## OBSERVAÇÕES DO TRECHO DA RAAP UTILIZADO

## Adaptado de (Beserra, 1952).

Linha	RN Inicial	RN Final	Desnível observado (m)	Comprimento (km)
1	3L	RN89.39	965,4909	541,46
2	RN89.39	3L	-965,2125	174,26
3	RN89.39	19J	-184,5766	385,84
4	19 <b>J</b>	17I	-758,8563	144,17
5	17I	15N	-18,9386	13,00
6	15N	9 <b>Y</b>	22,8896	108,10
7	9 <b>Y</b>	S.5T	162,2300	248,00
8	S.5T	S.4E	-138,6889	83,43
9	S.4E	P.1K	-36,3277	25,80
10	P.1K	P.1T	175,9286	44,13
11	P.1T	P.2B	-106,2625	71,79
12	P.2B	3L	-82,8555	61,86
13	P.2B	P.1T	106,2602	39,68
14	P.1K	1G	-4,0472	20,33
15	1G	P.2B	73,6905	61,25
16	S.4E	P.4P	-29,9320	59,48
17	P.4P	1G	-10,4241	54,20
18	P.4P	S.5N	-12,4700	73,95
19	S.5N	S.5T	181,0665	26,20
20	S.5N	8P	-5,0135	67,08
21	8P	9 <b>Y</b>	23,8215	111,15
22	8P	15N	0,9243	146,63
23	19J	21A	134,8814	114,21
24	21A	21B	-17,4816	2,32
25	21B	17I	-876,2539	125,56
26	21A	MMItapeva	-233,2686	449,34
27	MMItapeva	Apiaí	243,1308	88,97
28	Apiaí	21B	-27,2005	170,71
29	Apiaí	4IGG	-220,1132	97,77
30	4IGG	MMItapeva	-23,0415	71,40
31	4IGG	KM98,5	75,4206	130,45
32	KM98,5	Itu	-186,3108	69,74
33	Itu	RN21	91,6736	192,64
34	RN21	MMItapeva	-3,5715	187,75
35	Itu	RN9	36,9309	116,91
36	RN9	Ipiranga	141,9885	207,94

Linha	RN Inicial	RN Final	Desnível observado (m)	Comprimento (km)
37	KM98,5	Ipiranga	-7,4500	104,57
38	Ipiranga	KM98,5	7,4489	343,76
39	RN9	38A	-86,6274	119,70
40	38A	30IGG	-56,6636	179,97
41	30IGG	RN21	197,9122	166,83
42	38A	40Y	200,2670	17,69
43	40Y	42F	-209,1825	83,94
44	42F	Olímpia	-34,4465	149,01
45	Olímpia	30IGG	-13,2047	142,94
46	Olímpia	45O	-12,1858	152,97
47	47O	47B	314,2420	106,10
48	47B	49G	198,3960	144,99
49	49G	42F	-466,0313	102,18
50	45O	52Y	244,7099	170,45
51	52Y	62Z	203,2885	116,89
52	62Z	67S	-66,3206	224,55
53	67S	69M	317,4607	121,30
54	69M	47B	-384,9907	250,25
55	52Y	62Z	203,3870	810,85
56	81J	69M	469,5058	80,56
57	81J	85U	87,0408	248,13
58	85U	67S	65,0532	733,15
59	49G	75G	-122,2306	154,27
60	75G	78O	135,8454	231,57
61	78O	81J	-296,4706	162,15
62	85U	87Q	90,3870	97,77
63	87Q	90K	100,9558	201,41
64	90K	70O	18,0729	132,89
65	90K	93J	-87,0128	98,42
66	93J	94S	4,1540	100,45
67	94S	95Z	-34,5515	91,51
68	95Z	75G	-0,1483	111,09
69	95Z	40Y	-134,7893	257,50
70	94S	RJ.18V	-426,1270	217,55
71	RJ.18V	100B	38,1722	61,75
72	100B	RN9	104,8925	328,83
73	Ipiranga	100B	-246,7157	232,82
74	RJ.18V	RJ.15E	-153,2391	248,80
75	RJ.15E	115N	343,9193	46,46
76	115N	121J	480,8950	94,40
77	121J	93J	-249,5430	189,77
78	121J	106I	-352,5339	216,21
79	106I	87Q	89,0700	16,06

Linha	RN Inicial	RN Final	Desnível observado (m)	Comprimento (km)
80	106I	126R	-405,2769	257,15
81	126R	119K	-63,4986	122,26
82	119K	115N	340,3589	126,99
83	119K	131T	-137,8070	158,63
84	131T	134T	569,4108	123,99
85	134T	126R	-368,0582	150,63
86	134T	148L	-165,7041	21,08
87	176Z	148L	586,3355	247,84
88	176Z	RJ.6D	94,7616	70,63
89	RJ.6D	RJ.7P	0,8766	99,61
90	131T	RJ.7P	-86,8668	78,20
91	148L	176Z	-586,4039	545,71
92	RJ.7P	RJ.10K	373,2157	187,89
93	RJ.10K	RJ.1V	-459,8809	143,85
94	RJ.1V	RJ.1O	-15,3156	24,01
95	RJ.1O	RJ.6D	101,1063	306,49
96	RJ.10K	RJ.15E	-152,0357	196,96
97	RJ.1Z	RJ.18V	461,3395	302,18
98	RJ.1V	RJ.1Z	-0,2796	7,39
99	RJ.1Z	RJ.1H	0,5831	15,60
100	RJ.1H	RJ.1J	49,0682	8,94
101	RJ.1J	RJ.1O	-64,7117	23,22
102	RJ.1H	RJ.1E	34,7145	3,17
103	RJ.1E	RJ.1F	-31,8426	0,99
104	RJ.1F	RJ.1J	46,1939	7,35
105	RJ.1F	RJ.1E	31,8381	25,53