15					and the second se	500	-
18	Sulfate	mg SO ₄ /1	1000					1		5
19	Sodium*	mg Na/i	49			<u> </u>	A commence of the second	and the second se		
20	Potassium	mg K/1	9							
	Calcium	mg Ca/l	236							3
	Magnesium	mg Mg/l	188.4				and the second se			0.
	Copper	mg Cu/l	0.12							0
	Iron	mg Fe/l	<u>0.17</u> <0.1	a company of the second se	the second se				<0.1	
	Manganese	mg Mg/1	<u></u>	······································	· · · · · · · · · · · · · · · · · · ·					
	Zinc	mg Zn/l	0.02	0.0	0.0	0.0	0.02	0.01	0.01	0
	Lead**	mg Pb/i mg Cr(VI)/i	<0.01		the second se	the second se		<0.01		<0
	Chromium(VI)	mg Cr/l	0.03	and the second se	the second se					
	Chromium**	mg Cd/l	0.02		the second s					
	Cadmium**	mg As/1	0.0	Television and the second s		3 0.0				
	Arsenic** Cyanide	mg CN/1	0.3		4 0.04					
	Mercury**	mg Hg/1	0.00	3 0.00						
	Fluoride	mg F/i	0.04							
	Silica	mg SiO ₂ /l	2.				1			
	Molybdenum**	mg Mo/I	0.02							
	Beryllium**	mg Be/l	0.00				8 0.003			
	Aluminum	mg Al/1	<0.0						the second se	
	Total Coliforms	No. in 11	>238	96 96	0 >238	0 96	0 94	4 2:	300	<u>+</u>
	General Bacteria	No. in 1 ml		1						
	Residual Chlorine	mg ClO/i							+	1
	BOD	mg O ₂ /I						·	+	
	SS	mg SS/i						5 92.	5 70	<u></u>
		mg CaCO ₃ /1	11	0 8	0 7			· · · · · · · · · · · · · · · · · · ·	-	
	Alkalinity	mg CaCO ₃ /I	35	0 23	0 20	0 25	5 12	5 17	5 82	5 3

Annex VIII-1 (3/20) Analysis Result for Wells (Phase 3) in 1997

* Flame Emission Spectrometric Method

** Colorimetry in Ulaanbaatar

8-3

			00 1 07	25-Jun-97	25- 107	25- kun-97	25-, hun-97	25-Jun-97	26-Jun-97	26-Jun-97	25-Jun-97	25-Jun-97		25-Jun-97	
		25-Jun-97 DR-1	DR-2	DT-1	DT-2	DT-3	DT-4	DT-5	DW-1	DW-2	DG-1	DG-2	DG-3	DG-4	DG-5
em.		Reservoir1			Government		School	Apartment	Water wagon1	Water wagon2	Stock water 1	Stock water 2	Stock water 3		
o. item	Unit	Reservoir i 8.2						8.2	8.4	8.4	8.2		8.3		
1 pH			4.5	· · · · · · · · · · · · · · · · · · ·				9	8	9	19	19.4	19.7	19.7	<u> </u>
2 Temperature			4.7	17.5	······································	·	_								ļ
3 Odor	dilution factor		 				· · · · · · · · ·						<u></u>		ļ
4 Taste	dilution factor				<1	(1	20	<1	2	(1	2	4	<1		
5 Color	mg/l Pt scale	<1						6	<1		2	2	<1	<1	
8 Turbidity	kaolin (JIS)	(1								<u></u>	60	58	58		
7 Conductivity		60			<u>58</u> 220				240				265	285	
8 Hardness	mgCaCO ₃ /l	265					760		2520	614	2051	208	694		
9 Dry Residue	mg/1	752			414	608 <1	2		<1	the second s	3	3	ব	2.8	
10 COD(KMnO		<1		1	(0.01		<0.01	<0.01	<0.01	<0.01	0.02	0.01	<0.01	<0.01	<0
11 Nitrite	mg NO ₂ /I	<0.01			<0.01				<u> </u>	1			4.1	4.9	
12 Nitrate	mg NO ₃ /1	4	3.1	4.9	4.6	4.1	4.3			<u>_</u>					1
13 Ammonium	mg NH ₄ /I			ļ			ļ								
14 Orthophosp	nate mg P04/l		<u> </u>		L			244	244	244	238	223	226	220	
15 Bicarbonate	mg HCO ₃ /I	217							1						1
16 Carbonate	mg CO ₃ /I	0.86	1.25	1.70	2.50	0.77	0.69	1.25	1,84				11		
17 Chloride	mg Ct/1	9	10	3	9	6	6	8	8	14	10		· · · · · · · · · · · · · · · · · · ·	°	
18 Sulfate	mg SO ₄ /I				[·				· · · · · · · · · · · · · · · · · · ·		1
19 Sodium	mg Na/I				I	[·						3.2	
20 Potassium	mg K/I	3,3	3	2.5	3.2	2.6	2.8	3.2							
21 Caloium	mg Ca/1	24		30	26	26	20	27	20		1				
	mg Mg/1	49				37	36	39	46						
22 Magnesium	mg Cu/l	0.11				0.32	0.67	0.13	2	<0.1	0.17			0.14	
23 Copper	mg Co/i	0.12						0.04	0.08	0.03				**************************************	
24 Iron		0.1					0.4	0.1	.0.1	<0,1	<0.1	<0.1	<0.1	<0.1	<hr/>
25 Manganese	mg Mn/l	<u></u>	<u></u>										ļ		
26 Zinc	mg Zn/	·	0.05		0.036					· · · · · · · · · · · · · · · · · · ·		0.041		ļ.,	
27 Lead+	mg Pb/l						0.02	0.03	0.02	0.01	0.04	0.02	0.02	0.02	<u> </u>
28 Chromium()		0.01			0.028							0.026	3	}	
29 Cadmium*	mg Cd/l		0.039	1	0.028						1	0.024			1
30 Arsenic*	mg As/l		0.033		+		0.04	0.05	0.05	0.05	0.75			0.05	s _c
31 Cyanide	mg CN/I	0.05					0.01	0.04	V.V.			0.01			
32 Mercury*	mg Hg/l		0.01		0.01		0.86	0.62	<0.05	(0.05	0.74			0.61	<
33 Fluoride	mg F/1	0.2	2 0.05	0.54	0.52	0.82	0.88		10.05			1		1	
34 Silica	mg SiQ ₂ /I		ļ		.					<u> </u>	<u>├</u>			1	
35 Molybdenun	mg Mo/I			I	┡	<u> </u>			+	·	<u> </u>	1 .		1	1
36 Beryllium	mg Be/l			<u></u>	l	<u> </u>	<u> </u>			<u> </u>	+	1	1		1
37 Aluminum	mg Al/1			1	_	<u> </u>	 	ļ	<u> </u>			28	11		2
38 Total Colifo	ms No. in 1]		<u>ı </u>	4	<		·		1		11				2)
39 General Ba		300	700	500			·		720	<u> </u>	290			<0.02	
40 Residual Ch		<0.0		<0.02	<0.02	<0.02	<0.02	<0.02	·		<0.0	2 <0.02	<u> </u>	< <u></u> <0.02	<u> </u>
41 BOD	mg O ₂ /l		1	1					<u> </u>		ļ			<u> </u>	+
42 55	mg \$\$/1	- <u> </u>			·			1	<u> </u>	1	<u> </u>				<u>+</u>
42 SS 43 Aoidity	mg CaCO ₃ /1	- 6!	5 4	5 100	85	76		the second s							
44 Alkelinity	mg CaCO ₃ /1	17				200	180	200	200	200	19	5 183	3 1B	5 180	4

Annex VIII-1 (4/20) Analysis Results for Water Supply System (Phase 1) in 1997

* Colorimetry in Ulaanbaatar

8-4

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	·		17-Jul-97	18- bil-07	18-, hil-97	17-Jul-9	7 17-Jul-97	17-Jul-97	17-Jul-97	17-Jui-97	17-Jul-97				
	1. A		DR-2	DT-1	DT-2	DT-3	DT-4	101-5	1U11-1	DW-2		DG-2	DG-3	DG-4	DG-5 Stock water5
em .	1	DR-1 Reservoir1	Reservoir2		Government		School	Apart	Water wagon i			Stock water 2	Stock water 3 7.8		
o, Item	Unit	8.2		8.2			2 8.1	8.2							
1 pH	°C	5	5	20				14.5	8	7	12	10	10	10	·
2 Temperature 3 Odor	dilution factor	¥	X							L			 		
4 Taste	dilution factor	1							ļ		2	2	5	20	<
5 Color	mg/I Pt scale	- 4	3				1 5	2			2			3	<
6 Turbidity	kaolin (JIS)	<1			1		1 < 5 5	<1 57						60	5
7 Conductivity	mS/m(at 25°C)	58												320	24
8 Hardness	mgCaCO ₃ /1	310	250	250					· · · · · · · · · · · · · · · · · · ·		248		1		19
9 Dry Residue	mg/l	274	440	450	304				the second s		<1				
10 COD(KMnO ₄ , sikali)	mg O ₂ /1	<1	<1	2	· 1	- 1 - 1 - 1 - 1 - 1	3 <						0.5		
11 Nitrite	mg NO ₂ /I	<0.01	<0.01	0.01	0.13	0.0	1 <0.0	0.02			0.02	<0.01			0.0
12 Nitrate	mg NO ₃ /1	5	4.5	0.4	5	1	5 0.	5	4.9	5	4	4	9	0	·
13 Ammonium	mg NH ₄ /1											· · · · · · · · · · · · · · · · · · ·			
14 Orthophosphate	mg P04/									·					
	mg HGO ₃ /I	226	232	275	232	22	0 26	177	275	214			4		\$ · · · · · · · · · · · · · · · · · · ·
15 Bicarbonate	mg CO ₃ /i	0.90					9 0.8	1.12	1.09	1,35	0.87	1.70		<u> </u>	£
16 Cerbonate	mg Cl/l	10		9			8 1	о р е	9	7	6	7	15	10	1
17 Chloride		58.2				· · · ·	1	1.11.11.11.11				l	<u> </u>		ļ
18 Suifete	mg SO ₄ /1	30.2	·			<u> </u>		1	1	1					L
19 Sodium	mg Na/l mg K/l	1												25	2
20 Potassium	mg Ca/l	27	24	23	22		25 3								
21 Calcium 22 Magnesium	mg Mg/l	70				4	15 3								
23 Copper	mg Cu/l	0.2					.1 0,								
24 liron	mg Fe/1	0.1		0.1			5 0.						And the second s	the second se	
25 Mangenese	mg Mn/l	0.2	0.2	<0.1	<0.1	ļ0	,1 0.	<0.1	0.1	<u> </u>	<u>_</u>	<u>\v.</u>			
26 Zino	mg Zn/l				· · · · ·			<u>}</u>	+				· · · ·	1	
27 Lead	mg Pb/l						0.0	3 0.0	0.00	0.02	0.02	0.03	0.01		0.0
28 Chromium(VI)	mg Cr(VI)/1	0.03	0.03	0.03	0.01	0.	0.0	<u>yv</u>	<u>,</u>						
29 Cedmium	mg Cd/l			·		·}		1			1	1			
30 Arsenic	mg As/l			0.04	0.04	il 0.	14 0.0	8 0.0	0.03	0.00	0.04	0.05	0.0	5 0.06	0.0
31 Cyenide	mg CN/I	0.06	0.03	0.04	0.0-		<u></u>	× · · · · · · · · · · · · · · · · · · ·	1						
32 Mercury	mg Hg/1		<0.05	<0.05	<0.05	5 707	15	<0.0	<0.0	5 <0.05	<0.05	0.1	(0.05	5 <0.05	si <0.0
33 Fluglide	mg F/1	0.1	<u> </u>	<u> </u>	<u> </u>	<u> </u>	د در ا			1 N N	•				
34 Silica	mg SiO ₂ /1		I		<u> </u>							1		1	
35 Molybdenum	mg Mo/I			· · · · · ·	· <u>+</u> -	-{	-								
36 Beryllium	mg Be/l		<u> </u>	.	+	+		+	1					<u></u>	
37 Aluminum	mg Al/l		21	!		il	1 7	3	1		11				
38 Total Coliforms	No. in 11	145				<u>.</u>	30		200		300				
39 General Bacteria	No. in 1 ml	<0.02						2 <0.0	2 0.0	3 <0.02	<0.0	2 <0.0	2 <0.0	2 <0.02	<u>q (0.</u>
40 Residual Chlorine 41 BOD	mg ClO/1 mg O ₂ /1				1	1							L		
	mg SS/I	+		1		1					Į				<u></u>
42 55	mg CaCO ₃ /I	60	50	35	5	5	70 6	5 3	5 8	60	31		i la anno 1970 - 1970 - 1970 - 1970 - 1970 - 1970 - 1970 - 1970 - 1970 - 1970 - 1970 - 1970 - 1970 - 1970 - 197		
43 Acidity	mg CaCO ₃ /1	18			<u> </u>		80 21	5 14	5 22	5 175	22	5 . 17	5 25	oļ 205	5 2:

Annex VIII-1 (5/20) Analysis Results for Water Supply System (Phase 2) in 1997

$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			24-Jul-97	24-Jul-97	24-Jul-97	24-Jul-97	24-Jul-97	24-Jul-97	24-Jul-97	24-Jul-97	24-Jul-97	24-Jul-97	24-Jui-97	24-Jul-97	24-Jul-97	24-Jul-97
Instruct Unick Teamword Segue and a starting Construment Heat Solod Approxant/1 Starting Note water 3 Stort water 3 S	14											DG-1				
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		I Init								Water wagon1	Water wegon2	Stock water 1				
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		Iume														
		Pr							8.5	5	7					18
4 Testa Obtion feator C1						<1	<1	<1	<1	<1					1	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $									<1	<u><1</u>	<1	<1			1	<1
						2	2	4	2	2						
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			2	<1	(1	(1)	<1	2	<1							
B Increases mcCaCO_r/1 300 300 288 188 300 450 4313 228 250 200 3/2 3/2 10 DOXRMAQ_stab mc Qr/1 28 250 216 424 218 622 810 532 322 335 115 10 DOXRMAQ_stab mc Qr/1 2 1 2 2 1.5 2.2 2 2 1.2 335 115 11 Norte mc NO/1 7.4 8.5 7 7 8 9 6.2 0.2			88	64	88	93	73	68	86							
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$			300	300	288	188	300	450	450	313	238					
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		<u>~</u>		206	570	218		434	218	922	810	528	322	396	156	
International and a state of the state			2007								2	2	<1	2	3.5	2.8
II Nurte Imp RUy/1 QUI			2			-				Le contra de la co		(0.01	(0.01	(0.01	0.03	<0.01
12 Number	11 Nitrite							1				(0.01				
13 Ammonum mt m/n/r 0.2 <th0.2< th=""> <th0.2< th=""> 0.2 0.2</th0.2<></th0.2<>	12 Nitrate	mg NO ₃ /1	7.4	8.6	7	7	. 8	9				8	8.2	9,4	/	
14 Orthophosphate mg PQ ₄ /1 me me<	13 Ammonium	mg NH ₄ /I	0.2	0.2				0.2	0.2	[0.2					
15 Bicarbonate mg HCO_V/ 244 250 244 244 242 225 366 266 256 256 256 255 275 16 Gerbonate mg CO_V/ 1.12 1.00 1.00 0.97 0.97 1.38 11.57 2.88 1.28 2.03 1.62 1.73 17 Chloridg mg CV/I 8 8 8 13 10 8 8 2 6 18 Safutha 60 65 8 13 10 8 8 2 6 20 Potessium mg N/I 9 6 9 55 22 40 28 44 28 52 32 21 Capar mg K/I 54 54 53 25 57 95 51 40 34 43 59 56 22 Opper mg Cu/I 0.10 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1													• •			
10 Catomate mg CO ₂ /1 1.22 1.00 1.00 0.97 0.97 1.38 11.57 2.65 1.28 2.03 1.62 1.73 17 Chloride mg Cl/L 8 8 8 9 8 13 13 10 8 8 7 6 18 Suifate 00 05 - <td></td> <td></td> <td>244</td> <td>250</td> <td>250</td> <td>244</td> <td>244</td> <td>244</td> <td>275</td> <td>366</td> <td>268</td> <td>256</td> <td>256</td> <td>256</td> <td>275</td> <td>244</td>			244	250	250	244	244	244	275	366	268	256	256	256	275	244
TB Classing mg CU/1 1.22 1.00 0.01<							0.07	0.07	1 38	11.57	2.68	1 28	2.03	1.62	1.73	1.94
17 Choride mg Ch/L 8 8 9 6 10					1.00	0.87										7.5
19 Godium mg Ne/1 mg		mg CI/I			8	9	8	13	3	10	<u>∤ · · · - °</u>	• • • • •	0	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			60	65				<u> </u>								
21 Cashim mg Ca/L 30 30 28 28 29 35 22 40 28 44 28 52 32 22 Magnasium mg Ma/L 54 55 35 57 87 95 51 40 34 43 59 56 56 22 Magnasium mg Ma/L 0.1								<u> </u>		<u> </u>	· · · · · · -					
21 (2) dotum mit (24/1 30 30 20											10	44	79	52	32	27
122 Magnesium Imm (M2/1 34 35 36																
223 [Copper] mg Gu/l 0.1 0.0 0.0 0.1 0.0 <th0.0< th=""> <th0.0< th=""> 0.0 0.0</th0.0<></th0.0<>								01								
22 Intron mg He/L 0.09 0.1																
Z2 Marganisation Constraint Constraint </td <td></td>																
27 Leads mg Pa/1 0.05 0.04								<u> </u>	<u>v.1v</u>							
El Bitromium(VI) mg Cr(VI)/1 0.04 0.03 0.02 0.03 0.02 0.02 0.02 0.02 0.01 0.02 Chromium(VI) mg Cr(VI)/1 0.04 0.03 0.03 0.02 0.02 0.02 0.02 0.02 0.01 0.02 Chromium* mg Cr(/I) 0.03<			040			0.04		1								
28 Convolution (v)///1 0.01 0.02 0.02 0.03 0.03 29 Cadmium* mg Cr/1 0.03 0.03 0.03 0.03 0.03 30 Arsenic* rmg As/1 0.03 0.03 0.03 0.03 0.03 0.03 31 Cyenide mg Cr/1 0.01 0.01 0.03 0.03 0.03 0.03 0.03 0.04 32 Mercury* mg Hz/1 0.01 0.01 0.05 <0.05			0.04		0.02		0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02
Only instrumt mg Cd/1 0.03			0.04								· · · · · · · · · · · · · · · · · · ·	1				
28 Oracitation ma OA 0.03																
Observery mg CN/t 0.04 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.04 32 Mercury* mg He/1 0.01 0.01 0.01 0.01 0.03 0.03 0.03 0.03 0.03 0.03 0.04 0.03 0.04 0.04 33 [Grande mg F/1 0.05					 			1	N ¹							
31 Overside Int 01/1 0.00 0.01 0.01 0.01 0.01 0.01 0.05			0.04				0.03	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.04	0.02
Observation			0.04				0.00									
35 Notive mg SiO ₂ /1 mg Mo/1 mg Mo/1<			<0.05		(0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
35 Mol/bdenum mg Mo/1 mg Be/1								1								· · · · · · · · · · · · · · · · · · ·
36 Beryllium mg Be/l					<u>├</u>			<u>;</u>			1	<u> </u>				
37 Atuminum mg Ai/l					<u>├</u> <u>-</u> <u>-</u> <u>-</u> <u>-</u>			<u>+</u>	· · ·		1					
38 Total Culiforma No. in 1 39 9 3 4 4 14 11 4 7 460 15 39 General Bacteria No. in 1 ml 1000 150 400 350 150 250 300 300 500 100 700 40 Residual Chlorine mg Cl0/1 0.1 0.2 40.1 0.1 0.1 0.1 0.2 0.2 0.2 41 BOD mg Cs/1					I					· · · · · · · · · · · · · · · · · · ·						
38 Constraints No. in 1 ml 000 150 400 350 150 250 300 300 500 100 700 39 General Bacteria No. in 1 ml 1000 150 400 350 150 250 300 300 500 100 700 40 Residual Chlorine mg ClQ/1 0.1 0.2 <0.1			20	a				1	4	14	11	4	7	460	15	
39 Ceneral Bacterial residual Chlorine mg ClO/L 0.1 0.2 0.1 0.1 0.1 0.1 0.2 0.2 0.2 40 Residual Chlorine mg ClO/L 0.1 0.2 0.1 0.1 0.1 0.1 0.1 0.2 0.2 0.2 41 BOD mg Cs/L					v				150				500	100	700	500
40 new could offer rise mg Cit/1 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.1 0.2 0.1						<01	<01					0.1	0.2	0.2	0.2	0.2
42 \$\$ mg \$\$/! mg \$\$/! <thm< td=""><td></td><td></td><td>0.1</td><td>Ψ.ε</td><td></td><td></td><td></td><td></td><td></td><td></td><td><u></u></td><td></td><td></td><td></td><td></td><td></td></thm<>			0.1	Ψ.ε							<u></u>					
43 Acidity mg CaCO ₃ /1 35 35 38 28 43 63 85 30 35 35 50 65 80				<u> </u>												
			. 35	35	38	28	43	63	85	30	- 35	35	50	85	60	30
44 Alkelinity mg C=CO-/1 200 205 205 200 200 200 225 300 220 210 210 210 210 225	44 Alkalinity		200	205	205	200	200	200	225	300	220	210	210	210	225	200

Annex VIII-1 (6/20) Analysis Results for Water Supply System (Phase 3) in 1997

* Colorimetry in Ulsanbastar

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		······································	1 05 11 07	05	25-Jul-97		25-Jul-97		25-Jul-97			25-Jul-97	25-Jul-97	25-Jui-97		
			25-Jul-97	25-00-97 DR-2	DT-1	DT-2	DT-3	DT-4		COLLER A	DW-2	DG-1	DG-2	DG-3	DG-4	<u>DG-5</u>
.em	and the second second		DR-1 Reservoir1	Dress win?	Magnital	Government		School	Agertment	Water wagon?	Water wagon2	Stock water 1	Stock water 2	Stock water 3	Stock water 4	Stock waters
<u>o. It</u>		Unit	Reservoir1	Heservoir2	riospica	Governiaent							l		E	
1 p			5.2	5.2	16.4		7	· · · · · ·	5.7			9.9	9.4	11.6	15.3	16,
	emperature	<u>°C</u>	2.4		10.4			<u> </u>							ļ	
)dor	dilution factor					1			× .					·	
	aste	mg/I Pt scale			·····		1				<u> </u>			ļ	<u></u>	
	Color Furbidity	kaolin (JIS)					1							69.2	63.8	61
	Conductivity	mS/m(at 25°C)	88.5	92.5	61		82.4		85.5			72.4	72.8	09.2	03.8	VI
		mgCaCO ₃ /I			1					Į				<u>i</u>	L	
	lardness						1			· · · · · · · · · · · · · · · · · · ·					L	
	Dry Residue	mg/1				·····	1									
10 0	COD(KMnO4,aikali)	mg 02/1				.	1									
11 N	Vitrito	mg NO ₂ /I	· · · · · · · · · · · · · · · · · · ·					<u> </u>		<u> </u>	<u> </u>					
12	Nitrate	mg NO ₃ /1									· · · · · · · · · · · · · · · · · · ·			1		1
13 /	Ammonium	mg NH ₄ /1				L		ļ			<u> </u>		<u> </u>			
14 (Orthophosphete	mg P04/1			<u> </u>	ļ		· · · · ·		· · · · · · · · · · · · · · · · · · ·		ł		<u> </u>	<u> </u>	
15 8	Bicarbonate	mg HCO ₃ /I					····	ļ				<u> </u>		+	1	<u> </u>
16 (Carbonate	mg CO ₃ /l						ļ	_	<u> </u>				+		1
	Chloride	mg Ci/l		ļ		1	·						1		1	
	Sulfate	mg SO ₄ /I		· · · · ·				ł		<u> </u>			1			
	Sodium	mg Na/i			· · · · · · · · · · · · · · · · · · ·											1
	Potassium	mg K/!		· · · · · · · ·	<u> </u>			t		<u> </u>	1					
21 0	Celcium	mg Ca/l			· · · · · · · · · · · · · · · · · · ·	 		1								
	Magnesium	mg Mg/i		<u>↓</u>	+	+				1				L	<u></u>	
	Copper	mg Cu/l		<u> </u>		1		1					<u> </u>			ļ
	Iron	mg Fe/l mg Mn/l				1		1								
	Manganese							1				T	<u> </u>	j		<u> </u>
28	Zino	mg Zn/l mg Pb/l					1						<u></u>			ļ
2/1	Lesd	mg Gr(VI)/i	-											<u> </u>	<u> </u>	
28	Chromium(VI) Cedmium	mg Cd/l			1			1					<u> </u>	ļ		
	Arsenic	mg As/1		1				1				ļ	1			+
	Cyanide	mg CN/I		1		1						L				
	Mercury	mg Hg/l			1										<u> </u>	
331	Fluolide	mg F/l		· ·	1					L			- 	· · · · · · · · · · · · · · · · · · ·		
	Silica	mg SiO ₂ /I			1	1		T .			I					
	Molybdenum	mg Mo/I		1	1	1	1								+	·
	Motybdenum Beryllium	img Be/l		1		1						<u> </u>		+	. <u> </u>	<u> </u>
	Aluminum	mg Al/I			1		1								2	+
	Total Coliforms	No. in 11	7	7 4	4 <	3		3					· · · · · · · · · · · · · · · · · · ·			
	General Bacteria	No. in 1 ml	220	10:	2 4	2	3		2:		L	10				
	Residual Chlorine	mg CIO/I	0.7		1 <0.	1	<0.	ų	0.	·		<0.	·	4 <u>·</u>	·	+
	BOD	mg O ₂ /i									·	-{ - ···			+	
42		mg SS/I					1							+	- <u> </u>	1
	Acidity	mg CaCO ₃ /1	1							·		<u> </u>	· 	4		
	Alkelinity	mg CaCO ₃ /I		1			1	1		1			•	1		

Annex VIII-1 (7/20) Analysis Results for Water Supply System (Phase 4) in 1997

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			26-Jun-97		26-Jun-97	
tem			R-1	R-2	R-3	R-4
	Item	Unit	Hadaasan	Mandaliin	Esuitiin	Hanginaagiin
	pH		8.4	the second s	8.6	9.3
	Temperature	°C	14		12.5	2
3	Odor	dilution factor				
4	Taste	dilution factor		· · · · · · · · · · · · · · · · · · ·		
5	Color	mg/I Pt scale	20	1	10	
6	Turbidity	kaolin (JIS)	10		<1	10
7	Conductivity	mS/m(at 25°C)	1999		528	
8	Hardness	mgCaCO ₃ /I	300		445	450
9	Dry Residue	mg/l	1054		127	
	COD(KMnO ₄ ,alkali)	mg O ₂ /I		•	4	-
11	Nitrite	mg NO ₂ /I	0.01		0.01	<0.01
12	Nitrate	mg NO ₃ /1	0.2	2	0.3	0.2
	Ammonium	mg NH₄/I				0.34
	Orthophosphate	mg P0 ₄ /l			-	
(Bicarbonate	mg HCO ₃ /I	345	5	1098	
		$\frac{1}{\text{mg CO}_3/1}$	3.45		13.82	
	Carbonate		1.6		18	
	Chloride	mg Cl/1		4		Ý
i	Sulfate	mg SO ₄ /I				
	Sodium	mg Na/I				7
1	Potassium	mg K/I		9	10	
	Calcium	mg Ca/l	<			
	Magnesium	mg Mg/l	0.1		0.14	
	Copper	mg Cu/l	0.1		0.0	
	Iron	mg Fe/l	0.1		0.0	and a second second second
	Manganese	mg Mn/l mg Zn/l		4		
	Zinc / Lead	mg Pb/l				
	B Chromium(VI)	mg Cr(VI)/I	0.0	71	0.0	1
	Cadmium	mg Cd/l		· · · · · · · · · · · · · · · · · · ·		
h	Arsenic	mg As/l				
	l Cyanide	mg CN/1	0.0	6	0.0	9 0.8
	2 Mercury	mg Hg/l				
	3 Fluoride	mg F/l	0.2	2	0.1	9
	4 Silica	mg SiO ₂ /I				
3	5 Molybdenum	mg Mo/l		-		
	6 Beryllium	mg Be/l				
	7 Aluminum	mg Al/l				
3	8 Total Coliforms	No. in 11	96	50	>238	0
3	9 General Bacteria	No. in 1 ml			a and a	
4	0 Residual Chlorine	mg ClO/I				
4	1 BOD	mg O ₂ /I				
4	2 55	mg SS/I				
4	3 Acidity	mg CaCO ₃ /I	4	‡ 0	75	50
	4 Alkalinity	mg CaCO ₃ /I	28	33	90	0

Annex VIII-1 (8/20) Analysis Results for Rivers (Phase 1) in 1997

			17-Jul-97			17-Jul-97
ltem			R-1	R-2	R-3	R-4
No.	ltem	Unit	Hadaasan	Mandaliin	Esuitiin	Hanginaariin
1	рН		8.9			8.7
2	Temperature	°C	15			10
	Odor	dilution factor				
	Taste	dilution factor				
	Color	mg/l Pt scale	20			5
	Turbidity	kaolin (JIS)	5	A company of the second s		102
	Conductivity	mS/m(at 25°C)	1830			410
	Hardness	mgCaCO ₃ /I	6875			
9	Dry Residue	mg/l	4960	· · ·		1016
10	COD(KMnO ₄ ,alkali)	mg O ₂ /I	-			
11	Nitrite	mg NO ₂ /1	0.02			0.01
12	Nitrate	mg NO ₃ /I	0.5			5.6
13	Ammonium	mg NH ₄ /I				
14	Orthophosphate	mg P0 ₄ /i			2	
15	Bicarbonate	mg HCO ₃ /I	329			403
. 16	Carbonate	mg CO ₃ /I	10.41			6.38
17	Chloride	mg Cl/l				15
18	Sulfate	mg SO ₄ /I				
19	Sodium	mg Na/I				
20	Potassium	mg K/1				
21	Calcium	mg Ca/l	(-		22
22	Magnesium	mg Mg/l	1650			85
	Copper	mg Cu/l	0.2		· · · · · · · · · · · · · · · · · · ·	0.1
	Iron	mg Fe/l	0.13	1		0.42
	Manganese	mg Mn/i	1!	J	· · · · · · · · · · · · · · · · · · ·	0.2
	Zinc	mg Zn/l				
	/ Lead	mg Pb/l				0.01
	B Chromium(VI)	mg Cr(VI)/I	0.0	3		0.01
	Cadmium	mg Cd/1				
	Arsenic	mg As/l mg CN/l	0.	5		0.05
	1 Cyanide 2 Mercury	mg Hg/l	U.	<u> </u>		
	3 Fluoride	mg F/l	<0.0	5	· · · · · · · · · · · · · · · · · · ·	0.05
	4 Silica	mg SiO ₃ /I				
	5 Molybdenum	mg Mo/1				
	6 Beryllium	mg Be/I				
	7 Aluminum	mg Al/l	· · ·			
	8 Total Coliforms	No. in 1I	238	0		960
	9 General Bacteria	No. in 1 ml				
	0 Residual Chlorine	mg ClO/I				
4	1 BOD	mg O ₂ /I				
4	2 \$\$	mg SS/I				
4	3 Acidity	mg CaCO ₃ /I	9	5		160
4	4 Alkalinity	mg CaCO ₃ /1	27	/0 <u> </u>		33(

Annex VIII-1 (9/20) Analysis Results for Rivers (Phase 2) in 1997

			23-Jul-97			23-Jul-97
ltem			R-1	R-2	R-3	R-4
	ltem	Unit	Hadaasan	Mandaliin	Esuitiin	Hanginaariin
	pН		8.7			8.1
	Temperature	℃	22			8.5
	Odor	dilution factor	<1			1
	Taste	dilution factor		. :		
	Color	mg/l Pt scale	5			6
	Turbidity	kaolin (JIS)	<1			1
	Conductivity	mS/m(at 25°C)	1746			141
8	Hardness	mgCaCO ₃ /1	8195	· ·		425
9	Dry Residue	mg/l	1724			1058
10	COD(KMnO₄)	mg O ₂ /l				
11	Nitrite	mg NO ₂ /I	<0.01	1		<0.01
12	Nitrate	mg NO ₃ /I	0.7		1	9.6
13	Ammonium	mg NH ₄ /I	0.4	1	-	0.23
14	Orthophosphate	mg P0 ₄ /I				
15	Bicarbonate	mg HCO ₃ /I	238		1	458
16	Carbonate	mg CO ₃ /I	4.73		-	1.82
17	Chloride	mg Cl/l	1	1	-	15
18	Sulfate	mg SO ₄ /I	1	1		
19	Sodium	mg Na/I	·			
	Potassium	mg K/I	-			
	Calcium	mg Ca/l	296			58
22	Magnesium	mg Mg/l	1789	And the second		67
23	Copper	mg Cu/l	0.19			0.1
24	Iron	mg Fe/l	0.09	1	· .	0.07
	Manganese	mg Mn/l				
	Zinc	mg Zn/l	· · · · · · · · · · · · · · · · · · ·			
	Lead	mg Pb/l				
	Chromium(VI)	mg Cr(VI)/I	0.02			0.001
	Cadmium	mg Cd/l				
	Arsenic	mg As/l				
	Cyanide	mg CN/I	0.8			0.01
	Mercury	mg Hg/l	·			
	Fluoride	mg F/I	0.05		·	0.04
	Silica	mg SiO ₂ /I	and the second		• •	
	Molybdenum	mg Mo/I			•	
	Beryllium	mg Be/l				
	Aluminum	mg Al/i				
	Total Coliforms	No. in 11	2380			>2380
	General Bacteria	No. in 1 ml				
	Residual Chlorine	mg ClO/l				
	BOD	mg O ₂ /I				
	SS	mg SS/I				
43	Acidity	mg CaCO ₃ /I	80			78
44	Alkalinity	mg CaCO ₃ /I	195		-	375

Annex VIII-1 (10/20) Analysis Results for Rivers (Phase 3) in 1997

8 - 10

ltem			26-Jun-97	26-Jun-97	26-Jun-97
No.	ltem	Unit	S-1	S-2	S-3
	рН		8.4	8.3	8.9
	Temperature	°C	5.5	9	15
	Odor	dilution factor			
	Taste	dilution factor			
	Color	mg/I Pt scale	60		20
	Turbidity	kaolin (JIS)	30	1	20
	Conductivity	mS/m(at 25°C)	130		100
	Hardness	mgCaCO ₃ /I	170		175
9	Dry Residue	mg/l	1486	4120	412
10	$COD(K_2Cr_2O_7)$	mg O ₂ /I	161.4	112.2	138
11	Nitrite	mg NO ₂ /I	0.02	0.38	0.07
12	Nitrate	mg NO ₃ /I	0.07	2.6	0.08
13	Ammonium	mg NH₄/I			
14	Orthophosphate	mg P0 ₄ /I			
15	Bicarbonate	mg HCO ₃ /1			
16	Carbonate	mg CO ₃ /I			
17	Chloride	mg Cl/l	10	8	6
18	Sulfate	mg SO ₄ /I			
19	Sodium	mg Na/l			
i	Potassium	mg K/I	10	1	
	Calcium	mg Ca/i	28		
	Magnesium	mg Mg/l	24		1
	Copper	mg Cu/l	0.01		
	Iron	mg Fe/l	0.25		
	Manganese	mg Mn/i	0.55	0.2	0.1
	Zinc Lead	mg Zn/l			
	Chromium(VI)	mg Pb/l mg Cr(VI)/l	0.01	0.01	0.03
		mg Cd/l	0.01	0.01	0.00
1	Arsenic	mg As/l		<u> </u>	<u> </u>
	Cyanide	mg CN/I	0.08	0.07	0.09
	Mercury	mg Hg/l			
	Fluolide	mg F/I	0.2	0.16	0.18
	Silica	mg SiO ₃ /I			
35	Molybdenum	mg Mo/l			
	Beryllium	mg Be/l	·		
37	Aluminum	mg Al/l			
	Total Coliforms	No. in 11	100000		
	General Bacteria	No. in 1 ml	60000	20000	60000
	Residual Chlorine	mg ClO/I	-		ļ
	BOD	mg O ₂ /I	20		
	2 SS	mg SS/I	708		
	3 Acidity	mg CaCO ₃ /I	140		
44	Alkalinity	mg CaCO ₃ /I	270) 355	330

Annex VIII-1 (11/19) Analysis Results for Sewerage System (Phase 1) in 1997

tem	······		18-Jul-97	18-Jul-97	18-Jul-97
	ltem	Unit	- ·	S-2	S-3
	pН		8.4	8.1	8.7
	Temperature	<u>°C</u>	7	11	12.5
	Odor	dilution factor		·····	
	Taste	dilution factor			
	Color	mg/l Pt scale	60 10	20	40
	Turbidity Conductivity	kaolin (JIS) mS/m(at 25°C)	109	10 80	10 84
_	Hardness		270	270	270
		mgCaCO ₃ /I	270	270	270
	Dry Residue	mg/l			100.0
	COD(K ₂ Cr ₂ O ₇)	mg O ₂ /I	102.7	113.8	139.9
11	Nitrite	mg NO ₂ /I	0.01	0.35	0.3
12	Nitrate	mg NO ₃ /I	0.2	3.8	2.4
13	Ammonium	mg NH ₄ /I			1
14	Orthophosphate	mg P0 ₄ /l			
15	Bicarbonate	mg HCO ₃ /I		-	
16	Carbonate	mg CO ₃ /I		·····	
17	Chloride	mg Cl/l	15	10	10
18	Sulfate	mg SO ₄ /I			
19	Sodium	mg Na/l			
20	Potassium	mg K/I		a sea a	
21	Calcium	mg Ca/l	33	27	30
	Magnesium	mg Mg/I	45	49	47
	Copper	mg Cu/l	0.5	0.1	<0.1
	Iron	mg Fe/l	0.36	0.25	· ···· ··· ··· ··· ··· ··· ···
	Manganese	mg Mn/l	0.2	<0.05	<0.05
	Zinc	mg Zn/l			
	Lead Chromium(VI)	mg Pb/l	0.03	<0.01	<0.01
		mg Cr(VI)/I mg Cd/I	0.03	\0.01	\0.01
	Arsenic	mg As/l			
	Cyanide	mg CN/I	0.28	0.07	0.09
	Mercury	mg Hg/l		0.01	0.00
	Fluolide	mg F/I			
	Silica	mg SiO ₂ /I			
	Molybdenum	mg Mo/I			
	Beryllium	mg Be/l			
37	Aluminum	mg Al/I	1		
38	Total Coliforms	No. in 11	1000000	1000000	100000
	General Bacteria	No. in 1 ml	. *		
	Residual Chlorine	mg ClO/I			a de la casa de la cas
	BOD	mg O ₂ /I	20.5		22.3
	2 55	mg SS/I	247		
43	3 Acidity	mg CaCO ₃ /I	180	75	105
44	4 Alkalinity	mg CaCO ₃ /I	400	250	325

nnex VIII-1 (12/20) Analysis Results for Sewerage System (Phase 2) in 199

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ltem		· ·	24-Jul-97		
No.	ltem	Unit	S-1	S-2	S-3
1	pН		8.6	9	9.3
	Temperature	<u> </u>	7	15	16
3	Odor	dilution factor	16	4	4
	Taste	dilution factor			
	Color	mg/l Pt scale	50	100	140
	Turbidity	kaolin (JIS)	40	80	80
	Conductivity	mS/m(at 25°C)	155	114	108
8	Hardness	mgCaCO ₃ /I	475	350	425
9	Dry Residue	mg/l	2800	3200	2000
10	COD(K ₂ Cr ₂ O ₇)	mg O ₂ /l	163	115	144
11	Nitrite	mg NO ₂ /I	0.01	0.3	0.28
. 12	Nitrate	mg NO ₃ /1	<0.1	2.8	2.1
13	Ammonium	mg NH ₄ /I	-	-	
14	Orthophosphate	mg P0₄/I	1.55	1.8	1.7
15	Bicarbonate	mg HCO ₃ /1			
16	Carbonate	mg CO ₃ /I			
17	Chloride	mg Cl/l	12	10	9
18	Sulfate	mg SO ₄ /I			
19	Sodium	mg Na/i			
20	Potassium	mg K/I			
21	Calcium	mg Ca/l	48		
	Magnesium	mg Mg/	85		1
	Copper	mg Cu/l	0.21		0.11
1	Iron	mg Fe/l	0.15	0.21	0.17
	Manganese	mg Mn/1			
	Zinc	mg Zn/l	·	· · · · · · · · · · · · · · · · · · ·	
	Lead	mg Pb/l			0.01
	Chromium(VI)	mg Cr(VI)/I	0.03	0.03	0.01
		mg Cd/l			
	Arsenic	mg As/l	0.06	0.05	0.05
	Cyanide	mg CN/I		0.00	0.00
<u> </u>	Mercury Fluolide	mg Hg/l mg F/l	0.04	0.03	0.03
	Silica	mg SiO ₂ /1	0.0-		0.00
	Molybdenum	mg Mo/1			
	Beryllium	mg Be/1		1	
	Aluminum	mg Al/l		1	1
	Total Coliforms	No. in 11	100000	100000	100000
	General Bacteria	No. in 1 ml			
	Residual Chlorine	mg CIO/I			· · · · · · · · · · · · · · · · · · ·
and the second second	BOD	mg O ₂ /l	2	1	
	2 SS	mg SS/I	21	444	171
	3 Acidity	mg CaCO ₃ /1			
44	4 Alkalinity	mg CaCO ₃ /I			

Annex VIII-1 (13/20) Analysis Results for Sewerage System (Phase 3) in 1997

			3-Jul-97			· ·	
ltem		Unit	IS-1			S-3	
No.				80	60		
10	COD(KMn0 ₄ Alkali)	mg O ₂ /I					18
13	Ammonium	mg NH₄∕I		00	45		10
ltem		3	0-Jul-97		·		
No.	ltem	Unit	<u>S-1</u>		<u>S-2</u>	S-3	
10	COD(KMn0₄ Alkali)	$mg O_2/1$		27	17		21
13	Ammonium	mg NH ₄ /I		70	45		40

Annex VIII-1 (14/20) Analysis Results for Sewerage System (Phase 4) in 1997

ltem	Unit	DR-1	DG-1	SW-6
Pb	mg/l	< 0.005	<0.005	<0.005
Cd	 mg/l	<0.001	<0.001	<0.001
Cr(VI)	mg/l	<0.04	< 0.04	<0.04
As	mg/l	< 0.005	< 0.005	<0.005
SO₄	mg/l	240	98	70
Mg	mg/l	37	35	29
Hg	mg/l	<0.0005	<0.0005	<0.0005

Annex VIII-1 (15/20) Phase 3 (analyzed in Japan: the test method for tap water) in 1997

8 - 15

Item	Laboratory	Unit	Mongolian		Samples (Sampling:Ma	ay 30th 1998)
			Standard		SW-6	SW-8
					Kharzat	school
· ·					well	well
Lead	#	mg/l		0.03	0.0006	0.0004
	##	mg/l			< 0.005	-
Cadmium	#	mg/l		0.01	0.0024	not detected
	##	mg/l			<0.001	-
Arsenic	###	mg/l		0.05	0.009	0.025
	##	mg/l			< 0.005	
Total Chromium	##	mg/l		0.05	< 0.004	-

Annex VIII-1 (16/20) Reanalyses of Heavy Metals in Well Water of Altai City in 1998

#: Central Laboratory of Environmental Monitoring (Atomic Absorption Spectroscopy (Graphite Furnace))
##: Shizukan Kensa Center (Japan: Analysis Method of Drinking Water in Japan)
###: Institute Chemistry and Chemical Technology of Mongolian Academy of Science (Colorimetry)

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and a

Unit Mongolian Samples (Sampling:May 30th 1998) Item Laboratory DT-4 DT-5 DT-3 Standard DT-2 DT-1 high school apartment apartment hospital government (Ms. Tunga) near hotel house not detected not detected 0.0001 0.0004 not detected 0.03 # mg/l Lead < 0.005 < 0.005 ## mg/l not detected not detected not detected not detected not detected 0.01 # mg/l Cadmium < 0.001 < 0.001 ## mg/l 0.02 0.01 not detected 0.03 0.01 ### 0.05 mg/l Arsenic < 0.005 < 0.005 ## mg/l < 0.004 0.05 < 0.004 Total Chromium ## mg/l

Annex VIII-1 (17/20) Reanalyses of Heavy N	Metals in Drinking Water of Aital City in 1998
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Item	Laboratory	Unit	Mongolian	Samples (Sampling:May 30th 1998)						
			Standard			DW-1 water	DW-2 water			
- -				reservoir	reservoir	water wagon	water wagon			
Lead	#	mg/l	0.03	0.0002	not detected	0.0001	not detected			
2	##	mg/l		< 0.005	-	-	< 0.005			
Cadmium	#	mg/l	0.01	not detected	not detected	not detected				
	##	mg/l		< 0.001	-	-	<0.001			
Arsenic	###	mg/l	0.05	0.015	0.02	0.03	0.02			
	##	mg/l		< 0.005	-	-	< 0.005			
Total Chromium		mg/l	0.05	< 0.004	-		< 0.004			

#: Central Laboratory of Environmental Monitoring (Atomic Absorption Spectroscopy (Graphite Furnace))
##: Shizukan Kensa Center (Japan: Analysis Methods of Drinking Water in Japan)
###: Institute Chemistry and Chemical Technology of Mongolian Academy of Science (Colorimetry)

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8 - 17

I	Parameter	Unit	A1	A2	A3	A4	- B1	B2	B3	B 4	B 5	B6
	Sampling date		8th Sep	6th Aug	13th Oct.	5th Oct.	17th Sep	15th Aug.	6th July	2nd July	19th July	24th Sep
Ti	рн		1.1	1.2	7.2	0.5	8.1	7,8	7.50	7,8	8	8.36
2	Temparature	Deg. C	4.2	9,1	2.2	1.8	4,2	7.2	7.8	4	3.5	2.2
3 0	Odor		1	4	T	<u> </u>	1		2	2	1	T
4	Taste		2	2	·····1	τ	2	2	2	2	1	
5	Colour	Pt-unit	20	50	2	2	2	2	- 30	50	2	1.5
6	Turbidity		0.5	1.5	1	0.5	0.5	1.5	T	- 1	1.5	0.5
7	Conductivity	mS/m	213	470	164.3	350	159.2	214	156,7	(58)	44.3	59.9
	Dry Residue	mg/l	2000	7600	1200	2400	1400	2100	2800	2400	400	800
	COD	mg/l	-			•	-		-			- 1
τσt	Nitrite Ion	mg/l	0.03	0.003	0.006	0.008	0.05	0.007	0.003	0.005	0.002	0.005
	Nitrate Ion	mg/l	0.3	10	8	0.1	0.8	0.1	1.5	6	4	0,1
	Ammonium Ion	mg/l	1.5	0.7	0.6	0.3	1	0.7	0.2	0,15	0.3	1.2
1	Orthphosphate	mg/l	0.05	0	0.3	0.06	0.6	0,75	0.2	0.05	0.2	0.25
_	Cyanide	mg/l	0.008	0.01	0.01	0.02	nd	0,15	0.04	1	nd	nd
-	Biocarbonate Ion	mg/l	134	420	232	265	135	200	135	160	147	200
	Carbonate Ion	mg/l	0,3	0.3	0.2	0,0	0.9	0.6	0,2	0.5	0.7	0.2
	Hardness	mg CaCO ₁ /I	1000	3725	362.5	1875	875	845	1950	900	225	257.5
	Chloride Ion	mg/l	15	8	8	7	16	15	3	17	1	1 10
	Sulfate Ion	mg/l	400	600	360	650	300	600	400	360	80	50
20	Sodium Ion	mg/l		<u> </u>								<u> </u>
	Potessium Ion	mg/l	6	2.8	6.5	·····	4.5	6.8		6	1.7	4
22	Calcium Ion	mg/l	20	272	24	80	60	40	385	100	1	1 6
	Magnesium Ion	mg/l	228	730	73	402	174	179	237	156	47	58
	Copper	mg/l		0.01		0.01	0.1	0.2	0.002	0.001	0.1	 0
	Iron	mg/l	0.3		0,1	0.25	0.05	0.2	0.03	0.15	0.05	0.2
	Manganese	mg/l	0.3	8.5	0.4	0.01	0.1	0.2	0.8	0.2	0.2	0.6
	Zinc	mg/l		+			<u> </u>					+ +
28	Lead	mg/l		•		<u> </u>	<u> </u>					t
29	Chromium(VI)	mg/l	0.04	0.03	0.02	0.04	0.03	0.01	0.04	0.004	0.01	0.03
	Cadmium	mg/l	• •									-
31	Arsenic	mg/l	-		+		<u> </u>					+ -
	Mercury	mg/l				+		 .				
33	Fluoride	mg/l	1.7	+ <u>17</u>	0.8	1.7	0.7	1.8	0.75	1.8	1.8	0,8
33	Silica	mg/l	2.9	3	2.2	2.5	2	3	2.9	3	2.7	0.5
35	Molybdenum	mg/l	2.5			<u> </u>			0.01			
36	Beryllium	mg/l				+ <u>-</u>	+	<u> </u>	0.01	1		
30	Aluminum	mg/l	nd	0.03	0.01	0.01	0.02	- nd	0.01	nd	0.25	nd
37	Total Coliforms	No/I	92	23	27	10	27	27	960	90	21	1-10
39	General Bacteria	11011	74		<u> </u>	+		21			<u> </u>	+
	Residual Chlorine	mg/l	nd	nd	nd	ba	nd	nd	nd	nd	nd	- nd
-	BOD	mg/l	na	1941	- Da	184						
		-		<u> </u>		<u> </u>	<u> </u>	<u> </u>			+	<u> </u>
42		mg/l		250	225	240	1 175	155	250	27	210	225
43	Acidity	mg CaCO- /l	275	1 200	1 423	240	1 100	155	100	120	110	150

nnex VIII-1 (18/20) Water Quality Analysis for New Test Well of Altai City (Health Care Center of Gobi-Altai) in 1998

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Item	Laboratory	Unit	New Test Well									
			A1	A2	A3	A4	B1	B2	B 3	B4	B5	B6
Chloride	#	mg/l	200	2200	240	475	235	1000	1750	1500	110	95
Sulfate	#	mg/l	316	2810	336	331	303	1150	3060	910	42	59
Fluoride	#	mg/l	0.79	-	1.29	1.52	0.8	-	-		1	0.37
Lead	##	mg/l	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Lead	###	mg/l	-	-	-	-		-	-	-	< 0.005	< 0.005
Cadmium	##	mg/l	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Cadmium	###	mg/l		-		-	-	-	· _	-	< 0.001	< 0.001
Chromium	###	mg/l	· •	N	-	-	-	· · · · -		-	< 0.04	< 0.04
Arsenic	####	mg/l	0.012	0.035	0.01	0.012	0.02	0.015	0.01	0.01	0.015	0.021
Arsenic	###	mg/l	-	· · · · -	· -	· _			· · -		< 0.005	< 0.005
Molybdenum	####	mg/l	0.035	0.024	0.03	0.038	0.029	0.03	0.02	0.04	0.03	0.02
Beryllium	####	mg/l	< 0.005	< 0.003	< 0.003	< 0.004	< 0.005	< 0.004	< 0.003	< 0.003	< 0.003	< 0.004
Sodium	####	mg/l	68.9	69	83.1	75.3	69.1	71.2	68.3	57.3	59.5	55.9
Potassium	####	mg/l	5.3	6.5	5.3	6.5	5.6	5.4	7.3	6.6	3	2.8

Annex VIII-1 (19/20) Analyses of Some elements in New Test Well Water of Altai City in 1998

#: Chemical Laboratory of drinking water and food products

##: Central Laboratory of Geology

8 - 19

###: Shizukan Kensa Center (Japan: Analysis Methods of Drinking Water in Japan) ####: Institute Chemistry & Chemical Technology of Mongolian Academy of Science nd: not detected

Element	Unit	New Test	Well								
		A1	A2	A3	A4	B 1	B2	B3	B4	B5	B6
S	mg/l	41	275	32	4	22	136	302	134	15	nd
Cl	mg/l	3.6	132	nd	nd	nd	9	155	24	2	nd
K	mg/l	4.2	7.3	6.5	2.4	3	7	8	7	4	2
Ca	mg/l	43	427	44	15	31	70	291	115		
Fe	mg/l	3.1	8.3	1.4	1.1	1.7	1.7	9	1.8	2	2
Mn	mg/l	nd	0.36	nd	nd	nd	nd		nd	nd	nd
Ni	mg/l	1.3	0.17	0.13	0.08	nd	0.08	0.15	nd	nd	1
Cu	mg/l	0.12	0.16	0.23	0.11	nd	0.15	nd	0.11	0.09	
Zn	mg/l	0.37	0.59	0.32	0.73	0.18	0.62	1.5	0.32	<u> </u>	
Br	mg/l	0.3	2	nd	0.2	nd	0.6	2.1	0.9	1	0.3
<u></u> Sr	mg/l	0.7		0.6	nd	· · · 1	2.1	11.8	5.9	0.5	nd

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Annex VIII-1 (20/20) Elements Analyses for New Test Well Water of Altai City in 1998

Using ED-TRXRF Technique: Nuclear Physics Research Center

nd: not detected

		Concentrat	ion						
		22-Jun-93	22-Jun-93	22-Jun-93	22-Jun-93	25-Jun-93	22-Jun-93		
Element	Unit	SW-1	SW~2	SW-3	SW-4	SW-5	SW-6	SW-7	SW-8
S	mg S/I	1260	353	571	(7350)	271	54	706	13
CI	mg Cl/l	28	36	100	(2230)	71	16	214	3
κ	mg K/I	16	5	7.7	(80)	3.1	2.5	31	ſ
Ca	mg Ca/l	135	52	68	(923)	18	24	34	3
Cr	mg Cr/l	0.13	0.2	0.11	(1.7)	0.32	0.05	0.12	0.0
Min	mg Mn/l	0.07	<0.1	<0.08	(<0.9)	0.6		0.14	0.7
Fe	mg Fe/l	1	1.46	0.92	(25.7)	10.9	2.55	1.65	
Ni	mg Ni/I	<0.05	0.08	<0.07	(0.5)	<0.07	0.02	0.12	0.0
Cu	mg Cu/l	0.12	0.13	0.07	(1.63)	0.11	0.06	0.08	0.2
Zn	mg Zn/l	0.47	0.16	0.37	(5.2)	0.1	0.43		1.1
As	mg As/l	<0.01	<0.1	<0.02	<0.015	<0.04	<0.045	<0.1	<0.0
Se	mg Se/l	<0.04	<0.06	<0.06	(<0.26)	<0.065	<0.01	<0.055	<0.01
Br	mg Br/l	0.42	0.08	0.31	(2.7)	0.14	0.05	0.56	
Sr	mg Sr/l	4.17	1.19	6.17	(27.5)	0.51	0.59	0.43	0.5
Ċd	mg Cd/l		<u> </u>						
Hg	mg Hg/I	<0.09	0.2	0.13	0.1	0.07	0.16	<0.18	<0.1
Pb	mg Pb/l	0.04	<0.12	0.23	0.16	0.09	0.15	<0.18	0.1

Annex VIII-2 (1/5) Element Analysis Result with Energy Dispersive Total X-ray Fluorescence Techique for Wells in 1997 (a) Phase 1

(b) Phase 2

		Concentrat	ion						
		15-Jul-93	15-Jul-93	15-Jul-93	15-Jul-93	15-Jul-93	15-Jul-93	15-Jul-93	15-Jul-93
Element	Unit	S₩-1	SW-2	SW-3	SW-4	SW-5	SW-6	SW-7	SW-8
S	mg S/I	1290	289	684	765	257	65	544	79
C	mg Cl/I	14	<3	58	139	18	6	57	- 22
K	mg K/I	13.2	3.7	8.6	12.2	5.1	5	19.4	6.7
Ca	mg Ca/i	148	45	69	87	18	24	22	33
Cr	mg Cr/l	0.12	0.13	0.11	0.08	<0.08	< <0.05	<0.05	<0.07
Mn	mg Mn/l	0.13	< 0.04	<0.04	<0.05	0.54	0.43	<0.04	0.8
Fe	mg Fe/l	1.08	0.58	0.48	1.22	7.5	4.9	0.6	2.27
Ni	mg Ni/1	<0.04	<0.04	0.04	0.07	<0.04	0.06	<0.02	<0.03
Cu	mg Cu/	<0.04	0.05	0.05	< 0.04	<0.04	0.15	0.05	<0.02
Zn	img Zn/l	0,48	0.23	0.14	0.32	0.06	0.33	0.24	0.7
As	mg As/I	<0.05	<0.07	<0.04	<0.07	<0.08	<0.04	<0.02	<0.03
Se	mg Se/l	<0.05	<0.07	<0.03	<0.06	<0.05	<0.02	<0.02	<0.03
Br	mg Br/l	0.37	0.17	0.69	0.7	0.72	0.21	0.8	
Sr	mg Sr/l	4.1	1.1	5.5	3	0.4	0.5	0.5	0.6
Ca	mg Cd/l	<1.6	<1.2	<0.7	<1.3	く1.2	<0.7	<1.6	<1.3
Hg	mg Hg/	<0.11	0.11	0.11	0.12	<0.09	0.08	0.12	0.09
Pb	mg Pb/l	0.13	0.08	0.18	0.26	0.21	2.11	<0.1	<0.08

(c) Phase 3	
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		Concentrat	on	· ·						
		22-Jul-93	22-Jul-93	22-Jul-93	22-Jul-93	22-Ju-93	22-Jul-93	22-Jul-93	22-Jul-9	
Element	Unit	SW-1	SW-2	SW-3	SW-4	SW-5	SW-6	SW-7	SW-8	
S	mg S/I	1530	401	704	707	390	151	758	10	
CI	mg CI/I	25	10	138	140	25	19	236	1	
K	mg K/I	15	6	8.6	11.1	8.6	3.2	21.4		
Ca	mg Ca/l	159	56	70	83	23	32		36	
Cr	mg Cr/l	0.15	0.2	0.17	0.13	0.27	0.17	<0.06	0.0	
Mn	mg Mn/l	<0.1	<0.08	<0.08	0.08	0.61	0.25	0.06		
Fe	mg Fe/I	0.59	0.75	0.95	0.81	7.28	2.5	0.62		
Ni	mg Ni/l	<0.07	<0.06	<0.06	<0.05	<0.05		0.05		
Cu	mg Cu/l	0.06	< 0.07	<0.06	<0.05	<0.07	<0.03	<0.07	0.04	
Zn	mg Zn/	0.21	0.58	0.22	0.9	0.28	0.6	0.23	1.2	
As	mg As/	<0.1	<0.09	<0.09	<0.09	<0.13	<0.04	<0.1	<0.0	
Se	mg Se/l	<0.08	<0.06	<0.06	< 0.06	<0.1	< 0.03	<0.05		
Br	mg Br/l	0.46	0.48	0.64	0.68	1.51	0.45	1.81	0.42	
Sr	mg Sr/l	3.68	0.92	5.27	2.8	0.44	0.89	0.57	0.6	
Cd	mg Cd/I	<1.9	<2	<u> </u>	<1.5	<2.2	<1.0	<1.7	<1.5	
Hg	mg Hg/I	<0.16	<0.13	<0.14	0.14	0.29	0.15	0.17	<0.08	
Pb	mg Pb/I	0.12	0.14	<0.12	<0.11	0.28	<0.06	<0.11	<0.0	

(a) Phase	1								<u> </u>	F		1	1		
		Concentrat	ion	04 1 00		04 1 00	04 5 02	04b	25. hup-02	25-100-02	24- hun-93	24-Jun-93	24-Jun-93	24jun-93	24-Jun-93
		24-Jun-93	25-Jun-93	24-Jun-93 DT-1	24-Jun-93 DT-2	24-300-93 DT-3	24-301-93 DT-4	DT~5	<u>23-0un-83</u> D₩-1	DW-2	DG-1	DG-2	DG-3	DG-4	DG-5
lement	Unit			332	1	01-3	01-4		86		125	<u> </u>	1		8
<u>}</u>	mg S/I	125		332					200		111				9
	mg Cl/l	122		18					5.9		4				4.
<u>(</u>	mg K/I	4 27		38					26		27				3
<u>Ca</u>	mg Ca/l	0.15		0.21	0.03				0.05		0.1		0.07	0.09	0.3
<u>Or</u> Vin	mg Cr/l	<0.04		<0.21	0.03				<0.02		<0.05		<0.04	<0.04	0.0
re Fe	mg Mn/l	0.52		1.15					0.58		0.42			0.44	0.5
	mg Fe/I	<0.02		<0.09				· · · ·	0.03		<0.05		<0.03	<0.04	0.0
<u>\i</u>	mg Ni/l mg Cu/l	0.00		0.03					0.16		<0.05	< 0.03	0.05	0.06	0.0
<u>Ju</u>	mg Cu/i	0.04	0.17	0.28			· · · · · · · · · · · · · · · · · · ·		0.43		0.18				0.2
<u>ín</u>	mg As/l	<0.04		<0.06					<0.04		<0.07		<0.05	<0.05	<0.0
ls Ge	mg Se/i	<0.04		<0.05	<0.02				<0.04		<0.05	<0.02	<0.03		<0.0
3e Br	mg Br/l	0.12		0.34	0.09				0.11		0.3	0.12			0.2
Sr	mg Sr/i	0.12		0.58					0.58		0.58	0.19	0.58	0.59	0.5
2d	mg Cd/l		0.00	0.00											
lg	mg Hg/I	0.09	<0.16	<0.1	0.07				0.07	1	<0.11	0.05			0.0
<u>ъ</u>	mg Pb/I	0.08			0.06				0.09		<0.09	0.08	0.06	<0.07	0.0
o/ Mnase .	2														
o/ Mase	2	Concentrat	ion			10 1 00		18 14 02	10-1-1-02	16 Lui-02	16-1-02	16- hul-02	18-10-97	18- Jul-93	16-, hal-9
		16-Jul-93	16-Jul-93	15-Jul-93	15-Jul-93			16-Jul-93 DT-5	16-Jul-93 DW-1				16-Jul-93 DG-3		16-Jul-9 DG-5
	Unit	16-Jul-93 DR-1	16-Jul-93 DR-2	DT-1	DT-2	DT-3	DT-4	DT-5	DW-1	DW-2	DG-1]DG-2	DG-3	DG-4	DG-5
Element	Unit mg S/l	16-Jul-93 DR-1 124	16-Jul-93 DR-2 113	DT-1 72	DT-2 101	DT-3 101	DT-4 104	<u>DT-5</u> 74	DW-1	DW-2	DG-1 122	DG-2 108	DG-3 91 43	DG-4 107 91	DG-5 8
Element S	Unit mg S/I mg Cl/I	16-Jul-93 DR-1 124 89	16-Jul-93 DR-2 113 95	DT-1 72 48	DT-2 101 86	DT-3	DT-4	DT-5	DW-1 114	DW-2 106 86	DG-1 122 97	DG-2 108 90 3.4	DG-3 91 43 2.5	DG-4 107 91 2.9	DG-5 (
Element S SI	Unit mg S/I mg Cl/I mg K/I	16-Jul-93 DR-1 124 89 4.2	16-Jul-93 DR-2 113 95 3.4	DT-1 72 48 2.2	DT-2 101 86 2.9	DT-3 101 89	DT-4 104 84	DT-5 74 23	DW-1 114 121	DW-2 106 86 7.2	DG-1 122 97 3.9 30	DG-2 108 90 3.4 28	DG-3 91 43 2.5 14	DG-4 107 91 2.9 24	DG-5 6
lement S XI (Unit mg S/I mg Cl/I mg K/I mg Ca/I	16-Jul-93 DR-1 124 89 4.2 30	16-Jul-93 DR-2 113 95 3.4 30	DT-1 72 48 2.2	DT-2 101 86 2.9	DT-3 101 89 3.7	DT-4 104 84 3.3	DT-5 74 23 3.1	DW-1 114 121 3.7 30 0.27	DW-2 106 86 7.2 26 0.09	DG-1 122 97 3.9 30 0.07	DG-2 108 90 3.4 28 <0.06	DG-3 91 43 2.5 14 <0.08	DG-4 107 91 2.9 24 0.11	DG-5
ilement J J Ja Jr	Unit mg S/I mg Cl/I mg K/I mg Ca/I mg Cr/I	16-Jul-93 DR-1 124 89 4.2	16-Jul-93 DR-2 113 95 3.4 30 0.06	DT-1 72 48 2.2 23	DT-2 101 86 2.9 21	DT-3 101 89 3.7 28	DT-4 104 84 3.3 29 0.08 <0.02	DT-5 74 23 3.1 26 0.12 <0.06	DW-1 114 121 3.7 30 0.27 <0.02	DW-2 106 86 7.2 26 0.09 <0.02	DG-1 122 97 3.9 30 0.07 <0.03	DG-2 108 90 3.4 28 <0.06 <0.04	DG-3 91 43 2.5 14 <0.08 <0.05	DG-4 107 91 2.9 24 0.11 <0.02	DG-5
lement 21 2a 2r 4n	Unit mg S/I mg Cl/I mg K/I mg Ca/I mg Cr/I mg Mn/I	16-Jul-93 DR-1 124 89 4.2 30 0.11	16-Jul-93 DR-2 113 95 3.4 30 0.06	DT-1 72 48 2.2 23 0.09	DT-2 101 86 2.9 21 0.17	DT-3 101 89 3.7 28 0.07 <0.04 0.4	DT-4 104 84 3.3 29 0.08 <0.02 0.62	DT-5 74 23 3.1 26 0.12 <0.06 0.37	DW-1 114 121 3.7 30 0.27 <0.02 1.06	DW-2 106 86 7.2 26 0.09 <0.02 0.43	DG-1 122 97 3.9 30 0.07 <0.03 0.56	DG-2 108 90 3.4 28 <0.06 <0.04 0.34	DG-3 91 43 2.5 14 <0.08 <0.05 0.47	DG-4 107 91 2.9 24 0.11 <0.02 0.54	DG-5
lement 3 3 3 3 3 3 3 3 7 4 7 5 6	Unit mg S/I mg Cl/I mg K/I mg Ca/I mg Cr/I	16-Jul-93 DR-1 124 89 4.2 30 0.11 <0.06	16-Jul-93 DR-2 113 95 3.4 30 0.06 <0.04	DT-1 72 48 2.2 23 0.09 <0.06	DT-2 101 86 2.9 21 0.17 <0.05	DT-3 101 89 3.7 28 0.07 <0.04 0.4 <0.03	DT-4 104 84 3.3 29 0.08 <0.02 0.62 <0.03	DT-5 74 23 3.1 26 0.12 <0.06	DW-1 114 121 3.7 30 0.27 <0.02 1.06 <0.02	DW-2 106 86 7.2 26 0.09 <0.02 0.43 <0.04	DG-1 122 97 3.9 30 0.07 <0.03 0.56 <0.02	DG-2 108 90 3.4 28 <0.06 <0.04 0.34 <0.04	DG-3 91 43 2.5 14 <0.08 <0.05 0.47 <0.03	DG-4 107 91 2.9 24 0.11 <0.02 0.54 <0.03	DG-5 6 6 3 0.0 0.0
loment 21 22 23 24 27 40 20 20 20 20 20 20 20 20 20 20 20 20 20	Unit mg S/1 mg Cl/1 mg K/1 mg Ca/1 mg Cr/1 mg Fe/1	16-Jul-93 DR-1 124 89 4.2 30 0.11 <0.06 0.4	16-Jul-93 DR-2 113 95 3.4 30 0.06 <0.04 0.42	DT-1 72 48 2.2 23 0.09 <0.06 0.7 0.7 0.04 0.06	DT-2 101 866 2.9 21 0.17 <0.05 0.54 0.03 0.12	DT-3 101 89 3.7 28 0.07 <0.04 0.4 <0.03 <0.04	DT-4 104 84 3.3 29 0.08 <0.02 0.62 <0.03 0.05	DT-5 74 23 3.1 26 0.12 <0.06 0.37 <0.03	DW-1 114 121 3.7 30 0.27 <0.02 1.06 <0.02 0.1	DW-2 106 86 7.2 26 0.09 <0.02 0.43 <0.04 \$	DG-1 122 97 3.9 30 0.07 <0.03 0.56 <0.02 0.07	DG-2 108 90 3.4 28 <0.06 <0.04 0.34 <0.04 <0.04	DG-3 91 43 2.5 14 <0.08 <0.05 0.47 <0.03 0.04	DG-4 107 91 2.9 24 0.11 <0.02 0.54 <0.03 0.05	DG-5
lement l Da Dr tr tr tr tr tr tr tr tr tr tr tr tr tr	Unit mg S/1 mg Cl/1 mg K/1 mg Ca/1 mg Cr/1 mg Fe/1 mg Ni/1	16-Jul-93 DR-1 124 89 4.2 30 0.11 <0.06 0.4 0.03	16-Jul−93 DR−2 113 95 3.4 30 0.06 <0.04 0.42 <0.03	DT-1 72 48 2.2 23 0.09 <0.06 0.7 0.04	DT-2 101 86 2.9 21 0.17 <0.05 0.54 0.03 0.12 0.41	DT-3 101 89 3.7 28 0.07 <0.04 0.4 <0.03 <0.04 0.43 0.43	DT-4 104 84 3.3 29 0.08 <0.02 0.62 <0.03 0.05 0.21	DT-5 74 23 3.1 26 0.12 <0.06 0.37	DW-1 114 121 3.7 300 0.27 <0.02 1.06 <0.02 0.1 0.3	DW-2 106 86 7.2 26 0.09 <0.02 0.43 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.02	DG-1 122 97 3.9 30 0.07 <0.03 0.56 <0.02 0.07 0.07	DG-2 108 90 3.4 28 <0.04 <0.04 <0.04 <0.04 <0.034 <0.04 <0.03 0.07	DG-3 91 43 2.5 14 <0.08 <0.05 0.47 <0.03 0.04 0.13	DG-4 107 91 2.9 24 0.11 <0.02 0.54 (0.03 0.05 0.41	DG-5
lement l l l c r c t n c l i c u n	Unit mg S/1 mg Cl/1 mg Ca/1 mg Ca/1 mg Mn/1 mg Fe/1 mg Ni/1 mg Cu/1	16-Jul-93 DR-1 124 89 4.2 30 0.11 <0.06 0.4 0.03 0.05 0.11 <<0.02	16-Jul-93 DR-2 113 95 3.4 30 0.06 <0.04 0.42 <0.03 0.04 0.14 0.05	DT-1 72 48 2.2 23 0.09 <0.06 0.7 0.04 0.06 0.22 <0.03	DT-2 101 86 2.9 21 0.17 <0.05 0.54 0.03 0.12 0.41 0.03	DT-3 101 89 3.7 28 0.07 <0.04 0.4 <0.04 <0.03 <0.04 0.43 <0.04	DT-4 104 84 3.3 29 0.08 <0.02 0.62 <0.03 0.05 0.21 <0.03	DT-5 74 23 3.1 26 0.12 <0.06 0.37 <0.03	DW-1 114 121 3.7 30 0.27 <0.02 1.06 <0.02 0.1 0.3 <0.02	DW-2 106 86 7.2 26 0.09 <0.02 0.43 <0.04 <0.04 0.21 <0.09	DG-1 122 97 3.9 30 0.07 (0.03 0.56 (0.02 0.07 0.17 (0.03	DG-2 108 90 3.4 28 <0.06 <0.04 0.34 <0.04 <0.03 0.07 <0.05	DG-3 91 43 2.5 14 <0.08 <0.05 0.47 <0.03 0.04 0.13 <0.03	DG-4 107 91 2.9 24 0.11 <0.02 0.54 0.05 0.05 0.41 <0.03	DG-5
loment S C C C C C C C C C C C C C C C C C C	Unit mg S/1 mg Cl/1 mg Ca/1 mg Ca/1 mg Ca/1 mg Mn/1 mg Fe/1 mg Ni/1 mg Cu/1 mg Zn/1	16-Jul-93 DR-1 124 89 4.2 30 0.011 <0.06 0.4 0.03 0.05 0.11 <0.02 <0.02 <0.02	16-Jul-93 DR-2 113 95 34 30 000 000 000 000 004 0.04 0.04 0.0	DT-1 72 48 2.2 23 0.09 <0.06 0.7 0.7 0.04 0.06 0.22 <0.03 <0.02	DT-2 101 86 2.9 211 0.17 <0.05 0.54 0.03 0.12 0.41 0.03 <0.02	DT-3 101 89 3.7 28 0.07 <0.04 <0.03 <0.04 0.43 <0.04 0.43 <0.04 0.43 <0.04 <0.04 <0.03 <0.04 <0.04 <0.03 <0.04 <0.04 <0.03 <0.04 <0.04 <0.04 <0.03 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.05 <0.04 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.05 <0.	DT-4 104 84 3.3 29 0.08 <0.02 0.62 <0.03 0.05 0.21 <0.03 <0.03 <0.02	DT-5 74 23 3.1 26 0.12 <0.06 0.37 <0.03 0.18	DW-1 114 121 3.7 300 0.27 <0.02 1.06 <0.02 0.1 0.3 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 <0.	DW-2 106 86 7.2 26 0.09 <0.02 0.43 <0.04 0.21 <0.04 0.21 <0.09 <0.02 0.43 <0.04 0.21 <0.09 <0.02 0.43 0.24	DG-1 122 97 3.9 0.00 0.07 (0.03 0.56 (0.02 0.07 0.17 (0.03 (0.02	DG-2 108 900 3.4 28 <0.06 <0.04 <0.04 <0.04 <0.04 <0.04 <0.05 <0.05 <0.04	DG-3 91 43 2.5 14 <0.08 <0.05 0.47 <0.03 0.04 0.13 <0.03 <0.02	DG-4 107 91 2.9 24 0.11 (0.02 0.54 (0.03 0.05 0.41 (0.03 (0.02	DG-5
Element S Cl Da Da Dr An Fe Vi Du Cn As Se	Unit mg S/1 mg Cl/1 mg Ca/1 mg Ca/1 mg Ca/1 mg Ca/1 mg Ni/1 mg Ni/1 mg Cu/1 mg As/1	16-Jul-93 DR-1 124 89 4.2 30 0 0.11 <0.06 0.4 0.03 0.05 0.11 <0.02 <0.02 <0.02 <0.02	16-Jul-93 DR-2 113 95 34 30 00 0.06 <0.04 0.05 <0.03 0.05 <0.03 0.23	DT-1 72 48 2.2 23 0.09 <0.06 0.7 0.7 0.04 0.02 0.02 <0.03 <0.02 <0.03	DT-2 101 86 2.9 211 0.17 <0.05 0.54 0.03 0.12 0.41 0.03 <0.02 0.12	DT-3 101 89 3.7 28 0.07 <0.04 <0.03 <0.94 0.43 <0.04 0.43 <0.04 0.43 <0.04 0.43 <0.04 0.43 <0.04 0.43 0.43 0.43 0.44 0.43 0.43 0.43 0.44 0.43 0.44 0.43 0.44 0.43 0.44 0.43 0.44 0.43 0.44 0.43 0.44 0.43 0.43 0.44 0.43 0.44 0.43 0.44 0.43 0.43 0.43 0.44 0.43 0.44 0.43 0.44 0.43 0.44 0.43 0.44 0.43 0.43 0.43 0.43 0.43 0.43 0.44 0.43 0.44	DT-4 104 84 33 29 0.08 <0.02 0.62 <0.03 0.05 0.21 <0.03 <0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.03 0.05 0.02 0.03 0.05 0.02 0.03 0.05 0.01 0.03 0.05 0.02 0.03 0.05 0.05 0.02 0.03 0.05 0.05 0.02 0.03 0.05 0.5 0.	DT-5 74 23 3.1 26 0.12 <0.06 0.37 <0.03 0.18 0.18	DW-1 114 121 3.7 30 0.27 <0.02 1.06 <0.02 0.11 0.3 <0.02 <0.02 0.11	DW-2 106 86 7.2 26 0.09 <0.02 0.43 <0.04 <0.04 <0.04 <0.04 0.21 <0.07 0.12	DG-1 122 97 3.9 30 0.07 <0.03 0.56 <0.02 0.07 0.17 <0.03 <0.02 0.01 0.02 0.02 0.03 <0.02 0.03 <0.02 0.03 <0.03 0.07 0.12 0.03 0.07 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.03 0.07 0.03 0.03 0.03 0.07 0.03	DG-2 108 90 3.4 28 <0.06 <0.04 <0.04 <0.04 <0.03 0.07 <0.05 <0.04 0.012	DG-3 91 43 2.5 14 (0.08 (0.05 0.47 (0.03 0.04 0.13 (0.03 (0.02	DG-4 107 91 2.9 24 0.11 <0.02 0.54 <0.03 0.05 0.41 <0.03 <0.03 <0.02 0.41 <0.03 <0.02 0.54 0.03 0.05 0.41 <0.02 0.54 0.03 0.05 0.04 0.03 0.05 0.03 0.05 0.03 0.05 0.03 0.05 0.03 0.05 0.03 0.05 0.03 0.05 0.03 0.05	DG-5
Element S Cl Ca Ca Cr Ca Cr Mn Fe Se Se Sr	Unit mg S/1 mg Cl/1 mg Ca/1 mg Ca/1 mg Cr/1 mg Ni/1 mg Ni/1 mg Cu/1 mg Zn/1 mg As/1 mg Se/1	16-Jul-93 DR-1 124 89 4.2 30 0.11 <0.06 0.4 0.03 0.05 0.11 <0.02 <0.02 0.14 0.54	16-Jul-93 DR-2 113 95 3.4 30 0.08 <0.04 0.42 <0.03 0.04 0.04 0.04 0.04 0.03 0.04 0.04	DT-1 72 48 2.2 23 0.09 <0.09 <0.09 0.09 <0.09 0.04 0.02 <0.03 <0.02 <0.02 <0.02 0.08 0.52	DT-2 101 86 2.9 21 0.17 <0.05 0.54 0.03 0.12 0.41 0.03 <0.02 0.1 0.53	DT-3 101 89 3.7 28 0.07 <0.04 0.43 <0.04 0.43 <0.04 0.43 0.03 0.62	DT-4 104 84 3.3 299 0.08 <0.02 0.62 <0.03 0.05 0.21 <0.02 0.02 0.1 0.42	DT-5 74 23 3.1 26 0.12 <0.06 0.37 <0.03 0.18 0.18 0.11 0.54	DW-1 114 121 3.7 300 0.27 <0.02 1.06 <0.02 0.11 0.3 <0.02 <0.02 0.11 0.8	DW-2 106 86 7.2 26 0.09 <0.02 0.43 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.	DG-1 122 97 3.9 300 0.07 <0.03 0.56 <0.02 0.07 0.17 <0.03 <0.02 0.013 0.58	DG-2 108 90 3.4 288 <0.06 <0.04 <0.04 <0.03 0.07 <0.05 <0.04 0.12 0.54	DG-3 91 43 2.5 14 (0.08 (0.05 0.47 (0.03 (0.03 (0.03 (0.02 0.27	DG-4 107 91 2.9 2.4 0.11 <0.02 0.54 <0.03 0.05 0.41 <0.03 <0.05 0.41 <0.02 0.07 0.45	DG-5 6 6 3 3 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
b) Phase	Unit mg S/1 mg Cl/1 mg Ca/1 mg Ca/1 mg Ca/1 mg Mn/1 mg Ni/1 mg Ni/1 mg Cu/1 mg Zn/1 mg Se/1 mg Br/1	16-Jul-93 DR-1 124 89 4.2 30 0 0.11 <0.06 0.4 0.03 0.05 0.11 <0.02 <0.02 <0.02 <0.02	16-Jul-93 DR-2 113 95 3.4 30 0.06 <0.04 0.02 <0.03 0.04 0.04 0.04 0.02 <0.03 0.04 0.05 <0.03 0.23 0.23 0.58 <0.12	DT-1 72 48 2.2 23 0.09 <0.06 0.7 0.04 0.06 0.22 <0.03 <0.02 0.08 0.52 <0.8	DT-2 101 86 2.9 21 0.17 <0.05 0.54 0.03 0.12 0.41 0.03 <0.02 0.1 0.53 <1.2	DT-3 101 89 3.7 28 0.07 <0.04 <0.03 <0.04 0.43 <0.04 <0.03 0.32 0.62 <0.8	DT-4 104 84 3.3 29 0.08 <0.02 0.62 <0.03 0.05 0.21 <0.03 <0.02 0.	DT-5 74 23 3.1 26 0.12 <0.06 0.37 <0.03 0.18 0.18 0.11 0.54 <1.7	DW-1 114 121 3.7 30 0.27 <0.02 1.06 <0.02 0.11 0.3 <0.02 <0.02 0.1 0.3 <0.02 <0.02 0.1 0.3 <0.02 <0.02 0.1 0.3 <0.02 (0.02 0.1 0.3 <0.02 (0.02 0.1 0.3 <0.02 (0.02 0.1 0.3 (0.02 0.1 0.3 (0.02 0.1 0.3 (0.02 0.1 0.3 (0.02 0.1 0.3 (0.02 0.1 0.3 (0.02 0.1 0.3 (0.02 0.1 0.3 (0.02 0.1 0.3 (0.02 0.1 0.3 (0.02 0.1 0.3 (0.02 0.1 0.3 (0.02 0.1 0.3 (0.02 0.1 0.3 (0.02 0.1 0.3 (0.02 0.3 (0.02 0.3 (0.02 0.1 0.3 (0.02 0.1 0.3 (0.02 (0.02 0.3 (0.02 (0.02 0.0 0.3 (0.02 (0.02 (0.02 0.0 0.3 (0.02	DW-2 106 86 7.2 26 0.09 <0.02 0.43 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.02 0.53 <0.53 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.55 <0.55 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.55 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.65 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0.55 <0	DG-1 122 97 3.9 30 0.07 <0.03 0.56 <0.02 0.07 0.17 <0.03 <0.02 0.07 0.17 <0.03 <0.02 0.03 <0.02 0.03 <0.05 <0.02 0.03 <0.05 <0.02 0.05 <0.02 0.05 <0.02 0.05 <0.02 0.05 <0.02 0.07 <0.03 0.55 <0.02 0.05 <0.02 0.05 <0.02 0.07 0.05 0.07 0.05 0.07 0.05 0.05 0.07 0.05 0.05 0.05 0.07 0.05	DG-2 108 90 3.4 28 <0.06 <0.04 <0.04 <0.03 0.07 <0.05 <0.04 0.12 0.54 <0.94 <0.94 0.12 0.54 <0.94 0.94 0.95 0.9	DG-3 91 43 2.5 14 <0.08 0.045 0.047 (0.03 0.04 0.13 <0.03 <0.02 0.27 <1.5	DG-4 107 91 2.9 24 0.11 <0.02 0.54 <0.03 0.05 0.41 <0.03 <0.05 0.41 <0.03 <0.02 0.07 0.45 <0.8	DG-5 8 6 6 2 2 00 00 00 00 00 00 00 00 00 00 00 00
Element S Cl Ca Ca Ca Ca Sa Sa Sa Sa Sa Sa Sa Sa Sa Sa Sa Sa Sa	Unit mg S/1 mg Cl/1 mg Cl/1 mg Ca/1 mg Ca/1 mg Ca/1 mg Fo/1 mg Fo/1 mg Cu/1 mg Cu/1 mg Sa/1 mg Sa/1 mg Sr/1 mg Sr/1	16-Jul-93 DR-1 124 89 4.2 30 0.11 <0.06 0.4 0.03 0.05 0.11 <0.02 <0.02 0.14 0.54	16-Jul-93 DR-2 113 95 3.4 30 0.08 <0.04 0.42 <0.03 0.04 0.04 0.04 0.04 0.03 0.04 0.04	DT-1 72 48 2.2 23 0.09 <0.09 <0.09 <0.09 0.09 0.04 0.02 <0.03 <0.02 <0.02 <0.02 0.08 0.52	DT-2 101 86 2.9 21 0.17 <0.05 0.54 0.03 0.12 0.41 0.03 <0.02 0.1 0.53	DT-3 101 89 3.7 28 0.07 <0.04 0.43 <0.04 0.43 <0.04 0.43 0.03 0.62	DT-4 104 84 3.3 299 0.08 <0.02 0.62 <0.03 0.05 0.21 <0.02 0.02 0.1 0.42	DT-5 74 23 3.1 26 0.12 <0.06 0.37 <0.03 0.18 0.18 0.11 0.54	DW-1 114 121 3.7 300 0.27 <0.02 1.06 <0.02 0.11 0.3 <0.02 <0.02 0.11 0.8	DW-2 106 86 7.2 26 0.09 <0.02 0.43 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.04 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.02 0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.09 <0.	DG-1 122 97 3.9 30 0.07 <0.03 0.56 <0.02 0.07 0.17 <0.03 <0.02 0.03 <0.02 0.13 <0.02 0.13 <0.05 <0.02 0.13 0.58 <1.1 0.05 <0.02 0.03 0.05 <0.02 0.03 0.05 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.07 0.03 0.05 0.07 0.07 0.03 0.05 0.03 0.05 0.07 0.03 0.05 0.07 0.03 0.05 0.07 0.03 0.05 0.07 0.03 0.05 0.07 0.03 0.05 0.03 0.05 0.07 0.03 0.05 0.02 0.03 0.05 0.	DG-2 108 900 3.4 28 <0.06 <0.04 <0.03 0.07 <0.05 <0.04 0.12 0.54 <0.04 0.12 0.54 <0.04 0.12 0.54 <0.04 0.15 <0.04 0.15 0.	DG-3 91 43 2.5 14 (0.08 (0.05 0.47 (0.03 0.04 0.13 (0.03 (0.02 0.27 (1.5 0.14	DG-4 107 91 2.9 24 0.11 <0.02 0.54 <0.03 0.05 0.41 <0.03 <0.05 0.41 <0.03 <0.02 0.07 0.45 <0.8	DG-5 8 6 2 2 <00 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

6

Annex VIII-2 (2/5) Element Analysis Result with Energy Dispersive Total X-ray Fluorescence Techique for Water Supply System in 1997

8 - 22

(c) Phase	3					2,				· · ·					
	1	Concentrati	ion	•											
		23-Jul-93	23-Jul-93	23-Jul-93	23-Jul-93										
Element	Unit	DR-1	DR-2	DT-1	DT-2	DT-3	DT-4	DT-5	DW-1		DG-1		DG-3	DG-4	DG-5
s	mg S/I	91	98	86	87	100	96	97							
CI	mg Cl/l	79	39	59	98	103	38	90	66	33	65				83
ĸ	mg K/I	4	3.5	2.8	3.9	3.2	3.2	3.4	3		4	3.4			3.9
Ca	mg Ca/l	30	30	26	29	30	28	29	25						31
Cr	mg Cr/l	0.08	<0.08	0.14	0.12	0.09	0.16	0.07	0.07	0.13	0.16	0.09		0.09	0.07
Mn	mg Mn/i	< 0.03	<0.05	<0.02	<0.04	<0.04	0.04	<0.06	<0.04		<0.06	<0.04			<0.02
Fe	mg Fe/l	0.28	0.64	0.59	0.74	0.38	0.58	0.36	0.34	0.59	0.55	0.51	0.53		0.57
Ni	mg Ni/i	0.05	< <0.05	<0.03	< 0.04	<0.04	<0.05	<0.03	<0.02	<0.05	<0.05	<0.04	<0.05	<0.03	<0.02
Cu	mg Cu/l	0.14	0.13	0.06	0.05	0.05	0.09	<0.03	<0.04	<0.06	0.08				0.31
Zn	mg Zn/l	0.48	0.27	0.21	0.2	0.29	0.7	0.1	0.25		0.35			0.23	
As	mg As/l	<0.08	<0.08	<0.04	<0.03	<0.05	<0.06	<0.03	<0.03	<0.06					<0.03
Se	mg Se/l	< 0.03	<0.04	< 0.03	<0.03	<0.03	<0.04	<0.02	<0.02	<0.05	<0.07	<0.05			<0.02
Br	mg Br/l	0.15	0.18	0.14	0.14	0.14	0.17	0.17	0.25	•	0.22	0.14			0.18
Sr	mg Sr/l	0.61	0.53	0.55	0.55	0.63	0.56	0.51	0.6	0.64	0.61	0.63	0.5	0.58	
Cd	mg Cd/l	<0.6	<0.6	< 0.3	<0.7	<1.2	<0.8	<0.7	< 1. 1	<1.8	<1	<1.4	<1.2	<1.2	<0.7
Hg	mg Hg/l	0.08	0.14		<0.06	<0.08	0.13	0.12	0.06	<0.12	0.18	0.2	0.1	<0.08	0.07
Pb	mg Pb/l	0.15	<0.09		<0.05	<0.08	<0.08	<0.05	0.09	<0.18	0.18	0.1	0.07	<0.06	<0.04

Annex VIII-2 (3/5) Element Analysis Result with Energy Dispersive Total X-ray Fluorescence Techique for Water Supply System in 1997

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8-23

Annex VIII-2 (4/5) Element Analysis Result with Energy Dispersive Total X-ray Fluorescence Techique for Rivers and Sewerage System in 199 (a) Phase 1 _____

		Concentratio	n		Concentration			
		25-Jun-93	l	25-Jun-93	25-Jun-93	25-Jun-93	25-Jun-93	25-Jun-93
Element	Unit	R-1	R-2	R-3	R-4	S-1	S2	S-3
S	mg S/I	10700		2220			245	
CI	mg Cl/I	10100		1120	303	261	228	212
K	mg K/I	29		20	17	18		
Ca	mg Ca/l	548		58	48	40	43	43
Ör	mg Cr/l	0.33		0.14	0.18	0.14	0.12	0.13
Mn	mg Mn/l	<0.31		<0.08	0.1	0.08	0.09	
Fe	mg Fe/I	2.45		0.65	0.7	0.7	0.53	
Ni	mg Ni/i	<0.14		<0.07	<0.05	<0.03		<0.04
Cu	mg Cu/l	<0.15	1	<0.09	0.06	<0.05	0.05	0.04
Zn	mg Zn/l	<0.23	T	0.12	0.15	0.13	0,14	
As	mg As/l	<0.4		<0.15	<0.05		< 0.05	
Se	mg Se/I	<0.3		<0.07	<0.04	<0.04		
Br	mg Br/l	5.85	1	1.41	0.53			
Sr	mg Sr/l	27.8	h	2.71	1.25	0.83	0.82	0.94
69	mg Cd/l	<9	1	<2	<1.6	<1.9	ব	ा रा
Hg	mg Hg/I	0.5		<0.16	0,12	0.15		
dq	mg Pb/I	< 0.3	1	- <0.18	<0.08	<0.05	<0.09	<0.07

(b) Phase 2

		Concentratio	n		Concentration				
		16-Jul-93			16-Jul-93	17-Jul-93	17-Jul-93	17-Jul-93	
Element	Unit	R-1	R-2	R-3	R-4	S-1	S-2	S-3	
S	mg S/I	5730			316		184	180	
CI	mg Cl/l	5420			160	265	160	173	
K	mg K/I	17	1		7.3	16	8.1	7.6	
Ca	mg Ca/l	312			49	41	33	30	
Cr	mg Cr/l	<0.27			<0.06	0.11	0.1	0.06	
Mn	mg Mn/I	<0.17	1		<0.05	<0.07	0.07	<0.03	
Fe	mg Fe/l	0.47	1		0.29	0.7	0.79		
Ni	mg Ni/I	<0.11	1		<0.03	<0.04	<0.03	<0.04	
Cu	mg Cu/l	<0.13			0.05	0.11	0.05	0.04	
Zn	mg Zn/l	0.43			0.17	0.19	0.1	0.12	
As	mg As/l	0.23			<0.04	<0.04	<0.03	0.03	
Se	mg Se/l	<0.2	1		<0.03	<0.03	<0.03	<0.02	
Br	mg Br/I	3.3	1		0.21	0.12	0.12	0.07	
Sr	mg Sr/l	19.2			0.93	0.7	0.52	0.53	
C9	mg Cd/l	<4			<1.5	<2.2	<0.4	1	
Hg	mg Hg/I	0.37			<0.1	<0.14	0.14	0.16	
Pb	mg Pb/l	<0.8	5		0.11	<0.09	<0.05	<0.05	

(c) Phase 3	3						
		Concentration			Concentration	1	
		22-Jul-93		22-Jul-93	23-Jul-93	23-Jul-93	23-Jul-93
Element	Unit	R-1 R-1	2 R-3	R-4	S-1	S-2	S-3
S	mg S/i	5320		286	206	215	195
Cl	mg Cl/l	4770		152	195	197	195
K	mg K/I	17		8.6	11.3	12.5	9.1
Ca	mg Ca/l	305		48	39	36	40
Cr	mg Cr/l	0.23		0.13	0.11	0.1	0.1
Mn	mg Mn/l	<0.14		<0.07	0.04	<0.08	<0.06
Fe	mg Fe/I	0.74		0.65	0.65	0.64	0.58
Ni	mg Ni/I	<0.13		<0.06	<0.06	0.04	<0.05
Cu	mg Cu/l	<0.12		<0.05	0.17	<0.05	0.08
Zn	mg Zn/l	<0.13		0.18	0,54	0.23	0.27
As	mg As/1	<0.23		<0.07	₹0.08	<0.1	<0.1
Se	mg Se/I	<0.17		<0.04	< 0.05	<0.05	<0.05
Br	mg Br/l	- 3		0.21	0.27	0.22	0.28
Sr	mg Sr/l	16.7		0.87	0.79	0.64	0.71
Cd	mg Cd/l	<4		<2.5	<0.9	<2.1	<2.5
Hg	mg Hg/I	<0.3		0.14	0.13	0.15	0.18
P6	mg Pb/l	<0.3		<0.07	<0.09	<0.07	0.12

6

4.4

Element	Unit	New Tes	t Well		· .						
		A1	A2	A3 👘	A4	B1	B2	B3	B4	B5	B6
S	mg/l	41	275	32	- 4	22	136	302	134		nc
Cl	mg/l	3.6	132	nd	nd	nd	. 9	155	24	2	nd
K	mg/l	4.2	7.3	6.5	2.4	3	- 7	8	. 7	4	2
Ca	mg/l	43	427	. 44	.15	31	70	291	115	18	6
Fe	mg/l	3.1	8.3	1.4	1.1	1.7	1.7	9	1.8	2	2
Ni	mg/l	1.3	0.17	0.13	0.08	nd	0.08	0.15	nd		nd
Cu	mg/l	0.12	0.16	0.23	0.11	nd	0.15	nd		0.09	
Zn	mg/l	0.37	0.59	0.32	0.73	0.18	0.62	1.5	0.32	0.13	nd
Br	mg/l	0.3	· · · 2	nd nd	0.2	nd	0.6	2.1	0.9	0.1	0.3
Sr	mg/l	0.7	11.1	0.6	nd	1	2.1	11.8	5.9	0.5	nd

Annex VIII-2 (5/5) Elements Analyses for New Test Well Water of Altai City in 1998

Using ED-TRXRF Technique: Nuclear Physics Research Center

nd: not detected

8 - 25

2.67

(a) F	hase 1									
İtem		T	ISW-1	SW-2	SW-3		SW-5			SW-8
	ltem	Unit	22-Jun-93	22-Jun-93	22-Jun-93	22-Jun-93	25-Jun-93	22-Jun-93	22-Jun-93	22-Jun-93
	Copper	mg Cu/l	0.14	0.18	0.13	0.20	0.16	0.12	0.11	0.15
	Copper*	mg Cu/l	0.12		0.07	0.16	0.11	0.06	0.08	0.24
	Iron	mg Fe/l	0.09		0.06	0.05	0.14	0.07	0.03	
	Iron*	mg Fe/l	1	1.46	0.92		10.9	2.55		
	Manganese	mg Mn/l	0.6	0.1	< 0 .1	0.2	0.2	0.15		0.5
	Manganese*	mg Mn/I	0.07		<0.07		0.6	0.19	0,14	0.73

Annex VIII-3 (1/4) Comparison between Two methods on Other Metal Components for Wells

(b) Phase 2

Item			SW-1	SW-2	SW-3	SW-4	SW-5	SW-6	SW-7	SW-8
	ltem	Unit	15-Jul-93	15-Jul-93	15-Jui-93	15-Jul-93	15-Jul-93	15-Jul-93	15-Jul-93	15-Jul-93
	Copper	mg Cu/l	0.1	0.1	< 0 .1	0.1	0.2	0.2	0.2	
	Copper*	mg Cu/l	< 0.04	0.05	0.05	<0.04	<0.04	0.15	0.05	<0.02
	Iron	mg Fe/l	0.3	0.2	0.1	0.35	<0.02	0.1	0.1	1.3
	Iron*	mg Fe/l	1.08			1.22	7.5	4.9	0.6	2.27
	Manganese	mg Mn/1	0.8		0.2		0.8	0.1	0.2	0.4
		mg Mn/i	0.13		<0.04	<0.05			<0.04	0.8

(c) Phase 3

SW-7 SW-8 SW-3 SW-4 SW-5 SW-6 SW-1 SW-2 ltem 22-Jul-93 22-Jul-93 22-Jul-93 22-Jul-93 22-Jul-93 22-Jul-93 22-Jul-93 22-Jul-93 No. Item Unit 0.17 0.11 0.12 0.1 0.11 23 Copper 0.4 mg Cu/l 0.12 0.08 <0.07 0.04 0.06 <0.07 <0.03 <0.07 <0.06 <0.05 23' Copper* mg Cu/l 0.51 0.14 0.12 0.03 0.06 0.07 0.17 0.1 mg Fe/I 24 Iron 0.62 1.72 0.95 0.81 7.28 2.5 0.75 24' Iron* mg Fe/l 0.59 0.6 <0.1 0.1 0.2 0.5 0.5 0.3 <0.1 25 Manganese mg Mn/l 0.84 0.06 <0.08 0.08 0.61 0.25 <0.1 <0.08 25' Manganese* mg Mn/l <0.07 <0.11 0.28 <0.06 <0.11 27 Lead* mg Pb/l 0.12 0.14 <0.12 0.01 0.01 0.02 0.02 0.01 0.02 0.02 0.01 27' Lead** mg Pb/i 0.09 0.17 0.13 0.27 0.17 <0.06 0.15 0.2 mg Cr/I 28 Chromium* 0.03 0.02 0.02 0.05 0.05 0.02 0.04 0.03 28' Chromium** mg Cr/l <2.2 <1.7 <1.2 mg Cd/l <2 <1.7 <1.5 <1.0 29 Cadmium* <1.9 0.02 0.01 0.02 0.01 0.01 0.02 0.02 0.01 29' Cadmium** mg Cd/l <0.1 <0.06 < 0.03 <0.1 <0.09 <0.09 <0.09 <0.13 30 Arsenic* mg As/l 0.02 0.01 0.03 0.01 0.02 0.01 0.02 0.01 mg As/l 30' Arsenic** <0.08 0.29 0.15 0.17 <0.16 < 0.13 <0.14 0.14 32 Mercury* mg Hg/l 0.003 0.002 0.003 0.001 0.003 0.005 0.002 0.003 32' Mercury** mg Hg/l

* Values Obtained from Energy Dispersive Total Reflection X-ray Fluorescence Technique

** Colorimetry in Ulaanbaatar

Annex VIII-3 (2/4) Comparison between Two Methods on Other Metal Components for Water Supply System

$ \begin{array}{ c_1 c_1 } \hline c_2 c_1 c_2 c_2 c_2 c_2 c_2 c_2 $	tem	Phase 1	1	DR-1	DR-2	DT-1	DT-2	DT-3	lDT-4	DT-5	DW-1	Ď₩-2	DG-1	DG-2	DG-3		DG-5
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		litem	Unit	24-Jun-93	25-Jun-93	24-Jun-93	24-Jun-93	24-Jun-93	24-Jun-93	24-Jun-93	25-Jun-93	25-Jun-93	24-Jun-93	24-Jun-93	24-Jun-93	24-Jun-93	24-Jun-9
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	23	Copper	mg Cu/l								2	<0.1	0.17	014	2	0.14	1.
$ \begin{array}{c} \frac{2\pi}{2} \ \ \ \ \ \ \ \ \ \ $				0.04	<0.06	0.2	0.4				0.16						
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	24	Iron	mg Fe/I						0.05	0.04		0.03					
Bits Description Description Code2 Code3 Code3 Code4 Code3 Code3 <thcod3< th=""> Cod3 Code3</thcod3<>	24	Iron*	mg Fe/I	0.52	0.75												0.5
T Last 2017 Last 2017 <thlast 2017<="" th=""> <thlast 201<="" td=""><td>25</td><td>Manganese</td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.4</td><td>0.1</td><td></td><td><0.1</td><td></td><td></td><td></td><td></td><td><0.</td></thlast></thlast>	25	Manganese							0.4	0.1		<0.1					<0.
Spin Spin <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>· ·</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.0</td></th<>									· ·								0.0
20 20<	27	Leec*		0.08		0.15					0.09		<0.09		0.06	<0.07	0.0
28° Cadmium** mg 2d/1 0.038 0.028 0.01 <					0.05		0.036	Ļ			Ļ			0.041			
30 Service Tak Au/l COM COM <th< td=""><td></td><td></td><td></td><td>· · · ·</td><td></td><td></td><td></td><td><u> </u></td><td></td><td></td><td> </td><td></td><td>ļ</td><td>0.000</td><td></td><td></td><td></td></th<>				· · · ·				<u> </u>			 		ļ	0.000			
Difference max Av/L Difference Differenc									·				(0.07		(0.0E	10.05	(0.0
Table State Table State Out				<0.04		\$0.00					<0.04		<u> <0.0</u> /		<0,05	< <u>v.v</u> a	<u> </u>
22 Marcury** Implify/ 0.01 0.01 0.01 0.01 b) Prace 2 DR-1 DR-2 DT-1 DT-2 DT-3 DT-4 DT-5 DW-1 DW-2 DQ-1 DQ-2 DQ-4 DQ-5 Dam Line Unit DP-1 DT-2 DT-3 DT-4 DT-5 DW-1 DQ-2 DQ-2 DQ-4 DQ-5 23 Goger* mG Qu/1 0.02 0.22 0.1 0.01 0.01 0.01 0.02				0.00		(0)					0.07		(0.11		0.05	70.11	0.0
$ \begin{array}{c} 22 \ \text{ Init} (1) \ \ \ \ \ \ \ \ \ \ $				0.09		ζυ.ι			· · · ·		0.07		- <u></u>			V.11	0.0
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	32	[Mercury##	mg Hg/I	<u>ا</u> ــــــــــــــــــــــــــــــــــــ	0.01		0.01				<u>ł.</u>		L	0.01	۱ <u>ــــــــــــــــــــــــــــــــــــ</u>	<u> </u>	L
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	ы) F	hasa 2						1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -		1997 - 1997 -	· .	4.4					
23 Copper/mg Cu/1 0.2 0.1 0.1 0.1 0.2 0.1 0.3 0.1 0.4 0.2 0.3 0.4		THE REPORT OF		DR-1	DR-2	DT-1	DT-2	DT-3	DT-4	DT-5	DW-1	DW-2	DG-1				
24 Irgn. Imt Fe/1 0.1 0.14 0.1 0.12 0.21 0.3 0.3 24 Irgn. Imt Fe/1 0.4 0.42 0.7 0.54 0.42 0.37 1.06 0.42 0.56 0.44 0.41 0.1	lo.	ltem	Unit	16-Jul-93			15-Jul-93			10-Jul-93							
24 Iron Imt Fe/1 0.1 0.14 0.11 0.12 0.11 0.13 0.91 0.22 0.21 0.3 0.3 24 Iron* Imt Fe/1 0.4 0.42 0.7 0.54 0.64 0.62 0.37 1.06 0.43 0.56 0.34 0.41 0.15 0.11 0.11 0.11 0.12 0.62 0.63 0.041 0.05 0.02 0.02 0.02 0.02 0.02 0.03 0.02 0.03 0.02 0.03 0.02 0.03 0.02 0.03 0.02 0.03 0.02 0.03 0.02 0.03 0.02 0.03 0.02 0.03 0.02 0.03 0.02 0.03 0.02 0.03 0.02 0.03 0.02 0.03 0.04 0.03 0.04 0.03 0.04 0.03 0.04 0.03 0.04 0.03 0.04 0.03 0.04 0.03 0.04 0.03 0.04 0.03 0.04	23	Çopper	mg Cu/l					0,1	02	0.1			0.1				0.:
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	23	Copper*	mg Cu/l				0.12	<0.04									
23 Imageness mg Mr/l 0.2 0.2 0.1 <																	0.
23 Marganese* mg Mr/l C0.06 C0.04 C0.05 C0.04 C0.05 C0.04 C0.05 C0.04 C0.05 C0.04 C0.05 C0.02 C0.06 C0.05 C0.04 C0.05 C0.05 C0.04 C0.05	24	iron#															0.34
2 Ladies Img Pb/1 COOT COOB 0.12 COOS 0.22 0.09 CO. 0.08 COOS COOT																	0,
D? Date DT-2 DT-3 DT-4 DT-5 DW-1 Question Question <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td><0.0</td></th<>																	<0.0
29 Cadmium* mg Cd/l <1.1 <1.2 <0.8 <1.0 <1.7 <1.0 <0.8 <1.1 <0.9 <1.1 <0.9 <1.1 <0.9 <1.1 <0.9 <1.1 <0.9 <1.1 <0.9 <1.1 <0.9 <1.1 <0.9 <1.1 <0.9 <1.1 <0.9 <1.1 <0.9 <1.1 <0.9 <1.1 <0.9 <1.1 <0.9 <1.1 <0.9 <1.1 <0.9 <1.1 <0.9 <1.1 <0.9 <1.1 <0.9 <1.1 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9 <0.9				<0.07	<0.08	0.12	<0.03	0.27	0.09	<0.1	0.08	<0.06	0.07	<0.06	<0.07	<0.03	<0.0
P Cadmium** mg Od/l One One <th< td=""><td></td><td></td><td></td><td>· · ·</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>(0.0</td><td></td><td></td><td></td><td>(0.0</td><td><1.</td></th<>				· · ·								(0.0				(0.0	<1.
Di Arsenic* mg As/1 CO22 Q05 CO33 Q03 CO04 CO03 CO02 CO03					<1.2	6.03	<u> (1.2</u>	<u> <0.8</u>			51.0	<0.6	<u></u>	<u> </u>		(0.8	<u></u>
101 Aranio** mg Aa/1		the second s				10.00		(0.04	(0.00		(0.00	(0.00		(0.05	(0.02	(0.00	(0.0
32 Marcury* mg Hg/1 <0.08 0.17 0.08 <0.07 0.13 <0.13 0.11 <0.06 0.05 <0.08 0.14 <0.03 <0.03 22 Marcury** mg Hg/1 </td <td></td> <td></td> <td></td> <td><0.02</td> <td>0.05</td> <td><0.03</td> <td>0.03</td> <td><0,04</td> <td><0.03</td> <td></td> <td><u> </u></td> <td><0.0¥</td> <td><0.03</td> <td><u> (0,05</u></td> <td><u><0.03</u></td> <td>(0.03</td> <td><u> </u></td>				<0.02	0.05	<0.03	0.03	<0,04	<0.03		<u> </u>	<0.0¥	<0.03	<u> (0,05</u>	<u><0.03</u>	(0.03	<u> </u>
22 Marcury** mg Hg/l				(5.66)	(0.60		0.00	(0.07	0.12	(0.10	0.11	10.00	0.05	/0.08	0.14	(0.02	<0.0
C) Phase 3 tem DR-1 DR-2 DT-1 DT-2 DT-3 DT-4 DT-5 DW-1 DW-2 DQ-1 DQ-2 DQ-3 DG-4 DQ-5 io. Item Unit 23-Jul-93 <				<u><0.08</u>	<u> <0.08</u>	0.17	0.00	<0.07			<u> </u>			<u>\V.08</u>	V.14		<u> </u>
em DR-3 DR-2 DT-1 DT-2 DT-3 DT-4 DT-5 DW-1 DW-2 DQ-1 DQ-2 DQ-3 DQ-4 DG-5 0. Item Unit 23-Jul-93	SZ	Mercury##	Ing Fig/1	L							L		L.,,	L,,,		·····	L
tem DR-1 DR-2 DT-1 DT-2 DT-3 DT-4 DT-5 DW-1 DW-2 DQ-1 DG-2 DQ-4 DG-5 io. Item Unit 23-Jul-93 23-Jul-93 <td></td> <td></td> <td>1 A A</td> <td></td>			1 A A														
No. Item Unit 23-Jul-93	o) F	hase 3															
23 Copper mg Cu/l 0.1			Į									D₩-2	DG-1				
23 Copper* mg Cu/l 0.14 0.13 0.06 0.05 0.09 <0.03			Unit	23-Ju-93	23-Jul-93					23-Jul-93	23-Jul-93						
24 Iron mg Fe/1 0.09 0.1 0.11 0.12 0.06 0.05 0.01 0 24 Iron* mg Fe/1 0.28 0.64 0.59 0.74 0.38 0.58 0.36 0.34 0.59 0.55 0.51 0.53 0.32 0.02 25 Manganese mg Mn/1 <0.01 0.1 0.22 <0.01 <0.01 <0.01 0.01 0.02 0.03 0.35 0.36 0.34 0.59 0.55 0.51 0.53 0.32 0.00 25 Manganese* mg Mn/1 <0.03 <0.04 <0.04 <0.06 <0.04 <0.06 <0.04 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.07 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0																	0.
24 Iron* Ing Fe/1 0.28 0.64 0.59 0.74 0.38 0.38 0.34 0.59 0.55 0.51 0.53 0.32 0 25 Marganesse mg Mn/1 <0.1										10,000							0.3
Zi Marganese mg Mn/l C0.1 C0.04 C0.06 C0.04 C0.06 C0.04 C0.06 C0.07 C0.08																	0.0
Z5 Marganese* mg Mn/1 <0.03 <0.05 <0.02 <0.04 <0.04 <0.06 <0.04 <0.05 <0.05 <0.06 <0.05 <0.05 <0.06 <0.05 <0.05 <0.06 <0.06 <0.04 <0.05 <0.06 <0.06 <0.06 <0.06 <0.05 <0.06 <0.05 <0.06 <0.05 <0.06 <0.05 <0.06 <0.05 <0.06 <0.05 <0.06 <0.05 <0.06 <0.05 <0.06 <0.05 <0.06 <0.05 <0.06 <0.05 <0.06 <0.05 <0.06 <0.05 <0.06 <0.05 <0.06 <0.05 <0.06 <0.05 <0.06 <0.05 <0.06 <0.05 <0.06 <0.05 <0.06 <0.05 <0.06 <0.05 <0.06 <0.05 <0.06 <0.05 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06 <0.06											0.34	0.59	0.55	0.51	0.53	0.32	0.5
Zi Lead* Img Ps/1 0.15 <0.09 0.14 <0.05 <0.08 <0.09 <0.18 0.18 0.1 0.07 <0.06 <0 27 Lead** Img Ps/1 0.05 0.04	25	Manganoso															
27 Lead** Img Pb/l 0.05 0.04 29 Cadmium** mg Cd/l <0.8																the second se	
29 Cadmium* mg Cd/l <0.6 <0.3 <0.7 <1.2 <0.8 <0.7 <1.1 <1.8 <1 <1.4 <1.2 <1.2 <0.8 <0.7 <1.1 <1.8 <1 <1.4 <1.2 <1.2 <0.8 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.03 <0.04 <0.03 <0.03 <0.04 <0.03 <0.03 <0.04 <0.03 <0.03 <0.04 <0.03 <0.04 <0.03 <0.03 <0.04 <0.03 <0.03 <0.04 <0.03 <0.03 <0.04 <0.03 <0.04 <0.03 <0.04 <0.03 <0.04 <0.03 <0.04 <0.03 <0.04 <0.03 <0.04 <0.04 <0.04 <th< td=""><td></td><td></td><td></td><td>0.15</td><td></td><td>0.14</td><td></td><td></td><td><0.08</td><td><0.05</td><td>0.09</td><td><0.18</td><td>0.18</td><td>0.1</td><td>0.07</td><td><0.06</td><td><0.0</td></th<>				0.15		0.14			<0.08	<0.05	0.09	<0.18	0.18	0.1	0.07	<0.06	<0.0
29' Cadmium** mg Cd/l 0.03 0.03 0.03 30 Arsenic* mg As/l <0.06									(2.2	(6.5							(0)
30 Arsenic≉ mg As/l <0.08 <0.08 <0.04 <0.03 <0.05 <0.08 <0.03 <0.08 <0.09 <0.08 <0.08 <0.06 <0.05 <0 30' Arsenic≉≉ mg As/l 0.03 0.03 0.03 0.03 0.03 0.02 0.13 0.12 0.08 <0.12 0.18 0.2 0.1 <0.09 0.09 0.09 0.09 0.09 0.09 0.09 0.0				<0.0		<0.3		<1.2	6.02	<0 .7		\$1.8		<1.4	<u> (12</u>	<1.2	<0.
30 Arsenic≉≄ mg As/l 0.03 0.03 0.03 0.12 0.06 <0.12 0.18 0.2 0.1 <0.09 0.1				(0.00				(0.05	/0.00	/0.00	70.00	/0.74	/0.00	(0.00	(0.00		<0.0
32 Mercury* Ing Hg/1 0.08 0.14 0.1 <0.08 0.13 0.12 0.08 <0.12 0.18 0.2 0.1 <0.09 0.				<u> </u>		<u></u>			KU.00	(0.03	<u>\0.03</u>	<u>_</u>		<u></u>			
				0.00				20.00		0.10	0.00	2010				(0.00	0.0
			mg Hg/l mg Hg/l	0.08	0.14	0,1	<u><0.06</u> 0.01	<u>(0.08</u>	0.13	0.12	0.06	<u>ςυ.12</u>	<u> </u>	0.2	U.1	<u>(0.08</u>	0.0

★ Energy Dispersive Total Reflection X-ray Fluorescence Technique ★★ Colorimetry in Ulaenbaatar

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8 - 27

Annex VIII-3 (3/4) Comparison between Two Methods on Other Metal Components for Rivers

(a) Phase 1

ltem			R-1	R-2	R-3	R-4
No.	ltem	Unit	25-Jun-93		25-Jun-93	25-Jun-93
23	Copper	mg Cu/l	0.18		0.14	0.1
23'	Copper*	mg Cu/l	<0.15	l	<0.09	0.06
24	Iron	mg Fe/l	0.19		0.06	0.05
24'	Iron*	mg Fe/l	2.45		0.65	0.7
25	Manganese	mg Mn/l	16		0.1	0.2
25	Manganese*	mg Mn/i	<0.31	T	<0.08	0.1

(b) Phase 2

ltem			R-1	R-2	R-3	R-4
No.	ltem	Unit	16-Jul-93			16-Jul-93
23	Copper	mg Cu/l	0.2			0.1
23'	Copper*	mg Cu/l	<0.13			0.05
24	Iron	mg Fe/l	0.13			0.42
24	Iron*	mg Fe/l	0.47	· · · · ·		0.29
25	Manganese	mg Mn/l	19			0.2
25	Manganese*	mg Mn/l	<0.17	1		<0.05

(c) Phase 3

ltem			R-1	R-2	R-3	R-4
No. 👘	ltem	Unit	22-Jul-93			22-Jul-93
23	Copper	mg Cu/l	0.19		and the second	0.1
23	Copper*	mg Cu/l	<0.12	a second a second		<0.05
	Iron	mg Fe/l	0.09			0.07
24'	Iron*	mg Fe/l	0.74			0.65
25	Manganese	mg Mn/l	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
25'	Manganese*	mg Mn/l	<0.14			<0.07

* Values Obtained from Energy Dispersive Total Reflection X-ray Fluorescence Technique

Annex VIII-3 (4/4) Comparison between Two Methods on Other Metal Components for Sewerage System

(a) F	hase 1				
ltem			S-1	S-2	S-3
No.	ltem	Unit	25-Jun-93	25-Jun-93	25-Jun-93
23	Copper	mg Cu/l	0.01	0.14	0.08
23'	Copper*	mg Cu/l	<0.05	0.05	0.04
24	Iron	mg Fe/l	0.25	0.29	0.34
24'	iron*	mg Fe/l	0.7	0.53	0.58
25	Manganese	mg Mn/I	0.55	0.2	0.1
25'	Manganese*	mg Mn/I	0.08	0.09	0.09

(b) Phase 2

ltem			S-1	S-2	S-3
No.	Item	Unit	17-Jul-93	17-Jul-93	17-Jul-93
23	Copper	mg Cu/l	0.5	0.1	<0.1
23'	Copper*	mg Cu/l	0.11	0.05	0.04
24	Iron	mg Fe/l	0.36	0.25	0.26
24'	Iron*	mg Fe/l	0.7	0.79	0.71
25	Manganese	mg Mn/l	0.2	< 0.05	< 0.05
25'	Manganese*	mg Mn/I	<0.07	0.07	<0.03

(c) Phase 3

ltem			S-1	S-2	S-3
No.	ltem	Unit	23-Jul-93	23-Jul-93	23-Jul-93
23	Copper	mg Cu/l	0.21	0.1	0.11
23'	Copper*	mg Cu/l	0.17	< 0.05	0.08
24	Iron	mg Fe/l	0.15	0.21	0.17
24'	Iron*	mg Fe/I	0.65	0.64	0.58
25	Manganese	mg Mn/l			
25'	Manganese*	mg Mn/l	0.04	<0.08	<0.06

* Values Obtained from Energy Dispersive Total Reflection X-ray Fluorescence Technique

ltem			ISW-1				WHO	
	Item	Unit	23-Jun-97	16-Jul-97	23-Jul-97	Standard	(health)	(complain)
	Нq		7.9	7.8	7,4	6.5~8.5		
	Temperature	С.	4.5	7	5.5			
	Odor	dilution factor			<1	≦2		
	Taste	dilution factor	~			≦2		
	Color	mg/l Pt scale	6	Section States Sector	4			≦18
	Turbidity	kaolin (JIS)	1	3	5			
	Conductivity	mS/m(at 25°C)	276	284	436			
	Hardness###	mgCaCO ₃ /I				≦350		· · .
9	Dry Residue###	mg/l	all and the second		S. S. C. C. C.	≦1000		≦1000
10	COD(KMn04, alkali)	mg O ₂ /I	6		· · · ·	:	·	
11	Nitrite	mg NO ₂ /I	0.24	0.2	0.06		≦3	• • • • • • • • • • • • • • • • • • •
12	Nitrate	mg NO ₃ /I	5.5	5.5	9.6	≦44,3	≦50	
13	Ammonium	mg NH ₄ /1	0.44	0.43	0.6			≨1.0
14	Orthophosphate	mg P04/I	0.14	0.3	0.22	≦3.5		
	Bicarbonate	mg HCO ₃ /I	305	329	427			
	Carbonate	mg CO ₃ /I	0.61	0.66	0.27		····· ··· ··· ··· · · ·	•
	Chloride*	mg Cl/l	28	14	25	≦350		≦250
	Sulfate#	mg SO ₄ /l	20			≦500		≦25
	Sodium***	mg Na/I	49.3	49.1	49			====
	Potassium*	mg K/I	45.3	13.2	45			
	Calcium	mg Ca/l	100	10.2		≦100		
	Magnesium##	mg Mg/i	100					
	Copper*	mg Cu/l	0.121	<0.04	0.06			5
	Iron	mg Fe/l	0.09	0.3	0.12		=4	
	Manganese*	mg Mn/l	0.07	0,0	<0.1		≦0.5	
	Zinc*	mg Zn/l	0.47	0.48	0.21			
	Lead**	mg Pb/I			0.02		≨0.01	
28	Chromium(VI)	mg Cr(VI)/I	<0.01	0.01	<0.01			
	Chromium**	mg Cr/l			0.03	≦0.05	≦0.05	
- 29	Cadmium**	mg Cd/l		2	and a stranger of the	≦0.01	≦0.003	
- 30	Arsenic*	mg As/I	<0.01	<0.05	<0.1	≦0.05		1.00
	Arsenic**	mg As/i			0.02			
	Cyanide	mg CN/I	<0.01		and the second	≦0.1	≦0.07	
	Mercury#*	mg Hg/l			- Comercia	1 A A	≦0.001	
	Fluoride	mg F/I		<0.01	0.04	0.7-1.5	≦1.5	
34	Silica	mg SiO ₂ /I	14	14	2.3	a ser a		
	Molybdenum**	mg Mo/	0.03	0.02	0.02	≥0.25	≦0.07	1
	Beryllium**	mg Be/I			0.001	the second second		
	Aluminum	mg Al/I	0.01	0.1	<0.01			≦0.
	Total Coliforms	No. in 1		S. 19 1. 19	73. 20 A.	(<3 in 11)	(<1 in 100 ml)	
43	Acidity	mg CaCO ₃ /I	125	90	110			
44	Alkalinity	mg CaCO ₃ /I	250	270	350			1
	Nickel*	mg Ni/I	<0.05	<0.04	<0.07		≦0.02	
	Selenium*	mg Se/l	<0.04	<0.05	<0.08		≦0.01	
	Strontium*	mg Sr/I	AND LL			≦2	1	T
	Bromine*	mg Br/l	0.42	0.37	0.46			1

Annex VIII-4 (1/18) Water Quality for SW-1 in 1997

* ED-TRXRF

** Colorimetry in Ulaanbaatar

*** Flame emission spectrometric method

Calculated from the correlation between results from gravimetric method and from ED-TRXRF method

Calculated from charge balance ### Calculated value

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tem		1	SW-1			Mongolian	WHO	
	ltem	Unit	23-Jun-97	16-Jul-97	23-Jul-97	Standard	(health)	(complain)
	pH		7.9	7.8	7.4	6.5-8.5		
2	Temperature	1°C	4.5	7	5.5			
	Ödor	dilution factor			<1	≦2		
	Taste	dilution factor	-			≦2		
	Color	mg/l Pt scale	6	在特别的计学20	4			<u>≦</u> 1
	Turbidity	kaolin (JIS)	1	3	5			
	Conductivity	mS/m(at 25°C)	276	284	436			
	Hardness###	mgCaCO ₃ /I		312-11420		≦350		
9	Dry Residue###	mg/l	1796	5 NU 1825	2257	≦1000		≦100
10	COD(KMn0₄, alkali)	mg O ₂ /I	6					
11	Nitrite	mg NO ₂ /I	0.24	0.2	0.06		≦3	
12	Nitrate	mg NO ₃ /I	5.5	5.5	9.6	≦44.3	≦50	
13	Ammonium	mg NH ₄ /I	0.44	0.43	0.6			≦1
14	Orthophosphate	mg P0 ₄ /I	0.14	0.3	0.22	≦3.5		
15	Bicarbonate	mg HCO ₃ /I	305	329	427			
16	Carbonate	mg CO ₃ /I	0.61	0.66	0.27			
17	Chloride*	mg CI/I	28	14	25	≦350		≦25
	Sulfate#	mg SO₄/1	24233-1170	1180	9292-1430			
	Sodium***	mg Na/l	49.3	49.1	49			
	Potassium*	mg K/I	16					
	Calcium	mg Ca/l			1377622236		<u> </u>	
	Magnesium##	mg Mg/l	ANC 82 87276	984 Fire 250	1999 1919 282	≦30		
23	Copper*	mg Cu/l	0.12	<0.04			≦2	
24	Iron	mg Fe/l	0.09	0.3	0.12	≦0.3		
25	Manganese*	mg Mn/l	0.07	均非均衡的0.13	<0.1	≦0.1	≦0.5	
26	Zinc*	mg Zn/l	0.47	0.48	0.21	≦5		≦
	Lead**	mg Pb/l			0.02		≦0.01	1
28	Chromium(VI)	mg Cr(VI)/I	<0.01	0.01	<0.01		_	
	Chromium**	mg Cr/l			0.03			
	Cadmium**	mg Cd/l	1	·····	BAR 46 9 0.02			
30	Arsenic*	mg As/i	<0.01	<0.05			≦0.01	
- 01	Arsenic** Cyanide	mg As/1	- // //		0.02			
<u>- 31</u>	Mercury**	mg CN/I mg Hg/I	<0.01	E CHARTER CO	当时间的变0%			
	Fluoride	mg F/I		<0.01	0.04		≦0.001 ≦1.5	
	Silica	mg SiO ₂ /I	14		the second s			'
			1				ļ	
- 30	Molybdenum**	mg Mo/I	0.03	0.02			≦0.07	· · · · · · · · · · · · · · · · · · ·
	Beryllium ≭ ≭	mg Be/l			0.001			
	Aluminum Total Coliforms	mg Al/l No. in 1l	0.01			≦0.5	(<1 in 100 ml)	≦(
	Acidity	mg CaCO ₃ /1	125		<u>≥≪</u> v,⇔≫2380			<u>'</u>
	Alkalinity	mg CaCO ₃ /I	250	1	<u>ا</u>	Ł	<u> </u>	
	Nickel*	mg Ni/l	1 20.05	1				,
	Selenium*	mg Se/l	<0.03	<0.04	<0.01			
	Strontium*	mg Sr/l			3.64			4
	Bromine*	mg Br/l	0.42				·	+

Annex VIII-4 (1/18) Water Quality for SW-1 in 1997

* ED-TRXRF

** Colorimetry in Ulaanbaatar

*** Flame emission spectrometric method

Calculated from the correlation between results from gravimetric method and from ED-TRXRF method ## Calculated from charge balance

Calculated value

ltem			SW-2		<u> </u>	Mongolian	WHO	
No.	item	Unit	23-Jun-97	16-Jul-97	23-Jul-97		(health)	(complain)
1	pH	1	7.4	8	8.1	6.5-8.5		
	Temperature	10	2	6	3.7			
3	Odor	dilution factor	1		বা	≦2		
-4	Taste	dilution factor	-			<u></u>	·	
5	Color	mg/l Pt scale	4	6	2			
6	Turbidity	kaolin (JIS)	2	1	1	1	· · · · · · · · · · · · · · · · · · ·	
7	Conductivity	mS/m(at 25°C)	115.4	100	186.7			-
. 8	Hardness###	mgCaCO ₃ /I				≦350		
	Dry Residue###	mg/l	707	574	746	≦1000		≦100
10	COD(KMn0 ₄ , alkali)	mg O ₂ /I	4.8	-				
11	Nitrite	mg NO ₂ /I	0.14	0.5	0.01			
12	Nitrate	mg NO ₃ /I	9.8	5.4	9.8	≦44.3	≦50	·····
13	Ammonium	mg NH ₄ /I	<0.2	0.4	0.3			≦1.
14	Orthophosphate	mg P04/l	0.05	0.15	0.08	≦3.5	••••••••••••••••••••••••••••••••••••••	
15	Bicarbonate	mg HCO ₃ /I	256	220	281			
16	Carbonate	mg CO ₃ /I	0.16	0.55	0.89			
17	Chloride*	mg CI/I	36	16	10	≤350		≦25
18	Sulfate#	mg SO /I	340	280	380	≦500		≤25
	Sodium***	mg Na/I	47.4	47			ł	
	Potassium*	mg K/I	5	3.7	6		<u> </u>	
	Calcium	Img Ca/I	46	45	67	≦100		
	Magnesium##	mg Mg/l						1
23	Copper*	mg Cu/l	0.13	0.05	<0.07			≦
24	Iron	mg Fe/l	0.04	0.2	0.1			≦0.
25	Manganese*	mg Mn/l	<0.1	<0.04	<0.08		≦0.5	
	Zinc*	mg Zn/l	0.16	0.23	0.58	≦5		<u> </u>
	Lead**	mg Pb/i			0.01	≦0.03	≦0.01	
28	Chromium(VI)	mg Cr(VI)/I	0.01	0.05	0.01			
	Chromium**	mg Cr/I			0.05			
	Cadmium**	mg Cd/		· · ·	اری بر بازین می از این	≨0.01	≦0.003	
	Arsenic**	mg As/l			0.01	≦0.05		
	Cyanide Mercury##	mg CN/I mg Hg/I	<0.01	0.03	0.04	≦0.1	≤0.07	
	Fluoride		4	<0.01	0.04	0.7-1.5	≦0.001	ļ
	Silica	mg F/I mg SiO ₂ /I	13	14	5.2	0./-1.0	≦1.5	·
	Molybdenum**	mg Mo/l	0.03	0.03	0.03	≤0.25	≦0.07	<u></u>
36	Beryllium**	mg Be/l	0.03	0.03	<0.03	Q.20		· · · · · · · · · · · · · · · · · · ·
	Aluminum	mg Al/l	<0.01	<0.01	0.01	≦0.5		
	Total Coliforms	No. in 11					(<1 in 100 ml)	
	Acidity	mg CaCO ₃ /I	100	45	80			+
	Alkalinity	mg CaCO ₃ /I	210	180	230	 		
	Nickel*	mg Ni/I	0.08	<0.04	<0.06		≦0.02	<u>, † </u>
	Selenium*	mg Se/l	<0.06	<0.07	<0.06	≦0.001		
	14		1.19		0.00			1
	Strontium*	mg Sr/l mg Br/l	0.08	1.1 0.17	0.92	≦2		

Annex VIII-4 (2/18) Water Quality for SW-2 in 1997

* ED-TRXRF

** Colorimetry in Ulaanbaatar

*** Flame emission spectrometric method

Calculated from the correlation between results from gravimetric method and from ED-TRXRF method ## Calculated from charge balance

Calculated value

Turbidimetric method

8 - 31

ltem	a na	a president de la Capacita de Calendaria	SW-2	and a part of the south the second second second		Mongolian	WHO	
No.	ltem	Unit	23-Jun-97	16-Jul-97	23-Jul-97	-	(health)	(complain)
1	pH		7.4	8	8.1	6.5-8.5		
- 2	Temperature	1°C	2	6	3.7			
- 3	Odor	dilution factor	-		<u></u>	≦2		
4	Taste	dilution factor	-			≦2		
5	Color	mg/I Pt scale	4	6	2			≦15
	Turbidity	kaolin (JIS)	2	1	1			
7	Conductivity	mS/m(at 25°C)	115.4	100	186.7			
8	Hardness###	mgCaCO ₃ /I	520	726 G. 400	<u>C-3</u> 540	≦350		
9	Dry Residue###	mg/l	707	574	746	≤1000		≦1000
	COD(KMn0 ₄ , alkali)	mg O ₂ /1	4.8		-		···· · · · · · · · · · · · · · · · · ·	
	Nitrite	mg NO ₂ /I	0.14	0.5	0.01	·	≦3	
	Nitrate	mg NO ₃ /I	9.8	5.4	9.8	≦44.3		ł.
	Ammonium	mg NH ₄ /I	<0.2	0.4	0.3		<u> </u>	≤1.5
	Orthophosphate	mg P0₄/1	0.05	0.15	0.0	≦3.5		
	Bicarbonate	mg HCO ₃ /I	256	220	281	= 0.0	ļ	ļ
	Carbonate	mg CO ₃ /l	0.16	0.55	0.89			
	Chloride*	mg Cl/l	36	0.55	0.89	≦350		≦250
	Sulfate#	mg SO ₄ /l	340	280	380	≦350 ≤500	L	≦250
			1					≥250
	Sodium***	mg Na/l	47.4	47	47		ļ	
	Potassium*	mg K/l	5 46	3.7	6		L	
	Calcium Magnesium##	mg Ca/I		45	67	≦100		
	Copper*	mg Mg/I			S 10 X 1 88	≦30		
	Iron	mg Cu/l mg Fe/l	0.13	0.05	<0.07	≦1 ≦0.3	≦2	≦1 ≦0.3
	Manganese*	mg Min/l	0.04 <0.1	<0.2	<0.08	<u>≦</u> 0.3 ≦0.1	≦0.5	
	Zinc*	mg Zn/l	0.16	0.23	0.08	≦0.1		<u></u>
	Lead#*	mg Pb/l	0.10	0.2.0	0.00	≦0.03	≦0.01	
	Chromium(VI)	mg Cr(VI)/1	0.01	0.05	0.01	=0.03	20.01	
	Chromium**	mg Cr/l	0.01	0.00	0.05	≦0.05	≦0.05	
29	Cadmium**	mg Cd/l	·		YE 51 0.02	≦0.01		
	Arsenic**	Img As/I			0.01	≦0.05		<u> </u>
31	Cyanide	mg CN/I	<0.01	0.03	0.04	≦0,1	≦0.07	<u> </u>
32	Mercury**	mg Hg/l			2733 0.003		≦0.001	
	Fluoride	mg F/l		<0.01	0.04	0.7-1.5		<u> </u>
34	Silica	mg SiO ₂ /1	13	14	5.2		 	
35	Molybdenum**	mg Mo/I	0.03	0.03	0.03	≤0.25	≤0.07	
	Beryllium**	mg Be/I			<0.001			
	Aluminum	mg Al/1	<0.01	<0.01	0.01	≦0.5		≦0.2
- 38	Total Coliforms	No. in 11	180	<u>960 - 200</u>	960	(<3 in 11)	(<1 in 100 ml)	
43	Acidity	mg CaCO ₃ /I	100	45	80		·	[
44	Alkalinity	mg CaCO ₃ /I	210	180	230		<u> </u>	
	Nickel*	mg Ni/I	0.08	<0.04	< 0.06		≦0.02	1
	Setenium*	mg Se/l	<0.06	<0.07	<0.06	≦0.001		1
	Strontium*	mg Sr/1	1.19	1.1	0.92	≦2		1
	Bromine*	mg Br/l	0.08	0.17	0.48	l	1	1

Annex VIII-4 (2/18) Water Quality for SW-2 in 1997

* ED~TRXRF

** Colorimetry in Ulaanbaatar *** Flame emission spectrometric method

Calculated from the correlation between results from gravimetric method and from ED-TRXRF method ## Calculated from charge balance

Calculated value Turbidimetric method

tem			SW-3			Mongolian	WHO	
	item	Unit	23-Jun-97	16-Jul-97	23-Jul-97	Standard	(health)	(complain)
	pН	<u>}</u>	7.9	7.7	7.8	6.5-8.5		
- ;	Temperature	1°C	-5.5	6	7			· · · · ·
-3	Odor	dilution factor			रा	≦2	· · ·	
	Taste	dilution factor	 			≦2		1
	Color	mg/I Pt scale	2	10	2		a a construction of the line o	1
	Turbidity	kaolin (JIS)	0.5	रा	0.5			
	Conductivity	mS/m(at 25°C)	238	243	360			
	Hardness###	mgCaCO ₃ /I		و مشاہر کر میں ہے۔ این کہ ان کا ان کا ا		≦350		
- 9	Dry Residue###	mg/l				≦1000		≦100
	COD(KMn04, alkali)	mg O ₂ /1	6.2	-	-			1
	Nitrite	mg NO ₂ /I	0.25	0.01	0.03	1	≦3	
			4.1	5.3	9.6			<u> </u>
	Nitrate	mg NO ₃ /I	i					1 · · · · ·
13	Ammonium	mg NH₄/I	0.24	0.25	0.35	i		≦1.
14	Orthophosphate	mg P04/I	0.1	0.1	0.03	≦3.5		
15	Bicarbonate	mg HCO ₃ /I	262	281	244		1 · · · ·	1
	Carbonate	mg CO ₃ /1	0.52	0.35	0.49			
	Chloride*	mg Cl/I	100	58	138	≤ 350	1	<u>≤25</u>
	Sulfate#	mg SO ₄ /1	and a second second second			≤500		≤25
	Sodium***		54.6	54.2	54			
	Potassium*	mg Na/i mg K/l					<u>+</u>	+
	Calcium	mg Ca/l	47	36		≤100	1	+
	Magnesium##	mg Mg/l			ee	≦30		
	Copper*	mg Cu/l	0.071	0.05	<0.06			2 3
	Iron	mg Fe/l	0.06	0.1	0.14			1 ≦0.
	Manganese*	img Mn/l	<0.08	<0.04	<0.08			5 ≦0.
26	Zinc*	Img Zn/l	0.37	0.14	0.22	2 3	5	≦
- 27	Lead**				0.02		3 ≦0.0	1
28	Chromium(VI)	mg Cr(VI)/I	<0.01	0.02	<0.0			
	Chromium**				0.0			
29	Cadmium				0.0			
- 30	Arsenic**				0.03			
	Cyanide	mg CN/l	<0.01	0.1	0.0	4 ≦0.1		
	Mercury**				······································		≦0.00	
	8 Fluoride	mg F/I		<0.01			5 ≦1.	9
	1 Silica	mg SiO ₂ /I	11	12		a la constance a la c		
	Molybdenum**	mg Mo/I	0.05	0.05			5 ≦0.0	7
	Beryllium**	mg Be/I			0.00			
	/ Aluminum	mg Al/I	0.08		0.0			≦0
	B Total Coliforms	No. in 11	1840 St 44) (<1 in 100 m	<u>y</u>
4:	3 Acidity	mg CaCO ₃ /I	125	55	1			
4	4 Alkalinity	mg CaCO ₃ /I	215	230	20	0		
l	Nickel*	mg Ni/1	<0.07	0.04	<0.0	6	≦0.0	
	Selenium*	mg Se/l	<0.06					1
	Strontium*	mg Sr/I	A REAL PROPERTY OF THE CASE OF	in the second			2	
·	Bromine*	mg Br/l	0.31	0.69	0.6	4		

Annex VIII-4 (3/18) Water Quality for SW-3 in 1997

* ED-TRXRF

** Colorimetry in Ulaanbaatar

*** Flame emission spectrometric method # Calculated from the correlation between results from gravimetric method and from ED-TRXRF method

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Calculated from charge balance

Calculated value

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tem			SW-3			Mongolian	WHO	
	ltern	Unit	23-Jun-97]	16-Jul-97	23-Jul-97	Standard	(health)	(complain)
1	pH		7.9	7.7	7.8	6.5-8.5		
	Temperature	100	-5.5	6	7		······································	
	Odor	dilution factor	-		रा	≦2		
	Taste	dilution factor	-	e.		≦2		
	Color	mg/l Pt scale	2	10	2			≦1
	Turbidity	kaolin (JIS)	0.5	ন	0.5			
	Conductivity	mS/m(at 25°C)	238	243	360			
	Hardness###	mgCaCO ₃ /I	144 State 800	12.62.5 873	174 Sec. 1 970	≦350		
9	Dry Residue###	mg/l	Maga 11047	A	神经营动1338	≦1000		≦100
	COD(KMn04, alkali)	mg O ₂ /1	6.2					
	Nitrite	mg NO ₂ /I	0.25	0.01	0.03	1	≦3	
12	Nitrate	mg NO ₃ /I	4.1	5.3	9.6	≦44.3	≦50	
	Ammonium	mg NH₄/I	0.24	0.25	0.35			≦1.
	Orthophosphate	mg P04/1	0.1	0.1	0.03	1		
	Bicarbonate	mg HCO ₃ /I	262	281	244	1		
	Carbonate	mg CO ₃ /I	0.52	0.35	0.49			
	Carbonate Chloride*	mg Cl/l	100	58				≦25
	Sulfate#	mg SO₄/I	540		Sec. 670			≦25
		1 .	54.6	54.2				+
	Sodium***	mg Na/l mg K/l	54.0	<u> </u>		r		
	Potassium* Calcium	mg Ca/l	47	26	261	≦100	· · · · · · · · · · · · · · · · · · ·	<u> </u>
	Magnesium##	mg Mg/1	165					
	Copper*	mg Mg/1	0.07	0.05	<0.06			2
	Iron	mg Fe/l	0.06					<u></u>
	Manganese*	mg Mn/1	<0.08					st <u>-</u>
	Zinc*	mg Zn/l	0.37	0.14	1			<u></u>
	Lead**				0.02	2 ≦0.03	≦0.01	rt
	Chromium(VI)	mg Cr(VI)/I	<0.01	0.02			1	
	Chromium**		1		0.0			
29	Cadmium				0.0	[≦0.01	≦0.00	3
	Arsenic**				0.0	3 ≦0.05	5 ≦0.0	1
3	Cvanide	mg ČN/l	<0.01	0.1			≦0.0	
	2 Mercury**			ļ	0.00	5	≦0.00	
	3 Fluoride	mg F/I		<0.01	0.0	5 0.7-1.	5 ≦1.	5
3	4 Silica	mg SiO ₂ /I	11	12	2 3.	1		
3	5 Molybdenum**	mg Mo/I	0.05	0.05	0.0	5 ≦0.2	5 ≦0.0	7
	6BervIlium**	mg Be/i			0.00	3		T
3	7 Aluminum	mg Al/I	0.08	<0.01	0.0			≦(
3	8 Total Coliforms	No. in 11	180	230) :::::::>≥238	0 (<3 in 11) (<1 in 100 m	0
4	3 Acidity	mg CaCO ₃ /I	125	55	1			
4	4 Alkalinity	mg CaCO ₃ /I	215	230	20	0		
	Nickel*	mg Ni/I	<0.07		-	-	≦0.0	2
	Selenium*	mg Se/i	<0.06					1
	Strontium*	mg Sr/I	6.17	[[法律师]]][[5]	5 Phil 40 52	<u>n</u> ≦	2	
	Bromine*	mg Br/l	0.31					

Annex VIII-4 (3/18) Water Quality for SW-3 in 1997

* ED-TRXRF

** Colorimetry in Ulaanbaatar

*** Flame emission spectrometric method

Calculated from the correlation between results from gravimetric method and from ED-TRXRF method ## Calculated from charge balance

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Calculated value

ltem			SW-4			Mongolian	WHO	
No.	item	Unit	23-Jun-97	16-Jul-97	23-Jul-97	Standard	(health)	(complain)
1	рH	T	8,1	8	8,1	6.5-8.5		
2	Temperature	C	-4.5	5	5			
3	Odor	dilution factor			रा	≦2		
4	Taste	dilution factor				≦2		
5	Color	mg/I Pt scale		Sec. 2.1	6			<u></u>
6	Turbidity	kaolin (JIS)	15	3	3			
7	Conductivity	mS/m(at 25°C)	295	288	450			
	Hardness###	mgCaCO ₃ /I				≦350		·
	Dry Residue###	mg/l	Les Sharing Sectores at 2		5 A	≦1000		≦100
10	COD(KMn04, alkali)	mg O ₂ /I	1.5		-			
11	Nitrite	mg NO ₂ /I	0.34	0.06	0		≦3	
12	Nitrate	mg NO ₃ /I	3.9	8.4	28	≦44.3	≦50	
13	Ammonium	mg NH ₄ /I	0.24	0.38	0.35			
14	Orthophosphate	mg P0 ₄ /I	0.07	0.1	0.08	≦3.5		
15	Bicarbonate	mg HCO ₃ /I	342	354	311		·	
16	Carbonate	mg CO ₃ /I	1.08	0.89	0.98			
17	Chloride*	mg Cl/l		139	140	≦350		≦2
	Sulfate#	mg SO ₄ /I	401			≦500		≦2
	Sodium***	mg Na/	52	And a state of the second		=	· · · · · · · · · · · · · · · · · · ·	
	Potassium*	Img K/I		52.3 12.2	52.1	·		·
	Calcium	mg Ca/l	33	28	60	≦100	·······	
	Magnesium	mg Mg/	00	20				
23	Copper*	mg Cu/l	and a sum a line of the s	<0.04	<0.05		≦2	- <u>-</u>
24	Iron	mg Fe/i	0.05		0.12	≦0.3	===	
-25	Manganese*	mg Mn/l	0.00	<0.05	0.08	≦0.0	≦0.5	<u></u> ≦0
	Zinc*	mg Zn/l		0.32	0.9		= 0.0	<u>_</u>
	Lead**	mg Pb/l			0.01	≦0.03	≦0.01	
	Chromium(VI)	mg Cr(VI)/I	<0.01	0.02	0.02	± 0.00	20.01	
• • •	Chromium**	mg Cr/l	 		0.02	≤0.05	≤0.05	<u></u>
29	Cadmium**	mg Cd/l	11		0.01	≦0.01	≦0.003	
- 30	Arsenic**	mg As/l	1		0.01	≦0.05	≦0.01	
31	Cyanide	mg CN/I	<0.01	0.1	0.1	≦0.1	≦0.07	
	Mercury##	mg Hg/l					≦0.001	
	Fluoride	mg F/I		<0.01	0.02	0.7-1.5	≦1.5	
34	Silica	mg SiO ₂ /I	11	13	5.2	:		
	Molybdenum**	mg Mo/I	0.03	0.03	0.03	≦0.25	≦0.07	
36	Beryllium++	mg Be/I	1	1	0.026			
	Aluminum	mg Al/1	0.02	0.03	0.02	≦0.5		
- 38	Total Coliforms	No. in 11				(<3 in 11)	(<1 in 100 ml)	
43	Acidity	mg CaCO ₃ /I	130	50	80			
44	Alkalinity	mg CaCO ₃ /I	280	290	255			
·	Nickel*	mg Ni/I	[]	0.07	<0.05		≦0.02	†
	Selenium*	mg Se/l	[<0.06	<0.06	≦0.001	≦0.01	1
	Strontium*	mg Sr/l				≦2		<u> </u>
	Bromine*	mg Br/l		0.7	0.68		l	1

Annex VIII-4 (4/18) Water Quality for SW-4 in 1997

* ED~TRXRF

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** Colorimetry in Ulaanbaatar

*** Flame emission spectrometric method

Calculated from the correlation between results from gravimetric method and from ED-TRXRF method

Calculated from charge balance ### Calculated value ~ Turbidimetric method

ltem			SW4			Mongolian	who	
No.	ltem	Unit	23-Jun-97	16-Jul-97	23-Jul-97	Standard	(health)	(comptain)
1	рH		8.1	8	8.1	6.5-8.5		
	Temperature	1°C	-4.5	5	5			<u> </u>
	Odor	dilution factor			रा	≦2	····	<u> </u>
	Taste	dilution factor						
5	Color	mg/I Pt scale	######## 20	C. (1) N 3120	6			≦1
	Turbidity	kaolin (JIS)	15	3	3			{
7	Conductivity	mS/m(at 25°C)	295	288	450		······································	<u> </u>
8	Hardness###	mgCaCO ₃ /I	690	1140		≦350	·	
9	Dry Residue###	mg/l	ASSIST 1025	1402		≦1000		
10	COD(KMn0 ₄ , alkali)	mg O ₂ /I	1.5	-	~			
11	Nitrite	mg NO ₂ /I	0.34	0.06	0		≦3	
12	Nitrate	mg NO ₃ /I	3.9	8.4	28	≦44.3	≦50	
13	Ammonium	mg NH ₄ /I	0.24	0.38	0.35	I		
	Orthophosphate	mg P0₄/I	0.07	0.1	0.08	≦3.5	<u> </u>	<u> </u>
	Bicarbonate	mg HCO ₃ /1	342	354	311			
16	Carbonate	mg CO ₃ /I	1.08	0.89	0.98			
17	Chloride*	mg Cl/i	+	139	140	≦350	<u> </u>	≦250
	Sulfate#	mg SO₄/I	401	945 2 730		≦500		≦250
	Sodium***	mg Na/l	52	52.3	52.1			= 20
	Potassium*	mg K/l	9	12.2	11.1			
	Calcium	mg Ca/l	33	28	60	≦100		
	Magnesium	mg Mg/l		anan er 25 7		≦30		
	Copper*	mg Cu/l	67 27 19 19 19 19 19 19 19 19 19 19 19 19 19	<0.04	<0.05	<u></u>	≦2	<u> </u>
24	Iron	mg Fe/l	0.05	0.35	0.12	≦0.3		≦0.:
25	Manganese*	mg Mn/l		<0.05	0.08		≦0.5	
26	Zinc*	mg Zn/l		0.32	0.9			<u></u>
	Lead**	mg Pb/I			0.01	≦0.03	≦0.01	
28	Chromium(VI)	mg Cr(VI)/I	<0.01	0.02	0.02			
	Chromium**	mg Cr/l			0.02	≦0.05	≦0.05	
	Cadmium**	mg Cd/I			0.01	≦0.01	≦0.003	1
	Arsenic**	mg As/l			0.01	≦0.05		1
	Cyanide	mg CN/I	<0.01	0.1	0.1	≦0.1	≦0.07	[
	Mercury**	mg Hg/I			至20.002		≦0.001	
	Fluoride	mg F/I		<0.01	0.02	0.7-1.5	≦1.5	<u> </u>
	Silica	mg SiO ₂ /I	11	13	5.2			
35	Molybdenum**	mg Mo/l	0.03	0.03		≦0.25	≦0.07	
	Beryllium**	mg Be/l			0.026			
	Aluminum	mg AI/I	0.02			≦0.5		≦0.
	Total Coliforms	No. in 11		>2380		(<3 in 11)	(<1 in 100 ml)	
	Acidity	mg CaCO ₃ /I	130	50	80			
44	Alkalinity Nickel*	mg CaCO ₃ /1	280			ļ		
	Nickel* Selenium*	mg Ni/l mg Se/l		0.07	<0.05		≦0.02	
	Selenium* Strontium*	mg Sr/l	 		<0.06			
	Bromine*	mg Br/l	<u> </u>	0.7	0.68		}	

Annex VIII-4 (4/18) Water Quality for SW-4 in 1997

* ED-TRXRF

** Colorimetry in Ulaanbaatar

*** Flame emission spectrometric method

Calculated from the correlation between results from gravimetric method and from ED-TRXRF method

Calculated from charge balance ### Calculated value ~ Turbidimetric method

ltem			SW~5			Mongolian	WHO	
1 0.	ltem	Unit	23-Jun-97	16-Jul-97	23-Jul-97	Standard	(health)	(complain)
1	οН		7.6	7.7	8.4	6.58.5		
2	Temperature	<u>тс</u>	·····	4	3.5			
3	Odor	dilution factor	1		বা	≤2		
4	Taste	dilution factor	1			32		1
5	Color	mg/l Pt scale		- 4	5			
	Turbidity	kaolin (JIS)	1	10	0.5]	
7	Conductivity	mS/m(at 25°C)	174.7	143	224		· · · ·	
8	Hardness###	mgCaCO ₃ /I		300	and a state of the	≦350	······	
	Dry Residue###	mg/l	685	498	658	≤1000		≦100
10	COD(KMn04, alkali)	mg O ₂ /I	5.1		7	1		
11	Nitrite	mg NO ₂ /I	0.05	0.04	0.02		≦3	
12	Nitrate	mg NO ₃ /I	0.5	1	0.8	≦44.3	≤50	5
13	Ammonium	mg NH ₄ /I	<0.2	0.55	1.2			≦1.
14	Orthophosphate	mg P0 ₄ /I	<0.05	0.5	0.04	≦3.5		
15	Bicarbonate	mg HCO ₃ /I	0	55	70			
16	Carbonate	mg CO ₃ /I	0.29	0.18	0.96			
	Chloride*	mg Cl/i	18	18	25			≦25
	Sulfate#	mg SO ₄ /I	280	270	380	≦500		≤25
	Sodium***	mg Na/l	54.8	54.5	54.2			= 2,J
	Potassium*	mg K/I	3,1	5.1	34.2 8.6			
	Calcium	mg Ca/l	22	19	26			
	Magnesium##	mg Mg/	22	13	20			
23	Copper*	mg Cu/l	0.11	<0.04	<0.07	<u></u> 00	≦2	
	Iron	Img Fe/I	0.14	<0.02	0.03			
	Manganese*	mg Mn/l				≦0.1	≦0.5	
26	Zinc*	mg Zn/l	0.1	0.06	0.28			
27	Lead++	mg Pb/l	1		0.02			
28	Chromium(VI)	mg Cr(VI)/I	0.01	0.04	0.01			
	Chromium**	mg Cr/l			0.04		≦0.05	
	Cadmium**	mg Cd/l			0.02		≦0.003	
30	Arsenic**	mg As/l	L		0.02		≦0.01	1. N
	Cyanide	mg CN/I	al an air air air a'	Section of the second	0.09	<u>≦0.1</u>	≦0.07	
	Mercury**	mg Hg/I			Land and the second second		≦0.001	
	Fluoride	mg F/I	┫	0.3	0.06	0.7-1.5	≦1.5	
	Silica	mg SiO ₂ /I		1.1	1.3			
	Molybdenum**	mg Mo/I	0.04	0.04	0.04		≦0.07	
	Beryllium**	mg Be/I			0.0033		100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100	
	Aluminum	mg Al/I		0.1	0.02			≦0.
	Total Coliforms	No. in 11		Same and	1. 19 19 19 19 19 19 19 19 19 19 19 19 19		(<1 in 100 ml)	
	Acidity	mg CaCO ₃ /I	0	45	57.5	the second second	· · ·	·
44	Alkalinity	mg CaCO ₃ /I	240	115	125			
	Nickel*	mg Ni/	<0.07	<0.04	<0.05	I	≦0.02	
	Selenium*	mg Se/I	<0.065	<0.05	<0.1		≦0.01	-
	Strontium*	mg Sr/l	0.51	0.4	0.44	≦2		<u> </u>
	Bromine*	mg Br/l	0.14	0.72]	1.51			

Annex VIII-4 (5/18) Water Quality for SW-5 in 1997

* ED-TRXRF

****** Colorimetry in Ulaanbaatar

*** Flame emission spectrometric method

Calculated from the correlation between results from gravimetric method and from ED-TRXRF method

Calculated from charge balance

Calculated value

Turbidimetric method

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ltem			SW-5			Mongolian	WHO	
No.	ltem	Unit	23-Jun-97	16-Jul-97	23-Jul-97	Standard	(health)	(complain)
1	ρH		7.6	7.7	8.4	6.5-8.5		
2	Temperature	PC		4	3.5			
- 3	Odor	dilution factor	 +		<1	≦2		ł
- 4	Taste	dilution factor	1	<u> </u>				4
5	Color	mg/l Pt scale	%43\$3334720	4	5	<u> </u>	t	≦1
6	Turbidity	kaolin (JIS)	1	10	0.5			
7	Conductivity	mS/m(at 25°C)	174.7	143	224			1
8	Hardness###	mgCaCO ₃ /I	510	300	1430	≦350		<u> </u>
	Dry Residue###	mg/l	685	498	658	≦1000	f	≦100
10	COD(KMn04, alkali)	mg O ₂ /i	5.1		7		1	
11	Nitrite	mg NO ₂ /I	0.05	0.04	0.02		≦3	
12	Nitrate	mg NO ₃ /I	0.5	1	0.8	≦44.3	≦50	
13	Ammonium	mg NH₄/I	<0.2	0.55	1.2		<u> </u>	≦1.
14	Orthophosphate	mg P0 ₄ /I	<0.05	0.5	0.04	≦3.5	.	
15	Bicarbonate	mg HCO ₃ /I	0	55	70			+
16	Carbonate	mg CO ₃ /I	0.29	0.18	0.96	[
17	Chloride*	mg Cl/l	18	18	25	≦350		≦25
	Sulfate#	mg SO₄/I	280	270	380	≦500		≦25
19	Sodium***	mg Na/I	54.8	54.5	54.2		<u> </u>	
20	Potassium*	mg K/I	3.1	5.1	8.6		<u> </u>	
21	Calcium	mg Ca/l	22	19	26			
22	Magnesium##	mg Mg/l	0.10.255.0110			≦30		+
23	Copper*	mg Cu/l	0,11	<0.04			≦2	<u> </u>
	Iron	mg Fe/I	0.14	<0.02	0.03			≦0.
	Manganese*	mg Mn/l	14A-220-0.5		0.61	≦0.1		≦0.
26	Zinc*	mg Zn/l	0.1	0.06	0.28			≦
	Lead**	mg Pb/I			0.02	≦0.03	≦0.01	
28	Chromium(VI)	mg Cr(VI)/I	0.01	0.04	0.01]
	Chromium**	mg Cr/l			0.04		≦0.05	
	Cadmium**	mg Cd/l	ļ		0.02		≦0.003	
	Arsenic**	mg As/l			0.02			
	Cyanide Mercurv**	mg CN/I		25	0.09			
	Fluoride	mg Hg/l	.		1. 2. 0.003		≦0.001	
	Silica	mg F/1 mg SiO ₂ /1		0.3			≦1.5	
			I	1.1	1.3			
	Molybdenum** Beryllium**	mg Mo/I	0.04	0.04	0.04		≦0.07	
	Aluminum	mg Be/l			0.0033	4	<u> </u>	
	Total Coliforms	mg Al/I	+	0.1	0.02			≦0
	Acidity	No. in 11 mg CaCO ₃ /1		45 2380	57.5) (<1 in 100 ml)	'
	Alkalinity	mg CaCO ₃ /1	240	45			<u> </u>	ļ
44	Nickel*		<0.07	<0.04				<u> </u>
	Selenium*						≦0.02	
	Selenium*	mg Se/l mg Sr/l	<0.065 0.51	<0.05			≦0.01	
	Bromine*	mg Br/l	0.51	0.4	0.44			<u>ا</u> ــــــــــ

Annex VIII-4 (5/18) Water Quality for SW-5 in 1997

* ED-TRXRF

** Colorimetry in Ulaanbaatar *** Flame emission spectrometric method

Calculated from the correlation between results from gravimetric method and from ED-TRXRF method

Calculated from charge balance ### Calculated value ~ Turbidimetric method

ltem			SW-6			Mongolian	WHO	
No.	ltem	Unit	23-Jun-97	16-Jul-97	23-Jul-97		(health)	(complain)
1	рН		1.5.5.200	83	1000 1000 1000	6.5-8.5		}
	Temperature	10	3	2.5	2.4	0.0 0.0		<u>}</u>
	Odor	dilution factor			रा			1
	Taste	dilution factor			·``	<u>52</u>		<u> </u>
	Color	mg/I Pt scale	10	10 10 20 11				<u></u>
6	Turbidity	kaolin (JIS)	3	5	3		h	<u> </u>
	Conductivity	mS/m(at 25°C)	52.5	46	91.3			<u>+</u>
8	Hardness###	mgCaCO ₃ /I	134	116	230	≦350		
9	Dry Residue###	mg/l	279	270	396	≦1000	· · · · · · · · · · · · · · · · · · ·	1000
	COD(KMn0 ₄ , alkali)	mg O ₂ /1	2		4			
11	Nitrite	mg NO ₂ /I	0.3	0.25	0.05		≦3	
12	Nitrate	mg NO ₃ /I	2	4	5.6	≦44.3	≦50	
13	Ammonium	mg NH ₄ /I	0.24	0.37	0.45	· · · · · · · · · · · · · · · · · · ·		
14	Orthophosphate	mg P0 ₄ /I	<0.05	<0.05	0.04	≦3.5	· · · · ·	1
15	Bicarbonate	mg HCO ₃ /I	207	207	214		1	
16	Carbonate	mg CO ₃ /I	2.07	1.04	2.14	· · · · · · · · · · · · · · · · · · ·		<u> </u>
17	Chloride*	mg Cl/l	16	6	19	≦350		≦250
18	Sulfate#	mg SO ₄ /I	57	58	140	≦500		≦250
19	Sodium***	mg Na/l	56.2	56	56.1			<u> </u>
20	Potassium*	mg K/l	2.5	5	3.2			<u> </u>
21	Calcium	mg Ca/l	22	25	27	≦100		<u>†</u>
22	Magnesium##	mg Mg/I	19	13		≦30		1
23	Copper*	mg Cu/l	0.06	0.15	<0.03	1	≦2	<u></u>
- 24	Iron	mg Fe/I	0.07	0.1	0.06	≦0.3		≦0.3
	Manganese*	mg Mn/l	2000 C	an a	ALL - THE LOOK IN THE REAL OF THE REAL	≦0.1	≦0.5	
26	Zinc*	mg Zn/l	0.43	0.33	0.6	≦5		≦!
27	Lead**	mg Pb/l		·	0.01	≨0.03	≦0.01	1
28	Chromium(VI)	mg Cr(VI)/I		0.03	<0.01			ļ
	Chromium** Cadmium**	mg Cr/l			0.02	≦0.05		
	Arsenic**	mg Cd/l mg As/l		· · · · · ·	0.01	≦0.01		
	Arsenic## Cvanide	mg CN/I		0.05	0.01	<u>≦</u> 0.05 ≦0.1		
	Mercury##	mg Hg/l		0.05	0.02	<u> </u>	≦0.07 ≦0.001	
- 32	Fluoride	ing F/I	0.4	<0.01	<0.01	0.7-1.5		
	Silica	mg SiO ₂ /I	9	7	5.4	0.7-1.0	<u>1.0</u>	<u> </u>
	Molybdenum**	mg Mo/I	0.02	0.02	0.02	≦0.25	≦0.07	· · · · · · · · · · · · · · · · · · ·
	Beryllium**	mg Be/l		0.02	<0.001	EOLLO		<u> </u>
	Aluminum	Img Al/I	<0.01	0.03	<0.01	≦0.5		<u>≤0.</u>
	Total Coliforms	No. in 11	<9		1450 AB - 380 AB		(<1 in 100 ml)	
43	Acidity	mg CaCO ₃ /I	95	95	92.5			<u> </u>
44	Alkalinity	mg CaCO ₃ /I	170	170	175			†
	Nickel*	mg Ni/l	0.02	0.06			≦0.02	1
	Selenium*	mg Se/l	<0.01	<0.02		≦0.001		
	Strontium*	mg Sr/l	0.59	0.5	0.89			1
	Bromine*	mg Br/l	0.05	0.21	0.45	[· · · · · ·	1

Annex VIII-4 (6/18) Water Quality for SW-6 in 1997

* ED-TRXRF

** Colorimetry in Ulaanbaatar

*** Flame emission spectrometric method

Calculated from the correlation between results from gravimetric method and from ED-TRXRF method

Calculated from charge balance ### Calculated value

ltem		T	SW-6			Mongolian	WHO	
No.	Item	Unit	23-Jun-97	16-Jul-97	23-Jul-97		(health)	(complain)
1	рH	1	8.6	8.3	19 Mail 8.6	6.5-8.5		
	Temperature	te	-3	2.5	2.4			
	Odor	dilution factor			বা	≦2		<u> </u>
4	Taste	dilution factor				≤ 2		
5	Color	mg/I Pt scale	10	an. at 1:20	8251 JANE 20			≦19
	Turbidity	kaolin (JIS)	3	5	3			
- 7	Conductivity	mS/m(at 25°C)	52.5	46	91.3			
8	Hardness###	mgCaCO ₃ /I	134	116	230	≦350		
9	Dry Residue###	mg/l	279	270	396	≦1000		≤1000
	COD(KMn04, alkali)	mg 0 ₂ /l	2		4			
	Nitrite	mg NO ₂ /I	0.3	0.25	0.05	E	≦3	
	Nitrate	mg NO ₃ /I	2	4	5.6			
						1	200	L
1	Ammonium	mg NH₄∕I	0.24	0.37	0.45			≦1.5
14	Orthophosphate	mg P0 ₄ /1	<0.05	<0.05	0.04	≦3.5		
15	Bicarbonate	mg HCO ₃ /I	207	207	214			
16	Carbonate	mg CO ₃ /1	2.07	1.04	2.14			
17	Chloride*	mg Cl/l	16	6	19	≦350		≦250
18	Sulfate#	mg SO ₄ /I	57	58	140			≦250
19	Sodium***	mg Na/l	56.2	56	56.1	1		
20	Potassium*	mg K/I	2.5	5	3.2		····	
21	Calcium	mg Ca/l	22	25		≦100	·	
22	Magnesium##	mg Mg/I	19	13	BRE HATE 38			1
	Copper*	mg Cu/l	0.06	0.15		≦1	≦2	
	Iron	mg Fe/I	0.07	0.1				≦0.:
25	Manganese*	mg Mn/I		n 43. Yr 0.43			≦0.5	≦0.1
26	Zinc*	mg Zn/l	0.43	0.33	0.6			≦:
	Lead**	mg Pb/I			0.01		≦0.01	
28	Chromium(VI)	mg Cr(VI)/I		0.03				
	Chromium**	mg Cr/l			0.02	1		
	Cadmium** Arsenic**	mg Cd/l mg As/l	 		0.01	≦0.01 ≤0.05	≦0.003	
	Cyanide	mg As/1 mg CN/I	····	0.05	0.01		≦0.01 ≦0.07	
- 32	Mercury**	mg Hg/1		0.05	0.02		≦0.07	+
	Fluoride	mg F/l	0.4	<0.01	<0.01	0.7-1.5	≦0.001	
	Silica	mg SiO ₂ /I	9	7	5.4		=======================================	
	Molybdenum**	mg Mo/I	0.02	0.02	0.02		≦0.07	
36	Beryllium**	mg Be/l	0.02	0.02	<0.02		±2 0.07	
	Aluminum	mg Al/l	<0.01	0.03			 	≦0.
	Total Coliforms	No. in 11	<9		23 23 Conte 23		(<1 in 100 m)	=0.
	Acidity	mg CaCO ₃ /I	95	95	92.5			<u> </u>
	Alkalinity	mg CaCO ₃ /I	170	170		1	<u> </u>	
	Nickel*	mg Ni/1	0.02	0.06			≦0.02	
	Selenium*	mg Se/I	<0.01	<0.02	₹0.03			
	Strontium*	mg Sr/l	0.59	0.5	0.89			
· · · ·	Bromine*	mg Br/l	0.05	0.21	0.45		t	

Annex VIII-4 (6/18) Water Quality for SW-6 in 1997

* ED-TRXRF ** Colorimetry in Ulaanbaatar *** Flame emission spectrometric method # Calculated from the correlation between results from gravimetric method and from ED-TRXRF method # Calculated from the correlation between results from gravimetric method and from ED-TRXRF method

Calculated from charge balance ### Calculated value