

Tabela 1. Características hidráulicas da simulação do cenário atual (sem reservatório) considerando diferentes vazões máximas de projeto.

Seção	TR (anos)	Q Total (m <sup>3</sup> /s)	Cota de Fundo (m)	Elevação da água (m)	Cota da linha de energia (m)	Inclinação (m/m)	Vel. (m/s)	Área (m <sup>2</sup> )	Largura do topo (m)	Número de Froude
102	1.67	13418.7	120.5	133.4	133.41	0.000073	0.61	22333.31	2048.36	0.06
102	2	14660.7	120.5	133.93	133.95	0.000074	0.64	23433.74	2053.79	0.06
102	5	19764.3	120.5	135.8	135.83	0.000088	0.77	27510.94	2303.56	0.07
102	10	23143.4	120.5	136.88	136.91	0.000093	0.83	30022.03	2405.12	0.07
102	25	27412.8	120.5	138.09	138.13	0.000102	0.92	33298.76	2944.24	0.07
102	50	30580.1	120.5	138.91	138.95	0.000108	0.97	35820.66	3170.27	0.08
102	100	33724	120.5	139.7	139.74	0.000124	1.08	38394.79	3316.79	0.08
102	1000	44084.2	120.5	141.87	141.92	0.000129	1.19	45777.44	3604.62	0.09
101	1.67	13418.7	114.23	133.01	133.04	0.000088	0.84	17645.16	1850.69	0.07
101	2	14660.7	114.23	133.53	133.57	0.000092	0.88	18633.16	1938.1	0.07
101	5	19764.3	114.23	135.32	135.37	0.000109	1.02	22305.81	2131.13	0.08
101	10	23143.4	114.23	136.36	136.41	0.000118	1.11	24560.55	2225.39	0.08
101	25	27412.8	114.23	137.52	137.59	0.00013	1.21	27295.43	2428.62	0.09
101	50	30580.1	114.23	138.3	138.37	0.000137	1.27	29229.89	2556.53	0.09
101	100	33724	114.23	139.03	139.1	0.000143	1.33	31158.34	2768.34	0.09
101	1000	44084.2	114.23	141.14	141.24	0.000159	1.49	37808.57	3618.07	0.1
100	1.67	13418.7	114.91	132.32	132.33	0.000082	0.52	25830.69	3200.09	0.06
100	2	14660.7	114.91	132.81	132.82	0.000085	0.53	27446.24	3372.12	0.06
100	5	19764.3	114.91	134.56	134.58	0.000082	0.59	33420.08	3433.15	0.06
100	10	23143.4	114.91	135.58	135.6	0.000082	0.63	37033.68	3877.16	0.06
100	25	27412.8	114.91	136.71	136.73	0.000083	0.67	41909.29	4721.91	0.06
100	50	30580.1	114.91	137.48	137.5	0.000083	0.7	45756.49	5294.19	0.06
100	100	33724	114.91	138.19	138.22	0.000083	0.72	49714.74	5824.58	0.06
100	1000	44084.2	114.91	140.3	140.33	0.000081	0.78	63712.74	7577.46	0.06
99	1.67	13418.7	114.43	131.93	131.96	0.000105	0.83	19869.29	2540.91	0.07
99	2	14660.7	114.43	132.4	132.43	0.000107	0.86	21106.23	2600.87	0.07
99	5	19764.3	114.43	134.15	134.19	0.000113	0.96	26061.54	3197.78	0.08
99	10	23143.4	114.43	135.16	135.21	0.000116	1.01	29420.67	3373.93	0.08
99	25	27412.8	114.43	136.29	136.34	0.000118	1.06	33246.15	3399.38	0.08
99	50	30580.1	114.43	137.06	137.11	0.000119	1.1	35852.93	3416.62	0.08
99	100	33724	114.43	137.77	137.82	0.000121	1.14	38280.27	3432.59	0.08
99	1000	44084.2	114.43	139.87	139.93	0.000126	1.24	45541.25	3483.97	0.09

Seção	TR (anos)	Q Total (m³/s)	Cota de Fundo (m)	Elevação da água (m)	Cota da linha de energia (m)	Inclinação (m/m)	Vel. (m/s)	Área (m²)	Largura do topo (m)	Número de Froude
98	1.67	13418.7	117.94	131.49	131.51	0.000087	0.67	25157.41	3477.23	0.06
98	2	14660.7	117.94	131.97	131.99	0.000086	0.68	26825.17	3539.34	0.06
98	5	19764.3	117.94	133.72	133.74	0.000084	0.74	33121.89	3642.5	0.06
98	10	23143.4	117.94	134.72	134.75	0.000084	0.77	36813.17	3681.5	0.07
98	25	27412.8	117.94	135.85	135.87	0.000084	0.82	40975.34	3712.97	0.07
98	50	30580.1	117.94	136.61	136.63	0.000085	0.85	43804.57	3741.2	0.07
98	100	33724	117.94	137.31	137.34	0.000087	0.88	46442.52	3769.1	0.07
98	1000	44084.2	117.94	139.39	139.43	0.00009	0.97	54344.71	3826.27	0.07
97	1.67	13586.8	115.93	131.05	131.08	0.000103	0.69	20969.05	2501.81	0.07
97	2	14839	115.93	131.53	131.55	0.000104	0.71	22242.16	2873.42	0.07
97	5	19984.5	115.93	133.26	133.3	0.00011	0.81	28155.64	4140.7	0.07
97	10	23391.3	115.93	134.28	134.31	0.000108	0.85	32911.58	5370.55	0.07
97	25	27695.8	115.93	135.4	135.44	0.000108	0.89	39434.1	6066.52	0.07
97	50	30889.1	115.93	136.17	136.2	0.000104	0.9	44119.05	6160.54	0.07
97	100	34058.8	115.93	136.87	136.91	0.000101	0.92	48513.82	6233.86	0.07
97	1000	44514.3	115.93	138.97	139.01	0.000091	0.95	61778	6607.01	0.07
96	1.67	13586.8	118.67	130.45	130.48	0.000166	0.81	17367.36	2199.1	0.09
96	2	14839	118.67	130.92	130.95	0.000167	0.83	18406.75	2250.12	0.09
96	5	19984.5	118.67	132.63	132.67	0.000169	0.94	22338.02	2352.22	0.09
96	10	23391.3	118.67	133.63	133.68	0.000171	1	24735.54	2424.47	0.09
96	25	27695.8	118.67	134.74	134.8	0.000175	1.07	27485.54	2549.71	0.09
96	50	30889.1	118.67	135.51	135.57	0.000178	1.12	29484.39	2673.57	0.09
96	100	34058.8	118.67	136.21	136.27	0.000182	1.17	31402.05	2807.06	0.1
96	1000	44514.3	118.67	138.3	138.38	0.00019	1.3	37492.4	2991.01	0.1
95	1.67	13586.8	115.27	129.94	129.97	0.000111	0.77	18095.51	1724.47	0.07
95	2	14839	115.27	130.39	130.42	0.000116	0.81	18880.87	1734.64	0.07
95	5	19984.5	115.27	132.05	132.1	0.000133	0.95	22064.69	2239.25	0.08
95	10	23391.3	115.27	133.02	133.08	0.000145	1.04	24401.58	2555.34	0.09
95	25	27695.8	115.27	134.1	134.17	0.000156	1.13	27239.69	2660.34	0.09
95	50	30889.1	115.27	134.86	134.92	0.000161	1.18	29252.66	2695.54	0.09
95	100	34058.8	115.27	135.54	135.61	0.000167	1.23	31130.11	2779.92	0.09
95	1000	44514.3	115.27	137.6	137.69	0.00018	1.38	36948.1	2868.25	0.1
94	1.67	13586.8	106.37	129.51	129.53	0.000072	0.49	27713.08	3396.37	0.05
94	2	14839	106.37	129.95	129.97	0.000073	0.51	29225.2	3462.51	0.06

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94	5	19984.5	106.37	131.58	131.59	0.000078	0.57	35014.34	3638.36	0.06
94	10	23391.3	106.37	132.53	132.55	0.000079	0.61	38503.55	3695.23	0.06
94	25	27695.8	106.37	133.59	133.61	0.000082	0.65	42443.54	3742.98	0.06
94	50	30889.1	106.37	134.33	134.35	0.000083	0.68	45228.61	3767.2	0.06
94	100	34058.8	106.37	135	135.03	0.000084	0.71	47765.45	3788.29	0.06
94	1000	44514.3	106.37	137.01	137.04	0.000094	0.8	55520.09	3999.04	0.07
93	1.67	13586.8	115.31	129.13	129.16	0.000154	0.74	19264.6	2910.59	0.08
93	2	14839	115.31	129.57	129.6	0.000153	0.76	20547.47	2976	0.08
93	5	19984.5	115.31	131.18	131.22	0.000151	0.84	25703.57	3498.59	0.08
93	10	23391.3	115.31	132.13	132.17	0.00015	0.89	29264.64	3960.63	0.08
93	25	27695.8	115.31	133.19	133.23	0.000147	0.94	33495.45	4052.22	0.08
93	50	30889.1	115.31	133.92	133.96	0.000152	0.99	36637.05	4860.18	0.09
93	100	34058.8	115.31	134.59	134.63	0.000149	1.01	39927.43	4929.57	0.09
93	1000	44514.3	115.31	136.59	136.64	0.00014	1.07	50108.23	5420.24	0.09
92	1.67	13873.5	110	128.56	128.61	0.000197	1	15970.92	2805.86	0.1
92	2	15143	110	129	129.05	0.000199	1.03	17196.53	2820.04	0.1
92	5	20360	110	130.62	130.67	0.000199	1.12	21821.11	2900.63	0.1
92	10	23814.1	110	131.56	131.62	0.000198	1.17	24596.04	2951.21	0.1
92	25	28178.3	110	132.62	132.69	0.0002	1.24	27745.63	3032.68	0.1
92	50	31416	110	133.34	133.41	0.000202	1.28	29979.99	3146.67	0.1
92	100	34629.7	110	134.01	134.09	0.000203	1.32	32123.43	3211.8	0.1
92	1000	45248.9	110	136.02	136.1	0.000207	1.44	39050.29	3780.31	0.11
91	1.67	13873.5	113.86	128.3	128.35	0.000257	0.95	15488.41	2337.63	0.1
91	2	15143	113.86	128.74	128.78	0.000255	0.98	16511.48	2355.3	0.1
91	5	20360	113.86	130.36	130.41	0.000247	1.08	20379.89	2420.94	0.11
91	10	23814.1	113.86	131.3	131.37	0.000246	1.14	22706.11	2496.47	0.11
91	25	28178.3	113.86	132.35	132.42	0.00025	1.22	25376.01	2585.73	0.11
91	50	31416	113.86	133.07	133.14	0.000252	1.27	27246.39	2646.47	0.11
91	100	34629.7	113.86	133.74	133.82	0.000255	1.32	29037.83	2699.91	0.11
91	1000	45248.9	113.86	135.73	135.83	0.000261	1.46	34531.45	2810.09	0.12
90	1.67	13873.5	117.02	128.02	128.07	0.000242	0.97	14961.75	1942.53	0.1
90	2	15143	117.02	128.46	128.51	0.000244	1	15813.46	1974.95	0.1
90	5	20360	117.02	130.07	130.13	0.000252	1.13	19099.62	2124.15	0.11
90	10	23814.1	117.02	131.02	131.09	0.000257	1.2	21342.81	2591.58	0.11

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90	25	28178.3	117.02	132.06	132.14	0.000263	1.29	24161.74	2796.8	0.11
90	50	31416	117.02	132.77	132.85	0.000266	1.34	26212.57	3042.37	0.12
90	100	34629.7	117.02	133.44	133.53	0.000268	1.39	28378.74	3393.04	0.12
90	1000	45248.9	117.02	135.43	135.53	0.000268	1.52	35472.29	3681.34	0.12
89	1.67	13873.5	112.64	127.77	127.81	0.000153	0.89	17222.53	2356.24	0.08
89	2	15143	112.64	128.2	128.24	0.000158	0.93	18260.89	2471.6	0.09
89	5	20360	112.64	129.81	129.86	0.000169	1.04	22535.73	2815.45	0.09
89	10	23814.1	112.64	130.75	130.8	0.000174	1.11	25266.6	3018.4	0.09
89	25	28178.3	112.64	131.79	131.85	0.00018	1.18	28543.02	3267.49	0.1
89	50	31416	112.64	132.49	132.56	0.000185	1.23	30901.01	3417.64	0.1
89	100	34629.7	112.64	133.16	133.23	0.000187	1.28	33273.65	3775.08	0.1
89	1000	45248.9	112.64	135.16	135.24	0.000188	1.38	41480.44	4376.9	0.1
88	1.67	13873.5	116.09	127.51	127.55	0.000203	0.91	16413.71	2539.54	0.09
88	2	15143	116.09	127.93	127.97	0.000204	0.94	17501.16	2569.63	0.1
88	5	20360	116.09	129.53	129.58	0.000206	1.04	21682.9	2662.78	0.1
88	10	23814.1	116.09	130.46	130.52	0.000207	1.1	24197.43	2708.55	0.1
88	25	28178.3	116.09	131.5	131.56	0.000211	1.17	27017.75	2759	0.1
88	50	31416	116.09	132.2	132.27	0.000215	1.22	28966.17	2798.31	0.1
88	100	34629.7	116.09	132.86	132.93	0.000218	1.27	30831.52	2839.88	0.11
88	1000	45248.9	116.09	134.84	134.93	0.000228	1.41	36605.64	2998.99	0.11
86	1.67	13873.5	115.71	126.7	126.75	0.000314	1.01	13971.45	1861.67	0.11
86	2	15143	115.71	127.12	127.18	0.000315	1.04	14759.95	1893.97	0.12
86	5	20360	115.71	128.7	128.77	0.000314	1.17	17900.13	2238.6	0.12
86	10	23814.1	115.71	129.63	129.71	0.000313	1.24	20086.83	2427.32	0.12
86	25	28178.3	115.71	130.64	130.73	0.00032	1.33	22578.03	2513.53	0.12
86	50	31416	115.71	131.33	131.42	0.000323	1.39	24319.72	2568.47	0.12
86	100	34629.7	115.71	131.97	132.07	0.000325	1.44	25999.94	2620.39	0.13
86	1000	45248.9	115.71	133.92	134.04	0.00033	1.59	31256.2	2775.29	0.13
85	1.67	13873.5	112.82	126.19	126.24	0.000291	1.02	13948.6	1792	0.11
85	2	15143	112.82	126.61	126.66	0.000295	1.06	14700.01	1821.42	0.11
85	5	20360	112.82	128.17	128.25	0.000308	1.2	17847.48	2256.52	0.12
85	10	23814.1	112.82	129.1	129.18	0.000308	1.27	19980.07	2345.85	0.12
85	25	28178.3	112.82	130.09	130.18	0.000317	1.36	22353.59	2446.11	0.12
85	50	31416	112.82	130.77	130.87	0.000322	1.42	24057.2	2599.37	0.13

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85	100	34629.7	112.82	131.41	131.51	0.000326	1.48	25766.46	2740.64	0.13
85	1000	45248.9	112.82	133.34	133.46	0.000333	1.63	31391.07	3126.32	0.13
84	1.67	13873.5	109.73	125.74	125.8	0.000289	1.1	13498.04	1981.32	0.11
84	2	15143	109.73	126.15	126.21	0.000295	1.14	14320.65	2042.22	0.11
84	5	20360	109.73	127.7	127.78	0.000305	1.28	18212.31	3075.94	0.12
84	10	23814.1	109.73	128.63	128.72	0.0003	1.34	21228.19	3387.8	0.12
84	25	28178.3	109.73	129.63	129.72	0.000298	1.4	24687.27	3528.18	0.12
84	50	31416	109.73	130.31	130.4	0.000294	1.44	27102.16	3587.51	0.12
84	100	34629.7	109.73	130.95	131.05	0.00029	1.47	29432.96	3645.03	0.12
84	1000	45248.9	109.73	132.9	133	0.000282	1.57	36947.3	4052.91	0.12
83	1.67	13873.5	113.11	125.32	125.38	0.000279	1.07	13135.59	1632.8	0.11
83	2	15143	113.11	125.72	125.78	0.000288	1.12	13796.31	1694.46	0.11
83	5	20360	113.11	127.24	127.33	0.000314	1.29	16684.89	2215.12	0.12
83	10	23814.1	113.11	128.17	128.26	0.000323	1.37	18803.25	2331.34	0.12
83	25	28178.3	113.11	129.15	129.26	0.000336	1.47	21143.97	2428.79	0.13
83	50	31416	113.11	129.83	129.94	0.000344	1.54	22791.3	2489.55	0.13
83	100	34629.7	113.11	130.47	130.59	0.000349	1.6	24404.62	2546.25	0.13
83	1000	45248.9	113.11	132.4	132.54	0.000359	1.76	29449.02	2656.03	0.14
82	1.67	13873.5	112.75	124.75	124.82	0.000387	1.14	12265.83	1718.94	0.13
82	2	15143	112.75	125.13	125.2	0.000396	1.19	12926.91	1768.64	0.13
82	5	20360	112.75	126.58	126.67	0.000457	1.34	15731.6	2303.33	0.14
82	10	23814.1	112.75	127.47	127.57	0.000504	1.4	18182.33	3119.5	0.15
82	25	28178.3	112.75	128.46	128.56	0.000483	1.46	21436.79	3422.25	0.15
82	50	31416	112.75	129.14	129.24	0.000459	1.49	23781.33	3473.78	0.15
82	100	34629.7	112.75	129.79	129.9	0.000439	1.51	26077.66	3558.71	0.14
82	1000	45248.9	112.75	131.76	131.87	0.000384	1.57	33151.77	3618.17	0.14
81	1.67	13873.5	116	124.22	124.3	0.000746	1.3	10889.05	2011.89	0.17
81	2	15143	116	124.6	124.69	0.000721	1.33	11662.95	2042.89	0.17
81	5	20360	116	126.04	126.14	0.000646	1.44	14907.56	2509.98	0.16
81	10	23814.1	116	126.92	127.03	0.0006	1.49	17229.28	2784.9	0.16
81	25	28178.3	116	127.94	128.05	0.000553	1.54	20089.42	2852.21	0.16
81	50	31416	116	128.64	128.76	0.000525	1.57	22126.46	2910.8	0.15
81	100	34629.7	116	129.32	129.44	0.000499	1.59	24084.89	2922.49	0.15
81	1000	45248.9	116	131.34	131.46	0.000443	1.68	30039.73	2971.12	0.15

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80	1.67	13873.5	110.55	123.3	123.34	0.000305	0.97	15258.2	2299.19	0.11
80	2	15143	110.55	123.7	123.75	0.000303	1	16181.66	2323.85	0.11
80	5	20360	110.55	125.19	125.25	0.000297	1.11	19779.52	2542.18	0.11
80	10	23814.1	110.55	126.1	126.17	0.000298	1.18	22133.19	2625.07	0.12
80	25	28178.3	110.55	127.16	127.23	0.000291	1.24	24964.02	2730.51	0.12
80	50	31416	110.55	127.89	127.96	0.000287	1.28	26985.22	2818.11	0.12
80	100	34629.7	110.55	128.58	128.66	0.000283	1.32	28978.79	2934.14	0.12
80	1000	45248.9	110.55	130.65	130.75	0.000274	1.44	35460.83	3339.31	0.12
76	1.67	13873.5	106.24	121.33	121.38	0.000337	1.03	13934.57	2079.39	0.12
76	2	15143	106.24	121.74	121.79	0.000336	1.07	14785.56	2107.05	0.12
76	5	20360	106.24	123.25	123.32	0.000332	1.19	18011.69	2156.84	0.12
76	10	23814.1	106.24	124.15	124.23	0.000331	1.26	19970.36	2182.24	0.12
76	25	28178.3	106.24	125.23	125.32	0.000327	1.33	22407.44	2396.06	0.12
76	50	31416	106.24	125.97	126.06	0.000326	1.39	24199.85	2465.07	0.13
76	100	34629.7	106.24	126.68	126.78	0.000323	1.43	25969.77	2530.98	0.13
76	1000	45248.9	106.24	128.78	128.89	0.000319	1.57	31729.4	3018.8	0.13
75	1.67	13873.5	110.62	120.47	120.58	0.000671	1.49	9573.74	1542.48	0.17
75	2	15143	110.62	120.87	120.99	0.000674	1.54	10213.25	1643.17	0.17
75	5	20360	110.62	122.38	122.53	0.000665	1.71	12958.27	1947.62	0.17
75	10	23814.1	110.62	123.29	123.45	0.000646	1.79	14761.93	2005.42	0.17
75	25	28178.3	110.62	124.39	124.56	0.000617	1.86	17000.96	2063.85	0.17
75	50	31416	110.62	125.14	125.31	0.000603	1.91	18552.24	2103.39	0.17
75	100	34629.7	110.62	125.86	126.03	0.000588	1.96	20077.44	2141.54	0.17
75	1000	45248.9	110.62	127.97	128.17	0.000557	2.1	24766.51	2331.15	0.17
74	1.67	13873.5	109.25	119.87	119.98	0.000628	1.47	9647.63	1359.77	0.16
74	2	15143	109.25	120.27	120.38	0.000637	1.53	10188.9	1379.32	0.16
74	5	20360	109.25	121.76	121.91	0.000661	1.73	12302.71	1455.49	0.17
74	10	23814.1	109.25	122.66	122.83	0.000668	1.84	13667.19	1582.47	0.18
74	25	28178.3	109.25	123.77	123.95	0.000668	1.96	15512.77	1733.04	0.18
74	50	31416	109.25	124.52	124.71	0.000663	2.03	16835.52	1806.07	0.18
74	100	34629.7	109.25	125.24	125.45	0.000653	2.09	18175.99	1885.92	0.18
74	1000	45248.9	109.25	127.38	127.61	0.000625	2.25	23111.66	2711.65	0.18
73	1.67	13873.5	105.64	118.67	118.77	0.000561	1.46	9595.87	1386.22	0.17

Seção	TR (anos)	Q Total (m³/s)	Cota de Fundo (m)	Elevação da água (m)	Cota da linha de energia (m)	Inclinação (m/m)	Vel. (m/s)	Área (m²)	Largura do topo (m)	Número de Froude
73	2	15143	105.64	119.06	119.17	0.000559	1.51	10136.59	1391.4	0.18
73	5	20360	105.64	120.54	120.68	0.000551	1.69	12209.43	1410.24	0.18
73	10	23814.1	105.64	121.44	121.6	0.000545	1.79	13494.79	1455.7	0.18
73	25	28178.3	105.64	122.56	122.74	0.00053	1.9	15270.96	1660.12	0.18
73	50	31416	105.64	123.32	123.51	0.000526	1.98	16555.29	1736.66	0.18
73	100	34629.7	105.64	124.06	124.27	0.000515	2.04	17870.78	1787.17	0.18
73	1000	45248.9	105.64	126.23	126.47	0.000499	2.23	21945.93	2031.44	0.19
72	1.67	13873.5	108.53	117.82	118.06	0.00036	2.16	6423.33	1123.73	0.29
72	2	15143	108.53	118.22	118.47	0.000351	2.2	6873.24	1145.25	0.29
72	5	20360	108.53	119.74	120.02	0.000312	2.35	8663.11	1198.96	0.28
72	10	23814.1	108.53	120.67	120.97	0.000293	2.43	9790.77	1226.91	0.27
72	25	28178.3	108.53	121.81	122.13	0.000281	2.51	11232.64	1303.98	0.27
72	50	31416	108.53	122.58	122.92	0.000273	2.57	12255.75	1374.9	0.27
72	100	34629.7	108.53	123.32	123.67	0.000283	2.6	13362	1581.39	0.28
72	1000	45248.9	108.53	125.57	125.94	0.000237	2.7	17294.01	1860.26	0.26
71	1.67	13873.5	105.44	117.53	117.71	0.000212	1.84	7650.36	1201.44	0.23
71	2	15143	105.44	117.94	118.12	0.000208	1.89	8139.39	1213.08	0.23
71	5	20360	105.44	119.49	119.71	0.000193	2.08	10042.56	1243.54	0.23
71	10	23814.1	105.44	120.43	120.67	0.000186	2.19	11231.87	1283.78	0.23
71	25	28178.3	105.44	121.58	121.85	0.000177	2.31	12739.01	1338.74	0.23
71	50	31416	105.44	122.35	122.64	0.000174	2.39	13782.45	1367.12	0.23
71	100	34629.7	105.44	123.08	123.39	0.000171	2.47	14792.34	1389.82	0.23
71	1000	45248.9	105.44	125.33	125.69	0.000163	2.7	18002.76	1467.52	0.23
70	1.67	13873.5	99.69	117.31	117.47	0.000114	1.76	7969.88	886.91	0.18
70	2	15143	99.69	117.71	117.88	0.00012	1.84	8324.9	901.49	0.18
70	5	20360	99.69	119.22	119.46	0.000137	2.15	9769.17	1067.3	0.2
70	10	23814.1	99.69	120.14	120.42	0.000145	2.32	10807.23	1179.45	0.21
70	25	28178.3	99.69	121.28	121.59	0.000151	2.5	12198.5	1264.62	0.22
70	50	31416	99.69	122.03	122.38	0.000155	2.63	13174.79	1309.27	0.22
70	100	34629.7	99.69	122.76	123.13	0.000158	2.74	14126.57	1327.01	0.22
70	1000	45248.9	99.69	124.98	125.43	0.000164	3.06	17132.18	1381.55	0.23
69	1.67	13873.5	105.62	116.95	117.18	0.000257	2.13	6612.58	984.24	0.25
69	2	15143	105.62	117.34	117.59	0.000257	2.2	7007.13	1047.15	0.26
69	5	20360	105.62	118.84	119.15	0.000252	2.46	8732.33	1316.86	0.26

Seção	TR (anos)	Q Total (m³/s)	Cota de Fundo (m)	Elevação da água (m)	Cota da linha de energia (m)	Inclinação (m/m)	Vel. (m/s)	Área (m²)	Largura do topo (m)	Número de Froude
69	10	23814.1	105.62	119.76	120.1	0.000245	2.59	10069.9	1580.12	0.26
69	25	28178.3	105.62	120.91	121.28	0.000233	2.72	12066.51	1974.39	0.26
69	50	31416	105.62	121.69	122.07	0.000225	2.79	13651.86	2129.15	0.26
69	100	34629.7	105.62	122.43	122.82	0.000216	2.85	15281.37	2236.97	0.26
69	1000	45248.9	105.62	124.72	125.12	0.000189	2.98	20710.42	2569.35	0.25
68	1.67	13873.5	86.93	116.83	116.99	0.000085	1.79	8059.07	692.05	0.16
68	2	15143	86.93	117.21	117.39	0.000092	1.9	8320.94	695.45	0.17
68	5	20360	86.93	118.67	118.93	0.000117	2.29	9342.03	708.53	0.19
68	10	23814.1	86.93	119.56	119.88	0.000131	2.52	10018.05	812.87	0.2
68	25	28178.3	86.93	120.66	121.05	0.000148	2.79	11053.06	1005.24	0.22
68	50	31416	86.93	121.39	121.83	0.000158	2.96	11794.51	1008.74	0.23
68	100	34629.7	86.93	122.1	122.58	0.000166	3.11	12506.22	1012.09	0.23
68	1000	45248.9	86.93	124.25	124.87	0.000188	3.56	14691.9	1019.32	0.25
67.5	1.67	13873.5	61.21	116.86	116.96	0.000034	1.4	9911.83	455.12	0.1
67.5	2	15143	61.21	117.24	117.35	0.000041	1.5	10089.53	485.23	0.11
67.5	5	20360	61.21	118.69	118.87	0.000064	1.88	10843.96	544.52	0.13
67.5	10	23814.1	61.21	119.59	119.81	0.000079	2.11	11347.49	583.54	0.15
67.5	25	28178.3	61.21	120.69	120.97	0.0001	2.36	12016.7	645.88	0.17
67.5	50	31416	61.21	121.42	121.75	0.000126	2.54	12526.54	743.01	0.19
67.5	100	34629.7	61.21	122.12	122.49	0.000143	2.69	13065.16	790.52	0.2
67.5	1000	45248.9	61.21	124.27	124.77	0.000173	3.13	14852.09	863.43	0.22
67	1.67	13873.5	83.93	116.84	116.91	0.000038	1.22	11413.49	881	0.11
67	2	15143	83.93	117.22	117.3	0.000042	1.29	11747.31	893.58	0.11
67	5	20360	83.93	118.67	118.8	0.000056	1.56	13069.27	920.04	0.13
67	10	23814.1	83.93	119.57	119.72	0.000064	1.71	13902.86	937.29	0.14
67	25	28178.3	83.93	120.68	120.86	0.000071	1.89	14946.84	948.58	0.15
67	50	31416	83.93	121.41	121.61	0.000077	2.01	15642.03	953.81	0.16
67	100	34629.7	83.93	122.11	122.34	0.000082	2.12	16316.47	962.53	0.16
67	1000	45248.9	83.93	124.28	124.58	0.000095	2.46	18503.53	1062.61	0.18
64	1.67	14158.5	105.89	116.13	116.44	0.000529	2.49	5692.28	1076.68	0.35
64	2	15445.4	105.89	116.46	116.79	0.000523	2.55	6055.07	1092.56	0.35
64	5	20733.4	105.89	117.8	118.19	0.000484	2.74	7565.17	1156.29	0.34
64	10	24234.5	105.89	118.65	119.06	0.000458	2.83	8563.28	1197.76	0.34
64	25	28658.2	105.89	119.72	120.14	0.000476	2.88	9951.67	1403.76	0.34



Seção	TR (anos)	Q Total (m³/s)	Cota de Fundo (m)	Elevação da água (m)	Cota da linha de energia (m)	Inclinação (m/m)	Vel. (m/s)	Área (m²)	Largura do topo (m)	Número de Froude
64	50	31939.9	105.89	120.45	120.88	0.000428	2.91	10986.1	1417.23	0.33
64	100	35197.4	105.89	121.16	121.6	0.000391	2.94	12000.48	1432.97	0.32
64	1000	45980.4	105.89	123.36	123.83	0.000311	3.05	15211.28	1486.91	0.3
63	1.67	14158.5	105.78	115.42	115.76	0.000637	2.58	5484.9	1124.97	0.37
63	2	15445.4	105.78	115.79	116.14	0.0006	2.62	5895.85	1131.98	0.37
63	5	20733.4	105.78	117.23	117.61	0.000497	2.74	7557.21	1187.76	0.35
63	10	24234.5	105.78	118.12	118.53	0.000452	2.81	8646.64	1251.63	0.34
63	25	28658.2	105.78	119.21	119.63	0.000403	2.88	10024.5	1293.9	0.32
63	50	31939.9	105.78	119.97	120.41	0.000379	2.93	11034.9	1335.7	0.32
63	100	35197.4	105.78	120.71	121.16	0.000364	2.97	12034.39	1387.94	0.31
63	1000	45980.4	105.78	122.99	123.47	0.000301	3.08	15312.38	1501.89	0.29
62	1.67	14158.5	99.18	114.72	114.97	0.000409	2.21	6494.62	1399.48	0.3
62	2	15445.4	99.18	115.14	115.39	0.000377	2.23	7091.2	1430.03	0.3
62	5	20733.4	99.18	116.74	117	0.000296	2.32	9446.59	1524.54	0.27
62	10	24234.5	99.18	117.69	117.97	0.000265	2.38	10927.38	1581.17	0.26
62	25	28658.2	99.18	118.83	119.12	0.000238	2.45	12799.37	1748.25	0.25
62	50	31939.9	99.18	119.63	119.93	0.000223	2.5	14236.23	1844.85	0.25
62	100	35197.4	99.18	120.39	120.7	0.000212	2.54	15672.95	1925.2	0.25
62	1000	45980.4	99.18	122.75	123.08	0.000179	2.65	20377.66	2064.62	0.23
61	1.67	14158.5	102.31	114.41	114.64	0.000218	2.1	7017.04	1131.1	0.24
61	2	15445.4	102.31	114.84	115.08	0.000217	2.17	7509.67	1184.49	0.24
61	5	20733.4	102.31	116.44	116.73	0.000212	2.41	9523.21	1302.1	0.24
61	10	24234.5	102.31	117.39	117.71	0.00021	2.54	10772.03	1326.52	0.24
61	25	28658.2	102.31	118.52	118.87	0.000206	2.69	12293.92	1355.67	0.25
61	50	31939.9	102.31	119.32	119.69	0.000203	2.79	13378.6	1376.07	0.25
61	100	35197.4	102.31	120.07	120.47	0.000201	2.88	14420.77	1395.39	0.25
61	1000	45980.4	102.31	122.4	122.86	0.000193	3.14	17729.06	1437.54	0.25
60	1.67	14158.5	78.7	114.34	114.48	0.000034	1.64	8653.29	374.9	0.11
60	2	15445.4	78.7	114.75	114.91	0.000039	1.75	8807.2	377.85	0.12
60	5	20733.4	78.7	116.27	116.52	0.000059	2.21	9393.6	392.06	0.14
60	10	24234.5	78.7	117.17	117.48	0.000074	2.49	9749.19	403.5	0.16
60	25	28658.2	78.7	118.21	118.62	0.000094	2.82	10178.23	418.73	0.18
60	50	31939.9	78.7	118.93	119.41	0.000109	3.05	10483.95	426.42	0.2
60	100	35197.4	78.7	119.62	120.16	0.000123	3.27	10776.53	433.65	0.21

Seção	TR (anos)	Q Total (m³/s)	Cota de Fundo (m)	Elevação da água (m)	Cota da linha de energia (m)	Inclinação (m/m)	Vel. (m/s)	Área (m²)	Largura do topo (m)	Número de Froude
60	1000	45980.4	78.7	121.71	122.49	0.000168	3.93	11717.37	469.32	0.25
59	1.67	14158.5	88.81	114.19	114.39	0.00012	1.99	7109.95	612.25	0.19
59	2	15445.4	88.81	114.59	114.81	0.000128	2.1	7353.88	615.87	0.19
59	5	20733.4	88.81	116.07	116.39	0.000161	2.5	8330.16	767.85	0.22
59	10	24234.5	88.81	116.94	117.32	0.000176	2.74	9058.21	865.08	0.23
59	25	28658.2	88.81	117.97	118.43	0.000193	3.01	9964.53	901.29	0.25
59	50	31939.9	88.81	118.69	119.2	0.000204	3.19	10621.71	926.82	0.26
59	100	35197.4	88.81	119.37	119.93	0.000214	3.35	11260.48	950.97	0.26
59	1000	45980.4	88.81	121.47	122.2	0.000238	3.83	13329.52	1016.9	0.28
58.5	1.67	14158.5	90.77	113.67	114.22	0.000482	3.3	4299.28	477.19	0.35
58.5	2	15445.4	90.77	114.02	114.63	0.000511	3.47	4467.39	481.95	0.36
58.5	5	20733.4	90.77	115.31	116.16	0.000641	4.07	5111.96	515.76	0.41
58.5	10	24234.5	90.77	116.08	117.07	0.000749	4.41	5521.74	557.3	0.44
58.5	25	28658.2	90.77	116.98	118.14	0.000825	4.77	6037.88	583.63	0.47
58.5	50	31939.9	90.77	117.62	118.9	0.00086	5.01	6415.43	595.91	0.48
58.5	100	35197.4	90.77	118.23	119.61	0.000887	5.22	6801.3	659.46	0.5
58.5	1000	45980.4	90.77	120.14	121.84	0.000951	5.79	8160.68	763.92	0.52
58	1.67	14158.5	91.23	113.67	113.89	0.000139	2.09	6974.92	721.29	0.2
58	2	15445.4	91.23	114.03	114.27	0.000148	2.21	7233.16	723.18	0.21
58	5	20733.4	91.23	115.35	115.7	0.000184	2.65	8194.47	730.18	0.24
58	10	24234.5	91.23	116.12	116.55	0.000206	2.91	8760.12	734.26	0.25
58	25	28658.2	91.23	117.04	117.56	0.00023	3.21	9437.62	739.13	0.27
58	50	31939.9	91.23	117.69	118.28	0.000246	3.42	9921.39	751.08	0.28
58	100	35197.4	91.23	118.31	118.96	0.000261	3.61	10390.89	770.8	0.29
58	1000	45980.4	91.23	120.23	121.1	0.000302	4.19	11926.52	821.11	0.32
57	1.67	14158.5	92.17	113.52	113.72	0.000127	1.96	7240.62	703.71	0.19
57	2	15445.4	92.17	113.87	114.09	0.00014	2.07	7488.85	731.89	0.2
57	5	20733.4	92.17	115.15	115.47	0.000174	2.48	8449.85	756.81	0.23
57	10	24234.5	92.17	115.91	116.28	0.000194	2.73	9022.74	768.11	0.24
57	25	28658.2	92.17	116.8	117.26	0.000217	3.01	9716.75	777.07	0.26
57	50	31939.9	92.17	117.44	117.96	0.000231	3.21	10213.16	781.4	0.27
57	100	35197.4	92.17	118.04	118.63	0.000244	3.39	10687.13	786.53	0.28
57	1000	45980.4	92.17	119.94	120.71	0.000279	3.92	12196.35	802.85	0.3

Seção	TR (anos)	Q Total (m³/s)	Cota de Fundo (m)	Elevação da água (m)	Cota da linha de energia (m)	Inclinação (m/m)	Vel. (m/s)	Área (m²)	Largura do topo (m)	Número de Froude
56	1.67	14158.5	96.25	113.08	113.43	0.000305	2.62	5516.62	786.95	0.28
56	2	15445.4	96.25	113.39	113.78	0.000323	2.75	5764.58	818.55	0.29
56	5	20733.4	96.25	114.56	115.09	0.000385	3.25	6772.17	924.34	0.33
56	10	24234.5	96.25	115.24	115.86	0.000419	3.54	7424.52	990.68	0.34
56	25	28658.2	96.25	116.06	116.8	0.000451	3.86	8269.28	1054.06	0.36
56	50	31939.9	96.25	116.66	117.47	0.000466	4.05	8906.67	1064.6	0.37
56	100	35197.4	96.25	117.24	118.12	0.000478	4.23	9523	1072.45	0.38
56	1000	45980.4	96.25	119.07	120.16	0.000503	4.75	11671.79	1279.57	0.4
55	1.67	14158.5	93.07	113.02	113.18	0.000093	1.77	7993.89	677.18	0.16
55	2	15445.4	93.07	113.33	113.51	0.000102	1.88	8199.46	679.77	0.17
55	5	20733.4	93.07	114.47	114.74	0.000138	2.31	8981.71	690.83	0.2
55	10	24234.5	93.07	115.13	115.47	0.00016	2.57	9448.87	721.76	0.22
55	25	28658.2	93.07	115.94	116.36	0.000185	2.86	10057.55	782.29	0.24
55	50	31939.9	93.07	116.53	117.01	0.000201	3.07	10529.59	826.19	0.25
55	100	35197.4	93.07	117.09	117.63	0.000216	3.25	11006.14	868.26	0.26
55	1000	45980.4	93.07	118.89	119.62	0.000254	3.79	12686	1002.57	0.29
54	1.67	14158.5	91.84	112.59	112.9	0.000358	2.72	6695.76	1006.54	0.3
54	2	15445.4	91.84	112.85	113.2	0.000382	2.86	6964.12	1023.52	0.31
54	5	20733.4	91.84	113.85	114.34	0.000469	3.41	8016.37	1086.81	0.35
54	10	24234.5	91.84	114.42	115.01	0.000521	3.74	8652.85	1123.58	0.37
54	25	28658.2	91.84	115.15	115.84	0.000568	4.09	9474.18	1148.68	0.4
54	50	31939.9	91.84	115.68	116.46	0.000595	4.32	10092.57	1166.3	0.41
54	100	35197.4	91.84	116.21	117.05	0.000609	4.51	10714.34	1174.48	0.42
54	1000	45980.4	91.84	117.96	118.97	0.000624	5	12795.46	1201.45	0.43
53	1.67	14158.5	84.57	112.54	112.66	0.000051	1.54	9178.19	608.76	0.13
53	2	15445.4	84.57	112.79	112.93	0.000058	1.65	9333.66	612.33	0.14
53	5	20733.4	84.57	113.74	113.97	0.000087	2.09	9922.35	624.55	0.17
53	10	24234.5	84.57	114.29	114.57	0.000108	2.36	10263.33	631.27	0.19
53	25	28658.2	84.57	114.96	115.33	0.000134	2.68	10692.36	639.62	0.21
53	50	31939.9	84.57	115.46	115.89	0.000153	2.9	11012.92	645.79	0.22
53	100	35197.4	84.57	115.95	116.44	0.000171	3.11	11331.88	651.88	0.24
53	1000	45980.4	84.57	117.55	118.25	0.000239	3.71	12409.02	714.81	0.28
52	1.67	14158.5	81.73	112.31	112.53	0.000147	2.07	6960.32	709.75	0.2
52	2	15445.4	81.73	112.54	112.78	0.000163	2.21	7121.53	715.28	0.21

Seção	TR (anos)	Q Total (m³/s)	Cota de Fundo (m)	Elevação da água (m)	Cota da linha de energia (m)	Inclinação (m/m)	Vel. (m/s)	Área (m²)	Largura do topo (m)	Número de Froude
52	5	20733.4	81.73	113.37	113.75	0.00023	2.75	7721.26	731.97	0.26
52	10	24234.5	81.73	113.82	114.3	0.000277	3.1	8064	780.15	0.28
52	25	28658.2	81.73	114.38	115	0.000332	3.5	8523.82	853.91	0.31
52	50	31939.9	81.73	114.8	115.52	0.000369	3.77	8895.14	911.93	0.33
52	100	35197.4	81.73	115.22	116.04	0.000401	4.01	9281.72	922.15	0.35
52	1000	45980.4	81.73	116.61	117.72	0.000486	4.71	10568.41	946.15	0.39
51	1.67	14734	90.21	112.26	112.36	0.000052	1.43	10333.62	817.13	0.13
51	2	16055.8	90.21	112.48	112.6	0.000059	1.53	10518.95	865.69	0.13
51	5	21487.3	90.21	113.28	113.47	0.000088	1.93	11274.57	970.95	0.16
51	10	25083.4	90.21	113.72	113.97	0.000108	2.18	11705	981.99	0.18
51	25	29627.1	90.21	114.27	114.58	0.000134	2.47	12245.96	990.26	0.21
51	50	32997.9	90.21	114.68	115.05	0.000152	2.68	12654.15	997.34	0.22
51	100	36343.7	90.21	115.1	115.51	0.00017	2.87	13065.92	1004.43	0.23
51	1000	47455.2	90.21	116.46	117.05	0.000218	3.42	14494.29	1077.43	0.27
50	1.67	14734	99.65	112.11	112.24	0.000168	1.61	9197.63	1515.71	0.2
50	2	16055.8	99.65	112.32	112.46	0.00018	1.7	9514.65	1537.86	0.21
50	5	21487.3	99.65	113.08	113.29	0.000224	2.04	10752.37	1704.51	0.24
50	10	25083.4	99.65	113.49	113.75	0.000255	2.25	11469.21	1771.01	0.26
50	25	29627.1	99.65	114.01	114.33	0.000285	2.49	12410.96	1826.55	0.27
50	50	32997.9	99.65	114.41	114.76	0.000302	2.64	13140.15	1868.42	0.28
50	100	36343.7	99.65	114.81	115.2	0.000314	2.77	13912.41	2008.29	0.29
50	1000	47455.2	99.65	116.18	116.66	0.000329	3.11	16855.71	2291.25	0.31
49	1.67	14734	104.47	110.42	111.48	0.006133	4.63	3344.19	1657.35	1.01
49	2	16055.8	104.47	110.57	111.66	0.005996	4.71	3596.11	1731.8	1.01
49	5	21487.3	104.47	111.08	112.34	0.005715	5.06	4520.16	1870.66	1.01
49	10	25083.4	104.47	111.64	112.77	0.00427	4.81	5614.88	2035.73	0.89
49	25	29627.1	104.47	112.41	113.36	0.002859	4.44	7273.74	2232.94	0.75
49	50	32997.9	104.47	112.94	113.83	0.00222	4.29	8470.2	2294.86	0.68
49	100	36343.7	104.47	113.46	114.3	0.001788	4.17	9687.29	2356.18	0.62
49	1000	47455.2	104.47	115.18	115.9	0.001025	3.9	13807.96	2426.95	0.5
47	1.67	14734	82.85	102.03	102.37	0.000242	2.82	7923.34	1213.75	0.26
47	2	16055.8	82.85	102.48	102.83	0.000246	2.91	8471.43	1250.04	0.27
47	5	21487.3	82.85	104.22	104.63	0.000251	3.22	10751.51	1346.64	0.28
47	10	25083.4	82.85	105.27	105.7	0.000248	3.36	12175.82	1358.18	0.28

Seção	TR (anos)	Q Total (m³/s)	Cota de Fundo (m)	Elevação da água (m)	Cota da linha de energia (m)	Inclinação (m/m)	Vel. (m/s)	Área (m²)	Largura do topo (m)	Número de Froude
47	25	29627.1	82.85	106.5	106.95	0.000246	3.52	13847.24	1371.6	0.28
47	50	32997.9	82.85	107.34	107.82	0.000245	3.64	15008.57	1380.85	0.28
47	100	36343.7	82.85	108.13	108.63	0.000245	3.75	16104.49	1390.94	0.28
47	1000	47455.2	82.85	110.45	111.04	0.000253	4.14	19437.95	1475.32	0.29
46	1.67	14734	82.85	101.56	101.96	0.000297	3.09	9064.39	2959.63	0.29
46	2	16055.8	82.85	102.08	102.44	0.000271	3.04	10598.24	2983.85	0.28
46	5	21487.3	82.85	103.98	104.26	0.0002	2.87	16361.66	3064.7	0.25
46	10	25083.4	82.85	105.1	105.34	0.000173	2.81	19819.9	3111.37	0.23
46	25	29627.1	82.85	106.39	106.61	0.000151	2.78	23849.56	3155.21	0.22
46	50	32997.9	82.85	107.27	107.47	0.00014	2.77	26637.01	3185.18	0.21
46	100	36343.7	82.85	108.09	108.29	0.000132	2.77	29263.09	3213.17	0.21
46	1000	47455.2	82.85	110.49	110.69	0.000117	2.83	37092.48	3300.23	0.2
45	1.67	14734	87.29	101.66	101.78	0.000092	1.65	13389.86	2601.65	0.16
45	2	16055.8	87.29	102.16	102.28	0.000089	1.67	14691.3	2636.82	0.16
45	5	21487.3	87.29	104.01	104.14	0.00008	1.76	19788.78	3016.11	0.16
45	10	25083.4	87.29	105.12	105.24	0.000076	1.81	23168.33	3108.44	0.15
45	25	29627.1	87.29	106.39	106.52	0.000072	1.86	27180.96	3186.41	0.15
45	50	32997.9	87.29	107.26	107.39	0.000069	1.9	29982.45	3229.14	0.15
45	100	36343.7	87.29	108.08	108.21	0.000068	1.94	32635.63	3268.5	0.15
45	1000	47455.2	87.29	110.48	110.62	0.000065	2.08	40588.29	3367.8	0.15
44	1.67	14734	85.7	101.65	101.75	0.000067	1.5	15081.14	2894.71	0.14
44	2	16055.8	85.7	102.14	102.24	0.000066	1.53	16547.33	2990.3	0.14
44	5	21487.3	85.7	104	104.1	0.000061	1.62	22313.04	3180.96	0.14
44	10	25083.4	85.7	105.1	105.21	0.000058	1.67	25839.74	3209.68	0.14
44	25	29627.1	85.7	106.38	106.49	0.000056	1.73	29949.5	3242.83	0.14
44	50	32997.9	85.7	107.25	107.36	0.000055	1.77	32792.01	3265.56	0.14
44	100	36343.7	85.7	108.07	108.18	0.000054	1.81	35467.54	3286.81	0.14
44	1000	47455.2	85.7	110.46	110.59	0.000053	1.95	43419.7	3357.86	0.14
43	1.67	14734	89.3	101.59	101.67	0.00007	1.36	15595.24	2569.89	0.14
43	2	16055.8	89.3	102.09	102.17	0.000068	1.38	16886.91	2610.12	0.14
43	5	21487.3	89.3	103.95	104.04	0.000062	1.48	21878.26	2760.07	0.14
43	10	25083.4	89.3	105.06	105.15	0.00006	1.54	24975.53	2853.66	0.14
43	25	29627.1	89.3	106.33	106.43	0.000058	1.61	28675.94	2944.27	0.13
43	50	32997.9	89.3	107.2	107.31	0.000056	1.65	31260.47	2971.73	0.13

Seção	TR (anos)	Q Total (m³/s)	Cota de Fundo (m)	Elevação da água (m)	Cota da linha de energia (m)	Inclinação (m/m)	Vel. (m/s)	Área (m²)	Largura do topo (m)	Número de Froude
43	100	36343.7	89.3	108.02	108.13	0.000055	1.7	33697.77	2997.39	0.13
43	1000	47455.2	89.3	110.41	110.54	0.000054	1.84	40965.98	3072.66	0.14
42	1.67	14734	86.51	101.56	101.61	0.000042	1.1	24221.09	6135.68	0.11
42	2	16055.8	86.51	102.06	102.11	0.000039	1.09	27362.23	6375.09	0.11
42	5	21487.3	86.51	103.94	103.98	0.000031	1.08	39849.19	6861.33	0.1
42	10	25083.4	86.51	105.05	105.08	0.000027	1.07	47544.79	6991.46	0.09
42	25	29627.1	86.51	106.33	106.36	0.000024	1.07	56593.04	7136.62	0.09
42	50	32997.9	86.51	107.21	107.24	0.000023	1.08	62902.69	7236.12	0.09
42	100	36343.7	86.51	108.03	108.06	0.000022	1.09	68878.07	7329.11	0.08
42	1000	47455.2	86.51	110.43	110.47	0.000019	1.12	86741.29	7458.59	0.08
41	1.67	14734	86.84	101.5	101.57	0.000047	1.28	19694.56	4895.99	0.12
41	2	16055.8	86.84	102	102.07	0.000045	1.28	22170.06	4967.16	0.12
41	5	21487.3	86.84	103.88	103.94	0.000039	1.3	31770.92	5350.5	0.11
41	10	25083.4	86.84	104.99	105.05	0.000036	1.31	37890.8	5657.69	0.11
41	25	29627.1	86.84	106.27	106.33	0.000033	1.33	45372.77	6002.98	0.1
41	50	32997.9	86.84	107.15	107.21	0.000032	1.34	50744.37	6217.49	0.1
41	100	36343.7	86.84	107.97	108.03	0.00003	1.35	55930.63	6410.51	0.1
41	1000	47455.2	86.84	110.38	110.44	0.000027	1.4	71930.47	6865.68	0.1
40	1.67	14734	87.01	101.41	101.52	0.000065	1.48	12147.24	2120.64	0.14
40	2	16055.8	87.01	101.91	102.02	0.000066	1.52	13217.75	2210.33	0.14
40	5	21487.3	87.01	103.76	103.88	0.000066	1.68	17795.05	2750.77	0.14
40	10	25083.4	87.01	104.86	104.99	0.000066	1.75	21008.04	3079.69	0.14
40	25	29627.1	87.01	106.13	106.27	0.000065	1.83	25137.39	3402.22	0.15
40	50	32997.9	87.01	107	107.15	0.000064	1.88	28202.13	3613.86	0.15
40	100	36343.7	87.01	107.82	107.97	0.000063	1.93	31363.09	4119.43	0.15
40	1000	47455.2	87.01	110.22	110.38	0.000061	2.06	42008.15	4772.8	0.15
39	1.67	14734	87.43	101.37	101.47	0.000061	1.44	13457.29	2546.9	0.13
39	2	16055.8	87.43	101.87	101.97	0.000061	1.48	14745.35	2664.51	0.14
39	5	21487.3	87.43	103.72	103.83	0.00006	1.61	20004.54	2962.36	0.14
39	10	25083.4	87.43	104.82	104.94	0.000059	1.67	23324.45	3056.6	0.14
39	25	29627.1	87.43	106.09	106.22	0.000057	1.74	27268.19	3128.99	0.14
39	50	32997.9	87.43	106.97	107.1	0.000056	1.79	30023.41	3174.52	0.14
39	100	36343.7	87.43	107.78	107.92	0.000056	1.84	32635	3217.08	0.14
39	1000	47455.2	87.43	110.18	110.33	0.000055	1.99	40490.58	3341.84	0.14

Seção	TR (anos)	Q Total (m³/s)	Cota de Fundo (m)	Elevação da água (m)	Cota da linha de energia (m)	Inclinação (m/m)	Vel. (m/s)	Área (m²)	Largura do topo (m)	Número de Froude
38	1.67	14734	91.06	101.32	101.42	0.000083	1.38	10671.87	1218.16	0.15
38	2	16055.8	91.06	101.81	101.92	0.000083	1.42	11273.27	1222.11	0.15
38	5	21487.3	91.06	103.66	103.78	0.000077	1.55	16014.24	2736.09	0.15
38	10	25083.4	91.06	104.77	104.89	0.000072	1.6	19223.04	3181.16	0.15
38	25	29627.1	91.06	106.05	106.17	0.000068	1.65	23616.54	3550.61	0.14
38	50	32997.9	91.06	106.92	107.05	0.000064	1.68	26748.07	3584.89	0.14
38	100	36343.7	91.06	107.74	107.88	0.000062	1.71	29702.93	3616.94	0.14
38	1000	47455.2	91.06	110.15	110.29	0.000057	1.81	38507.4	3719.91	0.14
37	1.67	14734	89.15	101.29	101.36	0.000068	1.23	14050.35	2745.1	0.13
37	2	16055.8	89.15	101.79	101.86	0.000065	1.25	15428.72	2795.93	0.13
37	5	21487.3	89.15	103.65	103.73	0.000057	1.32	21052.56	3245.42	0.13
37	10	25083.4	89.15	104.76	104.84	0.000053	1.36	24779.3	3471.81	0.12
37	25	29627.1	89.15	106.04	106.13	0.000049	1.4	29393.84	3733.14	0.12
37	50	32997.9	89.15	106.92	107.01	0.000047	1.43	32753.53	3912.44	0.12
37	100	36343.7	89.15	107.74	107.83	0.000046	1.46	36019.48	4034.58	0.12
37	1000	47455.2	89.15	110.14	110.24	0.000043	1.56	46129.78	4375.9	0.12
36	1.67	14734	87.59	101.25	101.3	0.000055	1.07	18484.76	3161.19	0.12
36	2	16055.8	87.59	101.75	101.8	0.000052	1.08	20080.94	3206.18	0.12
36	5	21487.3	87.59	103.63	103.68	0.000044	1.14	26253.06	3424.26	0.11
36	10	25083.4	87.59	104.74	104.79	0.000041	1.17	30143.89	3542.63	0.11
36	25	29627.1	87.59	106.02	106.08	0.000039	1.22	34747.45	3627.41	0.11
36	50	32997.9	87.59	106.9	106.96	0.000037	1.25	37964.84	3683.74	0.11
36	100	36343.7	87.59	107.72	107.79	0.000036	1.28	41015.14	3736.36	0.11
36	1000	47455.2	87.59	110.13	110.2	0.000035	1.4	50181.25	3893.43	0.11
35	1.67	14734	88.28	101.22	101.27	0.000054	1.12	18495.78	2994.51	0.12
35	2	16055.8	88.28	101.72	101.78	0.000052	1.14	20011.36	3039.44	0.12
35	5	21487.3	88.28	103.6	103.65	0.000045	1.21	25977.64	3321.41	0.11
35	10	25083.4	88.28	104.71	104.77	0.000043	1.25	29749.74	3449.71	0.11
35	25	29627.1	88.28	105.99	106.06	0.000041	1.3	34277.59	3602.31	0.11
35	50	32997.9	88.28	106.87	106.94	0.00004	1.34	37495.46	3707.85	0.11
35	100	36343.7	88.28	107.7	107.77	0.000039	1.38	40583.77	3801.8	0.11
35	1000	47455.2	88.28	110.1	110.18	0.000038	1.5	50079.63	4206.69	0.11
34	1.67	14734	83	101.07	101.2	0.000087	1.62	9413.23	1320.5	0.16

Seção	TR (anos)	Q Total (m³/s)	Cota de Fundo (m)	Elevação da água (m)	Cota da linha de energia (m)	Inclinação (m/m)	Vel. (m/s)	Área (m²)	Largura do topo (m)	Número de Froude
34	2	16055.8	83	101.56	101.7	0.000088	1.68	10165.16	1727.45	0.16
34	5	21487.3	83	103.41	103.58	0.000089	1.86	14864.32	3066.54	0.16
34	10	25083.4	83	104.53	104.7	0.000085	1.93	18591.32	3661.72	0.16
34	25	29627.1	83	105.82	105.99	0.00008	1.97	23652.63	4012.15	0.16
34	50	32997.9	83	106.71	106.88	0.000075	1.99	27249.15	4079.1	0.16
34	100	36343.7	83	107.54	107.71	0.000072	2.01	30659.61	4140.1	0.15
34	1000	47455.2	83	109.96	110.12	0.000065	2.08	40899.3	4318.06	0.15
33	1.67	14734	85.22	101.02	101.12	0.000066	1.42	13055.36	2655.41	0.14
33	2	16055.8	85.22	101.52	101.62	0.000065	1.45	14383.93	2674.21	0.14
33	5	21487.3	85.22	103.39	103.5	0.000062	1.56	19478.69	2780.93	0.14
33	10	25083.4	85.22	104.51	104.62	0.00006	1.62	22625.68	2865.03	0.14
33	25	29627.1	85.22	105.8	105.92	0.000058	1.69	26396.64	2970.31	0.14
33	50	32997.9	85.22	106.69	106.81	0.000057	1.74	29048.09	3006.79	0.14
33	100	36343.7	85.22	107.51	107.64	0.000056	1.78	31546.14	3032.96	0.14
33	1000	47455.2	85.22	109.92	110.07	0.000055	1.93	38954.93	3109.28	0.14
32	1.67	14734	80.07	100.97	101.08	0.000069	1.52	10634.13	2122.65	0.14
32	2	16055.8	80.07	101.46	101.58	0.00007	1.57	11701.4	2175.26	0.14
32	5	21487.3	80.07	103.32	103.46	0.000071	1.74	15826.27	2269.65	0.15
32	10	25083.4	80.07	104.43	104.58	0.000071	1.83	18378.89	2321.87	0.15
32	25	29627.1	80.07	105.71	105.88	0.000071	1.93	21397.99	2374.37	0.15
32	50	32997.9	80.07	106.59	106.77	0.000071	1.99	23508.06	2410.38	0.15
32	100	36343.7	80.07	107.42	107.6	0.000071	2.06	25505.79	2443.99	0.15
32	1000	47455.2	80.07	109.81	110.03	0.000072	2.26	31541.49	2609.89	0.16
31	1.67	14734	83.69	100.94	101.04	0.000057	1.44	10377.53	901.27	0.13
31	2	16055.8	83.69	101.43	101.54	0.000059	1.5	10822.91	914.49	0.13
31	5	21487.3	83.69	103.26	103.42	0.000068	1.76	12545.89	964.14	0.15
31	10	25083.4	83.69	104.35	104.54	0.000072	1.9	13614.48	993.84	0.15
31	25	29627.1	83.69	105.61	105.83	0.000078	2.08	15585.25	2430.94	0.16
31	50	32997.9	83.69	106.48	106.72	0.00008	2.18	18110	3074.53	0.16
31	100	36343.7	83.69	107.3	107.55	0.00008	2.25	20675.57	3190.45	0.17
31	1000	47455.2	83.69	109.7	109.98	0.00008	2.44	28742.18	3530.23	0.17
30	1.67	14734	85.65	100.88	100.98	0.000061	1.41	11056.79	1807.07	0.13
30	2	16055.8	85.65	101.37	101.48	0.000063	1.47	12041.09	2087.35	0.14
30	5	21487.3	85.65	103.21	103.34	0.000065	1.64	16273.6	2427.1	0.14



Seção	TR (anos)	Q Total (m³/s)	Cota de Fundo (m)	Elevação da água (m)	Cota da linha de energia (m)	Inclinação (m/m)	Vel. (m/s)	Área (m²)	Largura do topo (m)	Número de Froude
30	10	25083.4	85.65	104.31	104.46	0.000065	1.72	18997.27	2535.86	0.14
30	25	29627.1	85.65	105.59	105.74	0.000064	1.82	22344.82	2691.6	0.14
30	50	32997.9	85.65	106.47	106.62	0.000064	1.87	24736.59	2750.26	0.15
30	100	36343.7	85.65	107.29	107.45	0.000063	1.93	27023.28	2805.19	0.15
30	1000	47455.2	85.65	109.69	109.88	0.000064	2.11	34060.04	3130.72	0.15
29	1.67	14734	88.33	100.81	100.93	0.000079	1.49	10269.4	1562.53	0.15
29	2	16055.8	88.33	101.3	101.42	0.00008	1.54	11086.14	1775.1	0.15
29	5	21487.3	88.33	103.14	103.29	0.000079	1.71	14835.21	2129.41	0.15
29	10	25083.4	88.33	104.25	104.4	0.000078	1.8	17206.84	2179.15	0.16
29	25	29627.1	88.33	105.52	105.68	0.000077	1.89	20014.4	2236.59	0.16
29	50	32997.9	88.33	106.39	106.57	0.000076	1.96	21995.1	2290.94	0.16
29	100	36343.7	88.33	107.21	107.4	0.000076	2.02	23901.88	2358.74	0.16
29	1000	47455.2	88.33	109.61	109.83	0.000077	2.22	29992.85	2666.45	0.16
28	1.67	14734	89.48	100.78	100.87	0.000072	1.35	11033.36	1543.99	0.14
28	2	16055.8	89.48	101.27	101.37	0.000072	1.4	11847.02	1775.19	0.14
28	5	21487.3	89.48	103.12	103.23	0.000071	1.55	15663.98	2179.55	0.14
28	10	25083.4	89.48	104.22	104.35	0.000069	1.62	18101.11	2239.47	0.14
28	25	29627.1	89.48	105.49	105.63	0.000068	1.71	21001.1	2322.97	0.15
28	50	32997.9	89.48	106.37	106.52	0.000068	1.76	23074.38	2403.82	0.15
28	100	36343.7	89.48	107.19	107.35	0.000067	1.82	25084.33	2487.78	0.15
28	1000	47455.2	89.48	109.59	109.77	0.000066	2	31355.13	2776.95	0.15
27	1.67	14734	87.85	100.76	100.82	0.000041	1.15	15180.94	2464.35	0.11
27	2	16055.8	87.85	101.25	101.32	0.000041	1.19	16430.97	2619.79	0.11
27	5	21487.3	87.85	103.1	103.18	0.000041	1.31	21656.32	2906.85	0.11
27	10	25083.4	87.85	104.21	104.29	0.000041	1.38	24900.1	2956.64	0.11
27	25	29627.1	87.85	105.48	105.58	0.000041	1.45	28713.51	3014.12	0.12
27	50	32997.9	87.85	106.36	106.46	0.000041	1.5	31384.9	3053.74	0.12
27	100	36343.7	87.85	107.19	107.29	0.000041	1.55	33916.88	3090.83	0.12
27	1000	47455.2	87.85	109.59	109.71	0.000041	1.7	41477.93	3199.02	0.12
26	1.67	14734	79.25	100.65	100.77	0.000069	1.5	10818.34	1827.99	0.14
26	2	16055.8	79.25	101.14	101.26	0.00007	1.55	11716.65	1862.25	0.14
26	5	21487.3	79.25	102.98	103.12	0.000073	1.74	15234.08	1956.23	0.15
26	10	25083.4	79.25	104.07	104.23	0.000074	1.84	17402.52	1993.98	0.15
26	25	29627.1	79.25	105.34	105.52	0.000075	1.95	19957.24	2037.56	0.15

Seção	TR (anos)	Q Total (m³/s)	Cota de Fundo (m)	Elevação da água (m)	Cota da linha de energia (m)	Inclinação (m/m)	Vel. (m/s)	Área (m²)	Largura do topo (m)	Número de Froude
26	50	32997.9	79.25	106.21	106.4	0.000075	2.03	21750.18	2067.59	0.16
26	100	36343.7	79.25	107.03	107.23	0.000076	2.1	23451.61	2096.21	0.16
26	1000	47455.2	79.25	109.41	109.65	0.000079	2.33	28582.02	2216.97	0.16
25	1.67	14734	81.77	100.63	100.73	0.00005	1.39	10786.63	1036.51	0.12
25	2	16055.8	81.77	101.11	101.22	0.000053	1.46	11291.35	1050.33	0.13
25	5	21487.3	81.77	102.93	103.08	0.000061	1.7	13248.52	1100.26	0.14
25	10	25083.4	81.77	104.01	104.18	0.000066	1.85	14508.88	1236.14	0.15
25	25	29627.1	81.77	105.26	105.46	0.000071	2.01	16179.56	1440.64	0.15
25	50	32997.9	81.77	106.12	106.34	0.000074	2.12	17479.03	1577.93	0.16
25	100	36343.7	81.77	106.93	107.17	0.000077	2.22	18792.52	1685.65	0.16
25	1000	47455.2	81.77	109.27	109.58	0.000085	2.53	23039.41	1937.44	0.17
24	1.67	14734	82.82	100.59	100.68	0.000049	1.37	12220.4	1655.1	0.12
24	2	16055.8	82.82	101.08	101.18	0.000051	1.43	13042.73	1771.23	0.12
24	5	21487.3	82.82	102.9	103.02	0.000056	1.63	17048.94	2562.92	0.13
24	10	25083.4	82.82	103.99	104.12	0.000057	1.72	19987.95	2833.82	0.14
24	25	29627.1	82.82	105.24	105.39	0.000058	1.82	23750.88	3146.8	0.14
24	50	32997.9	82.82	106.11	106.27	0.000058	1.88	26575.95	3342.94	0.14
24	100	36343.7	82.82	106.93	107.09	0.000058	1.93	29319.91	3401.93	0.14
24	1000	47455.2	82.82	109.3	109.47	0.000058	2.09	37588.16	3572.02	0.14
23	1.67	14734	84.16	100.51	100.64	0.000096	1.65	12456.41	2471.01	0.16
23	2	16055.8	84.16	101	101.13	0.000094	1.68	13669.5	2496.26	0.16
23	5	21487.3	84.16	102.84	102.97	0.000085	1.78	18351.23	2591.41	0.16
23	10	25083.4	84.16	103.93	104.07	0.000084	1.87	21567.92	3038.42	0.16
23	25	29627.1	84.16	105.19	105.34	0.000079	1.92	25447.5	3091.21	0.16
23	50	32997.9	84.16	106.06	106.21	0.000076	1.96	28189	3217.16	0.16
23	100	36343.7	84.16	106.88	107.03	0.000074	2	30861.5	3344.47	0.16
23	1000	47455.2	84.16	109.25	109.41	0.000071	2.14	39287.86	3737.49	0.16
22	1.67	14734	80.43	100.44	100.58	0.00009	1.7	11222.58	1826.27	0.16
22	2	16055.8	80.43	100.92	101.06	0.000091	1.75	12124.92	1917.99	0.16
22	5	21487.3	80.43	102.75	102.91	0.00009	1.92	15805.36	2064.96	0.17
22	10	25083.4	80.43	103.83	104.01	0.000089	2.01	18069.25	2096.17	0.17
22	25	29627.1	80.43	105.09	105.27	0.000089	2.11	20717.25	2130.5	0.17
22	50	32997.9	80.43	105.95	106.15	0.000088	2.19	22564.4	2154.54	0.17
22	100	36343.7	80.43	106.76	106.96	0.000088	2.26	24311.04	2177.03	0.17

Seção	TR (anos)	Q Total (m³/s)	Cota de Fundo (m)	Elevação da água (m)	Cota da linha de energia (m)	Inclinação (m/m)	Vel. (m/s)	Área (m²)	Largura do topo (m)	Número de Froude
22	1000	47455.2	80.43	109.1	109.34	0.00009	2.48	29493.14	2242.41	0.18
21	1.67	14734	82.91	100.41	100.5	0.000063	1.46	14449.75	2547.6	0.14
21	2	16055.8	82.91	100.89	100.99	0.000062	1.5	15689.49	2568.35	0.14
21	5	21487.3	82.91	102.72	102.83	0.000061	1.62	20467.57	2646.81	0.14
21	10	25083.4	82.91	103.81	103.93	0.00006	1.69	23374.67	2677.9	0.14
21	25	29627.1	82.91	105.07	105.19	0.00006	1.77	26852.46	2907.9	0.14
21	50	32997.9	82.91	105.94	106.06	0.000059	1.82	29385.17	2944.45	0.14
21	100	36343.7	82.91	106.75	106.88	0.000059	1.87	31783.27	2978.64	0.14
21	1000	47455.2	82.91	109.1	109.25	0.000059	2.04	38915.41	3078.08	0.14
20	1.67	14734	84.46	100.35	100.45	0.000063	1.43	11714.86	1488.47	0.14
20	2	16055.8	84.46	100.83	100.94	0.000064	1.49	12433.31	1512.64	0.14
20	5	21487.3	84.46	102.64	102.77	0.000068	1.69	15259.81	1612.18	0.15
20	10	25083.4	84.46	103.71	103.87	0.00007	1.8	17028.46	1671.95	0.15
20	25	29627.1	84.46	104.95	105.13	0.000073	1.93	19146.46	1740.82	0.15
20	50	32997.9	84.46	105.81	106	0.000074	2.02	20650.8	1781.48	0.16
20	100	36343.7	84.46	106.61	106.81	0.000076	2.1	22088.74	1819.14	0.16
20	1000	47455.2	84.46	108.93	109.18	0.000081	2.36	26434.26	1928.5	0.17
18	1.67	14734	84.71	100.16	100.31	0.000106	1.77	9749.27	1696.24	0.17
18	2	16055.8	84.71	100.63	100.79	0.000106	1.82	10583.11	1818.34	0.17
18	5	21487.3	84.71	102.44	102.63	0.000105	2	14299.59	2136.81	0.18
18	10	25083.4	84.71	103.52	103.72	0.000103	2.09	16638.01	2182.02	0.18
18	25	29627.1	84.71	104.77	104.98	0.0001	2.19	19392.72	2231.12	0.18
18	50	32997.9	84.71	105.63	105.85	0.000099	2.25	21323.98	2264.91	0.18
18	100	36343.7	84.71	106.43	106.66	0.000098	2.32	23156.17	2296.51	0.18
18	1000	47455.2	84.71	108.76	109.02	0.000098	2.52	28888.59	2697.88	0.18
17	1.67	14734	82.76	100.13	100.23	0.000056	1.46	13586.59	2388.77	0.13
17	2	16055.8	82.76	100.61	100.71	0.000057	1.5	14736.75	2438.38	0.13
17	5	21487.3	82.76	102.42	102.54	0.000059	1.66	19298.27	2569.21	0.14
17	10	25083.4	82.76	103.51	103.64	0.000059	1.74	22111.35	2613.63	0.14
17	25	29627.1	82.76	104.76	104.9	0.000059	1.83	25410.47	2660.1	0.14
17	50	32997.9	82.76	105.62	105.76	0.000059	1.89	27714.31	2692.08	0.14
17	100	36343.7	82.76	106.43	106.58	0.00006	1.95	29893.45	2721.98	0.14
17	1000	47455.2	82.76	108.76	108.93	0.000062	2.15	36362.37	2821.92	0.15

Seção	TR (anos)	Q Total (m³/s)	Cota de Fundo (m)	Elevação da água (m)	Cota da linha de energia (m)	Inclinação (m/m)	Vel. (m/s)	Área (m²)	Largura do topo (m)	Número de Froude
16	1.67	14734	80.71	100.09	100.19	0.000055	1.39	12249.16	1964.1	0.13
16	2	16055.8	80.71	100.57	100.67	0.000057	1.44	13192.06	2011.61	0.13
16	5	21487.3	80.71	102.37	102.5	0.00006	1.62	16916.19	2089.64	0.14
16	10	25083.4	80.71	103.45	103.59	0.000061	1.72	19196.34	2146.01	0.14
16	25	29627.1	80.71	104.7	104.85	0.000063	1.83	21914.97	2212.7	0.14
16	50	32997.9	80.71	105.55	105.71	0.000063	1.9	23824.87	2246.96	0.15
16	100	36343.7	80.71	106.35	106.52	0.000064	1.97	25637.2	2278.99	0.15
16	1000	47455.2	80.71	108.67	108.88	0.000068	2.19	31036.5	2371.86	0.15
15	1.67	14734	87.4	100.06	100.13	0.000059	1.23	16238.68	3687.32	0.13
15	2	16055.8	87.4	100.54	100.61	0.000057	1.24	18017.96	3738.43	0.13
15	5	21487.3	87.4	102.36	102.43	0.00005	1.3	25010.27	3932.88	0.12
15	10	25083.4	87.4	103.45	103.53	0.000046	1.33	29356.51	4041.55	0.12
15	25	29627.1	87.4	104.71	104.78	0.000043	1.36	34501.04	4154.53	0.12
15	50	32997.9	87.4	105.57	105.65	0.000042	1.39	38121.96	4232.25	0.12
15	100	36343.7	87.4	106.38	106.46	0.00004	1.42	41567.66	4304.89	0.11
15	1000	47455.2	87.4	108.72	108.8	0.000038	1.52	51890.43	4515.55	0.11
14	1.67	14734	87.98	100.03	100.09	0.000066	1.16	16577.29	3758.51	0.13
14	2	16055.8	87.98	100.51	100.57	0.000062	1.17	18431.88	3958.97	0.13
14	5	21487.3	87.98	102.34	102.4	0.000052	1.19	26250.04	4553.16	0.12
14	10	25083.4	87.98	103.43	103.49	0.000046	1.2	31381.63	4840.07	0.12
14	25	29627.1	87.98	104.69	104.75	0.000041	1.22	37656.9	5083.85	0.11
14	50	32997.9	87.98	105.56	105.62	0.000039	1.23	42101.54	5184.84	0.11
14	100	36343.7	87.98	106.37	106.43	0.000037	1.25	46334.3	5279.22	0.11
14	1000	47455.2	87.98	108.71	108.77	0.000033	1.31	59007.12	5542.69	0.1
13	1.67	14734	87.59	99.92	100.02	0.000079	1.38	11514.61	2015.67	0.15
13	2	16055.8	87.59	100.4	100.5	0.000078	1.42	12496.61	2100.11	0.15
13	5	21487.3	87.59	102.21	102.33	0.000074	1.55	16725.54	2584.01	0.15
13	10	25083.4	87.59	103.3	103.43	0.000071	1.61	19609.66	2713.24	0.15
13	25	29627.1	87.59	104.56	104.69	0.000068	1.68	23125.24	2894.92	0.15
13	50	32997.9	87.59	105.42	105.55	0.000067	1.73	25678.1	3044.1	0.15
13	100	36343.7	87.59	106.22	106.36	0.000065	1.78	28193.79	3207.66	0.15
13	1000	47455.2	87.59	108.55	108.71	0.000064	1.93	36223.77	3679.66	0.15
12	1.67	14734	86	99.87	99.95	0.000062	1.35	14798.6	2529.23	0.13
12	2	16055.8	86	100.35	100.44	0.000063	1.4	16154.74	2984.65	0.13

Seção	TR (anos)	Q Total (m³/s)	Cota de Fundo (m)	Elevação da água (m)	Cota da linha de energia (m)	Inclinação (m/m)	Vel. (m/s)	Área (m²)	Largura do topo (m)	Número de Froude
12	5	21487.3	86	102.17	102.27	0.000058	1.49	21803.76	3197.34	0.13
12	10	25083.4	86	103.27	103.37	0.000056	1.54	25371.35	3324.66	0.13
12	25	29627.1	86	104.53	104.63	0.000054	1.61	29664.69	3544.74	0.13
12	50	32997.9	86	105.39	105.5	0.000053	1.66	32821.86	3766.4	0.13
12	100	36343.7	86	106.2	106.31	0.000053	1.7	35947.89	3992.1	0.13
12	1000	47455.2	86	108.54	108.66	0.00005	1.81	46245.94	4635.18	0.13
11	1.67	14734	86.7	99.78	99.89	0.000082	1.48	9985.61	1014.89	0.15
11	2	16055.8	86.7	100.25	100.37	0.000084	1.53	10466.56	1023.6	0.15
11	5	21487.3	86.7	102.06	102.21	0.000087	1.71	14554.29	3224.09	0.16
11	10	25083.4	86.7	103.15	103.31	0.000084	1.77	18200.02	3439.61	0.16
11	25	29627.1	86.7	104.42	104.57	0.000078	1.82	22703.17	3662.29	0.16
11	50	32997.9	86.7	105.29	105.44	0.000074	1.85	25930.93	3763.13	0.15
11	100	36343.7	86.7	106.1	106.25	0.000071	1.87	29024.39	3857.31	0.15
11	1000	47455.2	86.7	108.44	108.61	0.000066	1.98	38410.14	4245.6	0.15
10	1.67	14734	85.57	99.72	99.84	0.000093	1.51	9747.58	1054.87	0.16
10	2	16055.8	85.57	100.19	100.32	0.000094	1.57	10245.28	1057.75	0.16
10	5	21487.3	85.57	101.99	102.15	0.000097	1.77	12153.74	1068.61	0.17
10	10	25083.4	85.57	103.06	103.24	0.000098	1.89	13304.3	1073.49	0.17
10	25	29627.1	85.57	104.3	104.51	0.000102	2.02	14634.11	1087.76	0.18
10	50	32997.9	85.57	105.14	105.37	0.000106	2.12	15565.24	1112.69	0.18
10	100	36343.7	85.57	105.94	106.18	0.000109	2.2	17234.28	3669.15	0.18
10	1000	47455.2	85.57	108.27	108.53	0.000101	2.34	27226.58	4496.22	0.18
9	1.67	14734	87.55	99.68	99.77	0.000079	1.35	12976.21	3068.28	0.15
9	2	16055.8	87.55	100.15	100.25	0.000077	1.38	14479.2	3219.16	0.14
9	5	21487.3	87.55	101.97	102.07	0.000066	1.44	20553.09	3463.12	0.14
9	10	25083.4	87.55	103.06	103.16	0.000063	1.49	24729.51	4212.78	0.14
9	25	29627.1	87.55	104.31	104.41	0.000057	1.52	30169.61	4443.99	0.13
9	50	32997.9	87.55	105.17	105.27	0.000054	1.54	34141.85	4816.35	0.13
9	100	36343.7	87.55	105.98	106.07	0.000051	1.56	38167.16	5195.05	0.13
9	1000	47455.2	87.55	108.32	108.42	0.000046	1.62	50797.9	5575.72	0.12
8	1.67	14734	87.86	99.63	99.72	0.000081	1.31	13309.16	3045.91	0.15
8	2	16055.8	87.86	100.11	100.19	0.000077	1.33	14821.69	3292.02	0.14
8	5	21487.3	87.86	101.93	102.02	0.000065	1.39	21565.77	4113.23	0.14
8	10	25083.4	87.86	103.02	103.11	0.000061	1.43	26177.34	4815.87	0.13

Seção	TR (anos)	Q Total (m³/s)	Cota de Fundo (m)	Elevação da água (m)	Cota da linha de energia (m)	Inclinação (m/m)	Vel. (m/s)	Área (m²)	Largura do topo (m)	Número de Froude
8	25	29627.1	87.86	104.28	104.36	0.000054	1.44	32369.35	5026.84	0.13
8	50	32997.9	87.86	105.14	105.23	0.00005	1.44	36768.55	5175.3	0.12
8	100	36343.7	87.86	105.95	106.03	0.000047	1.46	40994.09	5315.14	0.12
8	1000	47455.2	87.86	108.29	108.38	0.000042	1.5	53881.68	5812.36	0.12
7	1.67	14734	89.34	99.54	99.64	0.00011	1.44	12555.77	3251.69	0.17
7	2	16055.8	89.34	100.02	100.13	0.000103	1.45	14188.27	3530.05	0.16
7	5	21487.3	89.34	101.86	101.96	0.00008	1.47	21176.55	4267.98	0.15
7	10	25083.4	89.34	102.96	103.05	0.00007	1.47	26059.85	4559.89	0.14
7	25	29627.1	89.34	104.22	104.31	0.00006	1.47	31845.54	4585.99	0.13
7	50	32997.9	89.34	105.09	105.17	0.000055	1.47	35817.21	4598.34	0.13
7	100	36343.7	89.34	105.9	105.98	0.000051	1.48	39533.5	4609.87	0.13
7	1000	47455.2	89.34	108.24	108.33	0.000045	1.53	50394.04	4644.8	0.12
6	1.67	14734	87.9	99.45	99.55	0.000127	1.51	12601.78	3634.61	0.18
6	2	16055.8	87.9	99.94	100.04	0.000116	1.5	14470.73	4002.79	0.17
6	5	21487.3	87.9	101.8	101.89	0.000083	1.47	22424.35	4505.12	0.15
6	10	25083.4	87.9	102.91	102.99	0.00007	1.45	27575.81	4784.92	0.14
6	25	29627.1	87.9	104.18	104.26	0.00006	1.45	33856.84	5105.4	0.13
6	50	32997.9	87.9	105.05	105.13	0.000055	1.46	38384.38	5313.07	0.13
6	100	36343.7	87.9	105.86	105.93	0.000051	1.45	42695.48	5314.94	0.13
6	1000	47455.2	87.9	108.21	108.29	0.000043	1.48	55223.77	5324.43	0.12
5	1.67	14734	85.77	99.33	99.45	0.00014	1.57	12139.92	3299.76	0.19
5	2	16055.8	85.77	99.83	99.95	0.000126	1.56	13800.89	3325.46	0.18
5	5	21487.3	85.77	101.72	101.82	0.000091	1.53	20166.48	3422.18	0.16
5	10	25083.4	85.77	102.84	102.93	0.000079	1.54	24180.43	3889.6	0.15
5	25	29627.1	85.77	104.11	104.21	0.000069	1.55	29290.61	4044.94	0.14
5	50	32997.9	85.77	104.98	105.08	0.000064	1.56	32834.59	4093.33	0.14
5	100	36343.7	85.77	105.79	105.89	0.00006	1.58	36174.67	4138.42	0.14
5	1000	47455.2	85.77	108.15	108.25	0.000053	1.65	46070.02	4269.19	0.13
4	1.67	14734	86.8	99.17	99.31	0.000144	1.72	10298.88	2660.99	0.19
4	2	16055.8	86.8	99.67	99.82	0.000136	1.74	11709.32	2938.52	0.19
4	5	21487.3	86.8	101.58	101.72	0.000104	1.74	17973.4	3408.15	0.17
4	10	25083.4	86.8	102.71	102.84	0.000091	1.74	21941.38	3704.66	0.16
4	25	29627.1	86.8	103.99	104.12	0.000081	1.75	26988.28	4134.85	0.16
4	50	32997.9	86.8	104.87	104.99	0.000074	1.76	30700.4	4311.33	0.15

Seção	TR (anos)	Q Total (m³/s)	Cota de Fundo (m)	Elevação da água (m)	Cota da linha de energia (m)	Inclinação (m/m)	Vel. (m/s)	Área (m²)	Largura do topo (m)	Número de Froude
4	100	36343.7	86.8	105.69	105.81	0.000069	1.76	34270.68	4405.81	0.15
4	1000	47455.2	86.8	108.06	108.18	0.00006	1.82	45041.13	4948.09	0.14
3	1.67	14734	87.02	99.08	99.22	0.000117	1.65	9059.31	1192.05	0.18
3	2	16055.8	87.02	99.58	99.72	0.000116	1.7	9693.19	1381.46	0.18
3	5	21487.3	87.02	101.46	101.63	0.00011	1.86	13058.57	2178.6	0.18
3	10	25083.4	87.02	102.57	102.75	0.000105	1.93	15685.42	2421.27	0.18
3	25	29627.1	87.02	103.85	104.04	0.000099	2	18806.04	2462.1	0.17
3	50	32997.9	87.02	104.72	104.92	0.000095	2.05	21024.39	2654.51	0.17
3	100	36343.7	87.02	105.53	105.74	0.000092	2.09	23462.2	3195.82	0.17
3	1000	47455.2	87.02	107.89	108.1	0.000086	2.22	31348.48	3494.57	0.17
2	1.67	14734	86.55	98.99	99.14	0.00013	1.71	9309.87	1879	0.19
2	2	16055.8	86.55	99.49	99.65	0.000126	1.74	10305.29	2044.11	0.18
2	5	21487.3	86.55	101.39	101.55	0.000111	1.85	14325.67	2220.63	0.18
2	10	25083.4	86.55	102.51	102.68	0.000104	1.91	16907.34	2384.48	0.18
2	25	29627.1	86.55	103.79	103.97	0.000098	1.98	20112.98	2653.43	0.17
2	50	32997.9	86.55	104.66	104.85	0.000095	2.02	22524.35	2867.28	0.17
2	100	36343.7	86.55	105.48	105.67	0.000092	2.07	24939.15	3066.13	0.17
2	1000	47455.2	86.55	107.84	108.04	0.000085	2.19	32530.58	3267.67	0.17
1	1.67	14734	86.59	98.91	99.04	0.0001	1.59	9614.78	1080.06	0.17
1	2	16055.8	86.59	99.42	99.55	0.0001	1.65	10171.85	1132.05	0.17
1	5	21487.3	86.59	101.3	101.47	0.0001	1.85	12508.4	1387.33	0.17
1	10	25083.4	86.59	102.4	102.6	0.0001	1.96	14153.28	1582.73	0.17
1	25	29627.1	86.59	103.67	103.88	0.0001	2.09	16290.57	1785.93	0.18
1	50	32997.9	86.59	104.53	104.76	0.0001	2.18	17909.98	1997.61	0.18
1	100	36343.7	86.59	105.34	105.58	0.0001	2.25	19629.15	2318.4	0.18
1	1000	47455.2	86.59	107.67	107.96	0.0001	2.47	26105.6	3104.4	0.18

Tabela 2. Características hidráulicas da simulação do cenário futuro (com reservatório) considerando diferentes vazões máximas de projeto e o nível da água na seção do empreendimento na cota de projeto (cota 125,00).

Seção	TR (anos)	Q Total (m³/s)	Cota de Fundo (m)	Elevação da água (m)	Cota da linha de energia (m)	Inclinação (m/m)	Vel. (m/s)	Área (m²)	Largura do topo (m)	Número de Froude
102	1.67	13418.7	126.5	137	137.03	0.000163	0.78	17446.17	2024.07	0.08
102	2	14660.7	126.5	137.51	137.54	0.000161	0.81	18488.84	2029.28	0.08
102	5	19764.3	126.5	139.46	139.5	0.000155	0.9	22462.61	2049	0.09
102	10	23143.4	126.5	140.69	140.73	0.000155	0.96	25000.92	2118.98	0.09
102	25	27412.8	126.5	142.04	142.09	0.000159	1.04	28055.44	2317.89	0.09
102	50	30580.1	126.5	142.97	143.02	0.00016	1.09	30241.56	2446.25	0.09
102	100	33724	126.5	143.91	143.97	0.00016	1.14	32765.05	2862.62	0.09
102	1000	44084.2	126.5	146.53	146.6	0.000173	1.31	41176.01	3356.05	0.1
101	1.67	13418.7	125.5	136.22	136.25	0.00015	0.76	17894.59	2026.31	0.08
101	2	14660.7	125.5	136.74	136.77	0.000148	0.79	18956.55	2031.61	0.08
101	5	19764.3	125.5	138.72	138.75	0.000144	0.88	22987.16	2051.59	0.08
101	10	23143.4	125.5	139.93	139.97	0.000148	0.95	25519.76	2199.85	0.08
101	25	27412.8	125.5	141.26	141.31	0.000151	1.03	28580.49	2331.62	0.09
101	50	30580.1	125.5	142.19	142.24	0.000153	1.08	30795.09	2587.87	0.09
101	100	33724	125.5	143.13	143.18	0.000153	1.12	33395.71	2979.11	0.09
101	1000	44084.2	125.5	145.68	145.75	0.000167	1.3	41679.44	3363.11	0.1
100	1.67	13418.7	124.5	135.51	135.54	0.000135	0.74	18487.05	2029.27	0.08
100	2	14660.7	124.5	136.04	136.07	0.000134	0.76	19563.65	2034.63	0.08
100	5	19764.3	124.5	138.03	138.07	0.000131	0.85	23634.75	2054.78	0.08
100	10	23143.4	124.5	139.21	139.25	0.000139	0.94	26160.3	2267.62	0.08
100	25	27412.8	124.5	140.53	140.58	0.000142	1.01	29212.17	2348.04	0.08
100	50	30580.1	124.5	141.45	141.5	0.000145	1.06	31476.39	2691.1	0.09
100	100	33724	124.5	142.38	142.43	0.000146	1.11	34169.43	3073.9	0.09
100	1000	44084.2	124.5	144.86	144.93	0.00016	1.28	42294.57	3374.6	0.09
99	1.67	13418.7	123.5	134.88	134.91	0.000118	0.71	19241.95	2033.03	0.07
99	2	14660.7	123.5	135.41	135.44	0.000118	0.74	20326.19	2038.42	0.07
99	5	19764.3	123.5	137.4	137.44	0.000121	0.84	24407.17	2090.56	0.08
99	10	23143.4	123.5	138.55	138.59	0.000128	0.91	26925.52	2288.05	0.08
99	25	27412.8	123.5	139.85	139.9	0.000132	0.99	29963.38	2394.07	0.08
99	50	30580.1	123.5	140.74	140.79	0.000136	1.04	32297.17	2801.56	0.08
99	100	33724	123.5	141.68	141.73	0.000137	1.09	35084.1	3127.64	0.09
99	1000	44084.2	123.5	144.08	144.14	0.000153	1.26	43035.81	3400.47	0.09



98	1.67	13418.7	122.5	134.34	134.36	0.000101	0.68	20168.52	2037.64	0.07
98	2	14660.7	122.5	134.87	134.89	0.000102	0.7	21252.29	2043.01	0.07
98	5	19764.3	122.5	136.83	136.86	0.00011	0.82	25308.83	2133.56	0.07
98	10	23143.4	122.5	137.94	137.98	0.000116	0.89	27828.82	2311.93	0.08
98	25	27412.8	122.5	139.22	139.26	0.000122	0.96	30880.91	2607.96	0.08
98	50	30580.1	122.5	140.09	140.13	0.000127	1.02	33281.15	2937.83	0.08
98	100	33724	122.5	141.02	141.06	0.000128	1.06	36157.54	3208.65	0.08
98	1000	44084.2	122.5	143.34	143.4	0.000145	1.23	43918.94	3431.03	0.09
97	1.67	13418.7	121.5	133.87	133.89	0.000085	0.64	21265.35	2043.08	0.06
97	2	14660.7	121.5	134.4	134.42	0.000087	0.67	22340.87	2048.4	0.06
97	5	19764.3	121.5	136.31	136.34	0.000099	0.79	26386.79	2273.69	0.07
97	10	23143.4	121.5	137.39	137.43	0.000104	0.86	28878.3	2339.37	0.07
97	25	27412.8	121.5	138.64	138.68	0.000112	0.94	32003.36	2762.49	0.08
97	50	30580.1	121.5	139.48	139.52	0.000117	1	34472.96	3091.83	0.08
97	100	33724	121.5	140.36	140.4	0.000136	1.11	37268.37	3300.76	0.09
97	1000	44084.2	121.5	142.64	142.7	0.000136	1.21	44967.22	3522.58	0.09
96	1.67	13418.7	120.5	133.49	133.51	0.000071	0.61	22521.58	2049.29	0.06
96	2	14660.7	120.5	134.01	134.03	0.000073	0.64	23582.64	2054.52	0.06
96	5	19764.3	120.5	135.85	135.88	0.000087	0.76	27623.2	2306.52	0.07
96	10	23143.4	120.5	136.9	136.93	0.000093	0.83	30081.08	2416.25	0.07
96	25	27412.8	120.5	138.11	138.14	0.000102	0.92	33338.18	2958.42	0.07
96	50	30580.1	120.5	138.92	138.96	0.000107	0.97	35854.79	3172.23	0.08
96	100	33724	120.5	139.71	139.76	0.000124	1.08	38439.93	3317.43	0.08
96	1000	44084.2	120.5	141.98	142.04	0.00013	1.19	46180.82	3635.54	0.09
95	1.67	13418.7	114.23	133.11	133.14	0.000086	0.83	17834.42	1867.75	0.07
95	2	14660.7	114.23	133.61	133.65	0.00009	0.87	18789.5	1951.58	0.07
95	5	19764.3	114.23	135.38	135.42	0.000108	1.02	22421.96	2135.82	0.08
95	10	23143.4	114.23	136.38	136.44	0.000118	1.1	24621.75	2227.91	0.08
95	25	27412.8	114.23	137.53	137.6	0.000129	1.2	27332.02	2429.55	0.09
95	50	30580.1	114.23	138.31	138.39	0.000136	1.27	29261.05	2560.31	0.09
95	100	33724	114.23	139.04	139.12	0.000142	1.33	31202.13	2772.76	0.09
95	1000	44084.2	114.23	141.26	141.36	0.000155	1.48	38245.8	3673.35	0.1
94	1.67	13418.7	114.91	132.44	132.45	0.000079	0.51	26222.67	3245.88	0.06
94	2	14660.7	114.91	132.91	132.92	0.000082	0.53	27791.25	3376.67	0.06
94	5	19764.3	114.91	134.63	134.65	0.000081	0.59	33654.34	3435.48	0.06
94	10	23143.4	114.91	135.61	135.63	0.000081	0.63	37166.79	3902.65	0.06

94	25	27412.8	114.91	136.73	136.75	0.000082	0.67	41998.01	4735.89	0.06
94	50	30580.1	114.91	137.49	137.52	0.000083	0.7	45836.55	5305.44	0.06
94	100	33724	114.91	138.21	138.24	0.000082	0.72	49829.36	5839.22	0.06
94	1000	44084.2	114.91	140.45	140.47	0.000078	0.77	64850.6	7722.13	0.06
93	1.67	13418.7	114.43	132.06	132.09	0.000101	0.82	20217.11	2587.27	0.07
93	2	14660.7	114.43	132.52	132.55	0.000103	0.85	21413.58	2605.56	0.07
93	5	19764.3	114.43	134.23	134.27	0.000111	0.95	26310.25	3244.52	0.08
93	10	23143.4	114.43	135.2	135.24	0.000114	1.01	29551.24	3374.8	0.08
93	25	27412.8	114.43	136.32	136.36	0.000117	1.06	33317.84	3399.85	0.08
93	50	30580.1	114.43	137.08	137.12	0.000119	1.1	35910.71	3417	0.08
93	100	33724	114.43	137.79	137.84	0.00012	1.13	38355.54	3433.08	0.08
93	1000	44084.2	114.43	140.03	140.09	0.000121	1.23	46114.16	3488.62	0.08
92	1.67	13418.7	117.94	131.65	131.67	0.000081	0.65	25704.09	3497.71	0.06
92	2	14660.7	117.94	132.11	132.12	0.000082	0.67	27313.13	3557.31	0.06
92	5	19764.3	117.94	133.8	133.82	0.000082	0.73	33444.53	3645.92	0.06
92	10	23143.4	117.94	134.77	134.79	0.000082	0.77	36976	3683.21	0.06
92	25	27412.8	117.94	135.87	135.9	0.000084	0.82	41064.18	3713.28	0.07
92	50	30580.1	117.94	136.63	136.65	0.000085	0.85	43875.92	3742.03	0.07
92	100	33724	117.94	137.33	137.36	0.000086	0.88	46535.43	3769.78	0.07
92	1000	44084.2	117.94	139.57	139.61	0.000087	0.96	55043.01	3831.28	0.07
91	1.67	13586.8	115.93	131.24	131.26	0.000096	0.67	21440.99	2645.66	0.07
91	2	14839	115.93	131.69	131.71	0.000098	0.7	22712.45	2999.07	0.07
91	5	19984.5	115.93	133.37	133.4	0.000106	0.8	28585.14	4254.7	0.07
91	10	23391.3	115.93	134.33	134.36	0.000106	0.84	33186.39	5403.82	0.07
91	25	27695.8	115.93	135.43	135.46	0.000107	0.89	39601.52	6069.91	0.07
91	50	30889.1	115.93	136.19	136.22	0.000103	0.9	44253.14	6167	0.07
91	100	34058.8	115.93	136.9	136.94	0.0001	0.91	48688.77	6234.3	0.07
91	1000	44514.3	115.93	139.17	139.21	0.000086	0.93	63120.84	6637.88	0.07
90	1.67	13586.8	118.67	130.68	130.71	0.000153	0.78	17867.05	2223.78	0.08
90	2	14839	118.67	131.11	131.15	0.000155	0.82	18850.73	2262.93	0.08
90	5	19984.5	118.67	132.75	132.79	0.000162	0.92	22631.44	2359.88	0.09
90	10	23391.3	118.67	133.69	133.74	0.000168	0.99	24885.4	2430.52	0.09
90	25	27695.8	118.67	134.77	134.83	0.000174	1.07	27570.59	2555.12	0.09
90	50	30889.1	118.67	135.53	135.59	0.000177	1.12	29554.04	2677.66	0.09
90	100	34058.8	118.67	136.24	136.31	0.000181	1.16	31495.87	2815.03	0.1
90	1000	44514.3	118.67	138.54	138.62	0.000181	1.28	38201.47	3008.17	0.1

89	1.67	13586.8	115.27	130.2	130.23	0.000102	0.76	18555.59	1730.59	0.07
89	2	14839	115.27	130.62	130.65	0.000108	0.79	19283.24	1738.34	0.07
89	5	19984.5	115.27	132.19	132.23	0.000132	0.95	22371.7	2306.42	0.08
89	10	23391.3	115.27	133.1	133.15	0.000143	1.03	24588.75	2577.11	0.09
89	25	27695.8	115.27	134.14	134.2	0.000154	1.12	27344.85	2662.19	0.09
89	50	30889.1	115.27	134.89	134.95	0.00016	1.18	29335.67	2696.98	0.09
89	100	34058.8	115.27	135.58	135.65	0.000165	1.23	31239.54	2781.61	0.09
89	1000	44514.3	115.27	137.88	137.96	0.00017	1.35	37739.95	2880.06	0.1
88	1.67	13586.8	106.37	129.82	129.83	0.000064	0.47	28755.24	3442.3	0.05
88	2	14839	106.37	130.22	130.23	0.000067	0.49	30150.3	3498.41	0.05
88	5	19984.5	106.37	131.73	131.75	0.000074	0.56	35564.66	3647.39	0.06
88	10	23391.3	106.37	132.61	132.63	0.000077	0.6	38814.52	3700.26	0.06
88	25	27695.8	106.37	133.63	133.66	0.000081	0.65	42614.27	3744.5	0.06
88	50	30889.1	106.37	134.36	134.39	0.000082	0.68	45361.97	3768.31	0.06
88	100	34058.8	106.37	135.05	135.07	0.000084	0.71	47936.43	3789.71	0.06
88	1000	44514.3	106.37	137.32	137.35	0.000089	0.79	56761.93	4053.73	0.07
86	1.67	13586.8	115.31	129.48	129.51	0.000133	0.7	20287.67	2962.87	0.08
86	2	14839	115.31	129.87	129.9	0.000136	0.73	21462.74	3071.17	0.08
86	5	19984.5	115.31	131.35	131.39	0.000142	0.83	26315.12	3610.84	0.08
86	10	23391.3	115.31	132.22	132.26	0.000145	0.88	29643.38	3971.84	0.08
86	25	27695.8	115.31	133.24	133.28	0.000145	0.93	33704.22	4056.54	0.08
86	50	30889.1	115.31	133.96	134	0.00015	0.98	36831.89	4864.32	0.09
86	100	34058.8	115.31	134.64	134.68	0.000146	1	40178.02	4934.82	0.09
86	1000	44514.3	115.31	136.93	136.98	0.000128	1.04	51959.45	5486.5	0.08
85	1.67	13873.5	110	128.99	129.04	0.000167	0.94	17185.38	2819.91	0.09
85	2	15143	110	129.37	129.42	0.000172	0.98	18256.07	2834.33	0.09
85	5	20360	110	130.82	130.88	0.000185	1.09	22424.93	2911.71	0.1
85	10	23814.1	110	131.68	131.74	0.000191	1.16	24935.62	2957.34	0.1
85	25	28178.3	110	132.68	132.75	0.000197	1.23	27931.75	3050.22	0.1
85	50	31416	110	133.39	133.46	0.000199	1.27	30129.99	3151.27	0.1
85	100	34629.7	110	134.07	134.15	0.0002	1.31	32315.91	3217.58	0.1
85	1000	45248.9	110	136.41	136.49	0.000188	1.39	40544.54	3885.94	0.1
84	1.67	13873.5	113.86	128.78	128.82	0.00021	0.89	16605.21	2356.91	0.1
84	2	15143	113.86	129.15	129.19	0.000215	0.93	17485.83	2372.01	0.1
84	5	20360	113.86	130.58	130.64	0.000229	1.05	20929.01	2435.24	0.1
84	10	23814.1	113.86	131.43	131.49	0.000237	1.13	23017.67	2507.05	0.11
84	25	28178.3	113.86	132.42	132.49	0.000245	1.21	25547.01	2591.34	0.11

84	50	31416	113.86	133.12	133.2	0.000249	1.26	27382.24	2650.83	0.11
84	100	34629.7	113.86	133.8	133.88	0.00025	1.31	29211.81	2703.47	0.11
84	1000	45248.9	113.86	136.15	136.24	0.000237	1.41	35702.89	2833.03	0.11
83	1.67	13873.5	117.02	128.55	128.59	0.000198	0.91	15993.39	1981.74	0.09
83	2	15143	117.02	128.91	128.96	0.000207	0.95	16718.98	2008.86	0.1
83	5	20360	117.02	130.32	130.38	0.000233	1.1	19653.08	2275.62	0.1
83	10	23814.1	117.02	131.15	131.22	0.000246	1.19	21698.11	2628.8	0.11
83	25	28178.3	117.02	132.13	132.21	0.000257	1.28	24363.68	2810.12	0.11
83	50	31416	117.02	132.83	132.91	0.000262	1.33	26383.69	3086.61	0.11
83	100	34629.7	117.02	133.51	133.6	0.000263	1.38	28617.38	3421	0.12
83	1000	45248.9	117.02	135.88	135.97	0.000239	1.46	37131.23	3737.85	0.11
82	1.67	13873.5	112.64	128.34	128.38	0.000126	0.83	18612.21	2508.85	0.08
82	2	15143	112.64	128.7	128.73	0.000134	0.88	19515.62	2602.2	0.08
82	5	20360	112.64	130.08	130.12	0.000156	1.02	23300.04	2863.77	0.09
82	10	23814.1	112.64	130.9	130.95	0.000167	1.09	25715.67	3060	0.09
82	25	28178.3	112.64	131.86	131.92	0.000178	1.18	28793.5	3277.17	0.1
82	50	31416	112.64	132.55	132.62	0.000182	1.23	31108.49	3432.78	0.1
82	100	34629.7	112.64	133.23	133.3	0.000184	1.27	33556.59	3808.85	0.1
82	1000	45248.9	112.64	135.63	135.71	0.00017	1.33	43589.3	4476.48	0.1
81	1.67	13873.5	116.09	128.13	128.16	0.000159	0.84	18013.81	2583.7	0.08
81	2	15143	116.09	128.47	128.51	0.000166	0.88	18902.94	2607.92	0.09
81	5	20360	116.09	129.82	129.87	0.000186	1.01	22468.69	2677.17	0.09
81	10	23814.1	116.09	130.62	130.68	0.000197	1.08	24634.56	2716.43	0.1
81	25	28178.3	116.09	131.58	131.64	0.000206	1.16	27246.19	2763.04	0.1
81	50	31416	116.09	132.26	132.33	0.000211	1.22	29150.31	2802.44	0.1
81	100	34629.7	116.09	132.94	133.01	0.000213	1.26	31059.74	2844.93	0.1
81	1000	45248.9	116.09	135.35	135.43	0.000203	1.36	38141.7	3051.01	0.1
80	1.67	13873.5	115.71	127.52	127.57	0.000225	0.91	15531.11	1925.04	0.1
80	2	15143	115.71	127.83	127.88	0.000238	0.96	16129.68	1948.81	0.1
80	5	20360	115.71	129.09	129.15	0.000275	1.12	18782.16	2347.29	0.11
80	10	23814.1	115.71	129.84	129.91	0.000296	1.22	20586.28	2449.18	0.12
80	25	28178.3	115.71	130.75	130.83	0.00031	1.31	22845.77	2522.05	0.12
80	50	31416	115.71	131.41	131.5	0.000315	1.37	24535.51	2575.2	0.12
80	100	34629.7	115.71	132.07	132.17	0.000316	1.42	26266.87	2628.54	0.12
80	1000	45248.9	115.71	134.54	134.65	0.000283	1.51	32994.37	2802.42	0.12
76	1.67	13873.5	112.82	127.17	127.21	0.000201	0.91	15737.19	1913.71	0.09

76	2	15143	112.82	127.45	127.5	0.000216	0.96	16296.24	2016.19	0.1
76	5	20360	112.82	128.63	128.69	0.000264	1.14	18881.39	2300.26	0.11
76	10	23814.1	112.82	129.34	129.42	0.000285	1.24	20548.43	2369.08	0.12
76	25	28178.3	112.82	130.22	130.31	0.000305	1.35	22661.86	2474.55	0.12
76	50	31416	112.82	130.87	130.96	0.000313	1.41	24314.38	2621.73	0.12
76	100	34629.7	112.82	131.53	131.63	0.000316	1.46	26093.51	2757.31	0.13
76	1000	45248.9	112.82	134.05	134.16	0.000279	1.54	33703.56	3382.64	0.12
75	1.67	13873.5	109.73	126.86	126.91	0.000191	0.96	15858.29	2363.61	0.09
75	2	15143	109.73	127.12	127.17	0.000207	1.02	16516.76	2700.84	0.1
75	5	20360	109.73	128.23	128.3	0.000252	1.2	19892.74	3248.01	0.11
75	10	23814.1	109.73	128.92	128.99	0.000273	1.29	22194.57	3450.72	0.12
75	25	28178.3	109.73	129.78	129.86	0.000283	1.37	25205.16	3540.99	0.12
75	50	31416	109.73	130.42	130.51	0.000283	1.42	27513.51	3597.52	0.12
75	100	34629.7	109.73	131.09	131.18	0.000278	1.45	29934.11	3660.77	0.12
75	1000	45248.9	109.73	133.69	133.78	0.000226	1.45	40228.75	4178.49	0.11
74	1.67	13873.5	113.11	126.59	126.64	0.00018	0.94	15344.56	1910.95	0.09
74	2	15143	113.11	126.83	126.88	0.000199	1	15804.59	2019.56	0.1
74	5	20360	113.11	127.85	127.93	0.00026	1.21	18066.53	2298.57	0.11
74	10	23814.1	113.11	128.5	128.58	0.000292	1.33	19566.62	2364.82	0.12
74	25	28178.3	113.11	129.32	129.42	0.000319	1.45	21556.43	2439.41	0.13
74	50	31416	113.11	129.96	130.07	0.000331	1.52	23120.82	2505.41	0.13
74	100	34629.7	113.11	130.62	130.74	0.000334	1.58	24806.31	2558.9	0.13
74	1000	45248.9	113.11	133.29	133.41	0.000289	1.64	31834.91	2691.94	0.12
73	1.67	13873.5	112.75	126.24	126.28	0.000234	0.95	14988.99	2041.52	0.1
73	2	15143	112.75	126.43	126.48	0.000264	1.02	15392.3	2149.8	0.11
73	5	20360	112.75	127.3	127.38	0.000394	1.23	17646.68	3039.23	0.13
73	10	23814.1	112.75	127.89	127.97	0.000429	1.33	19503.7	3291.6	0.14
73	25	28178.3	112.75	128.67	128.77	0.000443	1.42	22175.95	3432.19	0.14
73	50	31416	112.75	129.3	129.41	0.000432	1.46	24356.61	3521.6	0.14
73	100	34629.7	112.75	129.99	130.09	0.000409	1.48	26774.58	3564.62	0.14
73	1000	45248.9	112.75	132.81	132.89	0.000281	1.42	36953.52	3679.21	0.12
72	1.67	13873.5	116	125.97	126.02	0.00031	0.99	14734.02	2490.42	0.11
72	2	15143	116	126.14	126.19	0.000342	1.06	15142.6	2534.22	0.12
72	5	20360	116	126.88	126.96	0.000447	1.28	17117.45	2782.72	0.14
72	10	23814.1	116	127.43	127.53	0.000484	1.39	18652.71	2812.51	0.15
72	25	28178.3	116	128.2	128.31	0.0005	1.49	20842.21	2889.65	0.15
72	50	31416	116	128.84	128.95	0.000488	1.53	22700.45	2914.23	0.15

72	100	34629.7	116	129.55	129.66	0.000461	1.55	24757.9	2933.89	0.15
72	1000	45248.9	116	132.49	132.6	0.000319	1.51	33498.7	2997.76	0.13
71	1.67	13873.5	110.55	125.61	125.63	0.000121	0.73	20842.67	2598.74	0.07
71	2	15143	110.55	125.72	125.75	0.000138	0.78	21144.31	2604.26	0.08
71	5	20360	110.55	126.31	126.35	0.000202	0.98	22674.25	2644.19	0.1
71	10	23814.1	110.55	126.78	126.84	0.000235	1.09	23937.16	2688.3	0.1
71	25	28178.3	110.55	127.5	127.57	0.00026	1.2	25907.1	2771.73	0.11
71	50	31416	110.55	128.14	128.21	0.000265	1.25	27702.81	2853.04	0.11
71	100	34629.7	110.55	128.87	128.95	0.00026	1.29	29833.37	2987.23	0.11
71	1000	45248.9	110.55	132	132.08	0.000199	1.3	40184.51	3691.75	0.1
70	1.67	13873.5	106.24	125.51	125.53	0.000006	0.64	23079.21	2422.41	0.06
70	2	15143	106.24	125.61	125.64	0.000007	0.69	23325.01	2431.83	0.06
70	5	20360	106.24	126.14	126.17	0.000011	0.88	24612.43	2480.59	0.08
70	10	23814.1	106.24	126.58	126.62	0.000013	0.99	25710.55	2521.44	0.09
70	25	28178.3	106.24	127.27	127.32	0.000015	1.11	27479.57	2627.44	0.1
70	50	31416	106.24	127.89	127.96	0.000016	1.17	29170.65	2768.71	0.1
70	100	34629.7	106.24	128.62	128.69	0.000016	1.22	31258.6	2975.7	0.1
70	1000	45248.9	106.24	131.8	131.87	0.000013	1.25	41280.74	3222.03	0.09
69	1.67	13873.5	110.62	125.49	125.52	0.000009	0.81	19291.36	2121.96	0.07
69	2	15143	110.62	125.59	125.62	0.00001	0.88	19498.3	2127.14	0.08
69	5	20360	110.62	126.09	126.15	0.000015	1.12	20585.71	2154.11	0.1
69	10	23814.1	110.62	126.52	126.59	0.000019	1.26	21515.1	2176.9	0.11
69	25	28178.3	110.62	127.2	127.29	0.000022	1.4	23012.59	2236.46	0.12
69	50	31416	110.62	127.83	127.92	0.000023	1.48	24427.9	2313.17	0.12
69	100	34629.7	110.62	128.55	128.65	0.000023	1.53	26137.17	2402.55	0.12
69	1000	45248.9	110.62	131.73	131.84	0.000019	1.57	34380.56	2809.83	0.11
68	1.67	13873.5	109.25	125.48	125.51	0.000008	0.82	18638.58	2065.13	0.07
68	2	15143	109.25	125.57	125.61	0.000009	0.88	18837.32	2082	0.08
68	5	20360	109.25	126.08	126.14	0.000015	1.14	19903.84	2191.73	0.09
68	10	23814.1	109.25	126.5	126.58	0.000018	1.28	20871.29	2363	0.11
68	25	28178.3	109.25	127.18	127.27	0.000021	1.42	22572	2656.41	0.11
68	50	31416	109.25	127.8	127.9	0.000022	1.5	24277.71	2846.01	0.12
68	100	34629.7	109.25	128.52	128.63	0.000022	1.55	26441.74	3106.1	0.12
68	1000	45248.9	109.25	131.72	131.82	0.000018	1.55	37294.56	3548.3	0.11
67.5	1.67	13873.5	105.64	125.47	125.49	0.000006	0.72	20447.95	1892.09	0.06
67.5	2	15143	105.64	125.56	125.59	0.000007	0.78	20627.15	1911.51	0.07

67.5	5	20360	105.64	126.06	126.11	0.000012	1.01	21596.85	2013.32	0.08
67.5	10	23814.1	105.64	126.48	126.54	0.000014	1.14	22451.58	2055.73	0.09
67.5	25	28178.3	105.64	127.15	127.23	0.000017	1.28	23854	2124.36	0.1
67.5	50	31416	105.64	127.77	127.86	0.000018	1.37	25200.97	2224.66	0.11
67.5	100	34629.7	105.64	128.49	128.59	0.000019	1.42	26828.28	2272.31	0.11
67.5	1000	45248.9	105.64	131.68	131.79	0.000016	1.49	34422.61	2487.73	0.11
67	1.67	13873.5	108.53	125.45	125.48	0.000012	0.83	17068.66	1850.53	0.08
67	2	15143	108.53	125.54	125.58	0.000014	0.9	17236.28	1857.77	0.09
67	5	20360	108.53	126.01	126.08	0.000021	1.16	18133.76	1897.65	0.11
67	10	23814.1	108.53	126.42	126.51	0.000026	1.3	18921.29	1939.79	0.12
67	25	28178.3	108.53	127.09	127.19	0.000031	1.45	20227.88	2007.77	0.13
67	50	31416	108.53	127.7	127.82	0.000032	1.52	21480.31	2071.1	0.14
67	100	34629.7	108.53	128.42	128.55	0.000033	1.58	22998.86	2135.25	0.14
67	1000	45248.9	108.53	131.63	131.75	0.000027	1.57	30645.86	2588.68	0.13
64	1.67	13873.5	105.44	125.44	125.47	0.000007	0.8	18158.48	1471.22	0.07
64	2	15143	105.44	125.53	125.56	0.000008	0.87	18289.35	1474.32	0.07
64	5	20360	105.44	126	126.06	0.000014	1.13	18987.72	1490.75	0.09
64	10	23814.1	105.44	126.4	126.48	0.000017	1.28	19594.76	1504.88	0.1
64	25	28178.3	105.44	127.06	127.16	0.000021	1.45	20588.6	1527.74	0.11
64	50	31416	105.44	127.67	127.78	0.000022	1.55	21525.86	1548.98	0.12
64	100	34629.7	105.44	128.38	128.51	0.000023	1.63	22644.49	1573.96	0.12
64	1000	45248.9	105.44	131.57	131.72	0.000022	1.75	27946.02	1702.82	0.12
63	1.67	13873.5	99.69	125.42	125.46	0.000007	0.87	17751.63	1396.5	0.07
63	2	15143	99.69	125.51	125.55	0.000008	0.94	17872.3	1400.64	0.07
63	5	20360	99.69	125.97	126.04	0.000012	1.23	18520.78	1422.68	0.09
63	10	23814.1	99.69	126.36	126.46	0.000016	1.4	19089.77	1441.75	0.1
63	25	28178.3	99.69	127.01	127.13	0.000019	1.58	20031.36	1472.75	0.11
63	50	31416	99.69	127.61	127.75	0.000021	1.7	20929.29	1501.72	0.12
63	100	34629.7	99.69	128.33	128.47	0.000023	1.79	22011.5	1535.91	0.13
63	1000	45248.9	99.69	131.52	131.68	0.000022	1.93	27109.2	1645.36	0.13
62	1.67	13873.5	105.62	125.42	125.44	0.000006	0.76	22587.03	2840.33	0.06
62	2	15143	105.62	125.5	125.53	0.000007	0.83	22833.31	2883.72	0.07
62	5	20360	105.62	125.96	126.01	0.000011	1.06	24211.92	3097.69	0.08
62	10	23814.1	105.62	126.36	126.42	0.000013	1.18	25470.17	3187.09	0.09
62	25	28178.3	105.62	127.02	127.08	0.000015	1.31	27570.03	3267.22	0.1
62	50	31416	105.62	127.62	127.7	0.000016	1.37	29588.37	3354.12	0.1
62	100	34629.7	105.62	128.34	128.42	0.000016	1.4	32159.35	3629.82	0.1

62	1000	45248.9	105.62	131.56	131.63	0.000012	1.35	44394.36	3966.04	0.09
61	1.67	13873.5	86.93	125.39	125.43	0.000007	0.97	15856.32	1022.97	0.07
61	2	15143	86.93	125.47	125.52	0.000008	1.05	15938.78	1023.23	0.07
61	5	20360	86.93	125.9	125.99	0.000013	1.38	16382.3	1024.62	0.09
61	10	23814.1	86.93	126.28	126.4	0.000017	1.58	16770.17	1025.83	0.11
61	25	28178.3	86.93	126.9	127.05	0.000021	1.8	17409.33	1027.83	0.12
61	50	31416	86.93	127.49	127.67	0.000023	1.94	18013.94	1029.71	0.13
61	100	34629.7	86.93	128.19	128.38	0.000025	2.05	18734.1	1031.95	0.13
61	1000	45248.9	86.93	131.35	131.59	0.000026	2.28	22011.64	1042.08	0.14
60	1.67	13873.5	61.21	125.39	125.43	0.000007	0.9	15834.28	892.25	0.06
60	2	15143	61.21	125.47	125.52	0.000008	0.98	15906.22	894.32	0.07
60	5	20360	61.21	125.9	125.99	0.000013	1.29	16295.43	905.46	0.09
60	10	23814.1	61.21	126.28	126.39	0.000017	1.48	16639.05	915.18	0.1
60	25	28178.3	61.21	126.9	127.04	0.000022	1.7	17212.13	931.16	0.11
60	50	31416	61.21	127.49	127.66	0.000025	1.84	17762.2	946.25	0.12
60	100	34629.7	61.21	128.18	128.37	0.000027	1.96	18427.6	964.19	0.13
60	1000	45248.9	61.21	131.33	131.58	0.00003	2.23	21760.85	1154.18	0.14
59	1.67	13873.5	83.93	125.4	125.42	0.000004	0.71	19722.41	1117.54	0.05
59	2	15143	83.93	125.48	125.51	0.000004	0.77	19813.73	1121.55	0.05
59	5	20360	83.93	125.91	125.97	0.000007	1.01	20309.27	1143.05	0.07
59	10	23814.1	83.93	126.3	126.36	0.000009	1.16	20748.9	1161.79	0.08
59	25	28178.3	83.93	126.92	127.01	0.000012	1.34	21486.21	1192.56	0.09
59	50	31416	83.93	127.51	127.62	0.000014	1.45	22198.69	1221.56	0.1
59	100	34629.7	83.93	128.21	128.33	0.000015	1.54	23066.82	1255.99	0.1
59	1000	45248.9	83.93	131.38	131.53	0.000016	1.74	27412.26	1526.92	0.11
58.5	1.67	14158.5	105.89	125.36	125.39	0.000008	0.79	18240.67	1537.44	0.07
58.5	2	15445.4	105.89	125.44	125.48	0.00001	0.85	18358.14	1539.37	0.08
58.5	5	20733.4	105.89	125.86	125.92	0.000016	1.11	18999.06	1549.83	0.1
58.5	10	24234.5	105.89	126.22	126.3	0.00002	1.26	19569.38	1559.09	0.11
58.5	25	28658.2	105.89	126.83	126.93	0.000024	1.42	20527.16	1574.51	0.12
58.5	50	31939.9	105.89	127.42	127.53	0.000026	1.52	21449.72	1589.22	0.13
58.5	100	35197.4	105.89	128.11	128.24	0.000027	1.59	22565.09	1606.83	0.13
58.5	1000	45980.4	105.89	131.29	131.44	0.000024	1.71	27797.75	1686.98	0.13
58	1.67	14158.5	105.78	125.36	125.39	0.000007	0.77	19320.54	1870.22	0.07
58	2	15445.4	105.78	125.43	125.47	0.000009	0.83	19461.38	1880.46	0.07
58	5	20733.4	105.78	125.84	125.9	0.000014	1.08	20243.22	1936.34	0.09



58	10	24234.5	105.78	126.2	126.28	0.000017	1.22	20956.61	1985.95	0.1
58	25	28658.2	105.78	126.81	126.91	0.000021	1.38	22190.68	2068.97	0.11
58	50	31939.9	105.78	127.4	127.5	0.000022	1.47	23426.21	2192.65	0.12
58	100	35197.4	105.78	128.09	128.21	0.000023	1.53	25046.3	2420.5	0.12
58	1000	45980.4	105.78	131.29	131.4	0.000019	1.58	33726.01	3001.71	0.11
57	1.67	14158.5	99.18	125.36	125.37	0.000004	0.61	25977.99	2191.36	0.05
57	2	15445.4	99.18	125.43	125.45	0.000004	0.66	26142.98	2193.24	0.05
57	5	20733.4	99.18	125.84	125.88	0.000007	0.86	27045.8	2203.54	0.07
57	10	24234.5	99.18	126.21	126.25	0.000009	0.97	27851.15	2212.69	0.08
57	25	28658.2	99.18	126.82	126.87	0.000011	1.1	29205.95	2228	0.08
57	50	31939.9	99.18	127.4	127.46	0.000012	1.17	30511.21	2242.29	0.09
57	100	35197.4	99.18	128.1	128.17	0.000012	1.23	32085.82	2256.6	0.09
57	1000	45980.4	99.18	131.29	131.37	0.000011	1.31	39389.42	2321.82	0.09
56	1.67	14158.5	102.31	125.35	125.37	0.000004	0.72	22030.96	1486.76	0.05
56	2	15445.4	102.31	125.42	125.45	0.000005	0.78	22139.9	1487.99	0.06
56	5	20733.4	102.31	125.82	125.87	0.000008	1.02	22738.13	1494.7	0.07
56	10	24234.5	102.31	126.18	126.24	0.00001	1.16	23273.68	1500.68	0.08
56	25	28658.2	102.31	126.78	126.86	0.000013	1.32	24178.47	1510.74	0.09
56	50	31939.9	102.31	127.36	127.45	0.000014	1.42	25053.5	1520.4	0.1
56	100	35197.4	102.31	128.05	128.15	0.000015	1.51	26112.8	1532.01	0.1
56	1000	45980.4	102.31	131.23	131.35	0.000015	1.66	31259.09	1686.09	0.11
55	1.67	14158.5	78.7	125.3	125.36	0.000005	1.06	13565.24	581.3	0.06
55	2	15445.4	78.7	125.36	125.43	0.000006	1.15	13602.98	584.96	0.07
55	5	20733.4	78.7	125.72	125.84	0.000011	1.52	13816.95	606.18	0.09
55	10	24234.5	78.7	126.05	126.21	0.000014	1.76	14016.93	625.73	0.1
55	25	28658.2	78.7	126.6	126.81	0.000019	2.04	14373.58	659.16	0.12
55	50	31939.9	78.7	127.15	127.4	0.000022	2.23	14739.43	689.71	0.13
55	100	35197.4	78.7	127.81	128.1	0.000025	2.4	15205.89	724.66	0.14
55	1000	45980.4	78.7	130.89	131.28	0.00003	2.81	17695.62	889.28	0.15
54	1.67	14158.5	88.81	125.31	125.34	0.000005	0.9	17823.61	1415.52	0.06
54	2	15445.4	88.81	125.37	125.42	0.000006	0.98	17917.23	1422.94	0.07
54	5	20733.4	88.81	125.74	125.81	0.00001	1.29	18445.7	1462.37	0.09
54	10	24234.5	88.81	126.07	126.17	0.000013	1.47	18936.18	1498.04	0.1
54	25	28658.2	88.81	126.64	126.77	0.000017	1.68	19802.38	1559.05	0.11
54	50	31939.9	88.81	127.19	127.34	0.000019	1.83	20670.21	1587.07	0.12
54	100	35197.4	88.81	127.86	128.03	0.000021	1.93	21745.91	1608.07	0.12
54	1000	45980.4	88.81	131	131.19	0.000021	2.09	26951.43	1706.69	0.13

53	1.67	14158.5	90.77	125.27	125.34	0.000015	1.18	12633.51	980.74	0.1
53	2	15445.4	90.77	125.33	125.41	0.000018	1.29	12691.49	982.65	0.1
53	5	20733.4	90.77	125.66	125.8	0.000029	1.68	13021.5	993.48	0.13
53	10	24234.5	90.77	125.97	126.15	0.000037	1.93	13328.76	1003.45	0.15
53	25	28658.2	90.77	126.5	126.74	0.000047	2.2	13872.45	1020.87	0.17
53	50	31939.9	90.77	127.04	127.31	0.000052	2.36	14422.71	1038.19	0.18
53	100	35197.4	90.77	127.7	128	0.000055	2.49	15111.14	1059.47	0.19
53	1000	45980.4	90.77	130.8	131.15	0.000053	2.73	18692.91	1276.58	0.19
52	1.67	14158.5	91.23	125.28	125.32	0.000006	0.94	16222.2	881.24	0.06
52	2	15445.4	91.23	125.34	125.39	0.000007	1.02	16275.78	881.96	0.07
52	5	20733.4	91.23	125.68	125.77	0.000011	1.35	16577.84	886.03	0.09
52	10	24234.5	91.23	125.99	126.11	0.000015	1.55	16855.67	889.76	0.1
52	25	28658.2	91.23	126.53	126.69	0.000019	1.79	17340.3	896.23	0.12
52	50	31939.9	91.23	127.07	127.25	0.000021	1.94	17823.39	902.63	0.12
52	100	35197.4	91.23	127.73	127.93	0.000024	2.08	18419.28	910.46	0.13
52	1000	45980.4	91.23	130.83	131.09	0.000026	2.36	21299.21	947.39	0.14
51	1.67	14158.5	92.17	125.27	125.31	0.000005	0.89	16587.86	845.69	0.06
51	2	15445.4	92.17	125.33	125.38	0.000006	0.97	16638.62	846.17	0.07
51	5	20733.4	92.17	125.67	125.75	0.00001	1.28	16925.08	848.84	0.09
51	10	24234.5	92.17	125.98	126.09	0.000013	1.47	17188.77	851.63	0.1
51	25	28658.2	92.17	126.52	126.66	0.000017	1.69	17649.54	857.58	0.11
51	50	31939.9	92.17	127.05	127.22	0.00002	1.84	18109.63	863.49	0.12
51	100	35197.4	92.17	127.71	127.9	0.000022	1.97	18677.72	870.72	0.13
51	1000	45980.4	92.17	130.81	131.06	0.000025	2.26	21426.45	904.92	0.14
50	1.67	14158.5	96.25	125.27	125.3	0.000005	0.83	19950.47	1393.32	0.06
50	2	15445.4	96.25	125.33	125.37	0.000006	0.9	20034.05	1394.45	0.06
50	5	20733.4	96.25	125.67	125.73	0.00001	1.18	20507.16	1400.83	0.08
50	10	24234.5	96.25	125.98	126.06	0.000013	1.36	20944.12	1406.69	0.09
50	25	28658.2	96.25	126.52	126.63	0.000016	1.55	21709.44	1416.91	0.11
50	50	31939.9	96.25	127.06	127.18	0.000018	1.67	22474.8	1427.04	0.11
50	100	35197.4	96.25	127.72	127.85	0.000019	1.76	23420.72	1439.48	0.12
50	1000	45980.4	96.25	130.84	131	0.000019	1.93	28001.15	1497.55	0.12
49	1.67	14158.5	93.07	125.27	125.3	0.000004	0.78	20684.68	1487.54	0.05
49	2	15445.4	93.07	125.33	125.36	0.000004	0.85	20772.72	1491.19	0.06
49	5	20733.4	93.07	125.66	125.72	0.000007	1.12	21274.92	1511.87	0.07
49	10	24234.5	93.07	125.97	126.05	0.000009	1.29	21743.94	1530.92	0.08

49	25	28658.2	93.07	126.51	126.61	0.000012	1.48	22577.06	1564.21	0.09
49	50	31939.9	93.07	127.04	127.16	0.000014	1.6	23423.54	1590.43	0.1
49	100	35197.4	93.07	127.7	127.83	0.000015	1.69	24477.19	1609.31	0.11
49	1000	45980.4	93.07	130.82	130.97	0.000015	1.86	29637.27	1698.74	0.11
47	1.67	14158.5	91.84	125.27	125.29	0.000004	0.72	21978.47	1313.86	0.05
47	2	15445.4	91.84	125.32	125.35	0.000004	0.78	22055.85	1314.77	0.05
47	5	20733.4	91.84	125.66	125.7	0.000008	1.03	22494.99	1319.9	0.07
47	10	24234.5	91.84	125.97	126.03	0.00001	1.19	22901.59	1324.64	0.08
47	25	28658.2	91.84	126.5	126.58	0.000012	1.36	23615.58	1332.91	0.09
47	50	31939.9	91.84	127.04	127.13	0.000014	1.47	24330.99	1341.15	0.1
47	100	35197.4	91.84	127.7	127.8	0.000015	1.57	25216.05	1351.27	0.1
47	1000	45980.4	91.84	130.81	130.94	0.000016	1.75	29502.84	1412.16	0.11
46	1.67	14734	82.85	125	125.01	0.000001	0.35	42403.99	1668.45	0.02
46	2	16055.8	82.85	125	125.01	0.000001	0.38	42403.99	1668.45	0.02
46	5	21487.3	82.85	125	125.01	0.000001	0.51	42403.99	1668.45	0.03
46	10	25083.4	82.85	125	125.02	0.000002	0.59	42403.99	1668.45	0.04
46	25	29627.1	82.85	125	125.02	0.000003	0.7	42403.99	1668.45	0.04
46	50	32997.9	82.85	125	125.03	0.000003	0.78	42403.99	1668.45	0.05
46	100	36343.7	82.85	125	125.04	0.000004	0.86	42403.99	1668.45	0.05
46	1000	47455.2	82.85	125	125.06	0.000007	1.12	42403.99	1668.45	0.07
45	1.67	14734	87.29	125.12308	124.7893	3.098E-07	0.187	62638.91	1466.64	0.01103
45	2	16055.8	87.29	125.09796	124.8147	3.284E-07	0.209	58780.49	1474.4	0.01143
45	5	21487.3	87.29	125.03606	124.8661	0.0000004	0.313	51285.95	1642	0.0192
45	10	25083.4	87.29	125.02379	124.9013	8.786E-07	0.38	49567.84	1666.88	0.02609
45	25	29627.1	87.29	125	124.9145	1.43E-06	0.468	48327.15	1684.95	0.02727
45	50	32997.9	87.29	124.98835	124.9369	1.479E-06	0.535	47729.66	1691.48	0.03571
45	100	36343.7	87.29	124.98844	124.9476	2.061E-06	0.602	47291	1697.18	0.03571
45	1000	47455.2	87.29	124.98869	124.9809	3.889E-06	0.823	46400.39	1702.61	0.0525
44	1.67	14734	85.7	125.11077	124.7525	2.256E-07	0.17	70550.86	1631.85	0.00966
44	2	16055.8	85.7	125.07347	124.7659	2.435E-07	0.191	66206.54	1672.06	0.01
44	5	21487.3	85.7	125.02404	124.8182	3.05E-07	0.288	57827.99	1731.74	0.0168
44	10	25083.4	85.7	125	124.8657	6.705E-07	0.351	55283.23	1721.17	0.02435
44	25	29627.1	85.7	124.98825	124.8793	1.113E-06	0.436	53249.55	1714.78	0.02545
44	50	32997.9	85.7	124.97669	124.902	1.179E-06	0.498	52202.26	1710.55	0.03333
44	100	36343.7	85.7	124.97687	124.913	1.636E-06	0.562	51394.61	1706.69	0.03333
44	1000	47455.2	85.7	124.96606	124.947	3.171E-06	0.772	49637.25	1697.59	0.049

43	1.67	14734	89.3	125.03692	124.6544	2.357E-07	0.154	72955.86	1448.74	0.00966
43	2	16055.8	89.3	125.01225	124.6805	2.509E-07	0.173	67565.21	1459.48	0.01
43	5	21487.3	89.3	124.96394	124.7462	3.1E-07	0.263	56701.19	1502.61	0.0168
43	10	25083.4	89.3	124.95243	124.7945	6.936E-07	0.323	53434.28	1530.25	0.02435
43	25	29627.1	89.3	124.9295	124.8089	1.152E-06	0.405	50985.19	1556.91	0.02364
43	50	32997.9	89.3	124.91843	124.8439	0.0000012	0.465	49764.17	1556.64	0.03095
43	100	36343.7	89.3	124.91905	124.8553	1.667E-06	0.528	48830.11	1556.41	0.03095
43	1000	47455.2	89.3	124.90949	124.8905	3.231E-06	0.728	46832.16	1553.4	0.049
42	1.67	14734	86.51	125	124.5809	1.414E-07	0.125	113308.3	3458.9	0.00759
42	2	16055.8	86.51	124.97551	124.6073	1.439E-07	0.136	109477.4	3564.7	0.00786
42	5	21487.3	86.51	124.95191	124.6743	1.55E-07	0.192	103275.9	3735.37	0.012
42	10	25083.4	86.51	124.94053	124.7114	3.121E-07	0.225	101720.4	3749.12	0.01565
42	25	29627.1	86.51	124.9295	124.7268	4.768E-07	0.269	100621.2	3773.79	0.01636
42	50	32997.9	86.51	124.93008	124.7624	4.929E-07	0.304	100136.1	3790.4	0.02143
42	100	36343.7	86.51	124.93061	124.7744	6.667E-07	0.338	99808.5	3805.67	0.01905
42	1000	47455.2	86.51	124.93212	124.8114	1.137E-06	0.443	99162.33	3770.73	0.028
41	1.67	14734	86.84	124.92615	124.5318	1.582E-07	0.145	92132.83	2760.05	0.00828
41	2	16055.8	86.84	124.90204	124.5585	1.661E-07	0.16	88703.31	2777.44	0.00857
41	5	21487.3	86.84	124.87978	124.6263	1.95E-07	0.231	82339.68	2912.86	0.0132
41	10	25083.4	86.84	124.86917	124.6758	4.162E-07	0.275	81066.06	3033.9	0.01913
41	25	29627.1	86.84	124.85901	124.6916	6.556E-07	0.335	80671.78	3174.33	0.01818
41	50	32997.9	86.84	124.86017	124.7275	6.857E-07	0.377	80780.98	3256.82	0.02381
41	100	36343.7	86.84	124.86123	124.7398	9.091E-07	0.419	81046.87	3328.68	0.02381
41	1000	47455.2	86.84	124.87555	124.7775	1.615E-06	0.554	82230.66	3470.98	0.035
40	1.67	14734	87.01	124.81538	124.4705	2.189E-07	0.168	56825.83	1195.48	0.00966
40	2	16055.8	87.01	124.79183	124.4975	2.435E-07	0.19	52884.76	1235.93	0.01
40	5	21487.3	87.01	124.73553	124.5544	3.3E-07	0.299	46118.86	1497.54	0.0168
40	10	25083.4	87.01	124.71456	124.6046	7.63E-07	0.367	44945.97	1651.46	0.02435
40	25	29627.1	87.01	124.69452	124.6213	1.291E-06	0.461	44693.72	1799.07	0.02727
40	50	32997.9	87.01	124.68537	124.6577	1.371E-06	0.529	44895.54	1893	0.03571
40	100	36343.7	87.01	124.68776	124.6705	1.909E-06	0.599	45447.02	2139.03	0.03571
40	1000	47455.2	87.01	124.69454	124.7098	3.65E-06	0.815	48023.57	2412.92	0.0525
39	1.67	14734	87.43	124.76615	124.4092	2.054E-07	0.163	62954.35	1435.78	0.00897
39	2	16055.8	87.43	124.74285	124.4364	2.251E-07	0.185	58996.75	1489.89	0.01
39	5	21487.3	87.43	124.68744	124.4944	0.0000003	0.286	51845.13	1612.74	0.0168
39	10	25083.4	87.43	124.66698	124.5453	6.821E-07	0.351	49901.85	1639.08	0.02435
39	25	29627.1	87.43	124.64752	124.5627	1.132E-06	0.438	48482.24	1654.59	0.02545

39	50	32997.9	87.43	124.65041	124.5995	0.0000012	0.504	47794.87	1662.87	0.03333
39	100	36343.7	87.43	124.6415	124.6128	1.697E-06	0.571	47290.09	1670.48	0.03333
39	1000	47455.2	87.43	124.64929	124.6533	3.291E-06	0.788	46288.69	1689.49	0.049
38	1.67	14734	91.06	124.70461	124.3479	2.795E-07	0.156	49923.92	686.721	0.01034
38	2	16055.8	91.06	124.66938	124.3754	3.063E-07	0.178	45104.81	683.355	0.01071
38	5	21487.3	91.06	124.61531	124.4345	3.85E-07	0.275	41503.59	1489.55	0.018
38	10	25083.4	91.06	124.60752	124.4859	8.324E-07	0.336	41127.03	1705.87	0.02609
38	25	29627.1	91.06	124.60053	124.504	1.351E-06	0.415	41989.69	1877.53	0.02545
38	50	32997.9	91.06	124.59215	124.5414	1.371E-06	0.473	42580.79	1877.82	0.03333
38	100	36343.7	91.06	124.59524	124.5666	1.879E-06	0.531	43041.34	1878.11	0.03333
38	1000	47455.2	91.06	124.61535	124.6081	3.41E-06	0.716	44021.52	1880.62	0.049
37	1.67	14734	89.15	124.66768	124.2744	2.29E-07	0.139	65728.74	1547.51	0.00897
37	2	16055.8	89.15	124.64489	124.3022	2.399E-07	0.156	61730.94	1563.37	0.00929
37	5	21487.3	89.15	124.60329	124.3745	2.85E-07	0.235	54561.25	1766.84	0.0156
37	10	25083.4	89.15	124.59562	124.4266	6.127E-07	0.286	53014.45	1861.73	0.02087
37	25	29627.1	89.15	124.58878	124.4571	9.735E-07	0.353	52261.6	1974.05	0.02182
37	50	32997.9	89.15	124.59215	124.4948	1.007E-06	0.403	52141	2049.4	0.02857
37	100	36343.7	89.15	124.59524	124.5088	1.394E-06	0.453	52194.41	2094.97	0.02857
37	1000	47455.2	89.15	124.60404	124.5516	2.573E-06	0.617	52735.4	2212.26	0.042
36	1.67	14734	87.59	124.61845	124.2008	1.852E-07	0.121	86473.28	1782.08	0.00828
36	2	16055.8	87.59	124.59591	124.229	1.919E-07	0.135	80344.66	1792.77	0.00857
36	5	21487.3	87.59	124.57925	124.3146	2.2E-07	0.203	68039.21	1864.2	0.0132
36	10	25083.4	87.59	124.57184	124.3672	4.74E-07	0.246	64491.81	1899.71	0.01913
36	25	29627.1	87.59	124.56528	124.3985	7.748E-07	0.307	61780.2	1918.15	0.02
36	50	32997.9	87.59	124.56884	124.4367	7.929E-07	0.352	60436.99	1929.6	0.02619
36	100	36343.7	87.59	124.57212	124.4627	1.091E-06	0.397	59433.42	1940.12	0.02619
36	1000	47455.2	87.59	124.59272	124.5064	2.094E-06	0.554	57367.02	1968.35	0.0385
35	1.67	14734	88.28	124.58153	124.164	1.818E-07	0.127	86524.84	1688.11	0.00828
35	2	16055.8	88.28	124.55917	124.2046	1.919E-07	0.143	80066.27	1699.53	0.00857
35	5	21487.3	88.28	124.54318	124.2786	2.25E-07	0.215	67325.42	1808.21	0.0132
35	10	25083.4	88.28	124.53616	124.3435	4.971E-07	0.262	63648.54	1849.88	0.01913
35	25	29627.1	88.28	124.53003	124.375	8.146E-07	0.327	60944.8	1904.87	0.02
35	50	32997.9	88.28	124.53389	124.4134	8.571E-07	0.377	59689.77	1942.23	0.02619
35	100	36343.7	88.28	124.54899	124.4396	1.182E-06	0.428	58808.34	1974.1	0.02619
35	1000	47455.2	88.28	124.55878	124.4838	2.274E-06	0.594	57250.85	2126.72	0.0385
34	1.67	14734	83	124.39691	124.0782	2.929E-07	0.183	44035.89	744.413	0.01103

34	2	16055.8	83	124.36324	124.107	3.247E-07	0.21	40671.22	965.921	0.01143
34	5	21487.3	83	124.31477	124.1947	4.45E-07	0.331	38523.38	1669.45	0.0192
34	10	25083.4	83	124.32207	124.2604	9.827E-07	0.405	39775.49	1963.57	0.02783
34	25	29627.1	83	124.33029	124.2929	1.589E-06	0.496	42053.85	2121.59	0.02909
34	50	32997.9	83	124.34744	124.3436	1.607E-06	0.56	43378.47	2136.7	0.0381
34	100	36343.7	83	124.36396	124.3703	2.182E-06	0.624	44427.63	2149.76	0.03571
34	1000	47455.2	83	124.4004	124.416	3.889E-06	0.823	46755.93	2183.02	0.0525
33	1.67	14734	85.22	124.33537	123.9801	2.222E-07	0.161	61074.09	1496.95	0.00966
33	2	16055.8	85.22	124.31426	124.0093	2.399E-07	0.181	57550.69	1495.31	0.01
33	5	21487.3	85.22	124.29073	124.0987	3.1E-07	0.277	50482.3	1513.96	0.0168
33	10	25083.4	85.22	124.29829	124.1655	6.936E-07	0.34	48406.86	1536.35	0.02435
33	25	29627.1	85.22	124.3068	124.2108	1.152E-06	0.426	46932.64	1570.68	0.02545
33	50	32997.9	85.22	124.32414	124.2622	1.221E-06	0.49	46242.24	1575.01	0.03333
33	100	36343.7	85.22	124.32926	124.2895	1.697E-06	0.553	45712.27	1574.88	0.03333
33	1000	47455.2	85.22	124.35515	124.3595	3.291E-06	0.764	44533.14	1571.91	0.049
32	1.67	14734	80.07	124.27383	123.9311	2.323E-07	0.172	49747.37	1196.61	0.00966
32	2	16055.8	80.07	124.24079	123.9605	2.583E-07	0.196	46817.78	1216.32	0.01
32	5	21487.3	80.07	124.20658	124.0508	3.55E-07	0.309	41016.44	1235.62	0.018
32	10	25083.4	80.07	124.20314	124.118	8.208E-07	0.384	39321	1245.09	0.02609
32	25	29627.1	80.07	124.20105	124.1639	1.411E-06	0.486	38045.15	1255.55	0.02727
32	50	32997.9	80.07	124.20761	124.2156	1.521E-06	0.56	37422.95	1262.6	0.03571
32	100	36343.7	80.07	124.22518	124.2433	2.152E-06	0.64	36959.43	1269.05	0.03571
32	1000	47455.2	80.07	124.2307	124.3143	4.308E-06	0.894	36058.12	1319.44	0.056
31	1.67	14734	83.69	124.2369	123.882	1.919E-07	0.163	48546.97	508.078	0.00897
31	2	16055.8	83.69	124.20406	123.9117	2.177E-07	0.188	43302.9	511.346	0.00929
31	5	21487.3	83.69	124.13445	124.0028	3.4E-07	0.313	32514.78	524.886	0.018
31	10	25083.4	83.69	124.10799	124.0705	8.324E-07	0.399	29127.71	532.94	0.02609
31	25	29627.1	83.69	124.08356	124.1053	1.55E-06	0.524	27710.23	1285.46	0.02909
31	50	32997.9	83.69	124.07943	124.1575	1.714E-06	0.614	28829.67	1610.49	0.0381
31	100	36343.7	83.69	124.08641	124.1855	2.424E-06	0.699	29960.15	1656.65	0.04048
31	1000	47455.2	83.69	124.10625	124.2578	4.786E-06	0.966	32857.96	1784.73	0.0595
30	1.67	14734	85.65	124.16306	123.8085	2.054E-07	0.16	51724.61	1018.71	0.00897
30	2	16055.8	85.65	124.13058	123.8385	2.325E-07	0.184	48176.89	1167.16	0.01
30	5	21487.3	85.65	124.07434	123.9069	3.25E-07	0.291	42175.77	1321.33	0.0168
30	10	25083.4	85.65	124.06042	123.9756	7.514E-07	0.361	40644	1359.84	0.02435
30	25	29627.1	85.65	124.06006	123.9998	1.272E-06	0.458	39728.6	1423.3	0.02545
30	50	32997.9	85.65	124.06777	124.0411	1.371E-06	0.527	39378.67	1440.63	0.03571

30	100	36343.7	85.65	124.07485	124.0701	1.909E-06	0.599	39158.37	1456.6	0.03571
30	1000	47455.2	85.65	124.09494	124.1448	3.829E-06	0.835	38937.32	1582.75	0.0525
29	1.67	14734	88.33	124.0769	123.7471	2.66E-07	0.169	48041.13	880.854	0.01034
29	2	16055.8	88.33	124.04487	123.7653	2.952E-07	0.193	44356.1	992.565	0.01071
29	5	21487.3	88.33	123.99019	123.8469	3.95E-07	0.304	38447.94	1159.27	0.018
29	10	25083.4	88.33	123.98906	123.9044	9.017E-07	0.378	36813.44	1168.55	0.02783
29	25	29627.1	88.33	123.97782	123.9294	1.53E-06	0.476	35585.16	1182.69	0.02909
29	50	32997.9	88.33	123.97455	123.9829	1.629E-06	0.552	35014.44	1200.03	0.0381
29	100	36343.7	88.33	123.98233	124.0123	2.303E-06	0.627	34635.27	1224.78	0.0381
29	1000	47455.2	88.33	124.00443	124.0884	4.607E-06	0.879	34287.72	1348.04	0.056
28	1.67	14734	89.48	124.03998	123.6736	2.424E-07	0.153	51615	870.403	0.00966
28	2	16055.8	89.48	124.00813	123.7043	2.657E-07	0.175	47400.41	992.615	0.01
28	5	21487.3	89.48	123.96615	123.775	3.55E-07	0.275	40595.84	1186.57	0.0168
28	10	25083.4	89.48	123.95338	123.845	7.977E-07	0.34	38726.7	1200.9	0.02435
28	25	29627.1	89.48	123.94257	123.8708	1.351E-06	0.431	37339.49	1228.37	0.02727
28	50	32997.9	89.48	123.95124	123.9248	1.457E-06	0.496	36732.57	1259.16	0.03571
28	100	36343.7	89.48	123.9592	123.9546	2.03E-06	0.565	36348.71	1291.79	0.03571
28	1000	47455.2	89.48	123.98181	124.0206	3.949E-06	0.792	35845.07	1403.9	0.0525
27	1.67	14734	87.85	124.01536	123.6123	1.38E-07	0.13	71017.73	1389.24	0.00759
27	2	16055.8	87.85	123.98364	123.6432	1.513E-07	0.149	65740.98	1464.88	0.00786
27	5	21487.3	87.85	123.9421	123.7151	2.05E-07	0.233	56125.99	1582.52	0.0132
27	10	25083.4	87.85	123.94148	123.7738	4.74E-07	0.29	53272.9	1585.48	0.01913
27	25	29627.1	87.85	123.93082	123.8121	8.146E-07	0.365	51051.99	1593.84	0.02182
27	50	32997.9	87.85	123.93959	123.855	8.786E-07	0.422	49962.25	1599.6	0.02857
27	100	36343.7	87.85	123.9592	123.8853	1.242E-06	0.481	49147.61	1604.92	0.02857
27	1000	47455.2	87.85	123.98181	123.9528	2.453E-06	0.673	47417.42	1617.28	0.042
26	1.67	14734	79.25	123.87997	123.551	2.323E-07	0.17	50609.12	1030.5	0.00966
26	2	16055.8	79.25	123.84894	123.57	2.583E-07	0.194	46878.79	1041.3	0.01
26	5	21487.3	79.25	123.79785	123.6431	3.65E-07	0.309	39481.68	1064.99	0.018
26	10	25083.4	79.25	123.77498	123.7026	8.555E-07	0.386	37232.09	1069.26	0.02609
26	25	29627.1	79.25	123.76633	123.7418	1.49E-06	0.491	35483.53	1077.45	0.02727
26	50	32997.9	79.25	123.7648	123.7852	1.607E-06	0.572	34624.55	1083.04	0.0381
26	100	36343.7	79.25	123.77417	123.816	2.303E-06	0.652	33982.8	1088.46	0.0381
26	1000	47455.2	79.25	123.77817	123.885	4.726E-06	0.922	32674.86	1120.8	0.056
25	1.67	14734	81.77	123.85536	123.5019	1.684E-07	0.157	50460.78	584.318	0.00828
25	2	16055.8	81.77	123.81221	123.5212	1.956E-07	0.183	45177.15	587.303	0.00929

25	5	21487.3	81.77	123.73774	123.5952	3.05E-07	0.302	34335.76	598.991	0.0168
25	10	25083.4	81.77	123.70362	123.6433	7.63E-07	0.388	31041.25	662.871	0.02609
25	25	29627.1	81.77	123.67234	123.6714	1.411E-06	0.506	28766.9	761.799	0.02727
25	50	32997.9	81.77	123.65992	123.7154	1.586E-06	0.597	27825.22	826.546	0.0381
25	100	36343.7	81.77	123.65853	123.7468	2.333E-06	0.689	27231.5	875.28	0.0381
25	1000	47455.2	81.77	123.61978	123.8059	5.085E-06	1.001	26338.57	979.484	0.0595
24	1.67	14734	82.82	123.80612	123.4406	1.65E-07	0.155	57168.07	933.039	0.00828
24	2	16055.8	82.82	123.77547	123.4724	1.882E-07	0.179	52184.49	990.401	0.00857
24	5	21487.3	82.82	123.70167	123.5232	2.8E-07	0.29	44185.19	1395.28	0.0156
24	10	25083.4	82.82	123.67983	123.5721	6.59E-07	0.361	42763.53	1519.62	0.02435
24	25	29627.1	82.82	123.64884	123.5893	1.152E-06	0.458	42228.54	1664	0.02545
24	50	32997.9	82.82	123.64827	123.6339	1.243E-06	0.529	42306.79	1751.09	0.03333
24	100	36343.7	82.82	123.65853	123.6544	1.758E-06	0.599	42486.33	1766.46	0.03333
24	1000	47455.2	82.82	123.65372	123.6816	3.47E-06	0.827	42970.65	1805.85	0.049
23	1.67	14734	84.16	123.70766	123.3916	3.232E-07	0.187	58272.15	1393	0.01103
23	2	16055.8	84.16	123.67751	123.4114	3.469E-07	0.21	54692.23	1395.81	0.01143
23	5	21487.3	84.16	123.62954	123.4633	4.25E-07	0.316	47560.29	1410.79	0.0192
23	10	25083.4	84.16	123.60847	123.5127	9.711E-07	0.393	46143.82	1629.33	0.02783
23	25	29627.1	84.16	123.59009	123.5307	1.57E-06	0.483	45245.09	1634.61	0.02909
23	50	32997.9	84.16	123.59001	123.5641	1.629E-06	0.552	44874.63	1685.2	0.0381
23	100	36343.7	84.16	123.6007	123.5851	2.242E-06	0.621	44720.18	1736.63	0.0381
23	1000	47455.2	84.16	123.59716	123.6138	4.248E-06	0.847	44913.74	1889.51	0.056
22	1.67	14734	80.43	123.6215	123.318	3.03E-07	0.193	52500.19	1029.53	0.01103
22	2	16055.8	80.43	123.57955	123.326	3.358E-07	0.219	48512.3	1072.46	0.01143
22	5	21487.3	80.43	123.52135	123.3913	4.5E-07	0.341	40962.25	1124.18	0.0204
22	10	25083.4	80.43	123.48953	123.4415	1.029E-06	0.422	38658.53	1124.06	0.02957
22	25	29627.1	80.43	123.4726	123.4486	1.768E-06	0.531	36834.81	1126.59	0.03091
22	50	32997.9	80.43	123.46183	123.4943	1.886E-06	0.617	35920.72	1128.58	0.04048
22	100	36343.7	80.43	123.46193	123.5043	2.667E-06	0.702	35228.17	1130.43	0.04048
22	1000	47455.2	80.43	123.42746	123.5347	5.385E-06	0.981	33716.45	1133.66	0.063
21	1.67	14734	82.91	123.58458	123.2199	2.121E-07	0.165	67597.16	1436.17	0.00966
21	2	16055.8	82.91	123.54281	123.2405	2.288E-07	0.188	62774.29	1436.12	0.01
21	5	21487.3	82.91	123.48529	123.2954	3.05E-07	0.288	53045.15	1440.95	0.0168
21	10	25083.4	82.91	123.46575	123.3466	6.936E-07	0.355	50009.3	1436	0.02435
21	25	29627.1	82.91	123.4491	123.3548	1.192E-06	0.446	47743.08	1537.67	0.02545
21	50	32997.9	82.91	123.45017	123.3896	1.264E-06	0.512	46778.84	1542.35	0.03333
21	100	36343.7	82.91	123.45037	123.4119	1.788E-06	0.581	46055.88	1546.67	0.03333



21	1000	47455.2	82.91	123.42746	123.4331	3.53E-06	0.807	44487.96	1556.14	0.049
20	1.67	14734	84.46	123.51073	123.1586	2.121E-07	0.162	54803.11	839.104	0.00966
20	2	16055.8	84.46	123.46934	123.1795	2.362E-07	0.186	49746.18	845.808	0.01
20	5	21487.3	84.46	123.38911	123.2235	3.4E-07	0.3	39548.36	877.685	0.018
20	10	25083.4	84.46	123.34681	123.2754	8.092E-07	0.378	36431.8	896.571	0.02609
20	25	29627.1	84.46	123.30811	123.2844	1.45E-06	0.486	34041.98	920.532	0.02727
20	50	32997.9	84.46	123.29869	123.3198	1.586E-06	0.569	32874.42	933.169	0.0381
20	100	36343.7	84.46	123.28846	123.3311	2.303E-06	0.652	32007.92	944.595	0.0381
20	1000	47455.2	84.46	123.23513	123.354	4.846E-06	0.934	30219.55	974.964	0.0595
18	1.67	14734	84.71	123.27688	122.987	3.569E-07	0.2	45607.92	956.232	0.01172
18	2	16055.8	84.71	123.22443	122.9965	3.911E-07	0.228	42343.45	1016.74	0.01214
18	5	21487.3	84.71	123.14868	123.0556	5.25E-07	0.355	37059.79	1163.3	0.0216
18	10	25083.4	84.71	123.12084	123.0973	1.191E-06	0.439	35596.45	1170.09	0.0313
18	25	29627.1	84.71	123.09663	123.1085	1.987E-06	0.551	34479.83	1179.8	0.03273
18	50	32997.9	84.71	123.08893	123.1453	2.121E-06	0.634	33946.07	1186.4	0.04286
18	100	36343.7	84.71	123.0803	123.1579	2.97E-06	0.72	33554.69	1192.47	0.04286
18	1000	47455.2	84.71	123.04281	123.1732	5.863E-06	0.997	33025.33	1363.93	0.063
17	1.67	14734	82.76	123.23996	122.8889	1.886E-07	0.165	63559.23	1346.64	0.00897
17	2	16055.8	82.76	123.19994	122.8988	2.103E-07	0.188	58962.34	1363.44	0.00929
17	5	21487.3	82.76	123.12464	122.9477	2.95E-07	0.295	50014.71	1398.7	0.0168
17	10	25083.4	82.76	123.10894	123.0024	6.821E-07	0.365	47306.47	1401.54	0.02435
17	25	29627.1	82.76	123.08488	123.0147	1.172E-06	0.461	45179.25	1406.64	0.02545
17	50	32997.9	82.76	123.07728	123.0406	1.264E-06	0.532	44118.97	1410.16	0.03333
17	100	36343.7	82.76	123.0803	123.0655	1.818E-06	0.605	43317.42	1413.4	0.03333
17	1000	47455.2	82.76	123.04281	123.0715	3.709E-06	0.851	41569.33	1426.64	0.0525
16	1.67	14734	80.71	123.19072	122.8399	1.852E-07	0.157	57302.62	1107.23	0.00897
16	2	16055.8	80.71	123.15096	122.85	2.103E-07	0.18	52781.97	1124.81	0.00929
16	5	21487.3	80.71	123.06453	122.8997	0.0000003	0.288	43841.15	1137.62	0.0168
16	10	25083.4	80.71	123.03758	122.9431	7.052E-07	0.361	41069.9	1150.78	0.02435
16	25	29627.1	80.71	123.01438	122.9561	1.252E-06	0.461	38964.33	1170.06	0.02545
16	50	32997.9	80.71	122.99571	122.9824	1.35E-06	0.535	37927.29	1176.99	0.03571
16	100	36343.7	80.71	122.98779	122.9962	1.939E-06	0.612	37149.86	1183.37	0.03571
16	1000	47455.2	80.71	122.94099	123.015	4.068E-06	0.867	35480.82	1199.11	0.0525
15	1.67	14734	87.4	123.1538	122.7663	1.987E-07	0.139	75965.93	2078.68	0.00897
15	2	16055.8	87.4	123.11422	122.7768	2.103E-07	0.155	72090.59	2090.38	0.00929
15	5	21487.3	87.4	123.05251	122.8158	2.5E-07	0.231	64818.32	2141.09	0.0144

15	10	25083.4	87.4	123.03758	122.8718	5.318E-07	0.279	62807.24	2167.25	0.02087
15	25	29627.1	87.4	123.02613	122.874	8.543E-07	0.342	61342.09	2196.88	0.02182
15	50	32997.9	87.4	123.01902	122.9126	0.0000009	0.391	60687.11	2216.92	0.02857
15	100	36343.7	87.4	123.02248	122.9269	1.212E-06	0.441	60234.06	2235.33	0.02619
15	1000	47455.2	87.4	122.99756	122.9246	2.274E-06	0.602	59320.95	2282.86	0.0385
14	1.67	14734	87.98	123.11688	122.7173	2.222E-07	0.131	77549.98	2118.81	0.00897
14	2	16055.8	87.98	123.07749	122.728	2.288E-07	0.146	73746.7	2213.7	0.00929
14	5	21487.3	87.98	123.02847	122.7798	2.6E-07	0.211	68031.39	2478.78	0.0144
14	10	25083.4	87.98	123.0138	122.8244	5.318E-07	0.252	67139.91	2595.45	0.02087
14	25	29627.1	87.98	123.00263	122.8388	8.146E-07	0.307	66953.14	2688.3	0.02
14	50	32997.9	87.98	123.00736	122.8777	8.357E-07	0.346	67022.29	2715.91	0.02619
14	100	36343.7	87.98	123.01092	122.8923	1.121E-06	0.388	67141.21	2741.25	0.02619
14	1000	47455.2	87.98	122.98624	122.8907	1.974E-06	0.518	67456.73	2802.14	0.035
13	1.67	14734	87.59	122.98149	122.6314	2.66E-07	0.156	53866.33	1136.31	0.01034
13	2	16055.8	87.59	122.94279	122.6426	2.878E-07	0.178	49999.45	1174.3	0.01071
13	5	21487.3	87.59	122.87219	122.6959	3.7E-07	0.275	43347.05	1406.76	0.018
13	10	25083.4	87.59	122.85918	122.7532	8.208E-07	0.338	41954.19	1454.96	0.02609
13	25	29627.1	87.59	122.84989	122.7684	1.351E-06	0.423	41116.17	1530.81	0.02727
13	50	32997.9	87.59	122.84422	122.7963	1.436E-06	0.487	40877.48	1594.55	0.03571
13	100	36343.7	87.59	122.83745	122.8115	1.97E-06	0.553	40854.51	1665.59	0.03571
13	1000	47455.2	87.59	122.80523	122.823	3.829E-06	0.764	41410.88	1860.27	0.0525
12	1.67	14734	86	122.91995	122.5456	2.088E-07	0.153	69229.11	1425.82	0.00897
12	2	16055.8	86	122.88156	122.5694	2.325E-07	0.175	64635.77	1668.9	0.00929
12	5	21487.3	86	122.8241	122.6239	2.9E-07	0.265	56508.11	1740.66	0.0156
12	10	25083.4	86	122.8235	122.682	6.474E-07	0.323	54281.13	1782.83	0.02261
12	25	29627.1	86	122.81464	122.6981	1.073E-06	0.405	52743.16	1874.43	0.02364
12	50	32997.9	86	122.80927	122.7381	1.136E-06	0.467	52249.78	1972.9	0.03095
12	100	36343.7	86	122.81432	122.7537	1.606E-06	0.528	52090.67	2072.91	0.03095
12	1000	47455.2	86	122.79392	122.7665	2.991E-06	0.716	52868.19	2343.34	0.0455
11	1.67	14734	86.7	122.80918	122.472	2.761E-07	0.168	46713.54	572.13	0.01034
11	2	16055.8	86.7	122.75911	122.4839	3.1E-07	0.191	41877.13	572.356	0.01071
11	5	21487.3	86.7	122.69186	122.552	4.35E-07	0.304	37719.89	1755.22	0.0192
11	10	25083.4	86.7	122.68078	122.6107	9.711E-07	0.372	38938.31	1844.47	0.02783
11	25	29627.1	86.7	122.6854	122.6277	1.55E-06	0.458	40365.73	1936.59	0.02909
11	50	32997.9	86.7	122.69274	122.6683	1.586E-06	0.521	41279.97	1971.19	0.03571
11	100	36343.7	86.7	122.69868	122.6845	2.152E-06	0.581	42058.1	2002.92	0.03571
11	1000	47455.2	86.7	122.68079	122.71	3.949E-06	0.784	43910.33	2146.39	0.0525

10	1.67	14734	85.57	122.73533	122.4107	3.131E-07	0.171	45600.01	594.668	0.01103
10	2	16055.8	85.57	122.68564	122.4229	3.469E-07	0.196	40991.78	591.452	0.01143
10	5	21487.3	85.57	122.60771	122.4801	4.85E-07	0.315	31498.46	581.761	0.0204
10	10	25083.4	85.57	122.57374	122.5277	1.133E-06	0.397	28464.09	575.651	0.02957
10	25	29627.1	85.57	122.54441	122.5574	2.026E-06	0.509	26019.12	575.199	0.03273
10	50	32997.9	85.57	122.51795	122.5869	2.271E-06	0.597	24778.62	582.845	0.04286
10	100	36343.7	85.57	122.51365	122.6036	3.303E-06	0.683	24973.52	1905.22	0.04286
10	1000	47455.2	85.57	122.48846	122.6196	6.043E-06	0.926	31125.33	2273.09	0.063
9	1.67	14734	87.55	122.6861	122.3249	2.66E-07	0.153	60703.82	1729.7	0.01034
9	2	16055.8	87.55	122.63666	122.3375	2.841E-07	0.173	57931.87	1800.03	0.01
9	5	21487.3	87.55	122.58367	122.3841	3.3E-07	0.256	53266.78	1885.35	0.0168
9	10	25083.4	87.55	122.57374	122.4327	7.283E-07	0.313	52907.93	2259.07	0.02435
9	25	29627.1	87.55	122.55616	122.4401	1.132E-06	0.383	53640.9	2349.95	0.02364
9	50	32997.9	87.55	122.5529	122.4705	1.157E-06	0.434	54351.1	2522.88	0.03095
9	100	36343.7	87.55	122.5599	122.4766	1.545E-06	0.484	55306.53	2697.55	0.03095
9	1000	47455.2	87.55	122.54503	122.4953	2.752E-06	0.641	58071.98	2818.84	0.042
8	1.67	14734	87.86	122.62456	122.2636	2.727E-07	0.148	62261.39	1717.09	0.01034
8	2	16055.8	87.86	122.58768	122.2643	2.841E-07	0.166	59302.19	1840.77	0.01
8	5	21487.3	87.86	122.53558	122.3242	3.25E-07	0.247	55891.32	2239.28	0.0168
8	10	25083.4	87.86	122.52617	122.3734	7.052E-07	0.3	56005.51	2582.48	0.02261
8	25	29627.1	87.86	122.52091	122.3815	1.073E-06	0.363	57551.99	2658.15	0.02364
8	50	32997.9	87.86	122.51795	122.424	1.071E-06	0.405	58532.59	2710.91	0.02857
8	100	36343.7	87.86	122.52521	122.4304	1.424E-06	0.453	59402.92	2759.91	0.02857
8	1000	47455.2	87.86	122.51109	122.4501	2.513E-06	0.594	61597.34	2938.47	0.042
7	1.67	14734	89.34	122.51378	122.1655	3.704E-07	0.163	58736.96	1833.09	0.01172
7	2	16055.8	89.34	122.47747	122.1911	3.801E-07	0.181	56767.85	1973.86	0.01143
7	5	21487.3	89.34	122.45143	122.2523	0.0000004	0.261	54882.59	2323.53	0.018
7	10	25083.4	89.34	122.4548	122.3022	8.092E-07	0.309	55754.15	2445.21	0.02435
7	25	29627.1	89.34	122.45042	122.3228	1.192E-06	0.37	56620.67	2425.04	0.02364
7	50	32997.9	89.34	122.45968	122.3542	1.179E-06	0.414	57018.13	2408.69	0.03095
7	100	36343.7	89.34	122.46739	122.3727	1.545E-06	0.459	57286.44	2393.69	0.03095
7	1000	47455.2	89.34	122.45452	122.3936	2.692E-06	0.606	57610.29	2348.2	0.042
6	1.67	14734	87.9	122.40301	122.0552	4.276E-07	0.171	58952.2	2048.96	0.01241
6	2	16055.8	87.9	122.37951	122.0812	4.28E-07	0.188	57897.98	2238.2	0.01214
6	5	21487.3	87.9	122.3793	122.1683	4.15E-07	0.261	58116.47	2452.63	0.018
6	10	25083.4	87.9	122.39534	122.231	8.092E-07	0.304	58997.49	2565.88	0.02435

6	25	29627.1	87.9	122.40342	122.2642	1.192E-06	0.365	60196.71	2699.69	0.02364
6	50	32997.9	87.9	122.41307	122.3077	1.179E-06	0.411	61104.86	2783.07	0.03095
6	100	36343.7	87.9	122.42113	122.315	1.545E-06	0.45	61868.34	2759.8	0.03095
6	1000	47455.2	87.9	122.42058	122.3484	2.573E-06	0.586	63131.62	2691.8	0.042
5	1.67	14734	85.77	122.25532	121.9326	4.714E-07	0.178	56791.58	1860.19	0.0131
5	2	16055.8	85.77	122.24481	121.9714	4.649E-07	0.195	55217.92	1859.46	0.01286
5	5	21487.3	85.77	122.28313	122.0844	4.55E-07	0.272	52264.82	1863.07	0.0192
5	10	25083.4	85.77	122.31208	122.1598	9.133E-07	0.323	51733.19	2085.77	0.02609
5	25	29627.1	85.77	122.32118	122.2056	1.371E-06	0.39	52078.06	2138.93	0.02545
5	50	32997.9	85.77	122.3315	122.2495	1.371E-06	0.439	52270.04	2144.15	0.03333
5	100	36343.7	85.77	122.34018	122.2688	1.818E-06	0.491	52419.29	2148.89	0.03333
5	1000	47455.2	85.77	122.3527	122.3032	3.171E-06	0.653	52667.08	2158.31	0.0455
4	1.67	14734	86.8	122.05839	121.7609	4.848E-07	0.195	48179.04	1500.1	0.0131
4	2	16055.8	86.8	122.04888	121.8128	5.018E-07	0.218	46849.47	1643.1	0.01357
4	5	21487.3	86.8	122.11483	121.9645	5.2E-07	0.309	46581.08	1855.43	0.0204
4	10	25083.4	86.8	122.15747	122.0529	1.052E-06	0.365	46942.82	1986.6	0.02783
4	25	29627.1	86.8	122.18019	122.1	1.609E-06	0.441	47984.56	2186.48	0.02909
4	50	32997.9	86.8	122.20332	122.1448	1.586E-06	0.496	48872.58	2258.35	0.03571
4	100	36343.7	86.8	122.22454	122.1764	2.091E-06	0.546	49660.29	2287.73	0.03571
4	1000	47455.2	86.8	122.25088	122.2241	3.59E-06	0.72	51490.86	2501.53	0.049
3	1.67	14734	87.02	121.94762	121.6506	3.939E-07	0.187	42380.23	672.002	0.01241
3	2	16055.8	87.02	121.93868	121.6907	4.28E-07	0.213	38782.85	772.457	0.01286
3	5	21487.3	87.02	121.97057	121.8566	5.5E-07	0.331	33843.48	1186.05	0.0216
3	10	25083.4	87.02	121.99096	121.9461	1.214E-06	0.405	33558.41	1298.39	0.0313
3	25	29627.1	87.02	122.0157	122.0062	1.967E-06	0.504	33436.72	1301.94	0.03091
3	50	32997.9	87.02	122.02853	122.0633	2.036E-06	0.577	33469.15	1390.48	0.04048
3	100	36343.7	87.02	122.0395	122.0956	2.788E-06	0.649	33998.15	1659.44	0.04048
3	1000	47455.2	87.02	122.05856	122.1338	5.145E-06	0.879	35837.47	1766.7	0.0595
2	1.67	14734	86.55	121.83685	121.5525	4.377E-07	0.194	43552.37	1059.26	0.0131
2	2	16055.8	86.55	121.82847	121.6053	4.649E-07	0.218	41231.89	1142.98	0.01286
2	5	21487.3	86.55	121.88642	121.7607	5.55E-07	0.329	37127.38	1208.93	0.0216
2	10	25083.4	86.55	121.9196	121.863	1.202E-06	0.401	36172.67	1278.66	0.0313
2	25	29627.1	86.55	121.9452	121.9241	1.947E-06	0.499	35760.43	1403.11	0.03091
2	50	32997.9	86.55	121.95861	121.9819	2.036E-06	0.569	35856.96	1501.93	0.04048
2	100	36343.7	86.55	121.98168	122.0147	2.788E-06	0.643	36138.34	1592.1	0.04048
2	1000	47455.2	86.55	122.00199	122.066	5.085E-06	0.867	37188.84	1651.99	0.0595

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1	1.67	14734	86.59	121.73838	121.4299	3.367E-07	0.18	44978.76	608.869	0.01172
1	2	16055.8	86.59	121.74275	121.4833	3.69E-07	0.206	40697.99	632.997	0.01214
1	5	21487.3	86.59	121.77823	121.6647	0.0000005	0.329	32417.62	755.275	0.0204
1	10	25083.4	86.59	121.78877	121.7681	1.156E-06	0.412	30280.45	848.728	0.02957
1	25	29627.1	86.59	121.80421	121.8186	1.987E-06	0.526	28964.27	944.386	0.03273
1	50	32997.9	86.59	121.80712	121.8772	2.143E-06	0.614	28511.26	1046.38	0.04286
1	100	36343.7	86.59	121.81978	121.9108	3.03E-06	0.699	28443.83	1203.84	0.04286
1	1000	47455.2	86.59	121.80967	121.9756	5.983E-06	0.978	29843.83	1569.45	0.063

Tabela 3. Níveis d'água simulados para o cenário sem reservatório para cada TR.

Cenário sem reservatório									
Seção	Distância (km)	1,67	2	5	10	25	50	100	1000
102	120,79	133,40	133,93	135,80	136,88	138,09	138,91	139,70	141,87
101	115,97	133,01	133,53	135,32	136,36	137,52	138,30	139,03	141,14
100	107,62	132,32	132,81	134,56	135,58	136,71	137,48	138,19	140,30
99	103,49	131,93	132,40	134,15	135,16	136,29	137,06	137,77	139,87
98	98,87	131,49	131,97	133,72	134,72	135,85	136,61	137,31	139,39
97	94,20	131,05	131,53	133,26	134,28	135,40	136,17	136,87	138,97
96	89,64	130,45	130,92	132,63	133,63	134,74	135,51	136,21	138,30
95	85,77	129,94	130,39	132,05	133,02	134,10	134,86	135,54	137,60
94	80,82	129,51	129,95	131,58	132,53	133,59	134,33	135,00	137,01
93	77,23	129,13	129,57	131,18	132,13	133,18	133,92	134,59	136,59
92	74,07	128,56	129,00	130,62	131,56	132,62	133,34	134,01	136,02
91	72,90	128,30	128,74	130,36	131,30	132,35	133,07	133,74	135,73
90	71,80	128,02	128,46	130,07	131,02	132,06	132,77	133,44	135,43
89	70,44	127,77	128,20	129,81	130,75	131,79	132,49	133,16	135,16
88	68,91	127,51	127,93	129,53	130,46	131,50	132,20	132,86	134,84
86	65,77	126,70	127,12	128,70	129,63	130,64	131,33	131,97	133,92
85	64,10	126,19	126,61	128,17	129,10	130,09	130,77	131,41	133,34
84	62,56	125,74	126,15	127,70	128,63	129,63	130,31	130,95	132,90
83	61,10	125,32	125,72	127,24	128,17	129,15	129,83	130,47	132,40
82	59,38	124,75	125,13	126,58	127,47	128,46	129,14	129,79	131,76
81	58,40	124,22	124,60	126,04	126,92	127,94	128,64	129,32	131,33
80	56,29	123,30	123,70	125,19	126,10	127,16	127,89	128,58	130,65
76	50,30	121,33	121,74	123,25	124,15	125,23	125,97	126,68	128,78
75	48,59	120,47	120,87	122,38	123,29	124,39	125,14	125,86	127,97
74	47,66	119,87	120,27	121,76	122,66	123,77	124,52	125,24	127,38
73	45,62	118,67	119,06	120,54	121,44	122,56	123,32	124,06	126,23
72	44,04	117,82	118,22	119,74	120,67	121,81	122,58	123,32	125,57
71	42,82	117,53	117,94	119,49	120,43	121,58	122,35	123,08	125,33
70	41,27	117,31	117,71	119,22	120,14	121,28	122,03	122,76	124,98
69	39,61	116,95	117,34	118,84	119,76	120,91	121,69	122,43	124,72
68	38,36	116,83	117,21	118,67	119,56	120,66	121,39	122,10	124,25

<b>Cenário sem reservatório</b>									
<b>Seção</b>	<b>Distância (km)</b>	<b>1,67</b>	<b>2</b>	<b>5</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>	<b>1000</b>
67,5	38,01	116,86	117,24	118,69	119,59	120,69	121,42	122,12	124,27
67	37,00	116,84	117,21	118,67	119,57	120,68	121,41	122,11	124,28
64	32,35	116,13	116,46	117,80	118,65	119,71	120,45	121,16	123,36
63	31,18	115,42	115,79	117,23	118,12	119,21	119,97	120,71	122,99
62	29,66	114,72	115,14	116,74	117,69	118,83	119,63	120,39	122,75
61	28,56	114,41	114,84	116,44	117,39	118,52	119,32	120,07	122,40
60	26,64	114,34	114,75	116,27	117,17	118,21	118,93	119,62	121,71
59	25,25	114,19	114,59	116,07	116,94	117,97	118,69	119,37	121,47
58,5	24,63	113,67	114,02	115,31	116,08	116,98	117,62	118,23	120,14
58	23,64	113,67	114,03	115,35	116,12	117,04	117,69	118,31	120,23
57	22,40	113,52	113,87	115,15	115,91	116,80	117,44	118,04	119,94
56	20,96	113,08	113,39	114,56	115,24	116,06	116,66	117,24	119,07
55	19,71	113,02	113,33	114,47	115,13	115,94	116,53	117,09	118,89
54	18,07	112,59	112,85	113,85	114,42	115,15	115,68	116,21	117,96
53	16,36	112,54	112,79	113,74	114,29	114,96	115,46	115,95	117,55
52	14,86	112,31	112,54	113,37	113,82	114,38	114,80	115,22	116,61
51	13,23	112,26	112,48	113,28	113,72	114,27	114,68	115,10	116,46
50	11,86	112,11	112,32	113,08	113,49	114,01	114,41	114,81	116,18
49	10,50	110,42	110,57	111,08	111,64	112,41	112,94	113,46	115,18
47	-	102,03	102,48	104,22	105,27	106,50	107,34	108,13	110,45

Tabela 4. Níveis d'água simulados para o cenário com reservatório para cada TR.

Cenário com reservatório na cota 125,0									
Seção	Distância (km)	1,67	2	5	10	25	50	100	1000
102	120,79	133,49	134,01	135,85	136,90	138,11	138,92	139,71	141,98
101	115,97	133,11	133,61	135,38	136,38	137,53	138,31	139,04	141,26
100	107,62	132,44	132,91	134,63	135,61	136,73	137,49	138,21	140,45
99	103,49	132,06	132,52	134,23	135,20	136,32	137,08	137,79	140,03
98	98,87	131,65	132,11	133,80	134,77	135,87	136,63	137,33	139,57
97	94,20	131,24	131,69	133,37	134,33	135,43	136,19	136,90	139,17
96	89,64	130,68	131,11	132,75	133,69	134,77	135,53	136,24	138,54
95	85,77	130,20	130,62	132,19	133,10	134,14	134,89	135,58	137,88
94	80,82	129,82	130,22	131,73	132,61	133,63	134,36	135,05	137,32
93	77,23	129,48	129,87	131,35	132,22	133,24	133,96	134,64	136,93
92	74,07	128,99	129,37	130,82	131,68	132,68	133,39	134,07	136,41
91	72,90	128,78	129,15	130,58	131,43	132,42	133,12	133,80	136,15
90	71,80	128,55	128,91	130,32	131,15	132,13	132,83	133,51	135,88
89	70,44	128,34	128,70	130,08	130,89	131,86	132,55	133,23	135,63
88	68,91	128,13	128,47	129,82	130,62	131,58	132,26	132,94	135,35
86	65,77	127,52	127,83	129,09	129,84	130,75	131,41	132,07	134,54
85	64,10	127,17	127,45	128,63	129,34	130,22	130,87	131,53	134,05
84	62,56	126,86	127,12	128,23	128,92	129,78	130,42	131,09	133,69
83	61,10	126,59	126,83	127,85	128,50	129,32	129,96	130,62	133,29
82	59,38	126,24	126,43	127,30	127,89	128,67	129,30	129,99	132,81
81	58,40	125,97	126,14	126,88	127,43	128,20	128,84	129,55	132,49
80	56,29	125,61	125,72	126,31	126,78	127,50	128,14	128,87	132,00
76	50,30	125,51	125,61	126,14	126,58	127,27	127,89	128,62	131,80
75	48,59	125,49	125,59	126,09	126,52	127,20	127,82	128,55	131,73
74	47,66	125,48	125,57	126,08	126,50	127,18	127,80	128,52	131,72
73	45,62	125,47	125,56	126,06	126,48	127,15	127,77	128,49	131,68
72	44,04	125,45	125,54	126,01	126,42	127,09	127,70	128,42	131,63
71	42,82	125,44	125,53	126,00	126,40	127,06	127,67	128,38	131,57
70	41,27	125,42	125,51	125,97	126,36	127,01	127,61	128,33	131,56
69	39,61	125,42	125,50	125,96	126,36	127,02	127,62	128,34	131,52
68	38,36	125,39	125,47	125,90	126,28	126,90	127,49	128,19	131,38



Cenário com reservatório na cota 125,0									
Seção	Distância (km)	1,67	2	5	10	25	50	100	1000
67,5	38,01	125,39	125,47	125,90	126,28	126,90	127,49	128,18	131,35
67	37,00	125,40	125,48	125,91	126,30	126,92	127,51	128,21	131,33
64	32,35	125,36	125,44	125,85	126,22	126,83	127,42	128,11	131,29
63	31,18	125,36	125,43	125,84	126,20	126,81	127,40	128,09	131,29
62	29,66	125,36	125,43	125,84	126,21	126,82	127,40	128,10	131,29
61	28,56	125,35	125,42	125,82	126,18	126,78	127,36	128,05	131,23
60	26,64	125,30	125,36	125,72	126,05	126,60	127,15	127,81	131,00
59	25,25	125,31	125,37	125,74	126,07	126,64	127,19	127,86	130,89
58,5	24,63	125,27	125,33	125,66	125,97	126,50	127,04	127,70	130,84
58	23,64	125,28	125,34	125,68	125,99	126,53	127,07	127,73	130,83
57	22,40	125,27	125,33	125,67	125,98	126,52	127,05	127,71	130,82
56	20,96	125,27	125,33	125,67	125,98	126,52	127,06	127,72	130,81
55	19,71	125,27	125,33	125,66	125,97	126,51	127,04	127,70	130,81
54	18,07	125,27	125,32	125,66	125,97	126,50	127,04	127,70	130,80
53	16,36	125,25	125,31	125,63	125,93	126,46	126,99	127,64	130,78
52	14,86	125,25	125,30	125,62	125,91	126,44	126,96	127,61	130,77
51	13,23	125,25	125,31	125,63	125,92	126,45	126,98	127,63	130,74
50	11,86	125,26	125,31	125,64	125,94	126,47	127,00	127,66	130,74
49	10,50	125,25	125,31	125,63	125,93	126,46	126,99	127,65	130,72
47	-	125,24	125,30	125,62	125,91	126,43	126,96	127,61	130,71

Tabela 5. Níveis d'água simulados para o cenário com o reservatório assoreado para cada TR.

Cenário com assoreamento de 100 anos									
Seção	Distância (km)	1,67	2	5	10	25	50	100	1000
102	120,79	133,50	134,02	135,86	136,91	138,12	138,93	139,72	141,99
101	115,97	133,12	133,62	135,39	136,40	137,55	138,33	139,05	141,28
100	107,62	132,45	132,92	134,64	135,62	136,74	137,50	138,22	140,46
99	103,49	132,07	132,53	134,24	135,21	136,32	137,09	137,80	140,04
98	98,87	131,66	132,11	133,81	134,78	135,88	136,63	137,34	139,58
97	94,20	131,24	131,70	133,37	134,33	135,44	136,20	136,91	139,18
96	89,64	130,68	131,12	132,76	133,70	134,78	135,54	136,25	138,55
95	85,77	130,21	130,63	132,20	133,11	134,15	134,90	135,59	137,89
94	80,82	129,82	130,23	131,74	132,62	133,64	134,37	135,06	137,33
93	77,23	129,49	129,88	131,36	132,23	133,24	133,96	134,65	136,94
92	74,07	129,00	129,38	130,83	131,69	132,69	133,40	134,09	136,43
91	72,90	128,78	129,16	130,59	131,44	132,43	133,13	133,82	136,16
90	71,80	128,56	128,92	130,33	131,16	132,14	132,84	133,52	135,89
89	70,44	128,35	128,71	130,09	130,90	131,87	132,57	133,25	135,65
88	68,91	128,14	128,48	129,83	130,64	131,59	132,28	132,95	135,37
86	65,77	127,53	127,84	129,10	129,85	130,76	131,43	132,09	134,56
85	64,10	127,18	127,46	128,64	129,36	130,24	130,89	131,55	134,07
84	62,56	126,88	127,14	128,25	128,94	129,80	130,45	131,12	133,72
83	61,10	126,61	126,84	127,87	128,52	129,35	129,99	130,65	133,32
82	59,38	126,25	126,45	127,32	127,91	128,71	129,34	130,02	132,84
81	58,40	125,99	126,15	126,91	127,46	128,24	128,88	129,59	132,53
80	56,29	125,63	125,74	126,34	126,82	127,55	128,19	128,92	132,04
76	50,30	125,53	125,63	126,17	126,61	127,31	127,94	128,67	131,84
75	48,59	125,50	125,60	126,12	126,56	127,25	127,88	128,60	131,77
74	47,66	125,49	125,59	126,10	126,54	127,22	127,85	128,57	131,76
73	45,62	125,48	125,58	126,09	126,51	127,19	127,82	128,54	131,72
72	44,04	125,46	125,55	126,04	126,46	127,13	127,75	128,47	131,67
71	42,82	125,45	125,54	126,02	126,44	127,10	127,71	128,43	131,61
70	41,27	125,44	125,53	126,00	126,40	127,06	127,66	128,38	131,56
69	39,61	125,43	125,52	125,99	126,40	127,06	127,67	128,39	131,60
68	38,36	125,40	125,49	125,93	126,32	126,95	127,54	128,24	131,39

Cenário com assoreamento de 100 anos									
Seção	Distância (km)	1,67	2	5	10	25	50	100	1000
67,5	38,01	125,40	125,49	125,93	126,32	126,94	127,53	128,23	131,37
67	37,00	125,41	125,49	125,94	126,33	126,96	127,56	128,26	131,41
64	32,35	125,38	125,45	125,88	126,25	126,87	127,45	128,15	131,32
63	31,18	125,37	125,45	125,87	126,24	126,85	127,44	128,14	131,32
62	29,66	125,37	125,44	125,86	126,23	126,85	127,44	128,14	131,32
61	28,56	125,36	125,43	125,84	126,21	126,81	127,39	128,09	131,26
60	26,64	125,31	125,38	125,75	126,08	126,64	127,19	127,85	130,93
59	25,25	125,32	125,39	125,76	126,10	126,67	127,23	127,90	131,03
58,5	24,63	125,28	125,34	125,68	126,00	126,54	127,08	127,74	130,84
58	23,64	125,29	125,35	125,70	126,02	126,57	127,11	127,77	130,86
57	22,40	125,28	125,35	125,69	126,01	126,56	127,09	127,75	130,84
56	20,96	125,28	125,34	125,69	126,01	126,56	127,10	127,76	130,87
55	19,71	125,28	125,34	125,68	125,99	126,54	127,08	127,74	130,85
54	18,07	125,28	125,34	125,68	125,99	126,54	127,07	127,73	130,84
53	16,36	125,26	125,32	125,65	125,96	126,49	127,02	127,67	130,77
52	14,86	125,26	125,31	125,64	125,94	126,47	127,00	127,65	130,75
51	13,23	125,26	125,32	125,64	125,95	126,48	127,01	127,66	130,77
50	11,86	125,27	125,32	125,66	125,96	126,50	127,04	127,69	130,81
49	10,50	125,25	125,31	125,63	125,93	126,46	126,99	127,65	130,77
47	-	125,24	125,30	125,62	125,91	126,43	126,96	127,61	130,72