

Table A.1 – Technical characteristics of water sources (wells and boreholes) for animal husbandry in Atyrau region

n/a no.	Farming, wintering	Geographical coordinates	Type of water intake facility	Technical condition					water lift	Watering troughs, reservoir
				depth	static level	debit	mineralization	casing string		
1	2	3	4	5	6	7	8	9	10	11
Indersky district, Yeltai rural district										
1	w. Boztobe	48°36'00.53"N 51°32'38.21"E	the mine well	9	8	0,09	1,63	1,2	Drainage pump	L= 10 meters metal pipe
2	w. Boztobe	48°36'00.53"N 51°32'38.21"E	the mine well	9	8	0,09	1,63	1,2	Drainage pump	L= 10 meters metal pipe
3	w. Boztobe	48°36'00.53"N 51°32'38.21"E	the mine well	9	8	0,09	1,63	1,2	Drainage pump	L= 10 meters metal pipe
4	w. Zhyrakydyk	48°38'29.15"N 51°28'50.14"E	the mine well	5,5	5	0,09		1,2	Petrol motor pump	L= 10 meters metal pipe
5	w. Zhyrakydyk	48°38'29.15"N 51°28'50.14"E	the mine well	5,5	5	0,09		1,2	Petrol motor pump	L= 10 meters metal pipe
6	p/f Dauletova	48°37'34.8"N 51°15'08.22"E	the mine well	3,25	3	0,08	4,63	2,0	Petrol motor pump	L= 5 meters metal pipe
7	p/f Kajyr	48°38'34.53"N 51°11'46.08"E	the mine well	3,2	2	0,12	0,85	2,0	Petrol motor pump	L= 5 meters metal pipe
Indersky district, Esbolsky r/d										
8	p/f Bajdолоv	48°34'20.55"N 51°04'17.59"E	the mine well	3	2	0,22	0,86	2,0	Petrol motor pump	L= 5 meters metal pipe
9	w. Shybalan	48°30'18.68"N 50°55'50.52"E	the mine well	3	2,8	0,1	9,3	1,5	Petrol motor pump	L= 5 meters metal pipe
10	w. Bibau	48°29'29.96"N 50°53'58.97"E	the mine well	2,2	2	0,1	3,61	2,0	Petrol motor pump	L= 6 meters metal pipe
11	p/f Izgalyak	48°26'34.35"N 50°46'47.62"E	the mine well	3	2	0,12		2,0	Petrol motor pump	L= 5 meters metal pipe

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Indersky district, Koktogai r/d

Continuation of table A.1

1	2	3	4	5	6	7	8	9	10	11
28	w. The Plague	N 47,96449° EO 50,84153°	the mine well	3	2	0,3	1,1	5 x 5	Drainage pump	L= 5 meters metal pipe
29	w. The Plague	N 47,96449° EO 50,84153°	the mine well	3	2	0,28		3 x 3	Drainage pump	L= 5 meters metal pipe
30	w. The Plague	N 47,96449° EO 50,84153°	the mine well	3	2	0,25		3 x 3	Drainage pump	L= 5 meters metal pipe
31	w. The Plague	N 47,96449° EO 50,84153°	the mine well	3	2	0,24		3 x 3	Drainage pump	L= 5 meters metal pipe
32	w. The Plague	N 47,96449° EO 50,84153°	the mine well	3	2	0,22		3 x 3	Drainage pump	L= 5 meters metal pipe
33	w. The Plague	N 47,96449° EO 50,84153°	the mine well	3	2	0,3		3 x 3	Drainage pump	L= 5 meters metal pipe
34	w. The Plague	N 47,96449° EO 50,84153°	the mine well	3	2	0,28		3 x 3	Drainage pump	L= 5 meters metal pipe
Indersky district, Zharsuatsky r/d										
35	w. Zhara kydyk	N 48.20082° EO 51.68216°	the mine well	10,5	4,5	0,3	0,7	1.2	Manually	L= 6 meters metal pipe L= 2 meters asbestos pipe
36	w. Sansyz	N 48.19405° EO 51.73073°	the mine well	4,5	2,5	0,1	0,7	2	Manually	L= 15 meters asbestos pipe
37	w. Beriktin kystary	N 48.15853° EO 51.71500°	the mine well	1,5	1		0,6			
Makhambet district, Makhambetskiy r/d										
38	w. Kanbakty	N 47,96449° EO 50,84153°	the mine well	3	2	0,28	2,8	3 x 3	Petrol motor pump	L= 5 meters metal pipe
39	w. Kanbakty	N 47,96449° EO 50,84153°	the mine well	3	2	0,3		3 x 3	Petrol motor pump	L= 5 meters metal pipe
40	w. Kanbakty	N 47,96449° EO 50,84153°	the mine well	3	2	0,24		3 x 3	Petrol motor pump	L= 5 meters metal pipe
41	w. Kanbakty	N 47,96449° EO 50,84153°	the mine well	3	2	0,3		3 x 3	Petrol motor pump	L= 5 meters metal pipe
42	w. Kanbakty	N 47,96449° EO 50,84153°	the mine well	3	2	0,4		3 x 3	Petrol motor pump	L= 5 meters metal pipe

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Isatai district, Tuschykudyksky r/d

Continuation of table A.1

1	2	3	4	5	6	7	8	9	10	11
54	w. Birlik	N 47,53669° EO 50,36694°	the mine well	2,5	1,5	0,18	7,1	3 x 3	Cranes	L= 4 meters metal pipe
55	w. Dalbynsharyl	N 47,53821° EO 50,33562°	the mine well	3	2	0,15	3,8	3 x 3	Cranes	L= 8 meters metal pipe
56	w. Begajdar	N 47,57437° EO 50,30957°	the mine well	2	1,5	0,1	13,7	6 x 6	Petrol motor pump	L= 5 meters metal pipe
57	w. Begajdar	N 47,57437° EO 50,30957°	the mine well	2	1,5	0,12		3 x 3	Petrol motor pump	L= 4 meters metal pipe
58	w. Nasihan	N 47,60717° EO 50,22903°	the mine well	4	3	0,14	4,1	3 x 3	Petrol motor pump	L= 5 meters metal pipe
59	w. Nasihan	N 47,60717° EO 50,22903°	the mine well	4	3	0,18		3 x 3	Petrol motor pump	L= 5 meters metal pipe
60	w. Kozgil	N 47,70472° EO 50,17671°	the mine well	2	1,5	0,2	6,7	3 x 3	Cranes	L= 5 meters metal pipe
61	w. Kozgil	N 47,70472° EO 50,17671°	the mine well	2	1,5	0,21		3 x 3	Cranes	L= 5 meters metal pipe
62	w. Kozgil	N 47,70472° EO 50,17671°	the mine well	2	1,5	0,18		3 x 3	Cranes	L= 5 meters metal pipe
63	w. Kobejkydyk	N 47,76572° EO 50,12008°	the mine well	3	2	0,2	6,9	3 x 3	Petrol motor pump	L= 4 meters metal pipe L= 4 meters metal pipe L= 4 meters metal pipe
64	w. Kon	N 47,79190° EO 50,02136°	the mine well	3	2	0,15	5,6	3 x 3	Petrol motor pump	L= 4 meters metal pipe
65	w. Kon	N 47,79190° EO 50,02136°	the mine well	3	2	0,1		3 x 3	Petrol motor pump	L= 4 meters metal pipe
66	w. Kon	N 47,79190° EO 50,02136°	the mine well	3	2	0,14		3 x 3	Petrol motor pump	L= 4 meters metal pipe
67	w. Yshkyzyl	N 47,82197° EO 50,00653°	the mine well	4	3,5	0,2	20,6	5 x 5	Petrol motor pump	L= 10 meters metal pipe

Continuation of table A.1

1	2	3	4	5	6	7	8	9	10	11
68	w. Yshkyzyl	N 47,82197° EO 50,00653°	the mine well	4	3,5	0,21		3 x 3	Petrol motor pump	L= 4 meters metal pipe
69	w. Yshkyzyl	N 47,82197° EO 50,00653°	the mine well	4	3,5	0,18		3 x 3	Petrol motor pump	L= 4 meters metal pipe
70	w. Yshkyzyl	N 47,83701° EO 50,03370°	the mine well	3	2	0,12	7,1	5 x 5	Petrol motor pump	L= 4 meters metal pipe L= 4 meters metal pipe
71	w. Yshkyzyl	N 47,83701° EO 50,03370°	the mine well	3	2	0,14		3 x 3	Petrol motor pump	L= 4 meters metal pipe
72	w. Yshkyzyl	N 47,83701° EO 50,03370°	the mine well	3	2	0,16		3 x 3	Petrol motor pump	L= 4 meters metal pipe
73	w. Nyrkat	N 47,89820° EO 49,91004°	the mine well	2,5	2	0,15	6,9	2 x 4	Petrol motor pump	L= 4 meters metal pipe
74	w. Nyrkat	N 47,89820° EO 49,91004°	the mine well	2,5	2	0,11		3 x 3	Petrol motor pump	L= 4 meters metal pipe
75	w. Nyrkat	N 47,89820° EO 49,91004°	the mine well	2,5	2	0,12		3 x 3	Petrol motor pump	L= 4 meters metal pipe
76	w. Eski Ajbas	N 47,91459° EO 49,85662°	the mine well	4	3	0,18	2,0	3 x 3	Petrol motor pump	L= 4 meters metal pipe
77	w. Eski Ajbas	N 47,91459° EO 49,85662°	the mine well	4	3	0,12		3 x 3	Petrol motor pump	L= 4 meters metal pipe
78	w. Eski Ajbas	N 47,91459° EO 49,85662°	the mine well	4	3	0,11		3 x 3	Petrol motor pump	L= 4 meters metal pipe
79	w. Eski Ajbas	N 47,91459° EO 49,85662°	the mine well	4	3	0,24		3 x 3	Petrol motor pump	L= 4 meters metal pipe

Continuation of table A.1

1	2	3	4	5	6	7	8	9	10	11
80	w. Eski Ajbas	N 47,91459° EO 49,85662°	the mine well	4	3	0,22		3 x 3	Petrol motor pump	L= 4 meters metal pipe
81	w. Eski Ajbas	N 47,91459° EO 49,85662°	the mine well	4	3	0,2		3 x 3	Petrol motor pump	L= 4 meters metal pipe
82	w. Toskydyk	N 47,95384° EO 49,75995°	the mine well	5	3	0,18	1,0	4 x 4	Petrol motor pump	L= 5 meters metal pipe
83	w. Toskydyk	N 47,95384° EO 49,75995°	the mine well	5	3	0,18		3 x 3	Petrol motor pump	L= 4 meters metal pipe
84	w. Toskydyk	N 47,95384° EO 49,75995°	the mine well	5	3	0,2		3 x 3	Petrol motor pump	L= 4 meters metal pipe
85	w. Toskydyk	N 47,95384° EO 49,75995°	the mine well	5	3	0,3		3 x 3	Petrol motor pump	L= 4 meters metal pipe
86	w. Toskydyk	N 47,95384° EO 49,75995°	the mine well	5	3	0,28		3 x 3	Petrol motor pump	L= 4 meters metal pipe
87	w. Toskydyk	N 47,95384° EO 49,75995°	the mine well	5	3	0,24		3 x 3	Petrol motor pump	L= 4 meters metal pipe
88	w. Ajbas	N 47,96613° EO 49,66734°	the mine well	2	1,5	0,2	3,2	3 x 3	Petrol motor pump	L= 4 meters metal pipe L= 4 meters metal pipe
89	w. Ajbas	N 47,96613° EO 49,66734°	the mine well	2	1,5	0,18		3 x 3	Petrol motor pump	L= 4 meters metal pipe
90	w. Tolesh	N 47,98237° EO 49,51731°	the mine well	4	2,5	0,14	3,2	3 x 3	Petrol motor pump	L= 4 meters metal pipe L= 4 meters metal pipe
Isatai district, Naryn r/d										
91	w. Eski Yshtaran	N 47,92245° EO 49,43988°	the mine well	2	1,5	0,15	0,7	4 x 4	Petrol motor pump	L= 4 meters metal pipe L= 4 meters metal pipe

Continuation of table A.1

1	2	3	4	5	6	7	8	9	10	11
92	w. Kuatshoshak	N 47,86623° EO 49,33141°	the mine well	2	1,5	0,2	2,2	3 x 3	Petrol motor pump	L= 3 meters metal pipe L= 3 meters metal pipe
Kurmangazinsky district, Asansky r/d										
93	w. Nietbaj	N 47,80437° EO 49,39624°	the mine well	2,7	2	0,21	2,6	3 x 3	Petrol motor pump	L= 6 meters metal pipe
94	w. Nietbaj	N 47,79921° EO 49,39652°	the mine well	2,7	2	0,2	9,3	3 x 3	Petrol motor pump	L= 7 meters metal pipe
Kurmangazinsky district, Enbekshinsky r/d										
95	w. Syjikti	N 47,17270° EO 49,20990°	the mine well	3	2	0,24	5,9	3 x 3	Petrol motor pump	L= 6 meters metal pipe
96	w. Maulim	N 47,10562° EO 49,21611°	the mine well	4	2,5	0,2	3,3	3 x 3	Cranes	L= 10 meters metal pipe
97	w. Maulim	N 47,10562° EO 49,21611°	the mine well	4	2,5	0,18		3 x 3	Petrol motor pump	L= 4 meters metal pipe
98	w. Karataj	N 47,09973° EO 49,25876°	the mine well	2,5	2	0,17	9,9	3 x 3	Cranes	L= 10 meters metal pipe
99	w. Karataj	N 47,09973° EO 49,25876°	the mine well	2,5	2	0,2		3 x 3	Cranes	L= 5 meters metal pipe
100	w. Kokzhal	N 47,13039° EO 49,13328°	the mine well	2	1,5	0,21	2,4	3 x 3	Petrol motor pump	L= 8 meters metal pipe
101	w. Kokzhal	N 47,13063° EO 49,13391°	the mine well	2	1,5	0,18	2,1	3 x 3	Cranes	L= 4 meters metal pipe
102	w. Kokzhal	N 47,12928° EO 49,13311°	the mine well	3	2	0,14	6,4	3 x 3	Petrol motor pump	L= 4 meters metal pipe
103	w. Kokzhal	N 47,12963° EO 49,13283°	the mine well	2	1,5	0,2	0,9	3 x 3	Petrol motor pump	L= 4 meters metal pipe
104	w. Tleshkydyk	N 47,03865° EO 49,25082°	the mine well	3	2,5	0,4	7,1	3 x 3	Cranes	L= 4 meters metal pipe

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Kyzylkoginsky district, Tashagilsky r/d

Continuation of table A.1

1	2	3	4	5	6	7	8	9	10	11
131	w. Zhana kora	N 48.71215° EO 52.95615°	the mine well	3	2,5	0,2	2,7	1	Drainage pump	L= 3 meters metal pipe L= 3 meters metal pipe L= 3 meters metal pipe L= 3 meters metal pipe L= 3 meters metal pipe
132	w. Zhana kora	N 48.71215° EO 52.95615°	tubular well	6		1,5		110	Deep water pump	L= 3 meters metal pipe L= 3 meters metal pipe L= 3 meters metal pipe L= 3 meters metal pipe L= 3 meters metal pipe
133	w. Akysh kol	N 48.86031° EO 53.07495°	tubular well	12		1,5		110	Deep water pump	L= 3 meters metal pipe L= 3 meters metal pipe
Kyzylkoginsky district, Kozdygarinsky r/d										
134	w. Yrys	N 48.82032° EO 53.19151°	tubular well	13		1,4	7,5	110	Deep water pump	L= 4 meters metal pipe
Kyzylkoginsky district, Miyalinsky r/d										
135	agrofirma Nyrly dala	N 48.70854° EO 54.06230°	tubular well	18		1,4	0,6	110		L= 10 meters metal pipe L= 7 meters metal pipe
136	agrofirma Nyrly dala		tubular well	16		1,5		110	Deep water pump	
137	w. Manryrt	N 48.65037° EO 54.08987°	tubular well	195		1,4				
138	w. Manryrt	N 48.65037° EO 54.08987°	the mine well	8		0,18		2,5 x 2,5	Drainage pump	L= 13 meters metal pipe
139	w. Barlybaj	N 48.73849° EO 53.99635°	the mine well	12		0,14		1		L= 6 meters metal pipe
140		N 48.81023° EO 53.92890°	the mine well			0,11				
Kyzylkoginsky district, Sagizsky r/d										
141	w. Sholaksaj	N 48.40129° EO 54.70438°	the mine well	4	3	0,12	1,3	2	Deep water pump	L= 9 meters metal pipe L= 8 meters metal pipe L= 9 meters metal pipe
142	w. Sholaksaj	N 48.40129° EO 54.70438°	the mine well			0,2		3		

Continuation of table A.1

1	2	3	4	5	6	7	8	9	10	11
143	w. Kyzyl bylak 2	N 48.40752° EO 54.67309°	the mine well	3	2	0,18	2,6	3	Drainage pump	L= 7 meters metal pipe L= 27 meters metal pipe
144	w. Kyzyl bylak 1	N 48.38149° EO 54.66535°	the mine well	6	4	0,14	1,0	3 x 3	Drainage pump	L= 7 meters metal pipe
145	w. Zhana kora	N 48.44483° EO 54.69365°	tubular well	18		1,4	2,5	110	Deep water pump	L= 11 meters metal pipe L= 11 meters metal pipe
146	w. Zhana kora	N 48.44483° EO 54.69365°	tubular well	18		1,4				
147	w. Toshi	N 48.34652° EO 54.83973°	the mine well			0,18		1	Deep water pump	L= 12 meters metal pipe L= 20 meters metal pipe
Kyzylkoginsky district, Mukursky r/d										
148	w. Kok bylak	N 48.43999° EO 54.63848°	the mine well	4	2,5	0,14	1,1	2,7 x 2,7	Drainage pump	L= 8 meters metal pipe
149	w. Shili	N 48.56083° EO 54.27385°	the mine well	6	4,5	0,15	5,5	1,2	Drainage pump	L= 7 meters metal pipe L= 7 meters metal pipe
Zhylyoy district, Zhana Karatonsky r/d										
150	w. Zhabataj	N 47.21133° EO 53.85127°	the mine well	8		0,2				
Zhylyoy district, Karaarninsky r/d										
151	w. Kan kozha	N 47.38189° EO 54.29480°	the mine well	8	4,5	0,14	5,0	1,2	Petrol motor pump	L= 12 meters metal pipe L= 15 meters metal pipe
152	w. Kan kozha	N 47.38189° EO 54.29480°	tubular well	10		1,8		110	Deep water pump	L= 12 meters metal pipe L= 15 meters metal pipe
153	w. Alimbaj	N 47.49191° EO 54.27105°	the mine well	10	4,5	0,21	14,3	1	Petrol motor pump	L= 8 meters metal pipe
154	w. Alimbaj	N 47.49191° EO 54.27105°	the mine well			0,14				
155	w. Bajmen	N 47.62181° EO 54.44810°	the mine well	5	3	0,18	0,6	3 x 3	Deep water pump	L= 12 meters metal pipe L= 15 meters metal pipe
156	w. Zhabataj	N 47.19841° EO 53.88681°	the mine well	3		0,14				
157	p/f Zhomart	N 47.60995° EO 54.50829°	the mine well	6	3	0,15		3 x 3	Petrol motor pump	L= 12 meters metal pipe L= 10 meters metal pipe

Table A.2 – Results of chemical analyses of water sources for cattle breeding in Atyrau region

Sampling location	Type of water source	pH	Turbidity, mg/l	CO ₃ ²⁻ mg/l	HCO ₃ ⁻ mg/l	Cl ⁻ mg/l	SO ₄ ²⁻ mg/l	NO ₂ ⁻ mg/l	NO ₃ ⁻ mg/l	NH ₄ ⁺ mg/l	Ca ²⁺ mg/l	Mg ²⁺ mg/l	Na ⁺ K ⁺ mg/l	Total hardness, mg·eq/l	Dry residue, mg/l	Perrnanganate oxidizability, mg/l	Total mineralization, mg/l
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Indersky district, Yeltai rural district																	
w. Boztobe	the mine well	6,51	1,566	n.d.	372,1	551,82	333,31 5	0,032	0	0,3	140	79,8	343,6	13,65	1640	2,72	1634,5
p/f Dauletova	the mine well	6,81	1,798	n.d.	280,6	934,18	2045,1 55	0,027	1,3	5,9	860	54	598,5	47,5	3800	10,4	4632,1
p/f Kajyr	the mine well	6,55	2,088	n.d.	530,7	42,15	246,9	0,031	0,5	0,7	201	12,6	90,4	11,1	760	1,76	858,4
Indersky district, Esbolsky r/d																	
p/f Bajdолоv	the mine well	7,01	1,45	n.d.	433,1	282,43	90,53	0,055	2,6	2,3	160	96	21,6	16	2760	6	867,2
w. Shybalan	the mine well	6,35	0,928	n.d.	256,2	4953,3 0	1041,0 95	0,038	1,4	9,8	2700	240	239,6	155	9260	7,28	9302,1
w. Bibau	the mine well	6,28	0,174	n.d.	384,3	469,11	1831,1 75	0,054	0,1	1,5	350	168	601,8	31,5	4760	1,6	3612,2
p/f Nirym	the mine well	7,32	0,29	n.d.	170,8	337,43	1580,1 6	0,05	0,1	5,7	240	378	39,7	43,5	4060	3,52	2660,7
w. Syraly	the mine well	6,24	1,102	n.d.	189,1	345,66	1567,8 15	0,057	0,3	4,4	700	30	183,9	37,5	3600	7,12	2922,0

Continuation of table A.2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
p/f Aral	the mine well	7,1	0,29	n.d.	750,3	292,17	617,25	0,033	0,6	0,3	210	84	365,5	17,5	1980	0,16	1944,0
Indersky district, Orliksky r/d																	
w. Kashkyn	the mine well	7,21	1,3	0	439,2	396	905,7	0,534	4,6	6,3	360	231	7289	37	9402,4	8,72	9401,3
w. Sazdy	the mine well	7,43	1,8	6	573,4	207	653,8	0,222	4,7	0,9	130	206	4236,5	23,5	5728	9,52	5726
w. Sazdy	the mine well	7,22	3,5	0	439,2	234	599,5	0,193	4,2	1	178	174	4214,2	23,25	5620,8	10,64	5619,3
w. Kyzylkabak	the mine well	7,28	1,3	24	488	121,5	281	0,326	4,9	0,1	122	152	1073,4	18,6	2018	7,92	2017,9
Indersky district, Koktogai r/d																	
w. The Plague	the mine well	7,61	0,8	0	390,4	45	127,5	0,232	2,4	n.d.	42	35	728,1	5	1173,2	5,44	1172,8
Indersky district, Zharsuatsky r/d																	
w. Жапа кыдык	the mine well	7,64	1,6	n.d.	164,7	18	222,21	0,055	0,2	0,5	60	18,92081	389,7	4,55	791,2	11,28	791,2
w. Sansyz	the mine well	7,78	8,1	n.d.	201,3	18	126,3305	0,116	0,3	0,2	102	57,88378	388,2	9,85	793,2	8,24	793,1
w. Beriktiп kystary	the mine well	7,7	4,6	n.d.	311,1	22,5	221,387	0,034	0,1	0,9	116	45,74077	110,4	9,55	671,6	14,88	671,6
Makhambet district, Makhambetskiy r/d																	
w. Kanbakty	the mine well	7,94	0,7	42	408,7	144	167,8	0,464	4,3	0	84	65	2165,2	9,6	2873,2	2,32	2872,35
Makhambet district, Baksai r/d																	

Continuation of table A.2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
w. Kanbakty	the mine well	7,68	1,1	0	317,2	193,5	1357,9	0,75	2,7	8	360	67	3862,5	23,5	5999,2	10,24	5999,5
Isatai district, Kamyskalinsky r/d																	
p/f Zhagyparov	the mine well	6,55	1,566	n.d.	481,9	255,13	415,615	0,055	0,5	0,7	130	54	293,1	11	2580	2,72	1388,8
w. Kozhbankydyk	the mine well	7,9	0,9	0	481,9	126	341,9	1,221	4,1	0,2	150	122	2027,9	17,55	3009,2	9,12	3008,75
Isatai district, Tuschykudyksky r/d																	
w. Birlik	the mine well	7,12	1,3	0	341,6	297	584,3	1,065	5,2	3,4	182	224	5734,7	27,55	7193,6	9,04	7192,8
w. Dalbynsharyl	the mine well	7,71	1,1	12	494,1	166,5	316,4	0,191	4,1	2,5	102	85	2875,4	12,1	3804,8	8,72	3804,35
w. Begajdar	the mine well	7,47	0,7	0	390,4	679,5	1374,4	0,72	5,3	14,4	448	573	10487,2	69,5	13757,6	11,12	13757,3
w. Nasihan	the mine well	7,59	0,8	0	372,1	171	420,1	0,103	4,9	7,7	184	344	2832,2	37,5	4137,6	4,48	4137,35
w. Kozgil	the mine well	7,73	1,5	0	305	270	727,5	0,162	5,2	8,6	170	133	5344,5	19,5	6798,8	9,76	6797,5
w. Kobejkydyk	the mine well	7,6	1	0	347,7	324	730	0,486	5,1	4,6	286	459	4969,4	52,1	6943,6	9,44	6942,25
w. Kon	the mine well	7,28	1	0	439,2	234	580,2	0,813	5,4	10,3	128	738	3707,4	67,1	5607,2	9,84	5607,2
w. Yshkyzyl	the mine well	7,32	0,7	0	427	985,5	1848,8	0,077	4,9	2,5	376	799	16466,5	84,5	20690	11,92	20689,3

Continuation of table A.2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
w. Yshkyzyl	the mine well	7,68	0,9	0	329,4	346,5	718,4	0,02	2,9	3	188	402	5362,6	42,5	7183,2	10,4	7182,2
w. Nyrkat	the mine well	7,38	0,7	0	378,2	324	969,4	0,023	5,1	6,4	226	470	4804,9	50	6984,8	9,68	6983,4
w. Eski Ajbas	the mine well	8,29	1,4	18	244	54	144	0,174	1,2	n.d.	68	87	1576,1	10,55	2069,2	2,72	2069,1
w. Toskydyk	the mine well	7,95	1,6	0	439,2	13,5	119,3	0,196	4,5	n.d.	48	40	653,1	5,7	1093,6	3,44	1093,5
w. Ajbas	the mine well	7,44	0,8	0	359,9	99	344,8	0,326	2,8	n.d.	126	128	2342,3	16,85	3220,8	6,56	3220,05
w. Tolesh	the mine well	7,78	1,1	0	488	130,5	317,2	0,048	4,9	n.d.	100	174	2308,9	19,3	3274,8	7,04	3274,6
Isatai district, Naryn r/d																	
w. Eski Yshwaran	the mine well	8,1	1	12	256,2	36	32,9	0,041	3,1	n.d.	60	37	482,8	6,1	790	1,6	788,8
w. Kuatshoshak	the mine well	4,6	1,5	0	579,5	58,5	232,4	0,452	0,4	n.d.	82	72	1508,8	10,5	2244	9,68	2243,45
Kurmangazinsky district, Asansky r/d																	
w. Nietbaj	the mine well	7,78	1	0	494,1	63	232,4	0,073	4,9	n.d.	148	68	1864,8	13,05	2624	6,72	2623,25
w. Nietbaj	the mine well	7,9	0,9	0	555,1	400,5	766,2	0,143	5,5	7,4	168	512	7218,8	50,5	9343,2	10,64	9343,05
Kurmangazinsky district, Enbekshinsky r/d																	
w. SyjЯktЯ	the mine well	7,19	1,3	0	402,6	220,5	752,6	0,154	2,4	0,9	162	333	4273	35,5	5942,8	10,24	5942,4

Continuation of table A.2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
w. Maulim	the mine well	7,45	1	0	335,5	135	266,2	0,045	5	n.d.	116	184	2466,8	21	3336,8	9,12	3335,75
w. Karataj	the mine well	6,55	0,9	0	292,8	396	1553	0,102	4,8	11,1	432	230	7194,3	40,5	9952	10,72	9951,7
w. Kokzhal	the mine well	6,92	1,2	0	274,5	153	302	0,108	4,8	n.d.	200	176	1448,1	24,5	2416,8	12	2416,35
w. Kokzhal	the mine well	7,28	1,9	0	536,8	72	243,1	0,14	5,6	n.d.	112	120	1298,8	15,5	2114,8	13,28	2114,3
w. Kokzhal	the mine well	7,53	1,5	0	518,5	346,5	502	0,687	4,9	3,9	132	284	4951,5	30	6476	11,92	6475,25
w. Kokzhal	the mine well	7,34	2,1	0	359,9	40,5	170,7	1,319	4,9	2	104	70	357,3	11	923,2	15,12	922,45
w. Tleshkydyk	the mine well	7,22	1,1	0	451,4	351	808,1	0,178	5,1	11,9	122	445	5221,3	42,75	7174	11,84	7173,1
w. Samajsharyl	the mine well	7,89	1,6	0	524,6	99	416	0,077	2,8	0,7	76	203	719,9	20,5	1776,4	14,56	1776,2
w. Samajsharyl	the mine well	7,51	0,7	0	298,9	274,5	571,1	0,149	2,3	4,2	134	356	4054,3	36	5540,8	11,04	5540,35
Kurmangazinsky district, Zhanatalapsky r/d																	
w. The thirteenth detour	the mine well	6,71	0,1	0	347,7	58,5	269,5	0,097	5,1	n.d.	98	180	3308,7	19,7	4088,8	7,12	4088,55
Kurmangazinsky district, Orlinsky r/d																	
w. The Plague	the mine well	0,7	7,16	0	274,5	342	1327,4	0,156	5,5	4,8	272	315	5678,8	39,5	8072,8	10,8	8072,45

Continuation of table A.2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
w. The Plague	the mine well	0,4	7,85	0	305	193,5	509	0,18	5,2	0	122	100	3763,3	14,35	4841,6	11,44	4841,1
w. The Plague	the mine well	0,8	7,76	0	494,1	297	667,8	0,079	5	1,1	106	330	4621,6	32,5	6270,4	10,16	6269,45
Makatsky district, Baygetobinsky r/d																	
w. Kyrkydyk	the mine well	7,04	0,87	n.d.	512,4	337,43	543,18	0,037	0,4	1,5	280	258	0	35,5	2380	13,68	1674,8
p/f Adilet	the mine well	7,18	0,754	n.d.	359,9	477,34	781,85	0,026	0,2	1,3	350	156	118,1	30,5	2500	11,84	2063,2
Zhylyoy district, Karaarninsky r/d																	
w. Kan kozha	the mine well	7,37	n.d.	n.d.	237,9	202,5	1196,231	0,076	0,4	n.d.	582	141,7623	2857,6	40,7	5099,6	10	5099
w. Alimbaj	the mine well	7,61	0,8	n.d.	268,4	274,5	3907,604	0,049	1,2	0,3	928	479,6222	8646,5	85,75	14372	9,6	14370,4
w. Bajmen	the mine well	7,54	1	n.d.	298,9	31,5	163,777	0,016	0,6	n.d.	104	57,27821	152,3	9,9	658,4	3,68	658,3
Kyzylkoginsky district, Zhangeldinsky r/d																	
w. Karlyrash	the mine well	7,23	0,406	n.d.	475,8	469,11	205,75	0,015	0,2	0,2	120	96	259,9	14	1660	4	1388,7
w. Barlybaj	the mine well	6,89	0,696	n.d.	414,8	4732,25	452,65	0,087	0,1	8	900	360	1714,3	75	8900	6,56	8366,6
p/f Zhandos	the mine well	7,05	0,29	n.d.	451,4	222,21	246,9	0,045	1,2	0	140	60	156,5	12	3700	2,96	1051,3
p/f Zhandos	tubular well	6,45	2,204	n.d.	597,8	263,36	637,825	0,013	1,7	3,1	330	456	0	54,5	4180	3,84	1986,1

Continuation of table A.2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
w. Koldeu kydyk	tubular well	7,46	0,9	n.d.	274,5	846	1099,5 28	0,002	0,4	n.d.	1188	403,9 377	1369 3	92,5	1736 9,6	13,92	17367, 1
Kyzylkoginsky district, Sagizsky r/d																	
w. Sholaksaj	the mine well	7,08	1,1	n.d.	274,5	49,5	345,24 85	0,391	0,6	n.d.	124	17,17 448	653,5	7,6	1326, 8	6,8	1326,7
w. Kyzyl bylak 2	the mine well	6,87	0,8	n.d.	378,2	81	667,45 3	0,062	4,6	n.d.	264	65,98 438	1336, 3	18,6	2604	9,04	2603,8
w. Kyzyl bylak 1	the mine well	7,34	0,9	n.d.	256,2	40,5	211,92 25	0,676	1,4	n.d.	230	39,79 912	400,8	14,75	1051, 2	4,88	1051,1
w. Zhana kora	tubular well	7,7	1,6	n.d.	396,5	58,5	875,67 2	0,131	0,9	n.d.	322	51,46 277	999,5	20,3	2505, 6	2,8	2505,4
Kyzylkoginsky district, Mukursky r/d																	
w. Kok bylak	the mine well	7,04	0,9	n.d.	366	58,5	304,92 15	0,009	0,3	n.d.	80	40,22 509	484,9	7,3	1151, 6	0,24	1151,5
w. Shili	the mine well	7,48	0,6	n.d.	481,9	198	1375,2 33	1,159	0,6	n.d.	268	186,9 812	3304, 2	28,75	5574	10,4	5573,4
Kyzylkoginsky district, Miyalinsky r/d																	
agrofirma Nyrly dala	tubular well	7,22	n.d.	n.d.	311,1	40,5	125,09 6	0,003	0,1	n.d.	144	37,26 275	160,4	10,25	662,8	0,16	662,8
Kyzylkoginsky district, Kozdygarinsky r/d																	
w. Yrys	tubular well	6,62	0,7	n.d.	298,9	328,5	1053,4 4	0,112	0,8	0,2	610	181,3 163	4214, 9	45,35	7538, 8	8,88	7537,8
Kyzylkoginsky district, Tashagilsky r/d																	
w. Zhana kora	the mine well	7,55	0,9	n.d.	268,4	54	704,89 95	0,248	3,6	n.d.	488	30,38 422	1354, 4	26,85	2766	6,64	2765,8
Kyzylkoginsky district, Oyilsky r/d																	
p/f Kyrman	the mine well	7,13	6,67	n.d.	634,4	13,17	913,53	0,042	0,7	2,6	21	19,8	623,4	2,7	1920	4,24	1908,1

Continuation of table A.2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
w. Dauletiman	tubular well	7,37	1,8	n.d.	298,9	225	838,22 55	0,564	4,6	0,8	404	323,3 383	4638,8	46,75	6579,6	7,92	6578,7
Maximum permissible concentration according to sanitary rules and regulations No. 209 dated 16.03.2015		within 6-9	not more than 1.5	It is not standardized	It is not standardized	not more than 350	500	3.3	45	2	It is not standardized	It is not standardized	It is not standardized	not more than 7	not more than 1000	not more than 5	It is not standardized
Maximum permissible concentration according to the Unified Classification system No. 151 09.11.16		within 6-9	It is not standardized	It is not standardized	It is not standardized	not more than 350	not more than 600	not more than 3.3	not more than 45	not more than 2	150*	not more than 100	It is not standardized	It is not standardized	It is not standardized	It is not standardized	not more than 2000

* for water of class 1, the permissible calcium value is 180 mg/l, for classes 2 and 3, the calcium value is not normalized.

- there is no data on the indicator