



JULHO 2021

# PROJETO BÁSICO DE ENGENHARIA RODOVIÁRIA

VOLUME 03 - RELATÓRIO DE TERRAPLENAGEM

LOCAL: SÃO PEDRO DE ALCÂNTARA - SC  
ESTRADA GERAL DA ALTO VARGINHA  
EXTENSÃO: 1.649,89 METROS





## RELATÓRIO DE ALINHAMENTO HORIZONTAL POR ESTACA

Estaca	Norte	Este
0+0,000	6943280,9371706	716139,9051271
1+0,000	6943289,8956338	716122,0236860
2+0,000	6943298,8540970	716104,1422448
2+0,854 PC	6943299,2366203	716103,3787133
3+0,000	6943309,0600300	716086,9565553
4+0,000	6943321,2134756	716071,0871564
4+1,799 PT	6943322,3962118	716069,7313177
4+12,815 PC	6943329,8179626	716061,5909847
5+0,000	6943334,6257260	716056,2543599
5+9,875 PCC	6943340,4726657	716048,3028652
6+0,000	6943345,2665645	716039,3881770
6+16,079 PCC	6943351,3305850	716024,5083213
7+0,000	6943352,3516913	716020,7234861
8+0,000	6943354,7366661	716000,9146228
9+0,000	6943352,3390570	715981,1072848
9+17,304 PCR	6943346,5045604	715964,8491414
10+0,000	6943345,6538584	715962,2917997
11+0,000	6943344,1465044	715942,5042803
11+10,998 PT	6943346,9539134	715931,8972678
12+0,000	6943349,9257978	715923,4000763
12+0,868 PC	6943350,2123072	715922,5808906
13+0,000	6943359,1142124	715905,7070181
13+14,136 PCR	6943368,3364868	715895,0225717
14+0,000	6943372,5149597	715890,9084003
15+0,000	6943386,1103135	715876,2454803
16+0,000	6943398,6407168	715860,6626738
16+10,732 PCR	6943404,9034814	715851,9486421
17+0,000	6943410,8421201	715844,8331961
18+0,000	6943424,1935978	715829,9449657
19+0,000	6943438,2522073	715815,7225586
19+13,231 PCR	6943447,9254485	715806,6958766
20+0,000	6943452,7445823	715801,9441175
20+12,943 PCC	6943461,1899248	715792,1441500
21+0,000	6943464,4982643	715785,9552745



21+9,814 PCR	6943465,0155607	715776,2608743
22+0,000	6943463,3890556	715766,2153972
22+4,117 PCC	6943463,1689706	715762,1044883
22+12,073 PT	6943465,9922798	715754,9225573
23+0,000	6943471,8983652	715749,6350823
23+0,493 PC	6943472,2655027	715749,3063992
23+19,545 PT	6943489,3268619	715741,6704040
24+0,000	6943489,7801221	715741,6287421
25+0,000	6943509,6961678	715739,7981348
26+0,000	6943529,6122135	715737,9675275
26+0,963 PC	6943530,5715174	715737,8793519
27+0,000	6943549,1700401	715733,8737267
28+0,000	6943568,0356503	715727,2746520
29+0,000	6943585,9096735	715718,3315915
29+18,833 PT	6943601,5742211	715707,8970362
30+0,000	6943602,5025964	715707,1899877
30+9,140 PC	6943609,7739900	715701,6521112
30+13,778 PCC	6943613,2254166	715698,5775257
31+0,000	6943616,1475333	715693,1199086
31+11,559 PT	6943616,0888158	715681,7612253
32+0,000	6943612,9274307	715673,9342492
32+0,521 PC	6943612,7324234	715673,4514490
32+17,255 PCR	6943605,5748687	715658,3363518
33+0,000	6943604,5775015	715655,7822312
33+17,832 PT	6943608,3581879	715639,1570511
34+0,000	6943609,7770095	715637,5173452
34+9,515 PC	6943616,0032788	715630,3217613
35+0,000	6943622,3168568	715621,9555244
35+9,615 PCR	6943627,4364128	715613,8204956
36+0,000	6943633,0492440	715605,0849470
36+7,888 PCC	6943637,7143523	715598,7249946
37+0,000	6943647,6989733	715592,2038748
38+0,000	6943666,3703408	715596,5422061
38+6,862 PT	6943670,5973381	715601,9047341
38+17,939 PC	6943675,4379060	715611,8677837
39+0,000	6943676,3426439	715613,7193584
40+0,000	6943690,4225399	715627,4687877
40+1,819 PCC	6943692,0720494	715628,2343490



41+0,000	6943709,7190149	715632,4148286
42+0,000	6943729,6512747	715631,8986923
42+15,022 PT	6943744,1320915	715627,9999580
43+0,000	6943748,7301437	715626,0934312
44+0,000	6943767,2049613	715618,4330714
45+0,000	6943785,6797790	715610,7727116
45+7,708 PC	6943792,8000812	715607,8203643
46+0,000	6943803,8299857	715602,4076175
47+0,000	6943820,4111879	715591,2664041
47+2,917 PCC	6943822,6650414	715589,4147784
47+19,110 PCC	6943828,1110303	715574,8995383
48+0,000	6943827,9849621	715574,0188275
49+0,000	6943823,1438180	715554,6467946
50+0,000	6943814,6105844	715536,5941975
51+0,000	6943802,7142617	715520,5570580
51+2,796 PCR	6943800,8076041	715518,5116980
52+0,000	6943790,5979254	715504,7130998
53+0,000	6943783,0935606	715486,2398755
53+6,637 PCC	6943781,7360642	715479,7451384
54+0,000	6943782,0458570	715466,4605446
54+13,666 PT	6943787,2553537	715453,9131229
55+0,000	6943790,6898351	715448,5905772
55+10,561 PC	6943796,4157005	715439,7169871
56+0,000	6943802,4709677	715432,4866735
56+18,697 PCR	6943817,2394874	715421,1273071
57+0,000	6943818,3179723	715420,3963129
58+0,000	6943833,4482854	715407,3761648
58+14,380 PCC	6943842,4227178	715396,1588169
59+0,000	6943845,6985529	715391,5923304
60+0,000	6943856,7095930	715374,9000440
60+12,821 PCC	6943863,2232015	715363,8583050
61+0,000	6943865,4810675	715357,0475397
62+0,000	6943867,4294604	715337,2320148
62+16,938 PCR	6943864,0118386	715320,6979094
63+0,000	6943863,1595465	715317,7567210
64+0,000	6943860,2083846	715298,0208774
65+0,000	6943861,8691375	715278,1348325
65+15,183 PCC	6943866,1639956	715263,5921886



66+0,000	6943868,2149382	715259,2363348
67+0,000	6943881,2297196	715244,2670177
67+4,108 PCR	6943884,6482629	715241,9910320
68+0,000	6943897,2170275	715232,2936275
68+2,088 PCC	6943898,7490680	715230,8745418
69+0,000	6943910,0399315	715216,9990189
70+0,000	6943919,5828974	715199,4585981
71+0,000	6943925,5469240	715180,4017110
71+16,055 PCR	6943927,5873671	715164,4934991
72+0,000	6943927,7469710	715160,5518770
73+0,000	6943930,8192504	715140,8198240
73+4,681 PCC	6943932,0764072	715136,3116190
74+0,000	6943940,5839339	715123,7364205
75+0,000	6943958,3894973	715115,3157722
75+8,793 PCC	6943967,1564639	715115,2611808
76+0,000	6943978,2037025	715117,1090682
77+0,000	6943997,1122901	715123,5159810
77+3,079 PT	6943999,8907406	715124,8435335
78+0,000	6944014,8049097	715132,8355763
78+5,422 PC	6944019,5839746	715135,3965296
78+11,696 PCC	6944025,4008314	715137,7440680
79+0,000	6944033,5621657	715137,2112324
79+7,467 PCC	6944039,4919609	715132,8238650
80+0,000	6944044,5971944	715121,4706562
80+7,071 PT	6944045,3559231	715114,4557025
80+19,940 PC	6944045,4216506	715101,5864335
81+0,000	6944045,4245810	715101,5269975
81+8,888 PCC	6944048,2291227	715093,2099056
81+19,557 PT	6944056,5108044	715086,8656370
82+0,000	6944056,9376342	715086,7477636
82+9,887	6944066,4681902	715084,1158041



## RELATÓRIO DE ALINHAMENTO VERTICAL POR ESTACA

Estaca	Cota
0+0,000	61,3181822
1+0,000	61,5674283
2+0,000	61,8922113
2+0,854 PC	61,9088290
3+0,000	62,3405215
4+0,000	62,9124102
4+1,799 PT	62,9699186
4+12,815 PC	63,3438372
5+0,000	63,6079427
5+9,875 PCC	63,9969915
6+0,000	64,4271989
6+16,079 PCC	65,1622846
7+0,000	65,3432546
8+0,000	66,2664487
9+0,000	67,1978764
9+17,304 PCR	68,1510685
10+0,000	68,3171507
11+0,000	69,6979063
11+10,998 PT	70,5592084
12+0,000	71,3036401
12+0,868 PC	71,3776236
13+0,000	73,1077346
13+14,136 PCR	74,5080292
14+0,000	75,1184150
15+0,000	77,2138112
16+0,000	79,2760274
16+10,732 PCR	80,2765614
17+0,000	81,0670415
18+0,000	82,5409723
19+0,000	83,6989213
19+13,231 PCR	84,2917418
20+0,000	84,5417507
20+12,943 PCC	84,9245416
21+0,000	85,1144244
21+9,814 PCR	85,3784860



22+0,000	85,6525658
22+4,117 PCC	85,7633543
22+12,073 PT	85,9774117
23+0,000	86,3297622
23+0,493 PC	86,3635006
23+19,545 PT	88,5488917
24+0,000	88,6090200
25+0,000	91,2510304
26+0,000	93,8930408
26+0,963 PC	94,0202995
27+0,000	96,5350512
28+0,000	99,1770616
29+0,000	101,8309376
29+18,833 PT	104,4293523
30+0,000	104,5941849
30+9,140 PC	105,9006788
30+13,778 PCC	106,5741287
31+0,000	107,4886893
31+11,559 PT	109,2047944
32+0,000	110,4583325
32+0,521 PC	110,5356559
32+17,255 PCR	113,0207280
33+0,000	113,4283369
33+17,832 PT	116,0740936
34+0,000	116,3912267
34+9,515 PC	117,7507118
35+0,000	119,1880390
35+9,615 PCR	120,4503440
36+0,000	121,7540844
36+7,888 PCC	122,7052641
37+0,000	124,1544469
38+0,000	126,5474975
38+6,862 PT	127,3685704
38+17,939 PC	128,6939266
39+0,000	128,9405482
40+0,000	131,3403823
40+1,819 PCC	131,5637757
41+0,000	133,8941063



42+0,000	136,6621544
42+15,022 PT	138,8538947
43+0,000	139,5797480
44+0,000	142,4797290
45+0,000	145,3534606
45+7,708 PC	146,4568592
46+0,000	148,2164133
47+0,000	151,0822288
47+2,917 PCC	151,5016888
47+19,110 PCC	153,8390299
48+0,000	153,9678777
49+0,000	156,8761636
50+0,000	159,8070974
51+0,000	162,7606902
51+2,796 PCR	163,1754540
52+0,000	165,7369531
53+0,000	168,7358974
53+6,637 PCC	169,7361579
54+0,000	171,7575342
54+13,666 PT	173,8352078
55+0,000	174,8018752
55+10,561 PC	176,4185295
56+0,000	177,8660505
56+18,697 PCR	180,7269272
57+0,000	180,9213745
58+0,000	183,7023310
58+14,380 PCC	185,4662909
59+0,000	186,1023871
60+0,000	188,2192860
60+12,821 PCC	189,4657966
61+0,000	190,1112477
62+0,000	191,7107733
62+16,938 PCR	192,8374446
63+0,000	193,0188789
64+0,000	194,0363917
65+0,000	194,7639533
65+15,183 PCC	195,1229633
66+0,000	195,2020210





67+0,000	195,3508699
67+4,108 PCR	195,3456507
68+0,000	195,2105934
68+2,088 PCC	195,1792734
69+0,000	194,8971802
70+0,000	194,5821977
71+0,000	194,2672151
71+16,055 PCR	194,0143642
72+0,000	193,9522326
73+0,000	193,6372500
73+4,681 PCC	193,5635347
74+0,000	193,3222674
75+0,000	193,0348217
75+8,793 PCC	193,0201873
76+0,000	193,1458775
77+0,000	193,7724276
77+3,079 PT	193,9147612
78+0,000	194,9157232
78+5,422 PC	195,3149776
78+11,696 PCC	195,8246876
79+0,000	196,5780572
79+7,467 PCC	197,3154843
80+0,000	198,3934846
80+7,071 PT	198,8297126
80+19,940 PC	199,3054810
81+0,000	199,3067290
81+8,888 PCC	199,3948509
81+19,557 PT	199,2428231
82+0,000	199,2304313
1+649,89	198,8343491



CORREDOR - ESTRADA GERAL DA ALTA VARGINHA 0+0.000 82+9.887

LADO ESQUERDO			Eixo						LADO DIREITO		
TOPO DO PAVIMENTO			Estaca	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Cota Projeto	Cota Terreno	Cota Vermelha	TOPO DO PAVIMENTO		
Afast. (m)	Cota (m)	Incl. (%)							Afast. (m)	Cota (m)	Incl. (%)
-3.000	61.243	-2.50	0+0.000		PCV	61.318		61.318	3.000	61.243	-2.50
-3.000	61.492	-2.50	1+0.000			61.567	61.160	0.408	3.000	61.492	-2.50
-3.000	61.817	-2.50	2+0.000			61.892	61.228	0.664	3.000	61.817	-2.50
-3.000	61.834	-2.50	2+0.854	PC		61.909	61.232	0.677	3.000	61.834	-2.50
-3.000	62.266	-2.50	3+0.000			62.341	61.752	0.588	3.000	62.266	-2.50
-3.000	62.300	-2.50	3+1.327			62.375	61.821	0.553	3.000	62.300	-2.50
-3.000	62.837	-2.50	4+0.000			62.912	62.921	-0.009	3.000	62.837	-2.50
-3.000	62.895	-2.50	4+1.799	PT		62.970	63.032	-0.062	3.000	62.895	-2.50
-3.000	63.269	-2.50	4+12.815	PC		63.344	63.637	-0.293	3.000	63.269	-2.50
-3.000	63.533	-2.50	5+0.000			63.608	63.819	-0.211	3.000	63.533	-2.50
-3.000	63.584	-2.50	5+1.345			63.659	63.831	-0.171	3.000	63.584	-2.50
-3.000	63.922	-2.50	5+9.875	PCC		63.997	63.966	0.031	3.000	63.922	-2.50
-3.000	64.352	-2.50	6+0.000			64.427	64.252	0.175	3.000	64.352	-2.50
-3.000	64.485	-2.50	6+2.977		PTV	64.560	64.360	0.200	3.000	64.485	-2.50
-3.000	65.087	-2.50	6+16.079	PCC		65.162	64.608	0.554	3.000	65.087	-2.50
-3.000	65.268	-2.50	7+0.000			65.343	64.737	0.607	3.000	65.268	-2.50
-3.000	66.191	-2.50	8+0.000			66.266	65.895	0.372	3.000	66.191	-2.50
-3.000	66.500	-2.50	8+6.692		PCV	66.575	66.439	0.136	3.000	66.500	-2.50
-3.000	67.123	-2.50	9+0.000			67.198	67.180	0.018	3.000	67.123	-2.50
-3.000	68.076	-2.50	9+17.304	PCR		68.151	67.834	0.317	3.000	68.076	-2.50
-3.000	68.242	-2.50	10+0.000			68.317	67.644	0.673	3.000	68.242	-2.50
-3.000	69.192	-2.50	10+14.151			69.267	69.016	0.251	3.000	69.192	-2.50
-3.000	69.623	-2.50	11+0.000		PCV	69.698	70.082	-0.384	3.000	69.623	-2.50
-3.000	70.484	-2.50	11+10.998	PT		70.559	71.077	-0.518	3.000	70.484	-2.50



-3.000	71.229	-2.50	12+0.000			71.304	71.532	-0.229	3.000	71.229	-2.50
-3.000	71.303	-2.50	12+0.868	PC		71.378	71.576	-0.199	3.000	71.303	-2.50
-3.000	72.796	-2.50	12+17.502			72.871	72.678	0.193	3.000	72.796	-2.50
-3.000	73.033	-2.50	13+0.000			73.108	72.932	0.176	3.000	73.033	-2.50
-3.000	74.433	-2.50	13+14.136	PCR	PTV	74.508	74.516	-0.008	3.000	74.433	-2.50
-3.000	75.043	-2.50	14+0.000			75.118	75.148	-0.029	3.000	75.043	-2.50
-3.000	77.139	-2.50	15+0.000			77.214	77.094	0.120	3.000	77.139	-2.50
-3.000	77.394	-2.50	15+2.434		PCV	77.469	77.304	0.165	3.000	77.394	-2.50
-3.000	79.201	-2.50	16+0.000			79.276	79.155	0.121	3.000	79.201	-2.50
-3.000	80.202	-2.50	16+10.732	PCR		80.277	80.404	-0.127	3.000	80.202	-2.50
-3.000	80.992	-2.50	17+0.000			81.067	80.801	0.266	3.000	80.992	-2.50
-3.000	82.466	-2.50	18+0.000			82.541	82.368	0.173	3.000	82.466	-2.50
-3.000	82.595	-2.50	18+1.982			82.670	82.519	0.151	3.000	82.595	-2.50
-3.000	83.624	-2.50	19+0.000			83.699	83.695	0.004	3.000	83.624	-2.50
-3.000	84.217	-2.50	19+13.231	PCR		84.292	84.333	-0.042	3.000	84.217	-2.50
-3.000	84.467	-2.50	20+0.000			84.542	84.854	-0.312	3.000	84.467	-2.50
-3.000	84.569	-2.50	20+3.087		PTV	84.644	84.932	-0.288	3.000	84.569	-2.50
-3.000	84.850	-2.50	20+12.943	PCC		84.925	85.248	-0.323	3.000	84.850	-2.50
-3.000	85.039	-2.50	21+0.000			85.114	85.508	-0.394	3.000	85.039	-2.50
-3.000	85.077	-2.50	21+1.378			85.152	85.541	-0.389	3.000	85.077	-2.50
-3.000	85.303	-2.50	21+9.814	PCR		85.378	85.708	-0.329	3.000	85.303	-2.50
-3.000	85.496	-2.50	21+16.966			85.571	85.701	-0.130	3.000	85.496	-2.50
-3.000	85.578	-2.50	22+0.000			85.653	85.499	0.154	3.000	85.578	-2.50
-3.000	85.688	-2.50	22+4.117	PCC		85.763	85.398	0.365	3.000	85.688	-2.50
-3.000	85.795	-2.50	22+8.095			85.870	85.438	0.432	3.000	85.795	-2.50
-3.000	85.902	-2.50	22+12.073	PT	PCV	85.977	85.506	0.471	3.000	85.902	-2.50
-3.000	86.255	-2.50	23+0.000			86.330	86.239	0.090	3.000	86.255	-2.50
-3.000	86.289	-2.50	23+0.493	PC		86.364	86.273	0.090	3.000	86.289	-2.50
-3.000	87.219	-2.50	23+10.019		PTV	87.294	86.961	0.333	3.000	87.219	-2.50



-3.000	88.474	-2.50	23+19.545	PT		88.549	88.162	0.387	3.000	88.474	-2.50
-3.000	88.534	-2.50	24+0.000			88.609	88.223	0.386	3.000	88.534	-2.50
-3.000	91.176	-2.50	25+0.000			91.251	90.856	0.395	3.000	91.176	-2.50
-3.000	93.818	-2.50	26+0.000			93.893	93.453	0.440	3.000	93.818	-2.50
-3.000	93.945	-2.50	26+0.963	PC		94.020	93.519	0.501	3.000	93.945	-2.50
-3.000	96.460	-2.50	27+0.000			96.535	95.789	0.746	3.000	96.460	-2.50
-3.000	99.089	-2.50	27+19.898			99.164	98.446	0.717	3.000	99.089	-2.50
-3.000	99.102	-2.50	28+0.000		PCV	99.177	98.459	0.719	3.000	99.102	-2.50
-3.000	101.756	-2.50	29+0.000			101.831	101.392	0.439	3.000	101.756	-2.50
-3.000	104.354	-2.50	29+18.833	PT		104.429	103.567	0.862	3.000	104.354	-2.50
-3.000	104.519	-2.50	30+0.000			104.594	103.666	0.928	3.000	104.519	-2.50
-3.000	105.826	-2.50	30+9.140	PC		105.901	104.819	1.082	3.000	105.826	-2.50
-3.000	106.162	-2.50	30+11.459			106.237	105.173	1.064	3.000	106.162	-2.50
-3.000	106.499	-2.50	30+13.778	PCC		106.574	105.780	0.794	3.000	106.499	-2.50
-3.000	107.414	-2.50	31+0.000		PTV	107.489	106.999	0.489	3.000	107.414	-2.50
-3.000	107.810	-2.50	31+2.668			107.885	107.449	0.436	3.000	107.810	-2.50
-3.000	109.130	-2.50	31+11.559	PT		109.205	109.429	-0.224	3.000	109.130	-2.50
-3.000	110.383	-2.50	32+0.000			110.458	110.953	-0.495	3.000	110.383	-2.50
-3.000	110.461	-2.50	32+0.521	PC		110.536	111.045	-0.510	3.000	110.461	-2.50
-3.000	111.703	-2.50	32+8.888			111.778	112.111	-0.333	3.000	111.703	-2.50
-3.000	112.946	-2.50	32+17.255	PCR		113.021	113.203	-0.182	3.000	112.946	-2.50
-3.000	113.353	-2.50	33+0.000			113.428	113.576	-0.148	3.000	113.353	-2.50
-3.000	114.474	-2.50	33+7.543		PCV	114.549	114.583	-0.035	3.000	114.474	-2.50
-3.000	115.999	-2.50	33+17.832	PT		116.074	115.731	0.343	3.000	115.999	-2.50
-3.000	116.316	-2.50	34+0.000			116.391	115.923	0.468	3.000	116.316	-2.50
-3.000	117.676	-2.50	34+9.515	PC		117.751	117.081	0.670	3.000	117.676	-2.50
-3.000	119.055	-2.50	34+19.565			119.130	118.474	0.656	3.000	119.055	-2.50
-3.000	119.113	-2.50	35+0.000			119.188	118.535	0.653	3.000	119.113	-2.50
-3.000	120.375	-2.50	35+9.615	PCR		120.450	119.967	0.483	3.000	120.375	-2.50



-3.000	121.526	-2.50	35+18.751			121.601	121.596	0.004	3.000	121.526	-2.50
-3.000	121.679	-2.50	36+0.000		PTV	121.754	121.864	-0.110	3.000	121.679	-2.50
-3.000	122.630	-2.50	36+7.888	PCC		122.705	123.380	-0.675	3.000	122.630	-2.50
-3.000	124.079	-2.50	37+0.000			124.154	125.135	-0.980	3.000	124.079	-2.50
-3.000	124.962	-2.50	37+7.375			125.037	126.079	-1.043	3.000	124.962	-2.50
-3.000	126.472	-2.50	38+0.000			126.547	126.908	-0.361	3.000	126.472	-2.50
-3.000	127.294	-2.50	38+6.862	PT		127.369	127.409	-0.040	3.000	127.294	-2.50
-3.000	128.619	-2.50	38+17.939	PC		128.694	128.495	0.199	3.000	128.619	-2.50
-3.000	128.866	-2.50	39+0.000			128.941	128.719	0.221	3.000	128.866	-2.50
-3.000	130.048	-2.50	39+9.879		PCV	130.123	129.750	0.373	3.000	130.048	-2.50
-3.000	131.265	-2.50	40+0.000			131.340	130.602	0.738	3.000	131.265	-2.50
-3.000	131.489	-2.50	40+1.819	PCC		131.564	130.849	0.715	3.000	131.489	-2.50
-3.000	133.819	-2.50	41+0.000			133.894	132.921	0.973	3.000	133.819	-2.50
-3.000	134.958	-2.50	41+8.421			135.033	134.383	0.651	3.000	134.958	-2.50
-3.000	136.587	-2.50	42+0.000		PCV	136.662	136.069	0.593	3.000	136.587	-2.50
-3.000	138.779	-2.50	42+15.022	PT		138.854	138.396	0.458	3.000	138.779	-2.50
-3.000	139.505	-2.50	43+0.000			139.580	138.954	0.626	3.000	139.505	-2.50
-3.000	142.405	-2.50	44+0.000		PTV	142.480	141.920	0.560	3.000	142.405	-2.50
-3.000	145.278	-2.50	45+0.000			145.353	144.731	0.622	3.000	145.278	-2.50
-3.000	146.382	-2.50	45+7.708	PC		146.457	145.833	0.624	3.000	146.382	-2.50
-3.000	148.141	-2.50	46+0.000			148.216	147.445	0.772	3.000	148.141	-2.50
-3.000	148.902	-2.50	46+5.313		PCV	148.977	148.301	0.676	3.000	148.902	-2.50
-3.000	151.007	-2.50	47+0.000			151.082	150.666	0.416	3.000	151.007	-2.50
-3.000	151.427	-2.50	47+2.917	PCC		151.502	151.281	0.221	3.000	151.427	-2.50
-3.000	152.594	-2.50	47+11.014			152.669	152.822	-0.153	3.000	152.594	-2.50
-3.000	153.764	-2.50	47+19.110	PCC		153.839	154.026	-0.187	3.000	153.764	-2.50
-3.000	153.893	-2.50	48+0.000			153.968	154.136	-0.168	3.000	153.893	-2.50
-3.000	156.801	-2.50	49+0.000			156.876	156.826	0.050	3.000	156.801	-2.50
-3.000	158.404	-2.50	49+10.953			158.479	158.092	0.387	6.000	158.329	-2.50



-3.000	159.732	-2.50	50+0.000			159.807	159.043	0.764	6.000	159.657	-2.50
-3.000	162.686	-2.50	51+0.000			162.761	161.768	0.993	3.000	162.686	-2.50
-3.000	163.100	-2.50	51+2.796	PCR		163.175	162.258	0.917	3.000	163.100	-2.50
-3.000	165.662	-2.50	52+0.000			165.737	165.035	0.702	3.000	165.662	-2.50
-3.000	166.367	-2.50	52+4.717			166.442	166.068	0.374	3.000	166.367	-2.50
-3.000	168.661	-2.50	53+0.000			168.736	168.920	-0.184	3.000	168.661	-2.50
-3.000	169.661	-2.50	53+6.637	PCC		169.736	169.734	0.002	3.000	169.661	-2.50
-3.000	171.683	-2.50	54+0.000			171.758	171.688	0.069	3.000	171.683	-2.50
-3.000	171.705	-2.50	54+0.151			171.780	171.704	0.076	3.000	171.705	-2.50
-3.000	173.760	-2.50	54+13.666	PT		173.835	173.703	0.133	3.000	173.760	-2.50
-3.000	174.727	-2.50	55+0.000		PTV	174.802	174.694	0.108	3.000	174.727	-2.50
-3.000	176.344	-2.50	55+10.561	PC		176.419	176.354	0.065	3.000	176.344	-2.50
-3.000	177.791	-2.50	56+0.000			177.866	177.812	0.054	3.000	177.791	-2.50
-3.000	178.501	-2.50	56+4.629		PCV	178.576	178.733	-0.157	3.000	178.501	-2.50
-3.000	180.652	-2.50	56+18.697	PCR		180.727	180.368	0.359	3.000	180.652	-2.50
-3.000	180.846	-2.50	57+0.000			180.921	180.455	0.467	3.000	180.846	-2.50
-3.000	183.173	-2.50	57+16.539			183.248	182.088	1.160	3.000	183.173	-2.50
-3.000	183.627	-2.50	58+0.000			183.702	182.491	1.211	3.000	183.627	-2.50
-3.000	185.391	-2.50	58+14.380	PCC		185.466	184.840	0.627	3.000	185.391	-2.50
-3.000	186.027	-2.50	59+0.000		PTV	186.102	185.577	0.525	3.000	186.027	-2.50
-3.000	187.477	-2.50	59+13.600		PCV	187.552	186.712	0.840	3.000	187.477	-2.50
-3.000	188.144	-2.50	60+0.000			188.219	187.223	0.996	3.000	188.144	-2.50
-3.000	189.391	-2.50	60+12.821	PCC		189.466	188.906	0.560	3.000	189.391	-2.50
-3.000	190.036	-2.50	61+0.000			190.111	189.662	0.449	3.000	190.036	-2.50
-3.000	191.254	-2.50	61+14.879			191.329	190.828	0.501	3.000	191.254	-2.50
-3.000	191.636	-2.50	62+0.000			191.711	191.180	0.531	3.000	191.636	-2.50
-3.000	192.762	-2.50	62+16.938	PCR		192.837	192.780	0.057	3.000	192.762	-2.50
-3.000	192.944	-2.50	63+0.000			193.019	193.110	-0.091	3.000	192.944	-2.50
-3.000	193.961	-2.50	64+0.000			194.036	194.562	-0.525	3.000	193.961	-2.50



-3.000	194.212	-2.50	64+6.060			194.287	194.975	-0.687	3.000	194.212	-2.50
-3.000	194.689	-2.50	65+0.000			194.764	194.175	0.589	3.000	194.689	-2.50
-3.000	195.048	-2.50	65+15.183	PCC		195.123	193.104	2.019	3.000	195.048	-2.50
-3.000	195.127	-2.50	66+0.000			195.202	192.930	2.272	3.000	195.127	-2.50
-3.000	195.235	-2.50	66+9.646			195.310	192.960	2.350	3.000	195.235	-2.50
-3.000	195.276	-2.50	67+0.000			195.351	192.781	2.570	3.000	195.276	-2.50
-3.000	195.271	-2.50	67+4.108	PCR		195.346	192.737	2.608	3.000	195.271	-2.50
-3.000	195.217	-2.50	67+13.098			195.292	192.923	2.369	3.000	195.217	-2.50
-3.000	195.136	-2.50	68+0.000		PTV	195.211	193.358	1.853	3.000	195.136	-2.50
-3.000	195.104	-2.50	68+2.088	PCC		195.179	193.531	1.648	3.000	195.104	-2.50
-3.000	194.822	-2.50	69+0.000			194.897	195.325	-0.427	3.000	194.822	-2.50
-3.000	194.522	-2.50	69+19.072			194.597	196.084	-1.487	3.000	194.522	-2.50
-3.000	194.507	-2.50	70+0.000			194.582	196.061	-1.479	3.000	194.507	-2.50
-3.000	194.192	-2.50	71+0.000			194.267	196.003	-1.736	3.000	194.192	-2.50
-3.000	193.939	-2.50	71+16.055	PCR		194.014	194.740	-0.725	3.000	193.939	-2.50
-3.000	193.877	-2.50	72+0.000			193.952	194.437	-0.485	3.000	193.877	-2.50
-3.000	193.714	-2.50	72+10.368			193.789	193.603	0.186	3.000	193.714	-2.50
-3.000	193.562	-2.50	73+0.000			193.637	193.496	0.142	3.000	193.562	-2.50
-3.000	193.489	-2.50	73+4.681	PCC		193.564	193.434	0.129	3.000	193.489	-2.50
-3.000	193.247	-2.50	74+0.000			193.322	192.803	0.519	3.000	193.247	-2.50
-3.000	193.141	-2.50	74+6.737		PCV	193.216	193.217	-0.001	3.000	193.141	-2.50
-3.000	192.960	-2.50	75+0.000			193.035	193.299	-0.264	3.000	192.960	-2.50
-3.000	192.945	-2.50	75+8.793	PCC		193.020	193.299	-0.279	3.000	192.945	-2.50
-3.000	193.071	-2.50	76+0.000			193.146	193.268	-0.122	3.000	193.071	-2.50
-3.000	193.203	-2.50	76+5.936			193.278	193.284	-0.006	3.000	193.203	-2.50
-3.000	193.697	-2.50	77+0.000			193.772	193.472	0.301	3.000	193.697	-2.50
-3.000	193.840	-2.50	77+3.079	PT		193.915	193.499	0.416	3.000	193.840	-2.50
-3.000	194.841	-2.50	78+0.000			194.916	194.154	0.762	3.000	194.841	-2.50
-3.000	195.240	-2.50	78+5.422	PC		195.315	194.547	0.768	3.000	195.240	-2.50



-3.000	195.488	-2.50	78+8.559			195.563	194.834	0.729	3.000	195.488	-2.50
-3.000	195.750	-2.50	78+11.696	PCC		195.825	195.342	0.483	3.000	195.750	-2.50
-3.000	196.463	-2.50	78+19.582			196.538	196.442	0.096	3.000	196.463	-2.50
-3.000	196.503	-2.50	79+0.000		PTV	196.578	196.482	0.096	3.000	196.503	-2.50
-3.000	197.240	-2.50	79+7.467	PCC	PCV	197.315	197.128	0.187	3.000	197.240	-2.50
-3.000	198.117	-2.50	79+17.269			198.192	197.499	0.693	3.000	198.117	-2.50
-3.000	198.318	-2.50	80+0.000			198.393	197.682	0.711	3.000	198.318	-2.50
-3.000	198.755	-2.50	80+7.071	PT		198.830	198.197	0.633	3.000	198.755	-2.50
-3.000	199.230	-2.50	80+19.940	PC		199.305	199.100	0.205	3.000	199.230	-2.50
-3.000	199.232	-2.50	81+0.000			199.307	199.103	0.203	3.000	199.232	-2.50
-3.000	199.300	-2.50	81+4.414			199.375	199.286	0.089	3.000	199.300	-2.50
-3.000	199.320	-2.50	81+8.888	PCC		199.395	199.331	0.064	3.000	199.320	-2.50
-3.000	199.279	-2.50	81+14.223			199.354	199.296	0.058	3.000	199.279	-2.50
-3.000	199.168	-2.50	81+19.557	PT		199.243	199.139	0.104	3.000	199.168	-2.50
-3.000	199.155	-2.50	82+0.000		PTV	199.230	199.124	0.107	3.000	199.155	-2.50
-3.000	198.759	-2.50	82+9.887			198.834	198.834	0.000	3.000	198.759	-2.50