

**TABLE 1. DENSITY CORRECTION VALUES FOR HYDROMETER READINGS AT CERTAIN TEMPERATURES**

\*\*\*Add correction values to the last decimal of the observed reading.

Observed Reading	Temperature of water sample in °C																									
	-2.0	-1.0	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	18.5	19.0	19.5	20.0	
0.9960																										
0.9970																										
0.9980																					3	4	5	6	7	8
0.9990	-1	-2	-3	-4	-5	-5	-6	-6	-6	-6	-6	-5	-5	-4	-3	-2	-1	0	1	3	4	5	6	7	8	
1.0000	-2	-3	-4	-5	-5	-6	-6	-6	-6	-6	-6	-5	-5	-4	-3	-2	-1	0	1	3	4	5	6	7	8	
1.0010	-3	-4	-4	-5	-6	-6	-6	-7	-7	-6	-6	-6	5	-4	-3	-2	-1	0	1	3	4	5	6	7	8	
1.0020	-3	-4	-5	-6	-9	-7	-7	-7	-7	-7	-6	-6	-5	-4	-3	-2	-1	0	1	3	4	5	6	7	8	
1.0030	-4	-5	-6	-6	-7	-7	-7	-7	-7	-7	-6	-6	-5	-4	-3	-2	-1	0	1	3	4	5	6	7	8	
1.0040	-4	-5	-6	-7	-7	-7	-8	-8	-7	-7	-7	-6	-6	-5	-4	-3	-1	0	2	3	5	6	6	7	8	
1.0050	-5	-6	-6	-7	-8	-8	-8	-8	-8	-7	-7	-6	-6	-5	-4	-3	-1	0	2	3	5	6	7	8	9	
1.0060	-6	-6	-7	-8	-8	-8	-8	-8	-8	-8	-7	-6	-6	-5	-4	-3	-1	0	2	3	5	6	7	8	9	
1.0070	-6	-7	-8	-8	-8	-8	-8	-8	-8	-8	-7	-7	-6	-5	-4	-3	-2	0	2	3	5	6	7	8	9	
1.0080	-7	-8	-8	-9	-9	-9	-9	-9	-8	-8	-7	-7	-6	-5	-4	-3	-2	0	2	3	5	6	7	8	9	
1.0090	-7	-8	-9	-9	-9	-9	-9	-9	-9	-8	-8	-7	-6	-5	-4	-3	-2	0	2	3	5	6	7	8	9	
1.0100	-8	-9	-10	-10	-10	-10	-10	-9	-9	-8	-8	-7	-6	-5	-4	-3	-2	0	2	3	5	6	7	8	9	
1.0110	-9	-9	-10	-10	-10	-10	-10	-9	-9	-8	-8	-7	-6	-5	-4	-3	-2	0	2	3	5	6	7	8	9	
1.0120	-9	-10	-10	-10	-10	-10	-10	-10	-10	-9	-8	-7	-7	-6	-4	-3	-2	0	2	3	5	6	7	8	9	
1.0130	-10	-10	-11	-11	-11	-11	-11	-10	-10	-9	-8	-8	-7	-6	-4	-3	-2	0	2	4	5	6	7	8	10	
1.0140	-10	-11	-11	-11	-11	-11	-11	-11	-10	-10	-9	-8	-7	-6	-4	-3	-2	0	2	4	5	6	8	9	10	
1.0150	-11	-11	-12	-12	-12	-12	-11	-11	-10	-10	-9	-8	-7	-6	-4	-3	-2	0	2	4	5	6	8	9	10	
1.0160	-12	-12	-12	-12	-12	-12	-12	-11	-11	-10	-9	-8	-7	-6	-5	-3	-2	0	2	4	6	7	8	9	10	
1.0170	-12	-12	-12	-13	-12	-12	-12	-12	-11	-10	-9	-8	-7	-6	-5	-3	-2	0	2	4	6	7	8	9	10	
1.0180	-13	-13	-13	-13	-13	-13	-12	-12	-11	-10	-9	-8	-7	-6	-5	-3	-2	0	2	4	6	7	8	9	10	
1.0190	-13	-13	-14	-14	-13	-13	-13	-12	-12	-11	-10	-9	-8	-6	-5	-3	-2	0	2	4	6	7	8	9	10	
1.0200	-14	-14	-14	-14	-14	-13	-13	-12	-12	-11	-10	-9	-8	-6	-5	-3	-2	0	2	4	6	7	8	9	10	
1.0210	-14	-14	-14	-14	-14	-14	-13	-13	-12	-11	-10	-9	-8	-6	-5	-3	-2	0	2	4	6	7	8	9	10	
1.0220	-15	-15	-15	-15	-15	-14	-14	-13	-12	-11	-10	-9	-8	-7	-5	-3	-2	0	2	4	6	7	8	9	11	
1.0230	-15	-15	-15	-15	-15	-15	-14	-13	-12	-12	-10	-9	-8	-7	-5	-4	-2	0	2	4	6	7	8	9	11	
1.0240	-16	-16	-16	-16	-15	-15	-14	-14	-13	-12	-11	-10	-8	-7	-5	-4	-2	0	2	4	6	7	8	10	11	
1.0250	-16	-16	-16	-16	-16	-15	-15	-14	-13	-12	-11	-10	-8	-7	-5	-3	-2	0	2	4	6	7	8	10	11	
1.0260	-17	-17	-17	-16	-16	-16	-15	-14	-13	-12	-11	-10	-8	-7	-5	-4	-2	0	2	4	6	7	9	10	11	
1.0270	-18	-17	-17	-17	-17	-16	-15	-14	-14	-12	-11	-10	-9	-7	-5	-4	-2	0	2	4	6	7	9	10	11	
1.0280	-18	-18	-18	-17	-17	-16	-16	-15	-14	-13	-11	-10	-9	-7	-5	-4	-2	0	2	4	6	8	9	10	11	
1.0290	-19	-18	-18	-18	-17	-17	-16	-15	-14	-13	-12	-10	-9	-7	-5	-4	-2	0	2	4	6	8	9	10	11	
1.0300	-19	-19	-19	-18	-18	-17	-16	-15	-14	-13	-12	-10	-9	-7	-5	-4	-2	0	2	4	6	7	9	10	12	
1.0310	-20	-19	-19	-19	-18	-17	-16	-16	-15	-13	-12	-10	-9	-8	-5	-4	-2	0	2	4						

**TABLE 1. CONTINUED**

\*\*\*Add correction values to the last decimal of the observed reading.

Observed Readings	Temperature of water sample in °C																								
	20.5	21.0	21.5	22.0	22.5	23.0	23.5	24.0	24.5	25.0	25.5	26.0	26.5	27.0	27.5	28.0	28.5	29.0	29.5	30.0	30.5	31.0	31.5	32.0	32.5
0.9960											19	20	21	23	24	25	27	28	29	31	32	34	35	37	38
0.9970			10	11	12	14	15	16	17	18	19	20	22	23	24	26	27	28	30	31	33	34	36	37	39
0.9980	9	10	11	12	13	14	15	16	17	18	19	21	22	23	25	26	27	29	30	31	33	34	36	38	39
0.9990	9	10	11	12	13	14	15	16	17	18	20	21	22	24	25	26	28	29	30	32	33	35	36	38	39
1.0000	9	10	11	12	13	14	15	16	17	19	20	21	22	24	25	26	28	29	31	32	34	35	37	38	40
1.0010	9	10	11	12	13	14	15	17	18	19	20	21	23	24	25	27	28	30	31	32	34	35	37	39	40
1.0020	9	10	11	12	13	14	16	17	18	19	20	22	23	25	26	27	29	30	32	33	35	36	38	39	41
1.0030	9	10	11	12	13	15	16	17	18	19	21	22	23	25	26	27	29	30	32	33	35	36	38	39	41
1.0040	9	10	11	12	14	15	16	17	18	20	21	22	23	25	26	28	29	30	32	33	35	36	38	40	41
1.0050	10	11	12	13	14	15	16	17	19	20	21	22	24	25	26	28	29	31	32	34	35	37	38	40	42
1.0060	10	11	12	13	14	15	16	18	19	20	21	23	24	25	27	28	30	31	32	34	36	37	39	40	42
1.0070	10	11	12	13	14	15	17	18	19	20	21	23	24	26	27	28	30	31	33	34	36	38	39	41	42
1.0080	10	11	12	13	14	16	17	18	19	20	22	23	24	26	27	29	30	32	33	35	36	38	39	41	43
1.0090	10	11	12	13	15	16	17	18	19	21	22	23	25	26	28	29	30	32	33	35	36	38	40	41	43
1.0100	10	11	12	14	15	16	17	18	20	21	22	24	25	26	28	29	31	32	34	35	37	38	40	42	43
1.0110	10	12	13	14	15	16	17	19	20	21	22	24	25	27	28	30	31	32	34	36	37	39	40	42	44
1.0120	10	12	13	14	15	16	18	19	20	21	23	24	25	27	28	30	31	33	34	36	37	39	41	42	44
1.0130	11	12	13	14	15	16	18	19	20	22	23	24	26	27	29	30	32	33	35	36	38	39	41	43	44
1.0140	11	12	13	14	15	17	18	19	20	22	23	24	26	27	29	30	32	33	35	36	38	40	41	43	45
1.0150	11	12	13	14	16	17	18	20	21	22	23	25	26	28	29	31	32	34	35	37	38	40	42	43	45
1.0160	11	12	13	14	16	17	18	20	21	22	24	25	26	28	29	31	32	34	35	37	39	40	42	44	45
1.0170	11	12	13	15	16	17	18	20	21	22	24	25	27	28	30	31	33	34	36	37	39	40	42	44	46
1.0180	11	12	14	15	16	17	19	20	21	23	24	25	27	28	30	31	33	34	36	38	39	41	42	44	46
1.0190	11	12	14	15	16	18	19	20	21	23	24	26	27	29	30	32	33	35	36	38	39	41	43	44	46
1.0200	11	13	14	15	16	18	19	20	22	23	24	26	27	29	30	32	33	35	37	38	40	41	43	45	47
1.0210	12	13	14	15	17	18	19	21	22	23	25	26	27	29	31	32	34	35	37	38	40	42	43	45	47
1.0220	12	13	14	15	17	18	19	21	22	23	25	26	28	29	31	32	34	36	37	39	40	42	44	45	47
1.0230	12	13	14	16	17	18	20	21	22	24	25	26	28	30	31	33	34	36	37	39	41	42	44	46	47
1.0240	12	13	14	16	17	18	20	21	22	24	25	27	28	30	31	33	34	36	37	39	41	42	44	46	48
1.0250	12	13	15	16	17	18	20	21	23	24	25	27	28	30	31	33	35	36	38	39	41	43	44	46	48
1.0260	12	13	15	16	17	19	20	22	23	24	26	27	29	30	32	33	35	37	38	40	41	43	45	46	48
1.0270	12	14	15	16	17	19	20	22	23	24	26	27	29	30	32	34	35	37	38	40					
1.0280	12	14	15	16	18	19	20	22	23	25	26	28	29	31	32										
1.0290	13	14	15	16	18	19	21	22	23																
1.0300	13	14	15	16	18																				
1.0310																									

Zerbe, W.B. and C.B. Taylor. 1953. Sea water Temperature and Density Reduction Tables. U.S. Dep. Commerce Spec. Publ. No. 298, Washington D.C.

**TABLE II. DENSITY READINGS WITH CORRESPONDING SALINITIES IN g/kg.**

Density	Salinity	Density	Salinity	Density	Salinity	Density	Salinity	Density	Salinity	Density	Salinity	Density	Salinity	Density	Salinity	Density	Salinity
0.9991	0.0	1.0031	5.1	1.0071	10.3	1.0111	15.6	1.0151	20.8	1.0191	26.0	1.0231	31.2	1.0271	36.4	1.0311	41.6
0.9992	0.0	1.0032	5.2	1.0072	10.5	1.0112	15.7	1.0152	20.9	1.0192	26.1	1.0232	31.4	1.0272	36.6	1.0312	41.7
0.9993	0.2	1.0033	5.4	1.0073	10.6	1.0113	15.8	1.0153	21.0	1.0193	23.6	1.0233	31.5	1.0273	36.7	1.0313	41.9
0.9994	0.3	1.0034	5.5	1.0074	10.7	1.0114	16.0	1.0154	21.2	1.0194	26.4	1.0234	31.6	1.0274	36.8	1.0314	42.0
0.9995	0.4	1.0035	5.6	1.0075	10.8	1.0115	16.1	1.0155	21.3	1.0195	26.5	1.0235	31.8	1.0275	37.0	1.0315	42.1
0.9996	0.6	1.0036	5.8	1.0076	11.0	1.0116	16.2	1.0156	21.4	1.0196	26.7	1.0236	31.9	1.0276	37.1	1.0316	42.3
0.9997	0.7	1.0037	5.9	1.0077	11.1	1.0117	16.3	1.0157	21.6	1.0197	26.8	1.0237	32.0	1.0277	37.2	1.0317	42.4
0.9998	0.8	1.0038	6.0	1.0078	11.2	1.0118	16.5	1.0158	21.7	1.0198	26.9	1.0238	32.1	1.0278	37.3	1.0318	42.5
0.9999	0.9	1.0039	6.2	1.0079	11.4	1.0119	16.6	1.0159	21.8	1.0199	27.1	1.0239	32.3	1.0279	37.5	1.0319	42.7
1.0000	1.1	1.0040	6.3	1.0080	11.5	1.0120	16.7	1.0160	22.0	1.0200	27.2	1.0240	32.4	1.0280	37.6	1.0320	42.8
1.0001	1.2	1.0041	6.4	1.0081	11.6	1.0121	16.9	1.0161	22.1	1.0201	27.3	1.0241	32.5	1.0281	37.7		
1.0002	1.3	1.0042	6.6	1.0082	11.8	1.0122	17.0	1.0162	22.2	1.0202	27.5	1.0242	32.7	1.0282	37.9		
1.0003	1.5	1.0043	6.7	1.0083	11.9	1.0123	17.1	1.0163	22.4	1.0203	27.6	1.0243	32.8	1.0283	38.0		
1.0004	1.6	1.0044	6.8	1.0084	12.0	1.0124	17.3	1.0164	22.5	1.0204	27.7	1.0244	32.9	1.0284	38.1		
1.0005	1.7	1.0045	6.9	1.0085	12.2	1.0125	17.4	1.0165	22.6	1.0205	27.8	1.0245	33.1	1.0285	38.2		
1.0006	1.9	1.0046	7.1	1.0086	12.3	1.0126	17.5	1.0166	22.7	1.0206	28.0	1.0246	33.2	1.0286	38.4		
1.0007	2.0	1.0047	7.2	1.0087	12.4	1.0127	17.7	1.0167	22.9	1.0207	28.1	1.0247	33.3	1.0287	38.5		
1.0008	2.1	1.0048	7.3	1.0088	12.6	1.0128	17.8	1.0168	23.0	1.0208	28.2	1.0248	33.5	1.0288	38.6		
1.0009	2.2	1.0049	7.5	1.0089	12.7	1.0129	17.9	1.0169	23.1	1.0209	28.4	1.0249	33.6	1.0289	38.8		
1.0010	2.4	1.0050	7.6	1.0090	12.8	1.0130	18.0	1.0170	23.3	1.0210	28.5	1.0250	33.7	1.0290	38.9		
1.0011	2.5	1.0051	7.7	1.0091	12.9	1.0131	18.2	1.0171	23.4	1.0211	28.6	1.0251	33.8	1.0291	39.0		
1.0012	2.6	1.0052	7.9	1.0092	13.1	1.0132	18.3	1.0172	23.5	1.0212	28.8	1.0252	34.0	1.0292	39.2		
1.0013	2.8	1.0053	8.0	1.0093	13.2	1.0133	18.4	1.0173	23.7	1.0213	28.9	1.0253	34.1	1.0293	39.3		
1.0014	2.9	1.0054	8.1	1.0094	13.3	1.0134	18.6	1.0174	23.8	1.0214	29.0	1.0254	34.2	1.0294	39.4		
1.0015	3.0	1.0055	8.2	1.0095	13.5	1.0135	18.7	1.0175	23.9	1.0215	29.1	1.0255	34.4	1.0295	39.6		
1.0016	3.2	1.0056	8.4	1.0096	13.6	1.0136	18.8	1.0176	24.1	1.0216	29.3	1.0256	34.5	1.0296	39.7		
1.0017	3.3	1.0057	8.5	1.0097	13.7	1.0137	19.0	1.0177	24.2	1.0217	29.4	1.0257	34.6	1.0297	39.8		
1.0018	3.4	1.0058	8.6	1.0098	13.9	1.0138	19.1	1.0178	24.3	1.0218	29.5	1.0258	34.8	1.0298	39.9		
1.0019	3.5	1.0059	8.8	1.0099	14.0	1.0139	19.2	1.0179	24.4	1.0219	29.7	1.0259	34.9	1.0299	40.1		
1.0020	3.7	1.0060	8.9	1.0100	14.1	1.0140	19.3	1.0180	24.6	1.0220	29.8	1.0260	35.0	1.0300	40.2		
1.0021	3.8	1.0061	9.0	1.0101	14.2	1.0141	19.5	1.0181	24.7	1.0221	29.9	1.0261	35.1	1.0301	40.3		
1.0022	3.9	1.0062	9.2	1.0102	14.4	1.0142	19.6	1.0182	24.8	1.0222	30.1	1.0262	35.3	1.0302	40.4		
1.0023	4.1	1.0063	9.3	1.0103	14.5	1.0143	19.7	1.0183	25.0	1.0223	30.2	1.0263	35.4	1.0303	40.6		
1.0024	4.2	1.0064	9.4	1.0104	14.6	1.0144	19.9	1.0184	25.1	1.0224	30.3	1.0264	35.5	1.0304	40.7		
1.0025	4.3	1.0065	9.6	1.0105	14.8	1.0145	20.0	1.0185	25.2	1.0225	30.4	1.0265	35.7	1.0305	40.8		
1.0026	4.5	1.0066	9.7	1.0106	14.9	1.0146	20.1	1.0186	25.4	1.0226	30.6	1.0266	35.8	1.0306	41.0		
1.0027	4.6	1.0067	9.8	1.0107	15.0	1.0147	20.3	1.0187	25.5	1.0227	30.7	1.0267	35.9	1.0307	41.1		
1.0028	4.7	1.0068	9.9	1.0108	15.2	1.0148	20.4	1.0188	25.6	1.0228	30.8	1.0268	36.0	1.0308	41.2		
1.0029	4.8	1.0069	10.1	1.0109	15.3	1.0149	20.5	1.0189	25.8	1.0229	31.0	1.0269	36.2	1.0309	41.4		
1.0030	5.0	1.0070	10.2	1.0110	15.4	1.0150	20.6	1.0190	25.9	1.0230	31.1	1.0270	36.3	1.0310	41.5		