

Table 1. The water parameters, major ion compositions, $\delta^{34}\text{S}$ – SO_4^{2-} values, SAR, Na%, RSC, $[\text{TZ}^+ - \text{TZ}^-]/\text{TZ}^-$ of Chishui River.

Sample	Type	pH	EC	T	DO	Na ⁺	K ⁺	Mg ²⁺	Ca ²⁺	F [−]	Cl [−]	NO ₃ [−]	SO ₄ ^{2−}	HCO ₃ [−]	$\delta^{34}\text{S}$	SAR	Na%	RSC	$[\text{TZ}^+ - \text{TZ}^-]/\text{TZ}^-$
			$\mu\text{S}/\text{cm}$	$^{\circ}\text{C}$	mg/L	mmol/L	mmol/L	mmol/L	mmol/L	mmol/L	mmol/L	mmol/L	mmol/L	mmol/L	‰				%
1	Tributaries	8.22	353	10.5	7.31	0.15	0.11	0.36	1.30	0.006	0.13	0.21	0.72	1.71	−4.2	0.11	4.08	1.60	1.7
2	Tributaries	8.72	361	9.5	8.67	0.32	0.03	0.30	1.38	0.006	0.10	0.25	0.81	1.81	−6.33	0.25	8.66	1.56	−1.8
3	Tributaries	8.71	436	8.6	9.05	0.22	0.04	0.39	1.47	0.004	0.09	0.28	0.75	2.14	7.28	0.16	5.42	1.58	−1.2
4	Main stream	8.71	401	11.1	7.82	0.25	0.04	0.46	1.74	0.007	0.06	0.19	1.35	1.47	−7.79	0.17	5.25	2.94	6.1
5	Main stream	8.87	425	10.1	8.58	0.21	0.04	0.40	1.51	0.005	0.08	0.26	0.91	1.97	−2.2	0.15	5.08	1.86	−1.2
6	Tributaries	8.33	423	9.2	7.73	0.33	0.08	0.48	1.51	0.005	0.16	0.25	0.77	2.40	3.66	0.23	7.50	1.57	0.2
7	Tributaries	8.46	360	8.9	8.85	0.19	0.04	0.41	1.38	0.005	0.10	0.17	0.65	2.26	2.49	0.14	5.01	1.32	−0.9
8	Main stream	8.46	392	9.8	8.96	0.20	0.04	0.39	1.53	0.005	0.11	0.24	0.79	2.12	−2.33	0.15	4.92	1.72	0.8
9	Main stream	8.51	421	10.0	8.41	0.15	0.03	0.34	1.79	0.007	0.09	0.26	0.90	2.31	−7.11	0.10	3.39	1.94	−0.8
10	Main stream	8.50	387	9.9	—	0.20	0.05	0.40	1.49	0.005	0.11	0.25	0.77	2.06	−1.08	0.15	5.09	1.71	1.3
11	Main stream	8.46	423	9.8	8.61	0.18	0.04	0.47	1.65	0.007	0.13	0.07	0.91	2.32	0.35	0.12	4.03	1.91	2.2
12	Main stream	8.61	—	9.9	—	0.18	0.03	0.61	1.80	—	0.08	0.13	0.95	2.86	—	0.12	3.58	1.96	1.2
13	Main stream	8.64	424	11.0	9.35	0.06	0.03	0.90	1.39	0.007	0.05	0.10	0.74	3.09	14	0.04	1.27	1.49	−1.6
14	Tributaries	7.75	738	12.0	7.77	0.75	0.19	1.56	2.23	0.016	0.53	0.02	1.11	5.49	22.13	0.39	8.83	2.09	3.1
15	Main stream	8.32	470	10.1	8.26	0.19	0.05	0.58	1.70	0.007	0.13	0.20	0.92	2.61	3.49	0.13	4.05	1.95	−0.1
16	Main stream	8.45	—	—	—	0.22	0.05	0.60	1.74	—	0.14	0.20	0.95	2.60	—	0.14	4.44	2.08	2.3
17	Tributaries	8.48	545	10.2	—	0.41	0.06	0.73	2.30	0.012	0.39	0.17	1.45	2.81	17.07	0.24	6.35	3.25	4.1
18	Main stream	8.27	467	10.4	6.85	0.32	0.06	0.66	1.93	0.008	0.16	0.19	0.99	2.68	4.0	0.20	5.80	2.51	10.9
19	Tributaries	8.71	495	13.1	8.5	0.32	0.06	0.64	2.05	0.009	0.22	0.24	1.09	2.70	6.23	0.19	5.47	2.70	7.8
20	Main stream	8.39	480	10.9	8.35	0.31	0.06	0.62	1.85	0.009	0.18	0.18	1.02	2.85	4.43	0.20	5.92	2.09	1.0
21	Tributaries	7.99	651	12.5	8.03	0.63	0.06	0.47	2.79	0.013	0.37	0.21	2.64	1.27	5.85	0.35	8.73	5.26	1.2
22	Tributaries	8.75	324	10.9	8.34	0.24	0.03	0.26	1.30	0.007	0.15	0.13	0.65	1.75	3.73	0.19	7.07	1.37	1.7
23	Main stream	7.90	480	11.5	—	0.40	0.06	0.61	1.96	0.009	0.21	0.22	1.12	2.68	5.71	0.25	7.15	2.46	4.4
24	Tributaries	8.28	274	9.8	8.68	0.28	0.04	0.14	1.08	0.004	0.16	0.07	0.33	1.95	6.06	0.26	10.25	0.49	−2.9
25	Tributaries	8.27	280	10.0	8.61	0.24	0.03	0.26	1.11	0.004	0.08	0.15	0.59	1.56	7.82	0.20	7.87	1.18	1.0
26	Tributaries	8.23	276	—	8.63	0.23	0.03	0.17	1.10	0.004	0.11	0.09	0.40	1.80	6.64	0.21	8.34	0.75	0.6
27	Main stream	8.16	466	11.3	8.28	0.33	0.06	0.58	1.86	0.009	0.19	0.20	1.04	2.53	5.31	0.21	6.31	2.36	5.2
28	Tributaries	8.35	128	11.0	0.4	0.12	0.02	0.08	0.44	0.002	0.04	0.16	0.20	0.52	5.05	0.16	9.90	0.53	5.8

Sample	Type	pH	EC	T	DO	Na ⁺	K ⁺	Mg ²⁺	Ca ²⁺	F ⁻	Cl ⁻	NO ₃ ⁻	SO ₄ ²⁻	HCO ₃ ⁻	δ ³⁴ S	SAR	Na%	RSC	[TZ ⁺ -TZ ⁻]/TZ ⁻
			μS/cm	°C	mg/L	mmol/L	mmol/L	mmol/L	mmol/L	mmol/L	mmol/L	mmol/L	mmol/L	mmol/L	‰				%
29	Main stream	8.24	428	11.4	8.71	0.34	0.06	0.51	1.67	0.008	0.18	0.19	0.95	2.25	4.59	0.23	7.06	2.11	4.8
30	Tributaries	8.09	139	10.6	9.38	0.14	0.02	0.09	0.48	0.003	0.05	0.18	0.21	0.65	4.58	0.19	10.77	0.49	0.5
31	Main stream	8.35	400	11.4	8.81	0.30	0.05	0.46	1.55	0.000	0.05	0.75	0.67	2.10	4.59	0.21	6.90	1.93	3.7
32	Main stream	8.37	413	9.5	8.73	0.30	0.05	0.46	1.52	0.011	0.50	0.38	0.57	2.15	4.8	0.21	7.00	1.82	3.4
33	Tributaries	8.16	271	10.1	8.63	0.23	0.03	0.21	1.02	0.005	0.10	0.09	0.62	1.54	7.3	0.20	8.32	0.93	-8.3
34	Changjiang	8.09	402	12.5	8.28	0.78	0.05	0.51	1.13	0.010	0.55	0.004	0.68	2.49	7.52	0.61	19.02	0.79	-6.7
35	Main stream	8.20	381	14.2	8.56	0.27	0.05	0.42	1.41	0.008	0.20	0.11	0.96	1.99	5.18	0.20	6.74	1.67	-5.8
36	Changjiang	7.63	436	14.7	6.88	0.74	0.07	0.51	1.19	0.010	0.52	0.002	0.54	2.38	7.63	0.57	17.62	1.02	5.6
37	Tributaries	8.24	284	11.7	9.14	0.23	0.03	0.25	1.09	0.006	0.11	0.10	0.49	1.59	7.59	0.20	7.91	1.10	5.9
38	Tributaries	8.45	482	9.6	8.83	0.23	0.05	0.78	1.86	0.008	0.10	0.42	1.20	2.73	14.26	0.14	4.20	2.55	-1.9