Lista de anexos de cálculo

Anexo A – Perdas instantâneas do pré-esforço

x [m]	e [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
0,000	0,000	1064,131	1064,131	19792,831	-2,693	5,793	1058,338	19685,088
0,500	-0,123	1067,179	1067,179	19849,522	-2,701	5,809	1061,369	19741,469
1,000	-0,242	1070,235	1070,235	19906,374	-2,709	5,826	1064,409	19798,012
1,430	-0,340	1072,871	1072,871	19955,397	-2,715	5,840	1067,031	19846,769
1,500	-0,356	1073,301	1073,301	19963,389	-2,717	5,843	1067,458	19854,717
2,000	-0,465	1076,375	1076,375	20020,568	-2,724	5,859	1070,515	19911,585
2,500	-0,570	1079,458	1079,458	20077,911	-2,732	5,876	1073,581	19968,615
2,860	-0,642	1081,683	1081,683	20119,299	-2,738	5,888	1075,795	20009,778
3,000	-0,670	1082,549	1082,549	20135,417	-2,740	5,893	1076,656	20025,809
3,500	-0,765	1085,650	1085,650	20193,089	-2,748	5,910	1079,740	20083,166
4,000	-0,856	1088,759	1088,759	20250,925	-2,756	5,927	1082,833	20140,688
4,300	-0,908	1090,629	1090,629	20285,707	-2,760	5,937	1084,692	20175,280
4,500	-0,942	1091,878	1091,878	20308,927	-2,764	5,944	1085,934	20198,374
5,000	-1,023	1095,005	1095,005	20367,096	-2,771	5,961	1089,044	20256,226
5,500	-1,100	1098,141	1098,141	20425,431	-2,779	5,978	1092,164	20314,243
6,000	-1,172	1101,287	1101,287	20483,933	-2,787	5,995	1095,292	20372,427
6,500	-1,239	1104,441	1104,441	20542,602	-2,795	6,012	1098,429	20430,777
7,000	-1,302	1107,604	1107,604	20601,440	-2,803	6,029	1101,575	20489,295
7,500	-1,360	1110,777	1110,777	20660,446	-2,811	6,047	1104,730	20547,980
8,000	-1,414	1113,958	1113,958	20719,621	-2,819	6,064	1107,894	20606,833
8,500	-1,462	1117,149	1117,149	20778,966	-2,828	6,081	1111,067	20665,854
9,000	-1,507	1120,348	1120,348	20838,481	-2,836	6,099	1114,250	20725,045
9,500	-1,546	1123,557	1123,557	20898,166	-2,844	6,116	1117,441	20784,405
10,000	-1,581	1126,775	1126,775	20958,022	-2,852	6,134	1120,642	20843,935
10,500	-1,611	1130,003	1130,003	21018,049	-2,860	6,151	1123,851	20903,636
11,000	-1,637	1133,239	1133,239	21078,248	-2,868	6,169	1127,070	20963,508

x [m]	**e** [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
11,500	-1,658	1136,485	1136,485	21138,620	-2,876	6,187	1130,298	21023,551
12,000	-1,674	1139,740	1139,740	21199,165	-2,885	6,204	1133,536	21083,766
12,500	-1,686	1143,004	1143,004	21259,883	-2,893	6,222	1136,782	21144,154
13,000	-1,693	1146,278	1146,278	21320,775	-2,901	6,240	1140,038	21204,714
13,200	-1,694	1147,590	1147,590	21345,181	-2,905	6,247	1141,343	21228,987
13,500	-1,695	1149,561	1149,561	21381,842	-2,910	6,258	1143,304	21265,448
14,000	-1,694	1152,089	1152,089	21428,861	-2,916	6,271	1145,818	21312,211
14,500	-1,689	1154,623	1154,623	21475,983	-2,922	6,285	1148,337	21359,077
15,000	-1,682	1157,162	1157,162	21523,209	-2,929	6,299	1150,863	21406,046
15,500	-1,671	1159,706	1159,706	21570,538	-2,935	6,313	1153,393	21453,118
16,000	-1,658	1162,257	1162,257	21617,972	-2,942	6,327	1155,930	21500,293
16,500	-1,641	1164,812	1164,812	21665,510	-2,948	6,341	1158,472	21547,572
17,000	-1,622	1167,374	1167,374	21713,153	-2,955	6,355	1161,019	21594,956
17,500	-1,599	1169,941	1169,941	21760,900	-2,961	6,369	1163,572	21642,443
18,000	-1,574	1172,514	1172,514	21808,752	-2,968	6,383	1166,131	21690,035
18,500	-1,545	1175,092	1175,092	21856,710	-2,974	6,397	1168,695	21737,732
19,000	-1,514	1177,676	1177,676	21904,773	-2,981	6,411	1171,265	21785,533
19,500	-1,480	1180,266	1180,266	21952,942	-2,987	6,425	1173,841	21833,440
20,000	-1,442	1182,861	1182,861	22001,217	-2,994	6,439	1176,422	21881,451
20,500	-1,402	1185,462	1185,462	22049,597	-3,000	6,453	1179,009	21929,569
21,000	-1,358	1188,069	1188,069	22098,085	-3,007	6,467	1181,602	21977,792
21,500	-1,312	1190,682	1190,682	22146,678	-3,014	6,482	1184,200	22026,122
21,800	-1,283	1192,252	1192,252	22175,886	-3,018	6,490	1185,762	22055,170
22,000	-1,263	1193,300	1193,300	22195,379	-3,020	6,496	1186,804	22074,557
22,500	-1,210	1195,924	1195,924	22244,187	-3,027	6,510	1189,414	22123,099
23,000	-1,155	1198,554	1198,554	22293,102	-3,034	6,524	1192,029	22171,748
23,500	-1,097	1201,190	1201,190	22342,125	-3,040	6,539	1194,651	22220,504
24,000	-1,035	1203,831	1203,831	22391,255	-3,047	6,553	1197,278	22269,367
24,500	-0,971	1206,478	1206,478	22440,494	-3,054	6,568	1199,911	22318,337

x [m]	e [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
25,000	-0,904	1209,131	1209,131	22489,841	-3,060	6,582	1202,549	22367,416
25,500	-0,833	1211,790	1211,790	22539,296	-3,067	6,596	1205,194	22416,602
26,000	-0,760	1214,455	1214,455	22588,860	-3,074	6,611	1207,844	22465,896
26,500	-0,684	1217,125	1217,125	22638,533	-3,081	6,626	1210,500	22515,299
27,000	-0,605	1219,802	1219,802	22688,315	-3,087	6,640	1213,162	22564,810
27,500	-0,522	1222,484	1222,484	22738,207	-3,094	6,655	1215,830	22614,430
28,000	-0,437	1225,173	1225,173	22788,209	-3,101	6,669	1218,503	22664,159
28,500	-0,349	1227,867	1227,867	22838,320	-3,108	6,684	1221,183	22713,998
29,000	-0,258	1230,567	1230,567	22888,542	-3,115	6,699	1223,868	22763,946
29,346	-0,193	1232,438	1232,438	22923,338	-3,119	6,709	1225,729	22798,554
29,500	-0,163	1233,273	1231,603	22907,814	-3,117	6,704	1224,899	22783,114
30,000	-0,066	1235,985	1228,901	22857,550	-3,110	6,690	1222,211	22733,123
30,500	0,034	1238,703	1226,204	22807,396	-3,104	6,675	1219,529	22683,243
30,700	0,075	1239,792	1225,127	22787,366	-3,101	6,669	1218,458	22663,321
31,000	0,134	1244,083	1220,901	22708,757	-3,090	6,646	1214,255	22585,141
31,500	0,223	1251,269	1213,890	22578,346	-3,072	6,608	1207,282	22455,439
32,000	0,301	1258,496	1206,918	22448,684	-3,055	6,570	1200,349	22326,483
32,140	0,320	1260,527	1204,974	22412,512	-3,050	6,559	1198,414	22290,508
32,500	0,366	1265,765	1199,987	22319,766	-3,037	6,532	1193,455	22198,267
33,000	0,420	1273,076	1193,096	22191,589	-3,020	6,495	1186,601	22070,787
33,500	0,461	1280,429	1186,244	22064,147	-3,002	6,457	1179,787	21944,040
33,570	0,466	1281,462	1185,288	22046,364	-3,000	6,452	1178,836	21926,353
34,000	0,491	1287,825	1179,432	21937,438	-2,985	6,420	1173,012	21818,020
34,500	0,509	1295,264	1172,659	21811,456	-2,968	6,383	1166,275	21692,724
35,000	0,515	1302,745	1165,925	21686,198	-2,951	6,347	1159,578	21568,147
35,500	0,509	1310,269	1159,229	21561,659	-2,934	6,310	1152,919	21444,286
36,000	0,491	1317,838	1152,572	21437,835	-2,917	6,274	1146,298	21321,137
36,430	0,466	1324,381	1146,877	21331,915	-2,903	6,243	1140,634	21215,794
36,500	0,461	1325,449	1145,953	21314,722	-2,900	6,238	1139,715	21198,694

x [m]	e [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
37,000	0,420	1333,105	1139,372	21192,317	-2,884	6,202	1133,170	21076,955
37,500	0,366	1340,805	1132,829	21070,614	-2,867	6,167	1126,662	20955,915
37,860	0,320	1346,376	1128,141	20983,421	-2,855	6,141	1122,000	20869,196
38,000	0,301	1348,549	1126,323	20949,610	-2,851	6,131	1120,192	20835,569
38,500	0,223	1356,339	1119,855	20829,301	-2,834	6,096	1113,759	20715,915
39,000	0,134	1364,173	1113,424	20709,683	-2,818	6,061	1107,363	20596,949
39,300	0,075	1368,895	1109,583	20638,242	-2,808	6,040	1103,543	20525,897
39,500	0,034	1370,098	1108,608	20620,117	-2,806	6,035	1102,574	20507,870
40,000	-0,066	1373,111	1106,176	20574,872	-2,800	6,022	1100,154	20462,872
40,500	-0,163	1376,130	1103,749	20529,727	-2,794	6,008	1097,740	20417,972
41,000	-0,258	1379,157	1101,327	20484,681	-2,787	5,995	1095,332	20373,172
41,500	-0,349	1382,189	1098,910	20439,734	-2,781	5,982	1092,928	20328,469
42,000	-0,437	1385,229	1096,499	20394,886	-2,775	5,969	1090,530	20283,865
42,500	-0,522	1388,275	1094,093	20350,136	-2,769	5,956	1088,138	20239,358
43,000	-0,605	1391,328	1091,693	20305,484	-2,763	5,943	1085,750	20194,950
43,500	-0,684	1394,387	1089,297	20260,930	-2,757	5,930	1083,368	20150,638
43,600	-0,699	1395,000	1088,819	20252,031	-2,756	5,927	1082,892	20141,788
44,000	-0,760	1088,135	1088,135	20239,320	-2,754	5,923	1082,212	20129,145
44,500	-0,833	1090,528	1090,528	20283,826	-2,760	5,936	1084,592	20173,410
45,000	-0,904	1092,926	1092,926	20328,430	-2,766	5,949	1086,977	20217,771
45,500	-0,971	1095,330	1095,330	20373,133	-2,772	5,962	1089,367	20262,230
46,000	-1,035	1097,738	1097,738	20417,933	-2,778	5,976	1091,763	20306,787
46,500	-1,097	1100,152	1100,152	20462,832	-2,785	5,989	1094,164	20351,442
47,000	-1,155	1102,572	1102,572	20507,830	-2,791	6,002	1096,570	20396,195
47,500	-1,210	1104,996	1104,996	20552,927	-2,797	6,015	1098,981	20441,046
48,000	-1,263	1107,426	1107,426	20598,123	-2,803	6,028	1101,398	20485,996
48,500	-1,312	1109,861	1109,861	20643,419	-2,809	6,042	1103,820	20531,045
49,000	-1,358	1112,302	1112,302	20688,814	-2,815	6,055	1106,247	20576,193
49,500	-1,402	1114,748	1114,748	20734,309	-2,821	6,068	1108,680	20621,440

x [m]	e [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
50,000	-1,442	1117,199	1117,199	20779,903	-2,828	6,082	1111,118	20666,787
50,500	-1,480	1119,656	1119,656	20825,599	-2,834	6,095	1113,561	20712,233
51,000	-1,514	1122,118	1122,118	20871,394	-2,840	6,108	1116,010	20757,779
51,500	-1,545	1124,586	1124,586	20917,291	-2,846	6,122	1118,464	20803,426
52,000	-1,574	1127,058	1127,058	20963,288	-2,853	6,135	1120,923	20849,173
52,200	-1,584	1128,049	1128,049	20981,715	-2,855	6,141	1121,909	20867,500
52,500	-1,599	1129,537	1129,537	21009,386	-2,859	6,149	1123,388	20895,020
53,000	-1,622	1132,021	1132,021	21055,586	-2,865	6,162	1125,859	20940,969
53,500	-1,641	1134,510	1134,510	21101,887	-2,871	6,176	1128,334	20987,018
54,000	-1,658	1137,005	1137,005	21148,291	-2,878	6,189	1130,816	21033,168
54,500	-1,671	1139,505	1139,505	21194,796	-2,884	6,203	1133,302	21079,421
55,000	-1,682	1142,011	1142,011	21241,403	-2,890	6,217	1135,794	21125,774
55,500	-1,689	1144,522	1144,522	21288,113	-2,897	6,230	1138,292	21172,230
56,000	-1,694	1147,039	1147,039	21334,926	-2,903	6,244	1140,795	21218,788
56,500	-1,695	1149,561	1149,561	21381,842	-2,910	6,258	1143,304	21265,448
57,000	-1,694	1152,089	1152,089	21428,861	-2,916	6,271	1145,818	21312,211
57,500	-1,689	1154,623	1154,623	21475,983	-2,922	6,285	1148,337	21359,077
58,000	-1,682	1157,162	1157,162	21523,209	-2,929	6,299	1150,863	21406,046
58,500	-1,671	1159,706	1159,706	21570,538	-2,935	6,313	1153,393	21453,118
59,000	-1,658	1162,257	1162,257	21617,972	-2,942	6,327	1155,930	21500,293
59,500	-1,641	1164,812	1164,812	21665,510	-2,948	6,341	1158,472	21547,572
60,000	-1,622	1167,374	1167,374	21713,153	-2,955	6,355	1161,019	21594,956
60,500	-1,599	1169,941	1169,941	21760,900	-2,961	6,369	1163,572	21642,443
60,800	-1,584	1171,484	1171,484	21789,599	-2,965	6,377	1165,107	21670,986
61,000	-1,574	1172,514	1172,514	21808,752	-2,968	6,383	1166,131	21690,035
61,500	-1,545	1175,092	1175,092	21856,710	-2,974	6,397	1168,695	21737,732
62,000	-1,514	1177,676	1177,676	21904,773	-2,981	6,411	1171,265	21785,533
62,500	-1,480	1180,266	1180,266	21952,942	-2,987	6,425	1173,841	21833,440
63,000	-1,442	1182,861	1182,861	22001,217	-2,994	6,439	1176,422	21881,451

x [m]	e [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
63,500	-1,402	1185,462	1185,462	22049,597	-3,000	6,453	1179,009	21929,569
64,000	-1,358	1188,069	1188,069	22098,085	-3,007	6,467	1181,602	21977,792
64,500	-1,312	1190,682	1190,682	22146,678	-3,014	6,482	1184,200	22026,122
65,000	-1,263	1193,300	1193,300	22195,379	-3,020	6,496	1186,804	22074,557
65,500	-1,210	1195,924	1195,924	22244,187	-3,027	6,510	1189,414	22123,099
66,000	-1,155	1198,554	1198,554	22293,102	-3,034	6,524	1192,029	22171,748
66,500	-1,097	1201,190	1201,190	22342,125	-3,040	6,539	1194,651	22220,504
67,000	-1,035	1203,831	1203,831	22391,255	-3,047	6,553	1197,278	22269,367
67,500	-0,971	1206,478	1206,478	22440,494	-3,054	6,568	1199,911	22318,337
68,000	-0,904	1209,131	1209,131	22489,841	-3,060	6,582	1202,549	22367,416
68,500	-0,833	1211,790	1211,790	22539,296	-3,067	6,596	1205,194	22416,602
69,000	-0,760	1214,455	1214,455	22588,860	-3,074	6,611	1207,844	22465,896
69,500	-0,684	1217,125	1217,125	22638,533	-3,081	6,626	1210,500	22515,299
70,000	-0,605	1219,802	1219,802	22688,315	-3,087	6,640	1213,162	22564,810
70,500	-0,522	1222,484	1222,484	22738,207	-3,094	6,655	1215,830	22614,430
71,000	-0,437	1225,173	1225,173	22788,209	-3,101	6,669	1218,503	22664,159
71,500	-0,349	1227,867	1227,867	22838,320	-3,108	6,684	1221,183	22713,998
72,000	-0,258	1230,567	1230,567	22888,542	-3,115	6,699	1223,868	22763,946
72,346	-0,193	1232,438	1232,438	22923,338	-3,119	6,709	1225,729	22798,554
72,500	-0,163	1233,273	1231,603	22907,814	-3,117	6,704	1224,899	22783,114
73,000	-0,066	1235,985	1228,901	22857,550	-3,110	6,690	1222,211	22733,123
73,500	0,034	1238,703	1226,204	22807,396	-3,104	6,675	1219,529	22683,243
73,700	0,075	1239,792	1225,127	22787,366	-3,101	6,669	1218,458	22663,321
74,000	0,134	1244,083	1220,901	22708,757	-3,090	6,646	1214,255	22585,141
74,500	0,223	1251,269	1213,890	22578,346	-3,072	6,608	1207,282	22455,439
75,000	0,301	1258,496	1206,918	22448,684	-3,055	6,570	1200,349	22326,483
75,140	0,320	1260,527	1204,974	22412,512	-3,050	6,559	1198,414	22290,508
75,500	0,366	1265,765	1199,987	22319,766	-3,037	6,532	1193,455	22198,267
76,000	0,420	1273,076	1193,096	22191,589	-3,020	6,495	1186,601	22070,787

x [m]	e [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
76,500	0,461	1280,429	1186,244	22064,147	-3,002	6,457	1179,787	21944,040
76,570	0,466	1281,462	1185,288	22046,364	-3,000	6,452	1178,836	21926,353
77,000	0,491	1287,825	1179,432	21937,438	-2,985	6,420	1173,012	21818,020
77,500	0,509	1295,264	1172,659	21811,456	-2,968	6,383	1166,275	21692,724
78,000	0,515	1302,745	1165,925	21686,198	-2,951	6,347	1159,578	21568,147
78,500	0,509	1310,269	1159,229	21561,659	-2,934	6,310	1152,919	21444,286
79,000	0,491	1317,838	1152,572	21437,835	-2,917	6,274	1146,298	21321,137
79,430	0,466	1324,381	1146,877	21331,915	-2,903	6,243	1140,634	21215,794
79,500	0,461	1325,449	1145,953	21314,722	-2,900	6,238	1139,715	21198,694
80,000	0,420	1333,105	1139,372	21192,317	-2,884	6,202	1133,170	21076,955
80,500	0,366	1340,805	1132,829	21070,614	-2,867	6,167	1126,662	20955,915
80,860	0,320	1346,376	1128,141	20983,421	-2,855	6,141	1122,000	20869,196
81,000	0,301	1348,549	1126,323	20949,610	-2,851	6,131	1120,192	20835,569
81,500	0,223	1356,339	1119,855	20829,301	-2,834	6,096	1113,759	20715,915
82,000	0,134	1364,173	1113,424	20709,683	-2,818	6,061	1107,363	20596,949
82,300	0,075	1368,895	1109,583	20638,242	-2,808	6,040	1103,543	20525,897
82,500	0,034	1370,098	1108,608	20620,117	-2,806	6,035	1102,574	20507,870
83,000	-0,066	1373,111	1106,176	20574,872	-2,800	6,022	1100,154	20462,872
83,500	-0,163	1376,130	1103,749	20529,727	-2,794	6,008	1097,740	20417,972
84,000	-0,258	1379,157	1101,327	20484,681	-2,787	5,995	1095,332	20373,172
84,500	-0,349	1382,189	1098,910	20439,734	-2,781	5,982	1092,928	20328,469
85,000	-0,437	1385,229	1096,499	20394,886	-2,775	5,969	1090,530	20283,865
85,500	-0,522	1388,275	1094,093	20350,136	-2,769	5,956	1088,138	20239,358
86,000	-0,605	1391,328	1091,693	20305,484	-2,763	5,943	1085,750	20194,950
86,500	-0,684	1394,387	1089,297	20260,930	-2,757	5,930	1083,368	20150,638
86,600	-0,699	1395,000	1088,819	20252,031	-2,756	5,927	1082,892	20141,788
87,000	-0,760	1088,135	1088,135	20239,320	-2,754	5,923	1082,212	20129,145
87,500	-0,833	1090,528	1090,528	20283,826	-2,760	5,936	1084,592	20173,410
88,000	-0,904	1092,926	1092,926	20328,430	-2,766	5,949	1086,977	20217,771

x [m]	**e** [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
88,500	-0,971	1095,330	1095,330	20373,133	-2,772	5,962	1089,367	20262,230
89,000	-1,035	1097,738	1097,738	20417,933	-2,778	5,976	1091,763	20306,787
89,500	-1,097	1100,152	1100,152	20462,832	-2,785	5,989	1094,164	20351,442
90,000	-1,155	1102,572	1102,572	20507,830	-2,791	6,002	1096,570	20396,195
90,500	-1,210	1104,996	1104,996	20552,927	-2,797	6,015	1098,981	20441,046
91,000	-1,263	1107,426	1107,426	20598,123	-2,803	6,028	1101,398	20485,996
91,500	-1,312	1109,861	1109,861	20643,419	-2,809	6,042	1103,820	20531,045
92,000	-1,358	1112,302	1112,302	20688,814	-2,815	6,055	1106,247	20576,193
92,500	-1,402	1114,748	1114,748	20734,309	-2,821	6,068	1108,680	20621,440
93,000	-1,442	1117,199	1117,199	20779,903	-2,828	6,082	1111,118	20666,787
93,500	-1,480	1119,656	1119,656	20825,599	-2,834	6,095	1113,561	20712,233
94,000	-1,514	1122,118	1122,118	20871,394	-2,840	6,108	1116,010	20757,779
94,500	-1,545	1124,586	1124,586	20917,291	-2,846	6,122	1118,464	20803,426
95,000	-1,574	1127,058	1127,058	20963,288	-2,853	6,135	1120,923	20849,173
95,200	-1,584	1128,049	1128,049	20981,715	-2,855	6,141	1121,909	20867,500
95,500	-1,599	1129,537	1129,537	21009,386	-2,859	6,149	1123,388	20895,020
96,000	-1,622	1132,021	1132,021	21055,586	-2,865	6,162	1125,859	20940,969
96,500	-1,641	1134,510	1134,510	21101,887	-2,871	6,176	1128,334	20987,018
97,000	-1,658	1137,005	1137,005	21148,291	-2,878	6,189	1130,816	21033,168
97,500	-1,671	1139,505	1139,505	21194,796	-2,884	6,203	1133,302	21079,421
98,000	-1,682	1142,011	1142,011	21241,403	-2,890	6,217	1135,794	21125,774
98,500	-1,689	1144,522	1144,522	21288,113	-2,897	6,230	1138,292	21172,230
99,000	-1,694	1147,039	1147,039	21334,926	-2,903	6,244	1140,795	21218,788
99,500	-1,695	1149,561	1149,561	21381,842	-2,910	6,258	1143,304	21265,448
100,000	-1,694	1152,089	1152,089	21428,861	-2,916	6,271	1145,818	21312,211
100,500	-1,689	1154,623	1154,623	21475,983	-2,922	6,285	1148,337	21359,077
101,000	-1,682	1157,162	1157,162	21523,209	-2,929	6,299	1150,863	21406,046
101,500	-1,671	1159,706	1159,706	21570,538	-2,935	6,313	1153,393	21453,118
102,000	-1,658	1162,257	1162,257	21617,972	-2,942	6,327	1155,930	21500,293

x [m]	**e** [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
102,500	-1,641	1164,812	1164,812	21665,510	-2,948	6,341	1158,472	21547,572
103,000	-1,622	1167,374	1167,374	21713,153	-2,955	6,355	1161,019	21594,956
103,500	-1,599	1169,941	1169,941	21760,900	-2,961	6,369	1163,572	21642,443
103,800	-1,584	1171,484	1171,484	21789,599	-2,965	6,377	1165,107	21670,986
104,000	-1,574	1172,514	1172,514	21808,752	-2,968	6,383	1166,131	21690,035
104,500	-1,545	1175,092	1175,092	21856,710	-2,974	6,397	1168,695	21737,732
105,000	-1,514	1177,676	1177,676	21904,773	-2,981	6,411	1171,265	21785,533
105,500	-1,480	1180,266	1180,266	21952,942	-2,987	6,425	1173,841	21833,440
106,000	-1,442	1182,861	1182,861	22001,217	-2,994	6,439	1176,422	21881,451
106,500	-1,402	1185,462	1185,462	22049,597	-3,000	6,453	1179,009	21929,569
107,000	-1,358	1188,069	1188,069	22098,085	-3,007	6,467	1181,602	21977,792
107,500	-1,312	1190,682	1190,682	22146,678	-3,014	6,482	1184,200	22026,122
108,000	-1,263	1193,300	1193,300	22195,379	-3,020	6,496	1186,804	22074,557
108,500	-1,210	1195,924	1195,924	22244,187	-3,027	6,510	1189,414	22123,099
109,000	-1,155	1198,554	1198,554	22293,102	-3,034	6,524	1192,029	22171,748
109,500	-1,097	1201,190	1201,190	22342,125	-3,040	6,539	1194,651	22220,504
110,000	-1,035	1203,831	1203,831	22391,255	-3,047	6,553	1197,278	22269,367
110,500	-0,971	1206,478	1206,478	22440,494	-3,054	6,568	1199,911	22318,337
111,000	-0,904	1209,131	1209,131	22489,841	-3,060	6,582	1202,549	22367,416
111,500	-0,833	1211,790	1211,790	22539,296	-3,067	6,596	1205,194	22416,602
112,000	-0,760	1214,455	1214,455	22588,860	-3,074	6,611	1207,844	22465,896
112,500	-0,684	1217,125	1217,125	22638,533	-3,081	6,626	1210,500	22515,299
113,000	-0,605	1219,802	1219,802	22688,315	-3,087	6,640	1213,162	22564,810
113,500	-0,522	1222,484	1222,484	22738,207	-3,094	6,655	1215,830	22614,430
114,000	-0,437	1225,173	1225,173	22788,209	-3,101	6,669	1218,503	22664,159
114,500	-0,349	1227,867	1227,867	22838,320	-3,108	6,684	1221,183	22713,998
115,000	-0,258	1230,567	1230,567	22888,542	-3,115	6,699	1223,868	22763,946
115,346	-0,193	1232,438	1232,438	22923,338	-3,119	6,709	1225,729	22798,554
115,500	-0,163	1233,273	1231,603	22907,814	-3,117	6,704	1224,899	22783,114

x [m]	e [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
116,000	-0,066	1235,985	1228,901	22857,550	-3,110	6,690	1222,211	22733,123
116,500	0,034	1238,703	1226,204	22807,396	-3,104	6,675	1219,529	22683,243
116,700	0,075	1239,792	1225,127	22787,366	-3,101	6,669	1218,458	22663,321
117,000	0,134	1244,083	1220,901	22708,757	-3,090	6,646	1214,255	22585,141
117,500	0,223	1251,269	1213,890	22578,346	-3,072	6,608	1207,282	22455,439
118,000	0,301	1258,496	1206,918	22448,684	-3,055	6,570	1200,349	22326,483
118,140	0,320	1260,527	1204,974	22412,512	-3,050	6,559	1198,414	22290,508
118,500	0,366	1265,765	1199,987	22319,766	-3,037	6,532	1193,455	22198,267
119,000	0,420	1273,076	1193,096	22191,589	-3,020	6,495	1186,601	22070,787
119,500	0,461	1280,429	1186,244	22064,147	-3,002	6,457	1179,787	21944,040
119,570	0,466	1281,462	1185,288	22046,364	-3,000	6,452	1178,836	21926,353
120,000	0,491	1287,825	1179,432	21937,438	-2,985	6,420	1173,012	21818,020
120,500	0,509	1295,264	1172,659	21811,456	-2,968	6,383	1166,275	21692,724
121,000	0,515	1302,745	1165,925	21686,198	-2,951	6,347	1159,578	21568,147
121,500	0,509	1310,269	1159,229	21561,659	-2,934	6,310	1152,919	21444,286
122,000	0,491	1317,838	1152,572	21437,835	-2,917	6,274	1146,298	21321,137
122,430	0,466	1324,381	1146,877	21331,915	-2,903	6,243	1140,634	21215,794
122,500	0,461	1325,449	1145,953	21314,722	-2,900	6,238	1139,715	21198,694
123,000	0,420	1333,105	1139,372	21192,317	-2,884	6,202	1133,170	21076,955
123,500	0,366	1340,805	1132,829	21070,614	-2,867	6,167	1126,662	20955,915
123,860	0,320	1346,376	1128,141	20983,421	-2,855	6,141	1122,000	20869,196
124,000	0,301	1348,549	1126,323	20949,610	-2,851	6,131	1120,192	20835,569
124,500	0,223	1356,339	1119,855	20829,301	-2,834	6,096	1113,759	20715,915
125,000	0,134	1364,173	1113,424	20709,683	-2,818	6,061	1107,363	20596,949
125,300	0,075	1368,895	1109,583	20638,242	-2,808	6,040	1103,543	20525,897
125,500	0,034	1370,098	1108,608	20620,117	-2,806	6,035	1102,574	20507,870
126,000	-0,066	1373,111	1106,176	20574,872	-2,800	6,022	1100,154	20462,872
126,500	-0,163	1376,130	1103,749	20529,727	-2,794	6,008	1097,740	20417,972
127,000	-0,258	1379,157	1101,327	20484,681	-2,787	5,995	1095,332	20373,172

x [m]	e [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
127,500	-0,349	1382,189	1098,910	20439,734	-2,781	5,982	1092,928	20328,469
128,000	-0,437	1385,229	1096,499	20394,886	-2,775	5,969	1090,530	20283,865
128,500	-0,522	1388,275	1094,093	20350,136	-2,769	5,956	1088,138	20239,358
129,000	-0,605	1391,328	1091,693	20305,484	-2,763	5,943	1085,750	20194,950
129,500	-0,684	1394,387	1089,297	20260,930	-2,757	5,930	1083,368	20150,638
129,600	-0,699	1395,000	1088,819	20252,031	-2,756	5,927	1082,892	20141,788
130,000	-0,760	1088,135	1088,135	20239,320	-2,754	5,923	1082,212	20129,145
130,500	-0,833	1090,528	1090,528	20283,826	-2,760	5,936	1084,592	20173,410
131,000	-0,904	1092,926	1092,926	20328,430	-2,766	5,949	1086,977	20217,771
131,500	-0,971	1095,330	1095,330	20373,133	-2,772	5,962	1089,367	20262,230
132,000	-1,035	1097,738	1097,738	20417,933	-2,778	5,976	1091,763	20306,787
132,500	-1,097	1100,152	1100,152	20462,832	-2,785	5,989	1094,164	20351,442
133,000	-1,155	1102,572	1102,572	20507,830	-2,791	6,002	1096,570	20396,195
133,500	-1,210	1104,996	1104,996	20552,927	-2,797	6,015	1098,981	20441,046
134,000	-1,263	1107,426	1107,426	20598,123	-2,803	6,028	1101,398	20485,996
134,500	-1,312	1109,861	1109,861	20643,419	-2,809	6,042	1103,820	20531,045
135,000	-1,358	1112,302	1112,302	20688,814	-2,815	6,055	1106,247	20576,193
135,500	-1,402	1114,748	1114,748	20734,309	-2,821	6,068	1108,680	20621,440
136,000	-1,442	1117,199	1117,199	20779,903	-2,828	6,082	1111,118	20666,787
136,500	-1,480	1119,656	1119,656	20825,599	-2,834	6,095	1113,561	20712,233
137,000	-1,514	1122,118	1122,118	20871,394	-2,840	6,108	1116,010	20757,779
137,500	-1,545	1124,586	1124,586	20917,291	-2,846	6,122	1118,464	20803,426
138,000	-1,574	1127,058	1127,058	20963,288	-2,853	6,135	1120,923	20849,173
138,200	-1,584	1128,049	1128,049	20981,715	-2,855	6,141	1121,909	20867,500
138,500	-1,599	1129,537	1129,537	21009,386	-2,859	6,149	1123,388	20895,020
139,000	-1,622	1132,021	1132,021	21055,586	-2,865	6,162	1125,859	20940,969
139,500	-1,641	1134,510	1134,510	21101,887	-2,871	6,176	1128,334	20987,018
140,000	-1,658	1137,005	1137,005	21148,291	-2,878	6,189	1130,816	21033,168
140,500	-1,671	1139,505	1139,505	21194,796	-2,884	6,203	1133,302	21079,421

x [m]	**e** [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
141,000	-1,682	1142,011	1142,011	21241,403	-2,890	6,217	1135,794	21125,774
141,500	-1,689	1144,522	1144,522	21288,113	-2,897	6,230	1138,292	21172,230
142,000	-1,694	1147,039	1147,039	21334,926	-2,903	6,244	1140,795	21218,788
142,500	-1,695	1149,561	1149,561	21381,842	-2,910	6,258	1143,304	21265,448
143,000	-1,694	1152,089	1152,089	21428,861	-2,916	6,271	1145,818	21312,211
143,500	-1,689	1154,623	1154,623	21475,983	-2,922	6,285	1148,337	21359,077
144,000	-1,682	1157,162	1157,162	21523,209	-2,929	6,299	1150,863	21406,046
144,500	-1,671	1159,706	1159,706	21570,538	-2,935	6,313	1153,393	21453,118
145,000	-1,658	1162,257	1162,257	21617,972	-2,942	6,327	1155,930	21500,293
145,500	-1,641	1164,812	1164,812	21665,510	-2,948	6,341	1158,472	21547,572
146,000	-1,622	1167,374	1167,374	21713,153	-2,955	6,355	1161,019	21594,956
146,500	-1,599	1169,941	1169,941	21760,900	-2,961	6,369	1163,572	21642,443
146,800	-1,584	1171,484	1171,484	21789,599	-2,965	6,377	1165,107	21670,986
147,000	-1,574	1172,514	1172,514	21808,752	-2,968	6,383	1166,131	21690,035
147,500	-1,545	1175,092	1175,092	21856,710	-2,974	6,397	1168,695	21737,732
148,000	-1,514	1177,676	1177,676	21904,773	-2,981	6,411	1171,265	21785,533
148,500	-1,480	1180,266	1180,266	21952,942	-2,987	6,425	1173,841	21833,440
149,000	-1,442	1182,861	1182,861	22001,217	-2,994	6,439	1176,422	21881,451
149,500	-1,402	1185,462	1185,462	22049,597	-3,000	6,453	1179,009	21929,569
150,000	-1,358	1188,069	1188,069	22098,085	-3,007	6,467	1181,602	21977,792
150,500	-1,312	1190,682	1190,682	22146,678	-3,014	6,482	1184,200	22026,122
151,000	-1,263	1193,300	1193,300	22195,379	-3,020	6,496	1186,804	22074,557
151,500	-1,210	1195,924	1195,924	22244,187	-3,027	6,510	1189,414	22123,099
152,000	-1,155	1198,554	1198,554	22293,102	-3,034	6,524	1192,029	22171,748
152,500	-1,097	1201,190	1201,190	22342,125	-3,040	6,539	1194,651	22220,504
153,000	-1,035	1203,831	1203,831	22391,255	-3,047	6,553	1197,278	22269,367
153,500	-0,971	1206,478	1206,478	22440,494	-3,054	6,568	1199,911	22318,337
154,000	-0,904	1209,131	1209,131	22489,841	-3,060	6,582	1202,549	22367,416
154,500	-0,833	1211,790	1211,790	22539,296	-3,067	6,596	1205,194	22416,602

x [m]	e [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
155,000	-0,760	1214,455	1214,455	22588,860	-3,074	6,611	1207,844	22465,896
155,500	-0,684	1217,125	1217,125	22638,533	-3,081	6,626	1210,500	22515,299
156,000	-0,605	1219,802	1219,802	22688,315	-3,087	6,640	1213,162	22564,810
156,500	-0,522	1222,484	1222,484	22738,207	-3,094	6,655	1215,830	22614,430
157,000	-0,437	1225,173	1225,173	22788,209	-3,101	6,669	1218,503	22664,159
157,500	-0,349	1227,867	1227,867	22838,320	-3,108	6,684	1221,183	22713,998
158,000	-0,258	1230,567	1230,567	22888,542	-3,115	6,699	1223,868	22763,946
158,346	-0,193	1232,438	1232,438	22923,338	-3,119	6,709	1225,729	22798,554
158,500	-0,163	1233,273	1231,603	22907,814	-3,117	6,704	1224,899	22783,114
159,000	-0,066	1235,985	1228,901	22857,550	-3,110	6,690	1222,211	22733,123
159,500	0,034	1238,703	1226,204	22807,396	-3,104	6,675	1219,529	22683,243
159,700	0,075	1239,792	1225,127	22787,366	-3,101	6,669	1218,458	22663,321
160,000	0,134	1244,083	1220,901	22708,757	-3,090	6,646	1214,255	22585,141
160,500	0,223	1251,269	1213,890	22578,346	-3,072	6,608	1207,282	22455,439
161,000	0,301	1258,496	1206,918	22448,684	-3,055	6,570	1200,349	22326,483
161,140	0,320	1260,527	1204,974	22412,512	-3,050	6,559	1198,414	22290,508
161,500	0,366	1265,765	1199,987	22319,766	-3,037	6,532	1193,455	22198,267
162,000	0,420	1273,076	1193,096	22191,589	-3,020	6,495	1186,601	22070,787
162,500	0,461	1280,429	1186,244	22064,147	-3,002	6,457	1179,787	21944,040
162,570	0,466	1281,462	1185,288	22046,364	-3,000	6,452	1178,836	21926,353
163,000	0,491	1287,825	1179,432	21937,438	-2,985	6,420	1173,012	21818,020
163,500	0,509	1295,264	1172,659	21811,456	-2,968	6,383	1166,275	21692,724
164,000	0,515	1302,745	1165,925	21686,198	-2,951	6,347	1159,578	21568,147
164,500	0,509	1310,269	1159,229	21561,659	-2,934	6,310	1152,919	21444,286
165,000	0,491	1317,838	1152,572	21437,835	-2,917	6,274	1146,298	21321,137
165,430	0,466	1324,381	1146,877	21331,915	-2,903	6,243	1140,634	21215,794
165,500	0,461	1325,449	1145,953	21314,722	-2,900	6,238	1139,715	21198,694
166,000	0,420	1333,105	1139,372	21192,317	-2,884	6,202	1133,170	21076,955
166,500	0,366	1340,805	1132,829	21070,614	-2,867	6,167	1126,662	20955,915

x [m]	**e** [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
166,860	0,320	1346,376	1128,141	20983,421	-2,855	6,141	1122,000	20869,196
167,000	0,301	1348,549	1126,323	20949,610	-2,851	6,131	1120,192	20835,569
167,500	0,223	1356,339	1119,855	20829,301	-2,834	6,096	1113,759	20715,915
168,000	0,134	1364,173	1113,424	20709,683	-2,818	6,061	1107,363	20596,949
168,300	0,075	1368,895	1109,583	20638,242	-2,808	6,040	1103,543	20525,897
168,500	0,034	1370,098	1108,608	20620,117	-2,806	6,035	1102,574	20507,870
169,000	-0,066	1373,111	1106,176	20574,872	-2,800	6,022	1100,154	20462,872
169,500	-0,163	1376,130	1103,749	20529,727	-2,794	6,008	1097,740	20417,972
170,000	-0,258	1379,157	1101,327	20484,681	-2,787	5,995	1095,332	20373,172
170,500	-0,349	1382,189	1098,910	20439,734	-2,781	5,982	1092,928	20328,469
171,000	-0,437	1385,229	1096,499	20394,886	-2,775	5,969	1090,530	20283,865
171,500	-0,522	1388,275	1094,093	20350,136	-2,769	5,956	1088,138	20239,358
172,000	-0,605	1391,328	1091,693	20305,484	-2,763	5,943	1085,750	20194,950
172,500	-0,684	1394,387	1089,297	20260,930	-2,757	5,930	1083,368	20150,638
172,600	-0,699	1395,000	1088,819	20252,031	-2,756	5,927	1082,892	20141,788
173,000	-0,760	1088,135	1088,135	20239,320	-2,754	5,923	1082,212	20129,145
173,500	-0,833	1090,528	1090,528	20283,826	-2,760	5,936	1084,592	20173,410
174,000	-0,904	1092,926	1092,926	20328,430	-2,766	5,949	1086,977	20217,771
174,500	-0,971	1095,330	1095,330	20373,133	-2,772	5,962	1089,367	20262,230
175,000	-1,035	1097,738	1097,738	20417,933	-2,778	5,976	1091,763	20306,787
175,500	-1,097	1100,152	1100,152	20462,832	-2,785	5,989	1094,164	20351,442
176,000	-1,155	1102,572	1102,572	20507,830	-2,791	6,002	1096,570	20396,195
176,500	-1,210	1104,996	1104,996	20552,927	-2,797	6,015	1098,981	20441,046
177,000	-1,263	1107,426	1107,426	20598,123	-2,803	6,028	1101,398	20485,996
177,500	-1,312	1109,861	1109,861	20643,419	-2,809	6,042	1103,820	20531,045
178,000	-1,358	1112,302	1112,302	20688,814	-2,815	6,055	1106,247	20576,193
178,500	-1,402	1114,748	1114,748	20734,309	-2,821	6,068	1108,680	20621,440
179,000	-1,442	1117,199	1117,199	20779,903	-2,828	6,082	1111,118	20666,787
179,500	-1,480	1119,656	1119,656	20825,599	-2,834	6,095	1113,561	20712,233

x [m]	e [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
180,000	-1,514	1122,118	1122,118	20871,394	-2,840	6,108	1116,010	20757,779
180,500	-1,545	1124,586	1124,586	20917,291	-2,846	6,122	1118,464	20803,426
181,000	-1,574	1127,058	1127,058	20963,288	-2,853	6,135	1120,923	20849,173
181,200	-1,584	1128,049	1128,049	20981,715	-2,855	6,141	1121,909	20867,500
181,500	-1,599	1129,537	1129,537	21009,386	-2,859	6,149	1123,388	20895,020
182,000	-1,622	1132,021	1132,021	21055,586	-2,865	6,162	1125,859	20940,969
182,500	-1,641	1134,510	1134,510	21101,887	-2,871	6,176	1128,334	20987,018
183,000	-1,658	1137,005	1137,005	21148,291	-2,878	6,189	1130,816	21033,168
183,500	-1,671	1139,505	1139,505	21194,796	-2,884	6,203	1133,302	21079,421
184,000	-1,682	1142,011	1142,011	21241,403	-2,890	6,217	1135,794	21125,774
184,500	-1,689	1144,522	1144,522	21288,113	-2,897	6,230	1138,292	21172,230
185,000	-1,694	1147,039	1147,039	21334,926	-2,903	6,244	1140,795	21218,788
185,500	-1,695	1149,561	1149,561	21381,842	-2,910	6,258	1143,304	21265,448
186,000	-1,694	1152,089	1152,089	21428,861	-2,916	6,271	1145,818	21312,211
186,500	-1,689	1154,623	1154,623	21475,983	-2,922	6,285	1148,337	21359,077
187,000	-1,682	1157,162	1157,162	21523,209	-2,929	6,299	1150,863	21406,046
187,500	-1,671	1159,706	1159,706	21570,538	-2,935	6,313	1153,393	21453,118
188,000	-1,658	1162,257	1162,257	21617,972	-2,942	6,327	1155,930	21500,293
188,500	-1,641	1164,812	1164,812	21665,510	-2,948	6,341	1158,472	21547,572
189,000	-1,622	1167,374	1167,374	21713,153	-2,955	6,355	1161,019	21594,956
189,500	-1,599	1169,941	1169,941	21760,900	-2,961	6,369	1163,572	21642,443
189,800	-1,584	1171,484	1171,484	21789,599	-2,965	6,377	1165,107	21670,986
190,000	-1,574	1172,514	1172,514	21808,752	-2,968	6,383	1166,131	21690,035
190,500	-1,545	1175,092	1175,092	21856,710	-2,974	6,397	1168,695	21737,732
191,000	-1,514	1177,676	1177,676	21904,773	-2,981	6,411	1171,265	21785,533
191,500	-1,480	1180,266	1180,266	21952,942	-2,987	6,425	1173,841	21833,440
192,000	-1,442	1182,861	1182,861	22001,217	-2,994	6,439	1176,422	21881,451
192,500	-1,402	1185,462	1185,462	22049,597	-3,000	6,453	1179,009	21929,569
193,000	-1,358	1188,069	1188,069	22098,085	-3,007	6,467	1181,602	21977,792

x [m]	e [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
193,500	-1,312	1190,682	1190,682	22146,678	-3,014	6,482	1184,200	22026,122
194,000	-1,263	1193,300	1193,300	22195,379	-3,020	6,496	1186,804	22074,557
194,500	-1,210	1195,924	1195,924	22244,187	-3,027	6,510	1189,414	22123,099
195,000	-1,155	1198,554	1198,554	22293,102	-3,034	6,524	1192,029	22171,748
195,500	-1,097	1201,190	1201,190	22342,125	-3,040	6,539	1194,651	22220,504
196,000	-1,035	1203,831	1203,831	22391,255	-3,047	6,553	1197,278	22269,367
196,500	-0,971	1206,478	1206,478	22440,494	-3,054	6,568	1199,911	22318,337
197,000	-0,904	1209,131	1209,131	22489,841	-3,060	6,582	1202,549	22367,416
197,500	-0,833	1211,790	1211,790	22539,296	-3,067	6,596	1205,194	22416,602
198,000	-0,760	1214,455	1214,455	22588,860	-3,074	6,611	1207,844	22465,896
198,500	-0,684	1217,125	1217,125	22638,533	-3,081	6,626	1210,500	22515,299
199,000	-0,605	1219,802	1219,802	22688,315	-3,087	6,640	1213,162	22564,810
199,500	-0,522	1222,484	1222,484	22738,207	-3,094	6,655	1215,830	22614,430
200,000	-0,437	1225,173	1225,173	22788,209	-3,101	6,669	1218,503	22664,159
200,500	-0,349	1227,867	1227,867	22838,320	-3,108	6,684	1221,183	22713,998
201,000	-0,258	1230,567	1230,567	22888,542	-3,115	6,699	1223,868	22763,946
201,346	-0,193	1232,438	1232,438	22923,338	-3,119	6,709	1225,729	22798,554
201,500	-0,163	1233,273	1231,603	22907,814	-3,117	6,704	1224,899	22783,114
202,000	-0,066	1235,985	1228,901	22857,550	-3,110	6,690	1222,211	22733,123
202,500	0,034	1238,703	1226,204	22807,396	-3,104	6,675	1219,529	22683,243
202,700	0,075	1239,792	1225,127	22787,366	-3,101	6,669	1218,458	22663,321
203,000	0,134	1244,083	1220,901	22708,757	-3,090	6,646	1214,255	22585,141
203,500	0,223	1251,269	1213,890	22578,346	-3,072	6,608	1207,282	22455,439
204,000	0,301	1258,496	1206,918	22448,684	-3,055	6,570	1200,349	22326,483
204,140	0,320	1260,527	1204,974	22412,512	-3,050	6,559	1198,414	22290,508
204,500	0,366	1265,765	1199,987	22319,766	-3,037	6,532	1193,455	22198,267
205,000	0,420	1273,076	1193,096	22191,589	-3,020	6,495	1186,601	22070,787
205,500	0,461	1280,429	1186,244	22064,147	-3,002	6,457	1179,787	21944,040
205,570	0,466	1281,462	1185,288	22046,364	-3,000	6,452	1178,836	21926,353

x [m]	**e** [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
206,000	0,491	1287,825	1179,432	21937,438	-2,985	6,420	1173,012	21818,020
206,500	0,509	1295,264	1172,659	21811,456	-2,968	6,383	1166,275	21692,724
207,000	0,515	1302,745	1165,925	21686,198	-2,951	6,347	1159,578	21568,147
207,500	0,509	1310,269	1159,229	21561,659	-2,934	6,310	1152,919	21444,286
208,000	0,491	1317,838	1152,572	21437,835	-2,917	6,274	1146,298	21321,137
208,430	0,466	1324,381	1146,877	21331,915	-2,903	6,243	1140,634	21215,794
208,500	0,461	1325,449	1145,953	21314,722	-2,900	6,238	1139,715	21198,694
209,000	0,420	1333,105	1139,372	21192,317	-2,884	6,202	1133,170	21076,955
209,500	0,366	1340,805	1132,829	21070,614	-2,867	6,167	1126,662	20955,915
209,860	0,320	1346,376	1128,141	20983,421	-2,855	6,141	1122,000	20869,196
210,000	0,301	1348,549	1126,323	20949,610	-2,851	6,131	1120,192	20835,569
210,500	0,223	1356,339	1119,855	20829,301	-2,834	6,096	1113,759	20715,915
211,000	0,134	1364,173	1113,424	20709,683	-2,818	6,061	1107,363	20596,949
211,300	0,075	1368,895	1109,583	20638,242	-2,808	6,040	1103,543	20525,897
211,500	0,034	1370,098	1108,608	20620,117	-2,806	6,035	1102,574	20507,870
212,000	-0,066	1373,111	1106,176	20574,872	-2,800	6,022	1100,154	20462,872
212,500	-0,163	1376,130	1103,749	20529,727	-2,794	6,008	1097,740	20417,972
213,000	-0,258	1379,157	1101,327	20484,681	-2,787	5,995	1095,332	20373,172
213,500	-0,349	1382,189	1098,910	20439,734	-2,781	5,982	1092,928	20328,469
214,000	-0,437	1385,229	1096,499	20394,886	-2,775	5,969	1090,530	20283,865
214,500	-0,522	1388,275	1094,093	20350,136	-2,769	5,956	1088,138	20239,358
215,000	-0,605	1391,328	1091,693	20305,484	-2,763	5,943	1085,750	20194,950
215,500	-0,684	1394,387	1089,297	20260,930	-2,757	5,930	1083,368	20150,638
215,600	-0,699	1395,000	1088,819	20252,031	-2,756	5,927	1082,892	20141,788
216,000	-0,760	1088,135	1088,135	20239,320	-2,754	5,923	1082,212	20129,145
216,500	-0,833	1090,528	1090,528	20283,826	-2,760	5,936	1084,592	20173,410
217,000	-0,904	1092,926	1092,926	20328,430	-2,766	5,949	1086,977	20217,771
217,500	-0,971	1095,330	1095,330	20373,133	-2,772	5,962	1089,367	20262,230
218,000	-1,035	1097,738	1097,738	20417,933	-2,778	5,976	1091,763	20306,787

x [m]	**e** [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
218,500	-1,097	1100,152	1100,152	20462,832	-2,785	5,989	1094,164	20351,442
219,000	-1,155	1102,572	1102,572	20507,830	-2,791	6,002	1096,570	20396,195
219,500	-1,210	1104,996	1104,996	20552,927	-2,797	6,015	1098,981	20441,046
220,000	-1,263	1107,426	1107,426	20598,123	-2,803	6,028	1101,398	20485,996
220,500	-1,312	1109,861	1109,861	20643,419	-2,809	6,042	1103,820	20531,045
221,000	-1,358	1112,302	1112,302	20688,814	-2,815	6,055	1106,247	20576,193
221,500	-1,402	1114,748	1114,748	20734,309	-2,821	6,068	1108,680	20621,440
222,000	-1,442	1117,199	1117,199	20779,903	-2,828	6,082	1111,118	20666,787
222,500	-1,480	1119,656	1119,656	20825,599	-2,834	6,095	1113,561	20712,233
223,000	-1,514	1122,118	1122,118	20871,394	-2,840	6,108	1116,010	20757,779
223,500	-1,545	1124,586	1124,586	20917,291	-2,846	6,122	1118,464	20803,426
224,000	-1,574	1127,058	1127,058	20963,288	-2,853	6,135	1120,923	20849,173
224,200	-1,584	1128,049	1128,049	20981,715	-2,855	6,141	1121,909	20867,500
224,500	-1,599	1129,537	1129,537	21009,386	-2,859	6,149	1123,388	20895,020
225,000	-1,622	1132,021	1132,021	21055,586	-2,865	6,162	1125,859	20940,969
225,500	-1,641	1134,510	1134,510	21101,887	-2,871	6,176	1128,334	20987,018
226,000	-1,658	1137,005	1137,005	21148,291	-2,878	6,189	1130,816	21033,168
226,500	-1,671	1139,505	1139,505	21194,796	-2,884	6,203	1133,302	21079,421
227,000	-1,682	1142,011	1142,011	21241,403	-2,890	6,217	1135,794	21125,774
227,500	-1,689	1144,522	1144,522	21288,113	-2,897	6,230	1138,292	21172,230
228,000	-1,694	1147,039	1147,039	21334,926	-2,903	6,244	1140,795	21218,788
228,500	-1,695	1149,561	1149,561	21381,842	-2,910	6,258	1143,304	21265,448
229,000	-1,694	1152,089	1152,089	21428,861	-2,916	6,271	1145,818	21312,211
229,500	-1,689	1154,623	1154,623	21475,983	-2,922	6,285	1148,337	21359,077
230,000	-1,682	1157,162	1157,162	21523,209	-2,929	6,299	1150,863	21406,046
230,500	-1,671	1159,706	1159,706	21570,538	-2,935	6,313	1153,393	21453,118
231,000	-1,658	1162,257	1162,257	21617,972	-2,942	6,327	1155,930	21500,293
231,500	-1,641	1164,812	1164,812	21665,510	-2,948	6,341	1158,472	21547,572
232,000	-1,622	1167,374	1167,374	21713,153	-2,955	6,355	1161,019	21594,956

x [m]	e [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
232,500	-1,599	1169,941	1169,941	21760,900	-2,961	6,369	1163,572	21642,443
232,800	-1,584	1171,484	1171,484	21789,599	-2,965	6,377	1165,107	21670,986
233,000	-1,574	1172,514	1172,514	21808,752	-2,968	6,383	1166,131	21690,035
233,500	-1,545	1175,092	1175,092	21856,710	-2,974	6,397	1168,695	21737,732
234,000	-1,514	1177,676	1177,676	21904,773	-2,981	6,411	1171,265	21785,533
234,500	-1,480	1180,266	1180,266	21952,942	-2,987	6,425	1173,841	21833,440
235,000	-1,442	1182,861	1182,861	22001,217	-2,994	6,439	1176,422	21881,451
235,500	-1,402	1185,462	1185,462	22049,597	-3,000	6,453	1179,009	21929,569
236,000	-1,358	1188,069	1188,069	22098,085	-3,007	6,467	1181,602	21977,792
236,500	-1,312	1190,682	1190,682	22146,678	-3,014	6,482	1184,200	22026,122
237,000	-1,263	1193,300	1193,300	22195,379	-3,020	6,496	1186,804	22074,557
237,500	-1,210	1195,924	1195,924	22244,187	-3,027	6,510	1189,414	22123,099
238,000	-1,155	1198,554	1198,554	22293,102	-3,034	6,524	1192,029	22171,748
238,500	-1,097	1201,190	1201,190	22342,125	-3,040	6,539	1194,651	22220,504
239,000	-1,035	1203,831	1203,831	22391,255	-3,047	6,553	1197,278	22269,367
239,500	-0,971	1206,478	1206,478	22440,494	-3,054	6,568	1199,911	22318,337
240,000	-0,904	1209,131	1209,131	22489,841	-3,060	6,582	1202,549	22367,416
240,500	-0,833	1211,790	1211,790	22539,296	-3,067	6,596	1205,194	22416,602
241,000	-0,760	1214,455	1214,455	22588,860	-3,074	6,611	1207,844	22465,896
241,500	-0,684	1217,125	1217,125	22638,533	-3,081	6,626	1210,500	22515,299
242,000	-0,605	1219,802	1219,802	22688,315	-3,087	6,640	1213,162	22564,810
242,500	-0,522	1222,484	1222,484	22738,207	-3,094	6,655	1215,830	22614,430
243,000	-0,437	1225,173	1225,173	22788,209	-3,101	6,669	1218,503	22664,159
243,500	-0,349	1227,867	1227,867	22838,320	-3,108	6,684	1221,183	22713,998
244,000	-0,258	1230,567	1230,567	22888,542	-3,115	6,699	1223,868	22763,946
244,346	-0,193	1232,438	1232,438	22923,338	-3,119	6,709	1225,729	22798,554
244,500	-0,163	1233,273	1231,603	22907,814	-3,117	6,704	1224,899	22783,114
245,000	-0,066	1235,985	1228,901	22857,550	-3,110	6,690	1222,211	22733,123
245,500	0,034	1238,703	1226,204	22807,396	-3,104	6,675	1219,529	22683,243

x [m]	e [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
245,700	0,075	1239,792	1225,127	22787,366	-3,101	6,669	1218,458	22663,321
246,000	0,134	1244,083	1220,901	22708,757	-3,090	6,646	1214,255	22585,141
246,500	0,223	1251,269	1213,890	22578,346	-3,072	6,608	1207,282	22455,439
247,000	0,301	1258,496	1206,918	22448,684	-3,055	6,570	1200,349	22326,483
247,140	0,320	1260,527	1204,974	22412,512	-3,050	6,559	1198,414	22290,508
247,500	0,366	1265,765	1199,987	22319,766	-3,037	6,532	1193,455	22198,267
248,000	0,420	1273,076	1193,096	22191,589	-3,020	6,495	1186,601	22070,787
248,500	0,461	1280,429	1186,244	22064,147	-3,002	6,457	1179,787	21944,040
248,570	0,466	1281,462	1185,288	22046,364	-3,000	6,452	1178,836	21926,353
249,000	0,491	1287,825	1179,432	21937,438	-2,985	6,420	1173,012	21818,020
249,500	0,509	1295,264	1172,659	21811,456	-2,968	6,383	1166,275	21692,724
250,000	0,515	1302,745	1165,925	21686,198	-2,951	6,347	1159,578	21568,147
250,500	0,509	1310,269	1159,229	21561,659	-2,934	6,310	1152,919	21444,286
251,000	0,491	1317,838	1152,572	21437,835	-2,917	6,274	1146,298	21321,137
251,430	0,466	1324,381	1146,877	21331,915	-2,903	6,243	1140,634	21215,794
251,500	0,461	1325,449	1145,953	21314,722	-2,900	6,238	1139,715	21198,694
252,000	0,420	1333,105	1139,372	21192,317	-2,884	6,202	1133,170	21076,955
252,500	0,366	1340,805	1132,829	21070,614	-2,867	6,167	1126,662	20955,915
252,860	0,320	1346,376	1128,141	20983,421	-2,855	6,141	1122,000	20869,196
253,000	0,301	1348,549	1126,323	20949,610	-2,851	6,131	1120,192	20835,569
253,500	0,223	1356,339	1119,855	20829,301	-2,834	6,096	1113,759	20715,915
254,000	0,134	1364,173	1113,424	20709,683	-2,818	6,061	1107,363	20596,949
254,300	0,075	1368,895	1109,583	20638,242	-2,808	6,040	1103,543	20525,897
254,500	0,034	1370,098	1108,608	20620,117	-2,806	6,035	1102,574	20507,870
255,000	-0,066	1373,111	1106,176	20574,872	-2,800	6,022	1100,154	20462,872
255,500	-0,163	1376,130	1103,749	20529,727	-2,794	6,008	1097,740	20417,972
256,000	-0,258	1379,157	1101,327	20484,681	-2,787	5,995	1095,332	20373,172
256,500	-0,349	1382,189	1098,910	20439,734	-2,781	5,982	1092,928	20328,469
257,000	-0,437	1385,229	1096,499	20394,886	-2,775	5,969	1090,530	20283,865

x [m]	e [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
257,500	-0,522	1388,275	1094,093	20350,136	-2,769	5,956	1088,138	20239,358
258,000	-0,605	1391,328	1091,693	20305,484	-2,763	5,943	1085,750	20194,950
258,500	-0,684	1394,387	1089,297	20260,930	-2,757	5,930	1083,368	20150,638
258,600	-0,699	1395,000	1088,819	20252,031	-2,756	5,927	1082,892	20141,788
259,000	-0,760	1222,328	1222,328	22735,304	-3,094	6,654	1215,674	22611,543
259,500	-0,833	1225,016	1225,016	22785,299	-3,101	6,668	1218,348	22661,266
260,000	-0,904	1227,710	1227,710	22835,404	-3,107	6,683	1221,027	22711,098
260,500	-0,971	1230,410	1230,410	22885,619	-3,114	6,698	1223,712	22761,040
261,000	-1,035	1233,115	1233,115	22935,945	-3,121	6,713	1226,403	22811,092
261,500	-1,097	1235,827	1235,827	22986,381	-3,128	6,727	1229,100	22861,253
262,000	-1,155	1238,545	1238,545	23036,928	-3,135	6,742	1231,802	22911,525
262,500	-1,210	1241,268	1241,268	23087,587	-3,142	6,757	1234,511	22961,908
263,000	-1,263	1243,998	1243,998	23138,357	-3,149	6,772	1237,226	23012,401
263,200	-1,283	1245,091	1245,091	23158,696	-3,151	6,778	1238,313	23032,630
263,500	-1,312	1246,733	1246,733	23189,238	-3,156	6,787	1239,947	23063,006
264,000	-1,358	1249,475	1249,475	23240,231	-3,162	6,802	1242,673	23113,722
264,500	-1,402	1252,222	1252,222	23291,337	-3,169	6,817	1245,406	23164,549
265,000	-1,442	1254,976	1254,976	23342,554	-3,176	6,832	1248,145	23215,488
265,500	-1,480	1257,736	1257,736	23393,885	-3,183	6,847	1250,889	23266,539
266,000	-1,514	1260,502	1260,502	23445,328	-3,190	6,862	1253,640	23317,702
266,500	-1,545	1263,273	1263,273	23496,885	-3,197	6,877	1256,397	23368,978
267,000	-1,574	1266,051	1266,051	23548,555	-3,204	6,892	1259,159	23420,366
267,500	-1,599	1268,835	1268,835	23600,338	-3,211	6,907	1261,928	23471,868
268,000	-1,622	1271,626	1271,626	23652,235	-3,219	6,922	1264,703	23523,483
268,500	-1,641	1274,422	1274,422	23704,247	-3,226	6,937	1267,484	23575,211
269,000	-1,658	1277,224	1277,224	23756,372	-3,233	6,953	1270,272	23627,053
269,500	-1,671	1280,033	1280,033	23808,613	-3,240	6,968	1273,065	23679,009
270,000	-1,682	1282,848	1282,848	23860,968	-3,247	6,983	1275,864	23731,079
270,500	-1,689	1285,669	1285,669	23913,439	-3,254	6,999	1278,670	23783,264

x [m]	**e** [m]	$\sigma_{P0,a}$ [MPa]	$\sigma_{P0,a+rc}$ [MPa]	$P_{0,a+rc}$ [kN]	$\sigma_{c,a+rc}$ [MPa]	$\Delta\sigma_{P0,c}$ [MPa]	σ_{P0} [MPa]	P_0 [kN]
271,000	-1,694	1288,496	1288,496	23966,024	-3,261	7,014	1281,482	23835,564
271,500	-1,695	1291,329	1291,329	24018,726	-3,268	7,029	1284,300	23887,978
271,800	-1,694	1293,547	1293,547	24059,979	-3,274	7,042	1286,506	23929,007
272,000	-1,693	1295,028	1295,028	24087,520	-3,278	7,050	1287,978	23956,398
272,451	-1,687	1298,376	1298,376	24149,797	-3,286	7,068	1291,308	24018,336
272,500	-1,686	1298,737	1298,015	24143,084	-3,285	7,066	1290,949	24011,660
273,000	-1,674	1302,457	1294,308	24074,132	-3,276	7,046	1287,263	23943,083
273,500	-1,658	1306,187	1290,612	24005,376	-3,267	7,026	1283,586	23874,701
274,000	-1,637	1309,929	1286,926	23936,817	-3,257	7,005	1279,920	23806,515
274,500	-1,611	1313,680	1283,250	23868,453	-3,248	6,985	1276,265	23738,524
275,000	-1,581	1317,443	1279,585	23800,285	-3,239	6,966	1272,620	23670,727
275,500	-1,546	1321,216	1275,931	23732,312	-3,229	6,946	1268,985	23603,123
276,000	-1,507	1325,001	1272,287	23664,532	-3,220	6,926	1265,361	23535,713
276,500	-1,462	1328,796	1268,653	23596,946	-3,211	6,906	1261,747	23468,495
277,000	-1,414	1332,602	1265,030	23529,554	-3,202	6,886	1258,143	23401,469
277,500	-1,360	1336,418	1261,417	23462,353	-3,193	6,867	1254,550	23334,634
278,000	-1,302	1340,246	1257,814	23395,345	-3,184	6,847	1250,967	23267,991
278,500	-1,239	1344,085	1254,222	23328,528	-3,174	6,827	1247,394	23201,538
279,000	-1,172	1347,935	1250,640	23261,902	-3,165	6,808	1243,832	23135,274
279,500	-1,100	1351,795	1247,068	23195,466	-3,156	6,788	1240,280	23069,200
280,000	-1,023	1355,667	1243,506	23129,220	-3,147	6,769	1236,737	23003,314
280,500	-0,942	1359,550	1239,955	23063,163	-3,138	6,750	1233,205	22937,617
280,700	-0,908	1361,106	1238,537	23036,793	-3,135	6,742	1231,795	22911,390
281,000	-0,856	1363,444	1236,414	22997,294	-3,129	6,730	1229,683	22872,107
281,500	-0,765	1367,349	1232,882	22931,614	-3,120	6,711	1226,171	22806,784
282,000	-0,670	1371,265	1229,361	22866,122	-3,112	6,692	1222,669	22741,648
282,140	-0,642	1372,364	1228,377	22847,817	-3,109	6,687	1221,691	22723,444
282,500	-0,570	1375,193	1225,850	22800,816	-3,103	6,673	1219,177	22676,698
283,000	-0,465	1379,132	1222,349	22735,697	-3,094	6,654	1215,695	22611,934

x [m]	**e** [m]	$\boldsymbol{\sigma_{P0,a}}$ [MPa]	$\boldsymbol{\sigma_{P0,a+rc}}$ [MPa]	$\mathbf{P_{0,a+rc}}$ [kN]	$\boldsymbol{\sigma_{c,a+rc}}$ [MPa]	$\boldsymbol{\Delta\sigma_{P0,c}}$ [MPa]	$\boldsymbol{\sigma_{P0}}$ [MPa]	$\mathbf{P_0}$ [kN]
283,500	-0,356	1383,082	1218,858	22670,764	-3,085	6,635	1212,223	22547,354
283,570	-0,340	1383,636	1218,370	22661,688	-3,084	6,632	1211,738	22538,328
284,000	-0,242	1387,043	1215,377	22606,016	-3,076	6,616	1208,761	22482,959
284,500	-0,123	1391,016	1211,906	22541,454	-3,067	6,597	1205,309	22418,748
285,000	0,000	1395,000	1208,445	22477,075	-3,059	6,578	1201,867	22354,720

Anexo B – Perdas diferidas do pré-esforço

x [m]	e [m]	σ_c [MPa]	$\Delta\sigma_{pt,s}$ [MPa]	$\Delta\sigma_{pt,c}$ [MPa]	μ	$\Delta\sigma_{pt,r}$ [MPa]	$\Delta\sigma_{pt,s+c+r}$ [MPa]	$\sigma_{P\infty}$ [MPa]	P_∞ [kN]
0,000	0,000	-2,679	59,880	37,607	0,569	23,082	111,178	947,160	17617,168
0,500	-0,123	-2,686	59,880	37,714	0,571	23,317	111,353	950,017	17670,309
1,000	-0,242	-2,694	59,880	37,822	0,572	23,554	111,328	953,081	17727,303
1,430	-0,340	-2,701	59,880	37,916	0,574	23,760	111,168	955,863	17779,043
1,500	-0,356	-2,702	59,880	37,931	0,574	23,794	111,131	956,327	17787,682
2,000	-0,465	-2,710	59,880	38,039	0,576	24,037	110,786	959,730	17850,972
2,500	-0,570	-2,717	59,880	38,148	0,577	24,282	110,318	963,264	17916,706
2,860	-0,642	-2,723	59,880	38,227	0,578	24,461	109,918	965,876	17965,294
3,000	-0,670	-2,725	59,880	38,258	0,579	24,531	109,751	966,905	17984,434
3,500	-0,765	-2,733	59,880	38,367	0,581	24,783	109,109	970,631	18053,735
4,000	-0,856	-2,741	59,880	38,477	0,582	25,038	108,413	974,420	18124,213
4,300	-0,908	-2,745	59,880	38,543	0,583	25,193	107,977	976,716	18166,915
4,500	-0,942	-2,749	59,880	38,587	0,584	25,297	107,681	978,253	18195,511
5,000	-1,023	-2,756	59,880	38,698	0,586	25,558	106,931	982,113	18267,303
5,500	-1,100	-2,764	59,880	38,809	0,587	25,823	106,180	985,984	18339,300
6,000	-1,172	-2,772	59,880	38,920	0,589	26,091	105,440	989,852	18411,244
6,500	-1,239	-2,780	59,880	39,031	0,591	26,362	104,724	993,705	18482,910
7,000	-1,302	-2,788	59,880	39,143	0,592	26,637	104,043	997,532	18554,104
7,500	-1,360	-2,796	59,880	39,255	0,594	26,915	103,405	1001,326	18624,655
8,000	-1,414	-2,804	59,880	39,368	0,596	27,197	102,818	1005,076	18694,418
8,500	-1,462	-2,812	59,880	39,480	0,597	27,482	102,290	1008,778	18763,268
9,000	-1,507	-2,820	59,880	39,593	0,599	27,771	101,825	1012,425	18831,098
9,500	-1,546	-2,828	59,880	39,707	0,601	28,063	101,429	1016,012	18897,820
10,000	-1,581	-2,836	59,880	39,821	0,602	28,360	101,106	1019,535	18963,355
10,500	-1,611	-2,844	59,880	39,935	0,604	28,660	100,860	1022,991	19027,639
11,000	-1,637	-2,853	59,880	40,049	0,606	28,963	100,693	1026,377	19090,618
11,500	-1,658	-2,861	59,880	40,164	0,608	29,271	100,608	1029,691	19152,246
12,000	-1,674	-2,869	59,880	40,279	0,609	29,582	100,607	1032,929	19212,482
12,500	-1,686	-2,877	59,880	40,394	0,611	29,898	100,691	1036,091	19271,296

x [m]	e [m]	σ_c [MPa]	$\Delta\sigma_{pt,s}$ [MPa]	$\Delta\sigma_{pt,c}$ [MPa]	μ	$\Delta\sigma_{pt,r}$ [MPa]	$\Delta\sigma_{pt,s+c+r}$ [MPa]	$\sigma_{P\infty}$ [MPa]	P_∞ [kN]
13,000	-1,693	-2,885	59,880	40,510	0,613	30,217	100,863	1039,175	19328,659
13,200	-1,694	-2,889	59,880	40,556	0,614	30,346	100,957	1040,387	19351,194
13,500	-1,695	-2,894	59,880	40,626	0,615	30,541	101,124	1042,180	19384,551
14,000	-1,694	-2,900	59,880	40,715	0,616	30,792	101,386	1044,431	19426,423
14,500	-1,689	-2,906	59,880	40,805	0,617	31,046	101,707	1046,630	19467,324
15,000	-1,682	-2,913	59,880	40,894	0,619	31,303	102,086	1048,777	19507,250
15,500	-1,671	-2,919	59,880	40,984	0,620	31,562	102,522	1050,871	19546,199
16,000	-1,658	-2,926	59,880	41,074	0,621	31,823	103,017	1052,912	19584,171
16,500	-1,641	-2,932	59,880	41,165	0,623	32,087	103,570	1054,902	19621,169
17,000	-1,622	-2,939	59,880	41,255	0,624	32,354	104,181	1056,839	19657,197
17,500	-1,599	-2,945	59,880	41,346	0,626	32,623	104,848	1058,724	19692,266
18,000	-1,574	-2,952	59,880	41,437	0,627	32,895	105,572	1060,559	19726,388
18,500	-1,545	-2,958	59,880	41,528	0,628	33,170	106,352	1062,343	19759,580
19,000	-1,514	-2,965	59,880	41,619	0,630	33,447	107,187	1064,079	19791,863
19,500	-1,480	-2,971	59,880	41,711	0,631	33,727	108,074	1065,767	19823,266
20,000	-1,442	-2,978	59,880	41,803	0,632	34,010	109,012	1067,410	19853,823
20,500	-1,402	-2,984	59,880	41,895	0,634	34,296	110,000	1069,009	19883,575
21,000	-1,358	-2,991	59,880	41,987	0,635	34,585	111,033	1070,568	19912,573
21,500	-1,312	-2,997	59,880	42,079	0,637	34,877	112,110	1072,090	19940,875
21,800	-1,283	-3,001	59,880	42,134	0,638	35,053	112,775	1072,987	19957,552
22,000	-1,263	-3,004	59,880	42,172	0,638	35,171	113,226	1073,578	19968,553
22,500	-1,210	-3,010	59,880	42,264	0,639	35,469	114,377	1075,037	19995,688
23,000	-1,155	-3,017	59,880	42,357	0,641	35,769	115,558	1076,472	20022,377
23,500	-1,097	-3,024	59,880	42,450	0,642	36,073	116,762	1077,889	20048,727
24,000	-1,035	-3,030	59,880	42,544	0,644	36,380	117,984	1079,294	20074,867
24,500	-0,971	-3,037	59,880	42,637	0,645	36,690	119,215	1080,696	20100,937
25,000	-0,904	-3,044	59,880	42,731	0,647	37,003	120,447	1082,102	20127,098
25,500	-0,833	-3,050	59,880	42,825	0,648	37,319	121,670	1083,523	20153,530
26,000	-0,760	-3,057	59,880	42,919	0,649	37,638	122,874	1084,970	20180,433
26,500	-0,684	-3,064	59,880	43,014	0,651	37,961	124,047	1086,453	20208,026
27,000	-0,605	-3,071	59,880	43,108	0,652	38,287	125,175	1087,986	20236,548
27,500	-0,522	-3,077	59,880	43,203	0,654	38,616	126,246	1089,584	20266,257

x [m]	e [m]	σ_c [MPa]	$\Delta\sigma_{pt,s}$ [MPa]	$\Delta\sigma_{pt,c}$ [MPa]	μ	$\Delta\sigma_{pt,r}$ [MPa]	$\Delta\sigma_{pt,s+c+r}$ [MPa]	$\sigma_{P\infty}$ [MPa]	P_∞ [kN]
28,000	-0,437	-3,084	59,880	43,298	0,655	38,949	127,244	1091,260	20297,430
28,500	-0,349	-3,091	59,880	43,393	0,657	39,285	128,153	1093,030	20330,359
29,000	-0,258	-3,098	59,880	43,489	0,658	39,624	128,957	1094,911	20365,350
29,346	-0,193	-3,102	59,880	43,555	0,659	39,861	129,443	1096,286	20390,919
29,500	-0,163	-3,100	59,880	43,525	0,659	39,755	129,420	1095,478	20375,895
30,000	-0,066	-3,093	59,880	43,430	0,657	39,414	129,253	1092,958	20329,018
30,500	0,034	-3,087	59,880	43,334	0,656	39,077	128,930	1090,600	20285,154
30,700	0,075	-3,084	59,880	43,296	0,655	38,943	128,753	1089,705	20268,509
31,000	0,134	-3,073	59,880	43,147	0,653	38,421	128,108	1086,147	20202,330
31,500	0,223	-3,056	59,880	42,899	0,649	37,570	126,959	1080,323	20094,011
32,000	0,301	-3,038	59,880	42,653	0,645	36,741	125,763	1074,586	19987,297
32,140	0,320	-3,033	59,880	42,584	0,644	36,513	125,426	1072,988	19957,584
32,500	0,366	-3,021	59,880	42,408	0,642	35,934	124,566	1068,889	19881,335
33,000	0,420	-3,003	59,880	42,164	0,638	35,148	123,406	1063,195	19775,435
33,500	0,461	-2,986	59,880	41,922	0,634	34,383	122,311	1057,477	19669,064
33,570	0,466	-2,984	59,880	41,888	0,634	34,277	122,164	1056,673	19654,110
34,000	0,491	-2,969	59,880	41,681	0,631	33,637	121,301	1051,711	19561,829
34,500	0,509	-2,952	59,880	41,442	0,627	32,910	120,390	1045,886	19453,474
35,000	0,515	-2,935	59,880	41,204	0,623	32,203	119,585	1039,993	19343,863
35,500	0,509	-2,918	59,880	40,967	0,620	31,513	118,888	1034,031	19232,977
36,000	0,491	-2,901	59,880	40,732	0,616	30,841	118,292	1028,006	19120,904
36,430	0,466	-2,887	59,880	40,531	0,613	30,276	117,853	1022,781	19023,722
36,500	0,461	-2,885	59,880	40,498	0,613	30,186	117,788	1021,927	19007,844
37,000	0,420	-2,868	59,880	40,266	0,609	29,547	117,358	1015,812	18894,105
37,500	0,366	-2,852	59,880	40,034	0,606	28,925	116,979	1009,683	18780,103
37,860	0,320	-2,840	59,880	39,869	0,603	28,486	116,723	1005,277	18698,155
38,000	0,301	-2,835	59,880	39,805	0,602	28,318	116,623	1003,568	18666,373
38,500	0,223	-2,819	59,880	39,576	0,599	27,726	116,256	997,503	18553,561
39,000	0,134	-2,803	59,880	39,349	0,595	27,149	115,834	991,529	18442,432
39,300	0,075	-2,793	59,880	39,213	0,593	26,810	115,536	988,007	18376,921
39,500	0,034	-2,791	59,880	39,179	0,593	26,725	115,471	987,103	18360,111
40,000	-0,066	-2,785	59,880	39,093	0,591	26,513	115,202	984,952	18320,115

x [m]	e [m]	σ_c [MPa]	$\Delta\sigma_{pt,s}$ [MPa]	$\Delta\sigma_{pt,c}$ [MPa]	μ	$\Delta\sigma_{pt,r}$ [MPa]	$\Delta\sigma_{pt,s+c+r}$ [MPa]	$\sigma_{P\infty}$ [MPa]	P_∞ [kN]
40,500	-0,163	-2,778	59,880	39,007	0,590	26,302	114,794	982,946	18282,803
41,000	-0,258	-2,772	59,880	38,921	0,589	26,094	114,262	981,070	18247,899
41,500	-0,349	-2,766	59,880	38,836	0,588	25,888	113,621	979,308	18215,125
42,000	-0,437	-2,760	59,880	38,751	0,586	25,684	112,885	977,645	18184,206
42,500	-0,522	-2,754	59,880	38,666	0,585	25,482	112,069	976,068	18154,873
43,000	-0,605	-2,748	59,880	38,581	0,584	25,281	111,187	974,563	18126,870
43,500	-0,684	-2,742	59,880	38,496	0,582	25,083	110,252	973,116	18099,953
43,600	-0,699	-2,741	59,880	38,479	0,582	25,043	110,060	972,832	18094,679
44,000	-0,760	-2,739	59,880	38,455	0,582	24,987	109,391	972,822	18094,481
44,500	-0,833	-2,745	59,880	38,540	0,583	25,185	108,827	975,765	18149,223
45,000	-0,904	-2,751	59,880	38,624	0,584	25,384	108,238	978,739	18204,539
45,500	-0,971	-2,757	59,880	38,709	0,586	25,585	107,633	981,734	18260,254
46,000	-1,035	-2,763	59,880	38,794	0,587	25,789	107,020	984,743	18316,211
46,500	-1,097	-2,769	59,880	38,880	0,588	25,994	106,408	987,756	18372,261
47,000	-1,155	-2,775	59,880	38,965	0,590	26,201	105,802	990,767	18428,275
47,500	-1,210	-2,782	59,880	39,051	0,591	26,410	105,210	993,771	18484,134
48,000	-1,263	-2,788	59,880	39,137	0,592	26,621	104,638	996,760	18539,731
48,500	-1,312	-2,794	59,880	39,223	0,593	26,835	104,090	999,730	18594,971
49,000	-1,358	-2,800	59,880	39,309	0,595	27,050	103,571	1002,676	18649,772
49,500	-1,402	-2,806	59,880	39,395	0,596	27,267	103,085	1005,595	18704,058
50,000	-1,442	-2,812	59,880	39,482	0,597	27,487	102,636	1008,482	18757,765
50,500	-1,480	-2,818	59,880	39,569	0,599	27,708	102,226	1011,335	18810,834
51,000	-1,514	-2,825	59,880	39,656	0,600	27,932	101,858	1014,151	18863,214
51,500	-1,545	-2,831	59,880	39,743	0,601	28,158	101,536	1016,928	18914,863
52,000	-1,574	-2,837	59,880	39,831	0,603	28,386	101,260	1019,663	18965,740
52,200	-1,584	-2,840	59,880	39,866	0,603	28,478	101,163	1020,746	18985,867
52,500	-1,599	-2,843	59,880	39,918	0,604	28,616	101,033	1022,355	19015,811
53,000	-1,622	-2,850	59,880	40,006	0,605	28,849	100,856	1025,003	19065,048
53,500	-1,641	-2,856	59,880	40,094	0,607	29,083	100,731	1027,604	19113,425
54,000	-1,658	-2,862	59,880	40,182	0,608	29,320	100,659	1030,157	19160,919
54,500	-1,671	-2,868	59,880	40,270	0,609	29,560	100,640	1032,662	19207,510
55,000	-1,682	-2,875	59,880	40,359	0,611	29,802	100,677	1035,117	19253,183

x [m]	e [m]	σ_c [MPa]	$\Delta\sigma_{pt,s}$ [MPa]	$\Delta\sigma_{pt,c}$ [MPa]	μ	$\Delta\sigma_{pt,r}$ [MPa]	$\Delta\sigma_{pt,s+c+r}$ [MPa]	$\sigma_{P\infty}$ [MPa]	P_∞ [kN]
55,500	-1,689	-2,881	59,880	40,448	0,612	30,046	100,769	1037,523	19297,921
56,000	-1,694	-2,887	59,880	40,537	0,613	30,292	100,918	1039,877	19341,714
56,500	-1,695	-2,894	59,880	40,626	0,615	30,541	101,124	1042,180	19384,551
57,000	-1,694	-2,900	59,880	40,715	0,616	30,792	101,386	1044,431	19426,423
57,500	-1,689	-2,906	59,880	40,805	0,617	31,046	101,707	1046,630	19467,324
58,000	-1,682	-2,913	59,880	40,894	0,619	31,303	102,086	1048,777	19507,250
58,500	-1,671	-2,919	59,880	40,984	0,620	31,562	102,522	1050,871	19546,199
59,000	-1,658	-2,926	59,880	41,074	0,621	31,823	103,017	1052,912	19584,171
59,500	-1,641	-2,932	59,880	41,165	0,623	32,087	103,570	1054,902	19621,169
60,000	-1,622	-2,939	59,880	41,255	0,624	32,354	104,181	1056,839	19657,197
60,500	-1,599	-2,945	59,880	41,346	0,626	32,623	104,848	1058,724	19692,266
60,800	-1,584	-2,949	59,880	41,401	0,626	32,786	105,276	1059,831	19712,852
61,000	-1,574	-2,952	59,880	41,437	0,627	32,895	105,572	1060,559	19726,388
61,500	-1,545	-2,958	59,880	41,528	0,628	33,170	106,352	1062,343	19759,580
62,000	-1,514	-2,965	59,880	41,619	0,630	33,447	107,187	1064,079	19791,863
62,500	-1,480	-2,971	59,880	41,711	0,631	33,727	108,074	1065,767	19823,266
63,000	-1,442	-2,978	59,880	41,803	0,632	34,010	109,012	1067,410	19853,823
63,500	-1,402	-2,984	59,880	41,895	0,634	34,296	110,000	1069,009	19883,575
64,000	-1,358	-2,991	59,880	41,987	0,635	34,585	111,033	1070,568	19912,573
64,500	-1,312	-2,997	59,880	42,079	0,637	34,877	112,110	1072,090	19940,875
65,000	-1,263	-3,004	59,880	42,172	0,638	35,171	113,226	1073,578	19968,553
65,500	-1,210	-3,010	59,880	42,264	0,639	35,469	114,377	1075,037	19995,688
66,000	-1,155	-3,017	59,880	42,357	0,641	35,769	115,558	1076,472	20022,377
66,500	-1,097	-3,024	59,880	42,450	0,642	36,073	116,762	1077,889	20048,727
67,000	-1,035	-3,030	59,880	42,544	0,644	36,380	117,984	1079,294	20074,867
67,500	-0,971	-3,037	59,880	42,637	0,645	36,690	119,215	1080,696	20100,937
68,000	-0,904	-3,044	59,880	42,731	0,647	37,003	120,447	1082,102	20127,098
68,500	-0,833	-3,050	59,880	42,825	0,648	37,319	121,670	1083,523	20153,530
69,000	-0,760	-3,057	59,880	42,919	0,649	37,638	122,874	1084,970	20180,433
69,500	-0,684	-3,064	59,880	43,014	0,651	37,961	124,047	1086,453	20208,026
70,000	-0,605	-3,071	59,880	43,108	0,652	38,287	125,175	1087,986	20236,548
70,500	-0,522	-3,077	59,880	43,203	0,654	38,616	126,246	1089,584	20266,257

x [m]	e [m]	σ_c [MPa]	$\Delta\sigma_{pt,s}$ [MPa]	$\Delta\sigma_{pt,c}$ [MPa]	μ	$\Delta\sigma_{pt,r}$ [MPa]	$\Delta\sigma_{pt,s+c+r}$ [MPa]	$\sigma_{P\infty}$ [MPa]	P_∞ [kN]
71,000	-0,437	-3,084	59,880	43,298	0,655	38,949	127,244	1091,260	20297,430
71,500	-0,349	-3,091	59,880	43,393	0,657	39,285	128,153	1093,030	20330,359
72,000	-0,258	-3,098	59,880	43,489	0,658	39,624	128,957	1094,911	20365,350
72,346	-0,193	-3,102	59,880	43,555	0,659	39,861	129,443	1096,286	20390,919
72,500	-0,163	-3,100	59,880	43,525	0,659	39,755	129,420	1095,478	20375,895
73,000	-0,066	-3,093	59,880	43,430	0,657	39,414	129,253	1092,958	20329,018
73,500	0,034	-3,087	59,880	43,334	0,656	39,077	128,930	1090,600	20285,154
73,700	0,075	-3,084	59,880	43,296	0,655	38,943	128,753	1089,705	20268,509
74,000	0,134	-3,073	59,880	43,147	0,653	38,421	128,108	1086,147	20202,330
74,500	0,223	-3,056	59,880	42,899	0,649	37,570	126,959	1080,323	20094,011
75,000	0,301	-3,038	59,880	42,653	0,645	36,741	125,763	1074,586	19987,297
75,140	0,320	-3,033	59,880	42,584	0,644	36,513	125,426	1072,988	19957,584
75,500	0,366	-3,021	59,880	42,408	0,642	35,934	124,566	1068,889	19881,335
76,000	0,420	-3,003	59,880	42,164	0,638	35,148	123,406	1063,195	19775,435
76,500	0,461	-2,986	59,880	41,922	0,634	34,383	122,311	1057,477	19669,064
76,570	0,466	-2,984	59,880	41,888	0,634	34,277	122,164	1056,673	19654,110
77,000	0,491	-2,969	59,880	41,681	0,631	33,637	121,301	1051,711	19561,829
77,500	0,509	-2,952	59,880	41,442	0,627	32,910	120,390	1045,886	19453,474
78,000	0,515	-2,935	59,880	41,204	0,623	32,203	119,585	1039,993	19343,863
78,500	0,509	-2,918	59,880	40,967	0,620	31,513	118,888	1034,031	19232,977
79,000	0,491	-2,901	59,880	40,732	0,616	30,841	118,292	1028,006	19120,904
79,430	0,466	-2,887	59,880	40,531	0,613	30,276	117,853	1022,781	19023,722
79,500	0,461	-2,885	59,880	40,498	0,613	30,186	117,788	1021,927	19007,844
80,000	0,420	-2,868	59,880	40,266	0,609	29,547	117,358	1015,812	18894,105
80,500	0,366	-2,852	59,880	40,034	0,606	28,925	116,979	1009,683	18780,103
80,860	0,320	-2,840	59,880	39,869	0,603	28,486	116,723	1005,277	18698,155
81,000	0,301	-2,835	59,880	39,805	0,602	28,318	116,623	1003,568	18666,373
81,500	0,223	-2,819	59,880	39,576	0,599	27,726	116,256	997,503	18553,561
82,000	0,134	-2,803	59,880	39,349	0,595	27,149	115,834	991,529	18442,432
82,300	0,075	-2,793	59,880	39,213	0,593	26,810	115,536	988,007	18376,921
82,500	0,034	-2,791	59,880	39,179	0,593	26,725	115,471	987,103	18360,111
83,000	-0,066	-2,785	59,880	39,093	0,591	26,513	115,202	984,952	18320,115

x [m]	e [m]	σ_c [MPa]	$\Delta\sigma_{pt,s}$ [MPa]	$\Delta\sigma_{pt,c}$ [MPa]	μ	$\Delta\sigma_{pt,r}$ [MPa]	$\Delta\sigma_{pt,s+c+r}$ [MPa]	$\sigma_{P\infty}$ [MPa]	P_∞ [kN]
83,500	-0,163	-2,778	59,880	39,007	0,590	26,302	114,794	982,946	18282,803
84,000	-0,258	-2,772	59,880	38,921	0,589	26,094	114,262	981,070	18247,899
84,500	-0,349	-2,766	59,880	38,836	0,588	25,888	113,621	979,308	18215,125
85,000	-0,437	-2,760	59,880	38,751	0,586	25,684	112,885	977,645	18184,206
85,500	-0,522	-2,754	59,880	38,666	0,585	25,482	112,069	976,068	18154,873
86,000	-0,605	-2,748	59,880	38,581	0,584	25,281	111,187	974,563	18126,870
86,500	-0,684	-2,742	59,880	38,496	0,582	25,083	110,252	973,116	18099,953
86,600	-0,699	-2,741	59,880	38,479	0,582	25,043	110,060	972,832	18094,679
87,000	-0,760	-2,739	59,880	38,455	0,582	24,987	109,391	972,822	18094,481
87,500	-0,833	-2,745	59,880	38,540	0,583	25,185	108,827	975,765	18149,223
88,000	-0,904	-2,751	59,880	38,624	0,584	25,384	108,238	978,739	18204,539
88,500	-0,971	-2,757	59,880	38,709	0,586	25,585	107,633	981,734	18260,254
89,000	-1,035	-2,763	59,880	38,794	0,587	25,789	107,020	984,743	18316,211
89,500	-1,097	-2,769	59,880	38,880	0,588	25,994	106,408	987,756	18372,261
90,000	-1,155	-2,775	59,880	38,965	0,590	26,201	105,802	990,767	18428,275
90,500	-1,210	-2,782	59,880	39,051	0,591	26,410	105,210	993,771	18484,134
91,000	-1,263	-2,788	59,880	39,137	0,592	26,621	104,638	996,760	18539,731
91,500	-1,312	-2,794	59,880	39,223	0,593	26,835	104,090	999,730	18594,971
92,000	-1,358	-2,800	59,880	39,309	0,595	27,050	103,571	1002,676	18649,772
92,500	-1,402	-2,806	59,880	39,395	0,596	27,267	103,085	1005,595	18704,058
93,000	-1,442	-2,812	59,880	39,482	0,597	27,487	102,636	1008,482	18757,765
93,500	-1,480	-2,818	59,880	39,569	0,599	27,708	102,226	1011,335	18810,834
94,000	-1,514	-2,825	59,880	39,656	0,600	27,932	101,858	1014,151	18863,214
94,500	-1,545	-2,831	59,880	39,743	0,601	28,158	101,536	1016,928	18914,863
95,000	-1,574	-2,837	59,880	39,831	0,603	28,386	101,260	1019,663	18965,740
95,200	-1,584	-2,840	59,880	39,866	0,603	28,478	101,163	1020,746	18985,867
95,500	-1,599	-2,843	59,880	39,918	0,604	28,616	101,033	1022,355	19015,811
96,000	-1,622	-2,850	59,880	40,006	0,605	28,849	100,856	1025,003	19065,048
96,500	-1,641	-2,856	59,880	40,094	0,607	29,083	100,731	1027,604	19113,425
97,000	-1,658	-2,862	59,880	40,182	0,608	29,320	100,659	1030,157	19160,919
97,500	-1,671	-2,868	59,880	40,270	0,609	29,560	100,640	1032,662	19207,510
98,000	-1,682	-2,875	59,880	40,359	0,611	29,802	100,677	1035,117	19253,183

x [m]	e [m]	σ_c [MPa]	$\Delta\sigma_{pt,s}$ [MPa]	$\Delta\sigma_{pt,c}$ [MPa]	μ	$\Delta\sigma_{pt,r}$ [MPa]	$\Delta\sigma_{pt,s+c+r}$ [MPa]	$\sigma_{P\infty}$ [MPa]	P_∞ [kN]
98,500	-1,689	-2,881	59,880	40,448	0,612	30,046	100,769	1037,523	19297,921
99,000	-1,694	-2,887	59,880	40,537	0,613	30,292	100,918	1039,877	19341,714
99,500	-1,695	-2,894	59,880	40,626	0,615	30,541	101,124	1042,180	19384,551
100,000	-1,694	-2,900	59,880	40,715	0,616	30,792	101,386	1044,431	19426,423
100,500	-1,689	-2,906	59,880	40,805	0,617	31,046	101,707	1046,630	19467,324
101,000	-1,682	-2,913	59,880	40,894	0,619	31,303	102,086	1048,777	19507,250
101,500	-1,671	-2,919	59,880	40,984	0,620	31,562	102,522	1050,871	19546,199
102,000	-1,658	-2,926	59,880	41,074	0,621	31,823	103,017	1052,912	19584,171
102,500	-1,641	-2,932	59,880	41,165	0,623	32,087	103,570	1054,902	19621,169
103,000	-1,622	-2,939	59,880	41,255	0,624	32,354	104,181	1056,839	19657,197
103,500	-1,599	-2,945	59,880	41,346	0,626	32,623	104,848	1058,724	19692,266
103,800	-1,584	-2,949	59,880	41,401	0,626	32,786	105,276	1059,831	19712,852
104,000	-1,574	-2,952	59,880	41,437	0,627	32,895	105,572	1060,559	19726,388
104,500	-1,545	-2,958	59,880	41,528	0,628	33,170	106,352	1062,343	19759,580
105,000	-1,514	-2,965	59,880	41,619	0,630	33,447	107,187	1064,079	19791,863
105,500	-1,480	-2,971	59,880	41,711	0,631	33,727	108,074	1065,767	19823,266
106,000	-1,442	-2,978	59,880	41,803	0,632	34,010	109,012	1067,410	19853,823
106,500	-1,402	-2,984	59,880	41,895	0,634	34,296	110,000	1069,009	19883,575
107,000	-1,358	-2,991	59,880	41,987	0,635	34,585	111,033	1070,568	19912,573
107,500	-1,312	-2,997	59,880	42,079	0,637	34,877	112,110	1072,090	19940,875
108,000	-1,263	-3,004	59,880	42,172	0,638	35,171	113,226	1073,578	19968,553
108,500	-1,210	-3,010	59,880	42,264	0,639	35,469	114,377	1075,037	19995,688
109,000	-1,155	-3,017	59,880	42,357	0,641	35,769	115,558	1076,472	20022,377
109,500	-1,097	-3,024	59,880	42,450	0,642	36,073	116,762	1077,889	20048,727
110,000	-1,035	-3,030	59,880	42,544	0,644	36,380	117,984	1079,294	20074,867
110,500	-0,971	-3,037	59,880	42,637	0,645	36,690	119,215	1080,696	20100,937
111,000	-0,904	-3,044	59,880	42,731	0,647	37,003	120,447	1082,102	20127,098
111,500	-0,833	-3,050	59,880	42,825	0,648	37,319	121,670	1083,523	20153,530
112,000	-0,760	-3,057	59,880	42,919	0,649	37,638	122,874	1084,970	20180,433
112,500	-0,684	-3,064	59,880	43,014	0,651	37,961	124,047	1086,453	20208,026
113,000	-0,605	-3,071	59,880	43,108	0,652	38,287	125,175	1087,986	20236,548
113,500	-0,522	-3,077	59,880	43,203	0,654	38,616	126,246	1089,584	20266,257

x [m]	e [m]	σ_c [MPa]	$\Delta\sigma_{pt,s}$ [MPa]	$\Delta\sigma_{pt,c}$ [MPa]	μ	$\Delta\sigma_{pt,r}$ [MPa]	$\Delta\sigma_{pt,s+c+r}$ [MPa]	$\sigma_{P\infty}$ [MPa]	P_∞ [kN]
114,000	-0,437	-3,084	59,880	43,298	0,655	38,949	127,244	1091,260	20297,430
114,500	-0,349	-3,091	59,880	43,393	0,657	39,285	128,153	1093,030	20330,359
115,000	-0,258	-3,098	59,880	43,489	0,658	39,624	128,957	1094,911	20365,350
115,346	-0,193	-3,102	59,880	43,555	0,659	39,861	129,443	1096,286	20390,919
115,500	-0,163	-3,100	59,880	43,525	0,659	39,755	129,420	1095,478	20375,895
116,000	-0,066	-3,093	59,880	43,430	0,657	39,414	129,253	1092,958	20329,018
116,500	0,034	-3,087	59,880	43,334	0,656	39,077	128,930	1090,600	20285,154
116,700	0,075	-3,084	59,880	43,296	0,655	38,943	128,753	1089,705	20268,509
117,000	0,134	-3,073	59,880	43,147	0,653	38,421	128,108	1086,147	20202,330
117,500	0,223	-3,056	59,880	42,899	0,649	37,570	126,959	1080,323	20094,011
118,000	0,301	-3,038	59,880	42,653	0,645	36,741	125,763	1074,586	19987,297
118,140	0,320	-3,033	59,880	42,584	0,644	36,513	125,426	1072,988	19957,584
118,500	0,366	-3,021	59,880	42,408	0,642	35,934	124,566	1068,889	19881,335
119,000	0,420	-3,003	59,880	42,164	0,638	35,148	123,406	1063,195	19775,435
119,500	0,461	-2,986	59,880	41,922	0,634	34,383	122,311	1057,477	19669,064
119,570	0,466	-2,984	59,880	41,888	0,634	34,277	122,164	1056,673	19654,110
120,000	0,491	-2,969	59,880	41,681	0,631	33,637	121,301	1051,711	19561,829
120,500	0,509	-2,952	59,880	41,442	0,627	32,910	120,390	1045,886	19453,474
121,000	0,515	-2,935	59,880	41,204	0,623	32,203	119,585	1039,993	19343,863
121,500	0,509	-2,918	59,880	40,967	0,620	31,513	118,888	1034,031	19232,977
122,000	0,491	-2,901	59,880	40,732	0,616	30,841	118,292	1028,006	19120,904
122,430	0,466	-2,887	59,880	40,531	0,613	30,276	117,853	1022,781	19023,722
122,500	0,461	-2,885	59,880	40,498	0,613	30,186	117,788	1021,927	19007,844
123,000	0,420	-2,868	59,880	40,266	0,609	29,547	117,358	1015,812	18894,105
123,500	0,366	-2,852	59,880	40,034	0,606	28,925	116,979	1009,683	18780,103
123,860	0,320	-2,840	59,880	39,869	0,603	28,486	116,723	1005,277	18698,155
124,000	0,301	-2,835	59,880	39,805	0,602	28,318	116,623	1003,568	18666,373
124,500	0,223	-2,819	59,880	39,576	0,599	27,726	116,256	997,503	18553,561
125,000	0,134	-2,803	59,880	39,349	0,595	27,149	115,834	991,529	18442,432
125,300	0,075	-2,793	59,880	39,213	0,593	26,810	115,536	988,007	18376,921
125,500	0,034	-2,791	59,880	39,179	0,593	26,725	115,471	987,103	18360,111
126,000	-0,066	-2,785	59,880	39,093	0,591	26,513	115,202	984,952	18320,115

x [m]	e [m]	σ_c [MPa]	$\Delta\sigma_{pt,s}$ [MPa]	$\Delta\sigma_{pt,c}$ [MPa]	μ	$\Delta\sigma_{pt,r}$ [MPa]	$\Delta\sigma_{pt,s+c+r}$ [MPa]	$\sigma_{P\infty}$ [MPa]	P_∞ [kN]
126,500	-0,163	-2,778	59,880	39,007	0,590	26,302	114,794	982,946	18282,803
127,000	-0,258	-2,772	59,880	38,921	0,589	26,094	114,262	981,070	18247,899
127,500	-0,349	-2,766	59,880	38,836	0,588	25,888	113,621	979,308	18215,125
128,000	-0,437	-2,760	59,880	38,751	0,586	25,684	112,885	977,645	18184,206
128,500	-0,522	-2,754	59,880	38,666	0,585	25,482	112,069	976,068	18154,873
129,000	-0,605	-2,748	59,880	38,581	0,584	25,281	111,187	974,563	18126,870
129,500	-0,684	-2,742	59,880	38,496	0,582	25,083	110,252	973,116	18099,953
129,600	-0,699	-2,741	59,880	38,479	0,582	25,043	110,060	972,832	18094,679
130,000	-0,760	-2,739	59,880	38,455	0,582	24,987	109,391	972,822	18094,481
130,500	-0,833	-2,745	59,880	38,540	0,583	25,185	108,827	975,765	18149,223
131,000	-0,904	-2,751	59,880	38,624	0,584	25,384	108,238	978,739	18204,539
131,500	-0,971	-2,757	59,880	38,709	0,586	25,585	107,633	981,734	18260,254
132,000	-1,035	-2,763	59,880	38,794	0,587	25,789	107,020	984,743	18316,211
132,500	-1,097	-2,769	59,880	38,880	0,588	25,994	106,408	987,756	18372,261
133,000	-1,155	-2,775	59,880	38,965	0,590	26,201	105,802	990,767	18428,275
133,500	-1,210	-2,782	59,880	39,051	0,591	26,410	105,210	993,771	18484,134
134,000	-1,263	-2,788	59,880	39,137	0,592	26,621	104,638	996,760	18539,731
134,500	-1,312	-2,794	59,880	39,223	0,593	26,835	104,090	999,730	18594,971
135,000	-1,358	-2,800	59,880	39,309	0,595	27,050	103,571	1002,676	18649,772
135,500	-1,402	-2,806	59,880	39,395	0,596	27,267	103,085	1005,595	18704,058
136,000	-1,442	-2,812	59,880	39,482	0,597	27,487	102,636	1008,482	18757,765
136,500	-1,480	-2,818	59,880	39,569	0,599	27,708	102,226	1011,335	18810,834
137,000	-1,514	-2,825	59,880	39,656	0,600	27,932	101,858	1014,151	18863,214
137,500	-1,545	-2,831	59,880	39,743	0,601	28,158	101,536	1016,928	18914,863
138,000	-1,574	-2,837	59,880	39,831	0,603	28,386	101,260	1019,663	18965,740
138,200	-1,584	-2,840	59,880	39,866	0,603	28,478	101,163	1020,746	18985,867
138,500	-1,599	-2,843	59,880	39,918	0,604	28,616	101,033	1022,355	19015,811
139,000	-1,622	-2,850	59,880	40,006	0,605	28,849	100,856	1025,003	19065,048
139,500	-1,641	-2,856	59,880	40,094	0,607	29,083	100,731	1027,604	19113,425
140,000	-1,658	-2,862	59,880	40,182	0,608	29,320	100,659	1030,157	19160,919
140,500	-1,671	-2,868	59,880	40,270	0,609	29,560	100,640	1032,662	19207,510
141,000	-1,682	-2,875	59,880	40,359	0,611	29,802	100,677	1035,117	19253,183

x [m]	e [m]	σ_c [MPa]	$\Delta\sigma_{pt,s}$ [MPa]	$\Delta\sigma_{pt,c}$ [MPa]	μ	$\Delta\sigma_{pt,r}$ [MPa]	$\Delta\sigma_{pt,s+c+r}$ [MPa]	$\sigma_{P\infty}$ [MPa]	P_∞ [kN]
141,500	-1,689	-2,881	59,880	40,448	0,612	30,046	100,769	1037,523	19297,921
142,000	-1,694	-2,887	59,880	40,537	0,613	30,292	100,918	1039,877	19341,714
142,500	-1,695	-2,894	59,880	40,626	0,615	30,541	101,124	1042,180	19384,551
143,000	-1,694	-2,900	59,880	40,715	0,616	30,792	101,386	1044,431	19426,423
143,500	-1,689	-2,906	59,880	40,805	0,617	31,046	101,707	1046,630	19467,324
144,000	-1,682	-2,913	59,880	40,894	0,619	31,303	102,086	1048,777	19507,250
144,500	-1,671	-2,919	59,880	40,984	0,620	31,562	102,522	1050,871	19546,199
145,000	-1,658	-2,926	59,880	41,074	0,621	31,823	103,017	1052,912	19584,171
145,500	-1,641	-2,932	59,880	41,165	0,623	32,087	103,570	1054,902	19621,169
146,000	-1,622	-2,939	59,880	41,255	0,624	32,354	104,181	1056,839	19657,197
146,500	-1,599	-2,945	59,880	41,346	0,626	32,623	104,848	1058,724	19692,266
146,800	-1,584	-2,949	59,880	41,401	0,626	32,786	105,276	1059,831	19712,852
147,000	-1,574	-2,952	59,880	41,437	0,627	32,895	105,572	1060,559	19726,388
147,500	-1,545	-2,958	59,880	41,528	0,628	33,170	106,352	1062,343	19759,580
148,000	-1,514	-2,965	59,880	41,619	0,630	33,447	107,187	1064,079	19791,863
148,500	-1,480	-2,971	59,880	41,711	0,631	33,727	108,074	1065,767	19823,266
149,000	-1,442	-2,978	59,880	41,803	0,632	34,010	109,012	1067,410	19853,823
149,500	-1,402	-2,984	59,880	41,895	0,634	34,296	110,000	1069,009	19883,575
150,000	-1,358	-2,991	59,880	41,987	0,635	34,585	111,033	1070,568	19912,573
150,500	-1,312	-2,997	59,880	42,079	0,637	34,877	112,110	1072,090	19940,875
151,000	-1,263	-3,004	59,880	42,172	0,638	35,171	113,226	1073,578	19968,553
151,500	-1,210	-3,010	59,880	42,264	0,639	35,469	114,377	1075,037	19995,688
152,000	-1,155	-3,017	59,880	42,357	0,641	35,769	115,558	1076,472	20022,377
152,500	-1,097	-3,024	59,880	42,450	0,642	36,073	116,762	1077,889	20048,727
153,000	-1,035	-3,030	59,880	42,544	0,644	36,380	117,984	1079,294	20074,867
153,500	-0,971	-3,037	59,880	42,637	0,645	36,690	119,215	1080,696	20100,937
154,000	-0,904	-3,044	59,880	42,731	0,647	37,003	120,447	1082,102	20127,098
154,500	-0,833	-3,050	59,880	42,825	0,648	37,319	121,670	1083,523	20153,530
155,000	-0,760	-3,057	59,880	42,919	0,649	37,638	122,874	1084,970	20180,433
155,500	-0,684	-3,064	59,880	43,014	0,651	37,961	124,047	1086,453	20208,026
156,000	-0,605	-3,071	59,880	43,108	0,652	38,287	125,175	1087,986	20236,548
156,500	-0,522	-3,077	59,880	43,203	0,654	38,616	126,246	1089,584	20266,257

x [m]	**e** [m]	σ_c [MPa]	$\Delta\sigma_{pt,s}$ [MPa]	$\Delta\sigma_{pt,c}$ [MPa]	μ	$\Delta\sigma_{pt,r}$ [MPa]	$\Delta\sigma_{pt,s+c+r}$ [MPa]	$\sigma_{P\infty}$ [MPa]	P_∞ [kN]
157,000	-0,437	-3,084	59,880	43,298	0,655	38,949	127,244	1091,260	20297,430
157,500	-0,349	-3,091	59,880	43,393	0,657	39,285	128,153	1093,030	20330,359
158,000	-0,258	-3,098	59,880	43,489	0,658	39,624	128,957	1094,911	20365,350
158,346	-0,193	-3,102	59,880	43,555	0,659	39,861	129,443	1096,286	20390,919
158,500	-0,163	-3,100	59,880	43,525	0,659	39,755	129,420	1095,478	20375,895
159,000	-0,066	-3,093	59,880	43,430	0,657	39,414	129,253	1092,958	20329,018
159,500	0,034	-3,087	59,880	43,334	0,656	39,077	128,930	1090,600	20285,154
159,700	0,075	-3,084	59,880	43,296	0,655	38,943	128,753	1089,705	20268,509
160,000	0,134	-3,073	59,880	43,147	0,653	38,421	128,108	1086,147	20202,330
160,500	0,223	-3,056	59,880	42,899	0,649	37,570	126,959	1080,323	20094,011
161,000	0,301	-3,038	59,880	42,653	0,645	36,741	125,763	1074,586	19987,297
161,140	0,320	-3,033	59,880	42,584	0,644	36,513	125,426	1072,988	19957,584
161,500	0,366	-3,021	59,880	42,408	0,642	35,934	124,566	1068,889	19881,335
162,000	0,420	-3,003	59,880	42,164	0,638	35,148	123,406	1063,195	19775,435
162,500	0,461	-2,986	59,880	41,922	0,634	34,383	122,311	1057,477	19669,064
162,570	0,466	-2,984	59,880	41,888	0,634	34,277	122,164	1056,673	19654,110
163,000	0,491	-2,969	59,880	41,681	0,631	33,637	121,301	1051,711	19561,829
163,500	0,509	-2,952	59,880	41,442	0,627	32,910	120,390	1045,886	19453,474
164,000	0,515	-2,935	59,880	41,204	0,623	32,203	119,585	1039,993	19343,863
164,500	0,509	-2,918	59,880	40,967	0,620	31,513	118,888	1034,031	19232,977
165,000	0,491	-2,901	59,880	40,732	0,616	30,841	118,292	1028,006	19120,904
165,430	0,466	-2,887	59,880	40,531	0,613	30,276	117,853	1022,781	19023,722
165,500	0,461	-2,885	59,880	40,498	0,613	30,186	117,788	1021,927	19007,844
166,000	0,420	-2,868	59,880	40,266	0,609	29,547	117,358	1015,812	18894,105
166,500	0,366	-2,852	59,880	40,034	0,606	28,925	116,979	1009,683	18780,103
166,860	0,320	-2,840	59,880	39,869	0,603	28,486	116,723	1005,277	18698,155
167,000	0,301	-2,835	59,880	39,805	0,602	28,318	116,623	1003,568	18666,373
167,500	0,223	-2,819	59,880	39,576	0,599	27,726	116,256	997,503	18553,561
168,000	0,134	-2,803	59,880	39,349	0,595	27,149	115,834	991,529	18442,432
168,300	0,075	-2,793	59,880	39,213	0,593	26,810	115,536	988,007	18376,921
168,500	0,034	-2,791	59,880	39,179	0,593	26,725	115,471	987,103	18360,111
169,000	-0,066	-2,785	59,880	39,093	0,591	26,513	115,202	984,952	18320,115

x [m]	e [m]	σ_c [MPa]	$\Delta\sigma_{pt,s}$ [MPa]	$\Delta\sigma_{pt,c}$ [MPa]	μ	$\Delta\sigma_{pt,r}$ [MPa]	$\Delta\sigma_{pt,s+c+r}$ [MPa]	$\sigma_{P\infty}$ [MPa]	P_∞ [kN]
169,500	-0,163	-2,778	59,880	39,007	0,590	26,302	114,794	982,946	18282,803
170,000	-0,258	-2,772	59,880	38,921	0,589	26,094	114,262	981,070	18247,899
170,500	-0,349	-2,766	59,880	38,836	0,588	25,888	113,621	979,308	18215,125
171,000	-0,437	-2,760	59,880	38,751	0,586	25,684	112,885	977,645	18184,206
171,500	-0,522	-2,754	59,880	38,666	0,585	25,482	112,069	976,068	18154,873
172,000	-0,605	-2,748	59,880	38,581	0,584	25,281	111,187	974,563	18126,870
172,500	-0,684	-2,742	59,880	38,496	0,582	25,083	110,252	973,116	18099,953
172,600	-0,699	-2,741	59,880	38,479	0,582	25,043	110,060	972,832	18094,679
173,000	-0,760	-2,739	59,880	38,455	0,582	24,987	109,391	972,822	18094,481
173,500	-0,833	-2,745	59,880	38,540	0,583	25,185	108,827	975,765	18149,223
174,000	-0,904	-2,751	59,880	38,624	0,584	25,384	108,238	978,739	18204,539
174,500	-0,971	-2,757	59,880	38,709	0,586	25,585	107,633	981,734	18260,254
175,000	-1,035	-2,763	59,880	38,794	0,587	25,789	107,020	984,743	18316,211
175,500	-1,097	-2,769	59,880	38,880	0,588	25,994	106,408	987,756	18372,261
176,000	-1,155	-2,775	59,880	38,965	0,590	26,201	105,802	990,767	18428,275
176,500	-1,210	-2,782	59,880	39,051	0,591	26,410	105,210	993,771	18484,134
177,000	-1,263	-2,788	59,880	39,137	0,592	26,621	104,638	996,760	18539,731
177,500	-1,312	-2,794	59,880	39,223	0,593	26,835	104,090	999,730	18594,971
178,000	-1,358	-2,800	59,880	39,309	0,595	27,050	103,571	1002,676	18649,772
178,500	-1,402	-2,806	59,880	39,395	0,596	27,267	103,085	1005,595	18704,058
179,000	-1,442	-2,812	59,880	39,482	0,597	27,487	102,636	1008,482	18757,765
179,500	-1,480	-2,818	59,880	39,569	0,599	27,708	102,226	1011,335	18810,834
180,000	-1,514	-2,825	59,880	39,656	0,600	27,932	101,858	1014,151	18863,214
180,500	-1,545	-2,831	59,880	39,743	0,601	28,158	101,536	1016,928	18914,863
181,000	-1,574	-2,837	59,880	39,831	0,603	28,386	101,260	1019,663	18965,740
181,200	-1,584	-2,840	59,880	39,866	0,603	28,478	101,163	1020,746	18985,867
181,500	-1,599	-2,843	59,880	39,918	0,604	28,616	101,033	1022,355	19015,811
182,000	-1,622	-2,850	59,880	40,006	0,605	28,849	100,856	1025,003	19065,048
182,500	-1,641	-2,856	59,880	40,094	0,607	29,083	100,731	1027,604	19113,425
183,000	-1,658	-2,862	59,880	40,182	0,608	29,320	100,659	1030,157	19160,919
183,500	-1,671	-2,868	59,880	40,270	0,609	29,560	100,640	1032,662	19207,510
184,000	-1,682	-2,875	59,880	40,359	0,611	29,802	100,677	1035,117	19253,183

x [m]	e [m]	σ_c [MPa]	$\Delta\sigma_{pt,s}$ [MPa]	$\Delta\sigma_{pt,c}$ [MPa]	μ	$\Delta\sigma_{pt,r}$ [MPa]	$\Delta\sigma_{pt,s+c+r}$ [MPa]	$\sigma_{P\infty}$ [MPa]	P_∞ [kN]
184,500	-1,689	-2,881	59,880	40,448	0,612	30,046	100,769	1037,523	19297,921
185,000	-1,694	-2,887	59,880	40,537	0,613	30,292	100,918	1039,877	19341,714
185,500	-1,695	-2,894	59,880	40,626	0,615	30,541	101,124	1042,180	19384,551
186,000	-1,694	-2,900	59,880	40,715	0,616	30,792	101,386	1044,431	19426,423
186,500	-1,689	-2,906	59,880	40,805	0,617	31,046	101,707	1046,630	19467,324
187,000	-1,682	-2,913	59,880	40,894	0,619	31,303	102,086	1048,777	19507,250
187,500	-1,671	-2,919	59,880	40,984	0,620	31,562	102,522	1050,871	19546,199
188,000	-1,658	-2,926	59,880	41,074	0,621	31,823	103,017	1052,912	19584,171
188,500	-1,641	-2,932	59,880	41,165	0,623	32,087	103,570	1054,902	19621,169
189,000	-1,622	-2,939	59,880	41,255	0,624	32,354	104,181	1056,839	19657,197
189,500	-1,599	-2,945	59,880	41,346	0,626	32,623	104,848	1058,724	19692,266
189,800	-1,584	-2,949	59,880	41,401	0,626	32,786	105,276	1059,831	19712,852
190,000	-1,574	-2,952	59,880	41,437	0,627	32,895	105,572	1060,559	19726,388
190,500	-1,545	-2,958	59,880	41,528	0,628	33,170	106,352	1062,343	19759,580
191,000	-1,514	-2,965	59,880	41,619	0,630	33,447	107,187	1064,079	19791,863
191,500	-1,480	-2,971	59,880	41,711	0,631	33,727	108,074	1065,767	19823,266
192,000	-1,442	-2,978	59,880	41,803	0,632	34,010	109,012	1067,410	19853,823
192,500	-1,402	-2,984	59,880	41,895	0,634	34,296	110,000	1069,009	19883,575
193,000	-1,358	-2,991	59,880	41,987	0,635	34,585	111,033	1070,568	19912,573
193,500	-1,312	-2,997	59,880	42,079	0,637	34,877	112,110	1072,090	19940,875
194,000	-1,263	-3,004	59,880	42,172	0,638	35,171	113,226	1073,578	19968,553
194,500	-1,210	-3,010	59,880	42,264	0,639	35,469	114,377	1075,037	19995,688
195,000	-1,155	-3,017	59,880	42,357	0,641	35,769	115,558	1076,472	20022,377
195,500	-1,097	-3,024	59,880	42,450	0,642	36,073	116,762	1077,889	20048,727
196,000	-1,035	-3,030	59,880	42,544	0,644	36,380	117,984	1079,294	20074,867
196,500	-0,971	-3,037	59,880	42,637	0,645	36,690	119,215	1080,696	20100,937
197,000	-0,904	-3,044	59,880	42,731	0,647	37,003	120,447	1082,102	20127,098
197,500	-0,833	-3,050	59,880	42,825	0,648	37,319	121,670	1083,523	20153,530
198,000	-0,760	-3,057	59,880	42,919	0,649	37,638	122,874	1084,970	20180,433
198,500	-0,684	-3,064	59,880	43,014	0,651	37,961	124,047	1086,453	20208,026
199,000	-0,605	-3,071	59,880	43,108	0,652	38,287	125,175	1087,986	20236,548
199,500	-0,522	-3,077	59,880	43,203	0,654	38,616	126,246	1089,584	20266,257

x [m]	e [m]	σ_c [MPa]	$\Delta\sigma_{pt,s}$ [MPa]	$\Delta\sigma_{pt,c}$ [MPa]	μ	$\Delta\sigma_{pt,r}$ [MPa]	$\Delta\sigma_{pt,s+c+r}$ [MPa]	$\sigma_{P\infty}$ [MPa]	P_∞ [kN]
200,000	-0,437	-3,084	59,880	43,298	0,655	38,949	127,244	1091,260	20297,430
200,500	-0,349	-3,091	59,880	43,393	0,657	39,285	128,153	1093,030	20330,359
201,000	-0,258	-3,098	59,880	43,489	0,658	39,624	128,957	1094,911	20365,350
201,346	-0,193	-3,102	59,880	43,555	0,659	39,861	129,443	1096,286	20390,919
201,500	-0,163	-3,100	59,880	43,525	0,659	39,755	129,420	1095,478	20375,895
202,000	-0,066	-3,093	59,880	43,430	0,657	39,414	129,253	1092,958	20329,018
202,500	0,034	-3,087	59,880	43,334	0,656	39,077	128,930	1090,600	20285,154
202,700	0,075	-3,084	59,880	43,296	0,655	38,943	128,753	1089,705	20268,509
203,000	0,134	-3,073	59,880	43,147	0,653	38,421	128,108	1086,147	20202,330
203,500	0,223	-3,056	59,880	42,899	0,649	37,570	126,959	1080,323	20094,011
204,000	0,301	-3,038	59,880	42,653	0,645	36,741	125,763	1074,586	19987,297
204,140	0,320	-3,033	59,880	42,584	0,644	36,513	125,426	1072,988	19957,584
204,500	0,366	-3,021	59,880	42,408	0,642	35,934	124,566	1068,889	19881,335
205,000	0,420	-3,003	59,880	42,164	0,638	35,148	123,406	1063,195	19775,435
205,500	0,461	-2,986	59,880	41,922	0,634	34,383	122,311	1057,477	19669,064
205,570	0,466	-2,984	59,880	41,888	0,634	34,277	122,164	1056,673	19654,110
206,000	0,491	-2,969	59,880	41,681	0,631	33,637	121,301	1051,711	19561,829
206,500	0,509	-2,952	59,880	41,442	0,627	32,910	120,390	1045,886	19453,474
207,000	0,515	-2,935	59,880	41,204	0,623	32,203	119,585	1039,993	19343,863
207,500	0,509	-2,918	59,880	40,967	0,620	31,513	118,888	1034,031	19232,977
208,000	0,491	-2,901	59,880	40,732	0,616	30,841	118,292	1028,006	19120,904
208,430	0,466	-2,887	59,880	40,531	0,613	30,276	117,853	1022,781	19023,722
208,500	0,461	-2,885	59,880	40,498	0,613	30,186	117,788	1021,927	19007,844
209,000	0,420	-2,868	59,880	40,266	0,609	29,547	117,358	1015,812	18894,105
209,500	0,366	-2,852	59,880	40,034	0,606	28,925	116,979	1009,683	18780,103
209,860	0,320	-2,840	59,880	39,869	0,603	28,486	116,723	1005,277	18698,155
210,000	0,301	-2,835	59,880	39,805	0,602	28,318	116,623	1003,568	18666,373
210,500	0,223	-2,819	59,880	39,576	0,599	27,726	116,256	997,503	18553,561
211,000	0,134	-2,803	59,880	39,349	0,595	27,149	115,834	991,529	18442,432
211,300	0,075	-2,793	59,880	39,213	0,593	26,810	115,536	988,007	18376,921
211,500	0,034	-2,791	59,880	39,179	0,593	26,725	115,471	987,103	18360,111
212,000	-0,066	-2,785	59,880	39,093	0,591	26,513	115,202	984,952	18320,115

x [m]	e [m]	σ_c [MPa]	$\Delta\sigma_{pt,s}$ [MPa]	$\Delta\sigma_{pt,c}$ [MPa]	μ	$\Delta\sigma_{pt,r}$ [MPa]	$\Delta\sigma_{pt,s+c+r}$ [MPa]	$\sigma_{P\infty}$ [MPa]	P_∞ [kN]
212,500	-0,163	-2,778	59,880	39,007	0,590	26,302	114,794	982,946	18282,803
213,000	-0,258	-2,772	59,880	38,921	0,589	26,094	114,262	981,070	18247,899
213,500	-0,349	-2,766	59,880	38,836	0,588	25,888	113,621	979,308	18215,125
214,000	-0,437	-2,760	59,880	38,751	0,586	25,684	112,885	977,645	18184,206
214,500	-0,522	-2,754	59,880	38,666	0,585	25,482	112,069	976,068	18154,873
215,000	-0,605	-2,748	59,880	38,581	0,584	25,281	111,187	974,563	18126,870
215,500	-0,684	-2,742	59,880	38,496	0,582	25,083	110,252	973,116	18099,953
215,600	-0,699	-2,741	59,880	38,479	0,582	25,043	110,060	972,832	18094,679
216,000	-0,760	-2,739	59,880	38,455	0,582	24,987	109,391	972,822	18094,481
216,500	-0,833	-2,745	59,880	38,540	0,583	25,185	108,827	975,765	18149,223
217,000	-0,904	-2,751	59,880	38,624	0,584	25,384	108,238	978,739	18204,539
217,500	-0,971	-2,757	59,880	38,709	0,586	25,585	107,633	981,734	18260,254
218,000	-1,035	-2,763	59,880	38,794	0,587	25,789	107,020	984,743	18316,211
218,500	-1,097	-2,769	59,880	38,880	0,588	25,994	106,408	987,756	18372,261
219,000	-1,155	-2,775	59,880	38,965	0,590	26,201	105,802	990,767	18428,275
219,500	-1,210	-2,782	59,880	39,051	0,591	26,410	105,210	993,771	18484,134
220,000	-1,263	-2,788	59,880	39,137	0,592	26,621	104,638	996,760	18539,731
220,500	-1,312	-2,794	59,880	39,223	0,593	26,835	104,090	999,730	18594,971
221,000	-1,358	-2,800	59,880	39,309	0,595	27,050	103,571	1002,676	18649,772
221,500	-1,402	-2,806	59,880	39,395	0,596	27,267	103,085	1005,595	18704,058
222,000	-1,442	-2,812	59,880	39,482	0,597	27,487	102,636	1008,482	18757,765
222,500	-1,480	-2,818	59,880	39,569	0,599	27,708	102,226	1011,335	18810,834
223,000	-1,514	-2,825	59,880	39,656	0,600	27,932	101,858	1014,151	18863,214
223,500	-1,545	-2,831	59,880	39,743	0,601	28,158	101,536	1016,928	18914,863
224,000	-1,574	-2,837	59,880	39,831	0,603	28,386	101,260	1019,663	18965,740
224,200	-1,584	-2,840	59,880	39,866	0,603	28,478	101,163	1020,746	18985,867
224,500	-1,599	-2,843	59,880	39,918	0,604	28,616	101,033	1022,355	19015,811
225,000	-1,622	-2,850	59,880	40,006	0,605	28,849	100,856	1025,003	19065,048
225,500	-1,641	-2,856	59,880	40,094	0,607	29,083	100,731	1027,604	19113,425
226,000	-1,658	-2,862	59,880	40,182	0,608	29,320	100,659	1030,157	19160,919
226,500	-1,671	-2,868	59,880	40,270	0,609	29,560	100,640	1032,662	19207,510
227,000	-1,682	-2,875	59,880	40,359	0,611	29,802	100,677	1035,117	19253,183

x [m]	e [m]	σ_c [MPa]	$\Delta\sigma_{pt,s}$ [MPa]	$\Delta\sigma_{pt,c}$ [MPa]	μ	$\Delta\sigma_{pt,r}$ [MPa]	$\Delta\sigma_{pt,s+c+r}$ [MPa]	$\sigma_{P\infty}$ [MPa]	P_∞ [kN]
227,500	-1,689	-2,881	59,880	40,448	0,612	30,046	100,769	1037,523	19297,921
228,000	-1,694	-2,887	59,880	40,537	0,613	30,292	100,918	1039,877	19341,714
228,500	-1,695	-2,894	59,880	40,626	0,615	30,541	101,124	1042,180	19384,551
229,000	-1,694	-2,900	59,880	40,715	0,616	30,792	101,386	1044,431	19426,423
229,500	-1,689	-2,906	59,880	40,805	0,617	31,046	101,707	1046,630	19467,324
230,000	-1,682	-2,913	59,880	40,894	0,619	31,303	102,086	1048,777	19507,250
230,500	-1,671	-2,919	59,880	40,984	0,620	31,562	102,522	1050,871	19546,199
231,000	-1,658	-2,926	59,880	41,074	0,621	31,823	103,017	1052,912	19584,171
231,500	-1,641	-2,932	59,880	41,165	0,623	32,087	103,570	1054,902	19621,169
232,000	-1,622	-2,939	59,880	41,255	0,624	32,354	104,181	1056,839	19657,197
232,500	-1,599	-2,945	59,880	41,346	0,626	32,623	104,848	1058,724	19692,266
232,800	-1,584	-2,949	59,880	41,401	0,626	32,786	105,276	1059,831	19712,852
233,000	-1,574	-2,952	59,880	41,437	0,627	32,895	105,572	1060,559	19726,388
233,500	-1,545	-2,958	59,880	41,528	0,628	33,170	106,352	1062,343	19759,580
234,000	-1,514	-2,965	59,880	41,619	0,630	33,447	107,187	1064,079	19791,863
234,500	-1,480	-2,971	59,880	41,711	0,631	33,727	108,074	1065,767	19823,266
235,000	-1,442	-2,978	59,880	41,803	0,632	34,010	109,012	1067,410	19853,823
235,500	-1,402	-2,984	59,880	41,895	0,634	34,296	110,000	1069,009	19883,575
236,000	-1,358	-2,991	59,880	41,987	0,635	34,585	111,033	1070,568	19912,573
236,500	-1,312	-2,997	59,880	42,079	0,637	34,877	112,110	1072,090	19940,875
237,000	-1,263	-3,004	59,880	42,172	0,638	35,171	113,226	1073,578	19968,553
237,500	-1,210	-3,010	59,880	42,264	0,639	35,469	114,377	1075,037	19995,688
238,000	-1,155	-3,017	59,880	42,357	0,641	35,769	115,558	1076,472	20022,377
238,500	-1,097	-3,024	59,880	42,450	0,642	36,073	116,762	1077,889	20048,727
239,000	-1,035	-3,030	59,880	42,544	0,644	36,380	117,984	1079,294	20074,867
239,500	-0,971	-3,037	59,880	42,637	0,645	36,690	119,215	1080,696	20100,937
240,000	-0,904	-3,044	59,880	42,731	0,647	37,003	120,447	1082,102	20127,098
240,500	-0,833	-3,050	59,880	42,825	0,648	37,319	121,670	1083,523	20153,530
241,000	-0,760	-3,057	59,880	42,919	0,649	37,638	122,874	1084,970	20180,433
241,500	-0,684	-3,064	59,880	43,014	0,651	37,961	124,047	1086,453	20208,026
242,000	-0,605	-3,071	59,880	43,108	0,652	38,287	125,175	1087,986	20236,548
242,500	-0,522	-3,077	59,880	43,203	0,654	38,616	126,246	1089,584	20266,257

x [m]	e [m]	σ_c [MPa]	$\Delta\sigma_{pt,s}$ [MPa]	$\Delta\sigma_{pt,c}$ [MPa]	μ	$\Delta\sigma_{pt,r}$ [MPa]	$\Delta\sigma_{pt,s+c+r}$ [MPa]	$\sigma_{P\infty}$ [MPa]	P_∞ [kN]
243,000	-0,437	-3,084	59,880	43,298	0,655	38,949	127,244	1091,260	20297,430
243,500	-0,349	-3,091	59,880	43,393	0,657	39,285	128,153	1093,030	20330,359
244,000	-0,258	-3,098	59,880	43,489	0,658	39,624	128,957	1094,911	20365,350
244,346	-0,193	-3,102	59,880	43,555	0,659	39,861	129,443	1096,286	20390,919
244,500	-0,163	-3,100	59,880	43,525	0,659	39,755	129,420	1095,478	20375,895
245,000	-0,066	-3,093	59,880	43,430	0,657	39,414	129,253	1092,958	20329,018
245,500	0,034	-3,087	59,880	43,334	0,656	39,077	128,930	1090,600	20285,154
245,700	0,075	-3,084	59,880	43,296	0,655	38,943	128,753	1089,705	20268,509
246,000	0,134	-3,073	59,880	43,147	0,653	38,421	128,108	1086,147	20202,330
246,500	0,223	-3,056	59,880	42,899	0,649	37,570	126,959	1080,323	20094,011
247,000	0,301	-3,038	59,880	42,653	0,645	36,741	125,763	1074,586	19987,297
247,140	0,320	-3,033	59,880	42,584	0,644	36,513	125,426	1072,988	19957,584
247,500	0,366	-3,021	59,880	42,408	0,642	35,934	124,566	1068,889	19881,335
248,000	0,420	-3,003	59,880	42,164	0,638	35,148	123,406	1063,195	19775,435
248,500	0,461	-2,986	59,880	41,922	0,634	34,383	122,311	1057,477	19669,064
248,570	0,466	-2,984	59,880	41,888	0,634	34,277	122,164	1056,673	19654,110
249,000	0,491	-2,969	59,880	41,681	0,631	33,637	121,301	1051,711	19561,829
249,500	0,509	-2,952	59,880	41,442	0,627	32,910	120,390	1045,886	19453,474
250,000	0,515	-2,935	59,880	41,204	0,623	32,203	119,585	1039,993	19343,863
250,500	0,509	-2,918	59,880	40,967	0,620	31,513	118,888	1034,031	19232,977
251,000	0,491	-2,901	59,880	40,732	0,616	30,841	118,292	1028,006	19120,904
251,430	0,466	-2,887	59,880	40,531	0,613	30,276	117,853	1022,781	19023,722
251,500	0,461	-2,885	59,880	40,498	0,613	30,186	117,788	1021,927	19007,844
252,000	0,420	-2,868	59,880	40,266	0,609	29,547	117,358	1015,812	18894,105
252,500	0,366	-2,852	59,880	40,034	0,606	28,925	116,979	1009,683	18780,103
252,860	0,320	-2,840	59,880	39,869	0,603	28,486	116,723	1005,277	18698,155
253,000	0,301	-2,835	59,880	39,805	0,602	28,318	116,623	1003,568	18666,373
253,500	0,223	-2,819	59,880	39,576	0,599	27,726	116,256	997,503	18553,561
254,000	0,134	-2,803	59,880	39,349	0,595	27,149	115,834	991,529	18442,432
254,300	0,075	-2,793	59,880	39,213	0,593	26,810	115,536	988,007	18376,921
254,500	0,034	-2,791	59,880	39,179	0,593	26,725	115,471	987,103	18360,111
255,000	-0,066	-2,785	59,880	39,093	0,591	26,513	115,202	984,952	18320,115

x [m]	e [m]	σ_c [MPa]	$\Delta\sigma_{pt,s}$ [MPa]	$\Delta\sigma_{pt,c}$ [MPa]	μ	$\Delta\sigma_{pt,r}$ [MPa]	$\Delta\sigma_{pt,s+c+r}$ [MPa]	$\sigma_{P\infty}$ [MPa]	P_∞ [kN]
255,500	-0,163	-2,778	59,880	39,007	0,590	26,302	114,794	982,946	18282,803
256,000	-0,258	-2,772	59,880	38,921	0,589	26,094	114,262	981,070	18247,899
256,500	-0,349	-2,766	59,880	38,836	0,588	25,888	113,621	979,308	18215,125
257,000	-0,437	-2,760	59,880	38,751	0,586	25,684	112,885	977,645	18184,206
257,500	-0,522	-2,754	59,880	38,666	0,585	25,482	112,069	976,068	18154,873
258,000	-0,605	-2,748	59,880	38,581	0,584	25,281	111,187	974,563	18126,870
258,500	-0,684	-2,742	59,880	38,496	0,582	25,083	110,252	973,116	18099,953
258,600	-0,699	-2,741	59,880	38,479	0,582	25,043	110,060	972,832	18094,679
259,000	-0,760	-3,077	59,880	43,197	0,654	38,597	123,841	1091,834	20308,109
259,500	-0,833	-3,084	59,880	43,292	0,655	38,929	123,282	1095,066	20368,220
260,000	-0,904	-3,090	59,880	43,388	0,656	39,265	122,694	1098,333	20428,986
260,500	-0,971	-3,097	59,880	43,483	0,658	39,604	122,088	1101,624	20490,208
261,000	-1,035	-3,104	59,880	43,579	0,659	39,947	121,472	1104,931	20551,708
261,500	-1,097	-3,111	59,880	43,674	0,661	40,294	120,857	1108,243	20613,319
262,000	-1,155	-3,118	59,880	43,770	0,662	40,643	120,249	1111,553	20674,892
262,500	-1,210	-3,125	59,880	43,867	0,664	40,997	119,657	1114,854	20736,293
263,000	-1,263	-3,131	59,880	43,963	0,665	41,354	119,086	1118,140	20797,400
263,200	-1,283	-3,134	59,880	44,002	0,666	41,498	118,865	1119,448	20821,736
263,500	-1,312	-3,138	59,880	44,060	0,667	41,715	118,543	1121,403	20858,105
264,000	-1,358	-3,145	59,880	44,157	0,668	42,080	118,033	1124,640	20918,310
264,500	-1,402	-3,152	59,880	44,254	0,670	42,448	117,560	1127,846	20977,931
265,000	-1,442	-3,159	59,880	44,351	0,671	42,821	117,129	1131,016	21036,891
265,500	-1,480	-3,166	59,880	44,449	0,673	43,197	116,743	1134,146	21095,122
266,000	-1,514	-3,173	59,880	44,546	0,674	43,577	116,405	1137,235	21152,565
266,500	-1,545	-3,180	59,880	44,644	0,675	43,961	116,119	1140,278	21209,168
267,000	-1,574	-3,187	59,880	44,743	0,677	44,349	115,886	1143,273	21264,883
267,500	-1,599	-3,194	59,880	44,841	0,678	44,741	115,710	1146,219	21319,671
268,000	-1,622	-3,201	59,880	44,940	0,680	45,138	115,591	1149,113	21373,494
268,500	-1,641	-3,208	59,880	45,038	0,681	45,538	115,532	1151,953	21426,322
269,000	-1,658	-3,215	59,880	45,137	0,683	45,943	115,534	1154,738	21478,125
269,500	-1,671	-3,222	59,880	45,237	0,684	46,352	115,598	1157,467	21528,880
270,000	-1,682	-3,229	59,880	45,336	0,686	46,765	115,727	1160,138	21578,563

x [m]	e [m]	σ_c [MPa]	$\Delta\sigma_{pt,s}$ [MPa]	$\Delta\sigma_{pt,c}$ [MPa]	μ	$\Delta\sigma_{pt,r}$ [MPa]	$\Delta\sigma_{pt,s+c+r}$ [MPa]	$\sigma_{P\infty}$ [MPa]	P_∞ [kN]
270,500	-1,689	-3,236	59,880	45,436	0,687	47,183	115,920	1162,750	21627,156
271,000	-1,694	-3,243	59,880	45,536	0,689	47,605	116,179	1165,303	21674,641
271,500	-1,695	-3,251	59,880	45,636	0,690	48,032	116,504	1167,796	21721,004
271,800	-1,694	-3,256	59,880	45,714	0,692	48,368	116,803	1169,702	21756,466
272,000	-1,693	-3,260	59,880	45,767	0,692	48,594	117,024	1170,954	21779,753
272,451	-1,687	-3,268	59,880	45,885	0,694	49,108	117,584	1173,724	21831,267
272,500	-1,686	-3,267	59,880	45,872	0,694	49,053	117,557	1173,393	21825,102
273,000	-1,674	-3,258	59,880	45,741	0,692	48,484	117,331	1169,932	21760,728
273,500	-1,658	-3,249	59,880	45,611	0,690	47,923	117,206	1166,380	21694,663
274,000	-1,637	-3,240	59,880	45,480	0,688	47,370	117,181	1162,739	21626,951
274,500	-1,611	-3,230	59,880	45,350	0,686	46,825	117,252	1159,013	21557,644
275,000	-1,581	-3,221	59,880	45,221	0,684	46,287	117,415	1155,204	21486,800
275,500	-1,546	-3,212	59,880	45,092	0,682	45,756	117,669	1151,317	21414,488
276,000	-1,507	-3,203	59,880	44,963	0,680	45,232	118,007	1147,354	21340,790
276,500	-1,462	-3,194	59,880	44,835	0,678	44,716	118,425	1143,322	21265,798
277,000	-1,414	-3,184	59,880	44,706	0,676	44,206	118,917	1139,227	21189,621
277,500	-1,360	-3,175	59,880	44,579	0,674	43,703	119,476	1135,075	21112,386
278,000	-1,302	-3,166	59,880	44,451	0,673	43,208	120,094	1130,873	21034,240
278,500	-1,239	-3,157	59,880	44,325	0,671	42,718	120,762	1126,632	20955,356
279,000	-1,172	-3,148	59,880	44,198	0,669	42,236	121,470	1122,362	20875,929
279,500	-1,100	-3,139	59,880	44,072	0,667	41,760	122,205	1118,075	20796,188
280,000	-1,023	-3,130	59,880	43,946	0,665	41,290	122,953	1113,785	20716,393
280,500	-0,942	-3,121	59,880	43,820	0,663	40,826	123,698	1109,507	20636,838
280,700	-0,908	-3,118	59,880	43,770	0,662	40,643	123,991	1107,804	20605,157
281,000	-0,856	-3,112	59,880	43,695	0,661	40,369	124,422	1105,261	20557,857
281,500	-0,765	-3,103	59,880	43,570	0,659	39,918	125,106	1101,066	20479,821
282,000	-0,670	-3,095	59,880	43,446	0,657	39,472	125,726	1096,943	20403,139
282,140	-0,642	-3,092	59,880	43,411	0,657	39,349	125,886	1095,805	20381,970
282,500	-0,570	-3,086	59,880	43,322	0,655	39,033	126,260	1092,917	20328,257
283,000	-0,465	-3,077	59,880	43,198	0,654	38,599	126,682	1089,014	20255,655
283,500	-0,356	-3,068	59,880	43,075	0,652	38,171	126,963	1085,260	20185,841
283,570	-0,340	-3,067	59,880	43,058	0,651	38,112	126,990	1084,748	20176,319

x [m]	**e** [m]	σ_c [MPa]	$\Delta\sigma_{pt,s}$ [MPa]	$\Delta\sigma_{pt,c}$ [MPa]	μ	$\Delta\sigma_{pt,r}$ [MPa]	$\Delta\sigma_{pt,s+c+r}$ [MPa]	$\sigma_{P\infty}$ [MPa]	P_∞ [kN]
284,000	-0,242	-3,059	59,880	42,952	0,650	37,749	127,076	1081,685	20119,340
284,500	-0,123	-3,051	59,880	42,829	0,648	37,333	126,993	1078,316	20056,684
285,000	0,000	-3,042	59,880	42,707	0,646	36,921	126,684	1075,183	19998,399

Anexo C – Valor característico dos esforços longitudinais

1. Momento fletor

i. Momento fletor devido ao: PP; RCP; SC e VDT

x [m]	M_{PP} [kNm]		M_{RCP} [kNm]	$M_{SC,min}$ [kNm]	$M_{SC,max}$ [kNm]	$M_{VDT,min}$ [kNm]	$M_{VDT,max}$ [kNm]
	Curto prazo	Longo prazo					
0,00	0,000	0,000	0,000	0,000	0,000	0,000	0,000
0,50	1339,544	1259,952	267,601	-125,066	614,517	-55,444	110,888
1,00	2617,283	2458,113	524,665	-250,133	1214,835	-110,888	221,776
1,43	3666,707	3439,112	737,312	-357,690	1719,751	-158,570	317,140
1,50	3833,281	3594,548	771,191	-375,199	1800,952	-166,332	332,665
2,00	4991,570	4673,287	1007,179	-500,266	2372,870	-221,776	443,553
2,50	6094,554	5696,734	1232,631	-625,332	2930,587	-277,220	554,441
2,86	6854,458	6399,379	1388,431	-715,380	3323,351	-317,140	634,280
3,00	7142,475	6665,131	1447,544	-750,398	3474,105	-332,665	665,329
3,50	8139,656	7582,800	1651,920	-875,465	4003,422	-388,109	776,217
4,00	9087,694	8451,339	1845,759	-1000,531	4518,540	-443,553	887,105
4,30	9632,929	8948,879	1957,004	-1075,571	4820,794	-476,819	953,638
4,50	9986,847	9271,004	2029,060	-1125,598	5019,457	-498,997	997,993
5,00	10839,492	10044,171	2201,824	-1250,664	5506,174	-554,441	1108,882
5,50	11646,206	10771,419	2364,050	-1375,730	5978,692	-609,885	1219,770
6,00	12406,991	11452,748	2515,738	-1500,797	6437,009	-665,329	1330,658
6,50	13121,845	12088,156	2656,889	-1625,863	6881,127	-720,773	1441,546
7,00	13790,770	12677,645	2787,503	-1750,929	7311,044	-776,217	1552,434
7,50	14413,765	13221,215	2907,579	-1875,996	7726,762	-831,661	1663,322
8,00	14990,829	13718,864	3017,118	-2001,062	8128,279	-887,105	1774,211
8,50	15521,964	14170,594	3116,119	-2126,129	8515,597	-942,549	1885,099
9,00	16007,168	14576,405	3204,583	-2251,195	8888,714	-997,993	1995,987
9,50	16446,443	14936,296	3282,509	-2376,261	9247,631	-1053,438	2106,875
10,00	16839,787	15250,267	3349,897	-2501,328	9592,349	-1108,882	2217,763

x [m]	M_{PP} [kNm]		M_{RCP} [kNm]	$M_{SC,min}$ [kNm]	$M_{SC,max}$ [kNm]	$M_{VDT,min}$ [kNm]	$M_{VDT,max}$ [kNm]
	Curto prazo	Longo prazo					
10,50	17187,202	15518,319	3406,748	-2626,394	9922,866	-1164,326	2328,651
11,00	17488,687	15740,450	3453,062	-2751,461	10239,184	-1219,770	2439,539
11,50	17744,241	15916,663	3488,838	-2876,527	10541,301	-1275,214	2550,428
12,00	17953,866	16046,955	3514,077	-3001,593	10829,219	-1330,658	2661,316
12,50	18117,560	16131,328	3528,778	-3126,660	11102,936	-1386,102	2772,204
13,00	18235,325	16169,782	3532,941	-3251,726	11362,454	-1441,546	2883,092
13,20	18269,570	16172,306	3531,656	-3301,753	11462,285	-1463,724	2927,447
13,50	18307,160	16162,316	3526,567	-3376,792	11427,771	-1496,990	2993,980
14,00	18333,064	16108,930	3509,656	-3501,859	11358,888	-1552,434	3104,868
14,50	18313,039	16009,624	3482,207	-3626,925	11275,806	-1607,878	3215,757
15,00	18247,083	15864,399	3444,221	-3751,992	11178,523	-1663,322	3326,645
15,50	18135,198	15673,254	3395,697	-3877,058	11184,669	-1718,766	3437,533
16,00	17977,383	15436,190	3336,636	-4002,124	11318,265	-1774,211	3548,421
16,50	17773,637	15153,206	3267,037	-4127,191	11437,660	-1829,655	3659,309
17,00	17523,962	14824,302	3186,900	-4252,257	11542,856	-1885,099	3770,197
17,50	17228,356	14449,479	3096,226	-4377,324	11633,852	-1940,543	3881,086
18,00	16886,821	14028,736	2995,015	-4502,390	11410,648	-1995,987	3991,974
18,50	16499,356	13562,073	2883,266	-4627,456	11173,243	-2051,431	4102,862
19,00	16065,960	13049,491	2760,980	-4752,523	10921,639	-2106,875	4213,750
19,50	15586,635	12490,989	2628,156	-4877,589	10655,835	-2162,319	4324,638
20,00	15061,379	11886,567	2484,794	-5002,655	10385,174	-2217,763	4435,526
20,50	14490,194	11236,226	2330,896	-5127,722	10353,704	-2273,207	4546,414
21,00	13873,078	10539,966	2166,459	-5252,788	10308,033	-2328,651	4657,303
21,50	13210,033	9797,785	1991,485	-5377,855	10248,163	-2384,095	4768,191
21,80	12790,159	9330,435	1881,443	-5452,894	10205,424	-2417,362	4834,724
22,00	12501,058	9009,685	1805,974	-5502,921	10054,092	-2439,539	4879,079
22,50	11746,152	8175,665	1609,925	-5627,987	9665,821	-2494,984	4989,967
23,00	10945,317	7295,726	1403,339	-5753,054	9263,351	-2550,428	5100,855
23,50	10098,551	6369,867	1186,215	-5878,120	8846,680	-2605,872	5211,743
24,00	9205,856	5398,089	958,553	-6003,187	8415,809	-2661,316	5322,632
24,50	8267,231	4380,390	720,354	-6128,253	7970,739	-2716,760	5433,520

x [m]	M_{PP} [kNm]		M_{RCP} [kNm]	$M_{SC,min}$ [kNm]	$M_{SC,max}$ [kNm]	$M_{VDT,min}$ [kNm]	$M_{VDT,max}$ [kNm]
	Curto prazo	Longo prazo					
25,00	7282,675	3316,773	471,618	-6253,319	7511,468	-2772,204	5544,408
25,50	6252,190	2207,235	212,344	-6378,386	7037,997	-2827,648	5655,296
26,00	5175,774	1051,778	-57,467	-6503,452	6550,327	-2883,092	5766,184
26,50	4053,429	-149,599	-337,816	-6628,518	6048,456	-2938,536	5877,072
27,00	2885,154	-1396,895	-628,703	-6753,585	5532,385	-2993,980	5987,961
27,50	1670,948	-2690,111	-930,127	-6878,651	5002,115	-3049,424	6098,849
28,00	410,813	-4029,247	-1242,088	-7003,718	4457,644	-3104,868	6209,737
28,50	-895,253	-5414,302	-1564,587	-7128,784	3898,974	-3160,313	6320,625
29,00	-2247,248	-6845,277	-1897,623	-7253,850	3326,103	-3215,757	6431,513
29,35	-3209,718	-7862,395	-2134,253	-7340,396	3021,158	-3254,124	6508,248
29,50	-3645,174	-8322,172	-2241,197	-7378,917	2907,991	-3271,201	6542,401
30,00	-5089,029	-9844,986	-2595,309	-7503,983	2531,279	-3326,645	6653,289
30,50	-6578,814	-11413,720	-2959,957	-7629,050	2140,367	-3382,089	6764,178
30,70	-7187,589	-12054,071	-3108,767	-7752,499	2053,449	-3404,266	6808,533
31,00	-8115,108	-13028,951	-3335,144	-8092,376	2073,515	-3437,533	6875,066
31,50	-9700,287	-14693,056	-3720,868	-8670,198	2106,959	-3492,977	6985,954
32,00	-11334,609	-16406,292	-4117,129	-9262,220	2140,403	-3548,421	7096,842
32,14	-11801,025	-16894,802	-4229,971	-9430,531	2149,767	-3563,945	7127,891
32,50	-13019,670	-18170,255	-4523,928	-9868,442	2173,846	-3603,865	7207,730
33,00	-14759,795	-19989,268	-4941,264	-10488,865	2207,290	-3659,309	7318,618
33,50	-16555,225	-21863,574	-5369,138	-11123,487	2240,734	-3714,753	7429,507
33,57	-16810,999	-22130,389	-5429,881	-11213,467	2245,416	-3722,515	7445,031
34,00	-18408,364	-23795,575	-5807,550	-11772,309	2274,178	-3770,197	7540,395
34,50	-20323,244	-25789,302	-6256,499	-12435,331	2307,622	-3825,641	7651,283
35,00	-22299,929	-27844,820	-6715,985	-13112,553	2341,065	-3881,086	7762,171
35,50	-20269,299	-25819,091	-6268,492	-12230,932	2215,172	-3869,902	7739,803
36,00	-18300,475	-23855,152	-5831,537	-11363,510	2089,278	-3858,718	7717,436
36,43	-16656,718	-22215,585	-5464,183	-10737,462	1981,010	-3849,100	7698,199
36,50	-16393,392	-21952,941	-5405,119	-10640,831	1963,385	-3847,534	7695,068
37,00	-14544,018	-20108,424	-4989,239	-9958,707	1837,491	-3836,350	7672,700
37,50	-12749,948	-18319,199	-4583,896	-9290,784	1711,598	-3825,166	7650,332

x [m]	M_{PP} [kNm]		M_{RCP} [kNm]	$M_{SC,min}$ [kNm]	$M_{SC,max}$ [kNm]	$M_{VDT,min}$ [kNm]	$M_{VDT,max}$ [kNm]
	Curto prazo	Longo prazo					
37,86	-11492,464	-17065,195	-4298,574	-8818,671	1620,954	-3817,114	7634,227
38,00	-11010,943	-16585,025	-4189,091	-8637,060	1585,704	-3813,982	7627,965
38,50	-9322,677	-14901,579	-3804,823	-7997,536	1459,811	-3802,798	7605,597
39,00	-7683,553	-13267,263	-3431,092	-7372,212	1333,917	-3791,615	7583,229
39,30	-6723,668	-12310,256	-3211,912	-7003,834	1258,381	-3784,904	7569,808
39,50	-6093,315	-11681,820	-3067,900	-6761,089	1208,023	-3780,431	7560,861
40,00	-4549,585	-10142,875	-2715,244	-6164,165	1082,130	-3769,247	7538,494
40,50	-3051,786	-8649,850	-2373,126	-5581,441	956,236	-3758,063	7516,126
41,00	-1599,916	-7202,745	-2041,546	-5403,471	1220,897	-3746,879	7493,758
41,50	-193,976	-5801,559	-1720,503	-5285,070	1530,926	-3735,695	7471,390
42,00	1166,034	-4446,292	-1409,998	-5166,669	1932,430	-3724,511	7449,023
42,50	2480,114	-3136,945	-1110,030	-5048,268	2434,412	-3713,327	7426,655
43,00	3748,263	-1873,518	-820,600	-4929,867	2922,193	-3702,144	7404,287
43,50	4970,483	-656,011	-541,707	-4811,466	3395,774	-3690,960	7381,919
43,60	5209,415	-418,020	-487,193	-4787,786	3488,786	-3688,723	7377,446
44,00	6146,773	515,577	-273,352	-4693,065	3855,155	-3679,776	7359,552
44,50	7277,132	1641,245	-15,534	-4621,819	4347,493	-3668,592	7337,184
45,00	8361,562	2720,994	231,746	-4620,023	4895,079	-3657,408	7314,816
45,50	9400,062	3754,823	468,489	-4618,227	5428,465	-3646,224	7292,448
46,00	10392,632	4742,732	694,695	-4616,431	5947,651	-3635,040	7270,081
46,50	11339,272	5684,721	910,362	-4614,635	6452,638	-3623,856	7247,713
47,00	12239,981	6580,792	1115,493	-4612,839	6943,424	-3612,673	7225,345
47,50	13094,761	7430,942	1310,086	-4611,043	7420,010	-3601,489	7202,977
48,00	13903,611	8235,173	1494,141	-4609,247	7882,397	-3590,305	7180,610
48,50	14666,531	8993,484	1667,659	-4607,451	8330,583	-3579,121	7158,242
49,00	15383,520	9705,875	1830,639	-4605,655	8764,569	-3567,937	7135,874
49,50	16054,580	10372,347	1983,082	-4603,859	9184,355	-3556,753	7113,506
50,00	16679,710	10992,899	2124,987	-4602,063	9589,942	-3545,569	7091,139
50,50	17258,910	11567,532	2256,355	-4600,267	9981,328	-3534,385	7068,771
51,00	17792,179	12096,245	2377,185	-4598,471	10358,514	-3523,202	7046,403
51,50	18279,519	12579,038	2487,478	-4596,674	10721,501	-3512,018	7024,035

x [m]	M_{PP} [kNm]		M_{RCP} [kNm]	$M_{SC,min}$ [kNm]	$M_{SC,max}$ [kNm]	$M_{VDT,min}$ [kNm]	$M_{VDT,max}$ [kNm]
	Curto prazo	Longo prazo					
52,00	18720,929	13015,912	2587,233	-4594,878	11070,287	-3500,834	7001,668
52,20	18884,632	13177,804	2624,185	-4594,160	11205,825	-3496,360	6992,721
52,50	19116,409	13406,866	2676,451	-4593,082	11224,873	-3489,650	6979,300
53,00	19465,958	13751,900	2755,132	-4591,286	11245,259	-3478,466	6956,932
53,50	19769,578	14051,015	2823,274	-4589,490	11251,446	-3467,282	6934,564
54,00	20027,268	14304,210	2880,880	-4587,694	11243,432	-3456,098	6912,197
54,50	20239,028	14511,485	2927,947	-4585,898	11369,225	-3444,914	6889,829
55,00	20404,857	14672,841	2964,478	-4584,102	11597,328	-3433,731	6867,461
55,50	20524,757	14788,277	2990,471	-4582,306	11811,231	-3422,547	6845,093
56,00	20598,727	14857,794	3005,926	-4606,488	12010,934	-3411,363	6822,726
56,50	20626,767	14881,391	3010,844	-4668,146	12196,437	-3400,179	6800,358
57,00	20608,876	14859,068	3005,224	-4729,804	12067,740	-3388,995	6777,990
57,50	20545,056	14790,826	2989,067	-4791,462	11924,843	-3377,811	6755,622
58,00	20435,306	14676,664	2962,372	-4853,121	11767,746	-3366,627	6733,255
58,50	20279,626	14516,582	2925,140	-4914,779	11596,449	-3355,443	6710,887
59,00	20078,015	14310,581	2877,370	-4976,437	11532,710	-3344,260	6688,519
59,50	19830,475	14058,660	2819,063	-5038,095	11597,446	-3333,076	6666,151
60,00	19537,005	13760,820	2750,218	-5099,754	11647,981	-3321,892	6643,784
60,50	19197,605	13417,060	2670,836	-5161,412	11684,317	-3310,708	6621,416
60,80	18971,918	13188,762	2618,149	-5198,407	11699,302	-3303,998	6607,995
61,00	18812,275	13027,380	2580,917	-5223,070	11586,452	-3299,524	6599,048
61,50	18381,014	12591,781	2480,459	-5284,728	11294,388	-3288,340	6576,680
62,00	17903,824	12110,261	2369,465	-5346,387	10988,124	-3277,156	6554,313
62,50	17380,704	11582,823	2247,932	-5408,045	10667,659	-3265,972	6531,945
63,00	16811,654	11009,465	2115,863	-5469,703	10332,995	-3254,789	6509,577
63,50	16196,673	10390,187	1973,256	-5531,361	9984,130	-3243,605	6487,209
64,00	15535,763	9724,989	1820,111	-5593,020	9621,066	-3232,421	6464,842
64,50	14828,923	9013,872	1656,429	-5654,678	9243,802	-3221,237	6442,474
65,00	14076,153	8256,835	1482,209	-5716,336	8852,337	-3210,053	6420,106
65,50	13277,452	7453,879	1297,452	-5777,994	8446,673	-3198,869	6397,738
66,00	12432,822	6605,002	1102,157	-5839,653	8026,808	-3187,685	6375,371

x [m]	M_{PP} [kNm]		M_{RCP} [kNm]	$M_{SC,min}$ [kNm]	$M_{SC,max}$ [kNm]	$M_{VDT,min}$ [kNm]	$M_{VDT,max}$ [kNm]
	Curto prazo	Longo prazo					
66,50	11542,262	5710,207	896,325	-5901,311	7592,744	-3176,502	6353,003
67,00	10605,772	4769,491	679,955	-5962,969	7144,479	-3165,318	6330,635
67,50	9623,351	3782,856	453,048	-6024,627	6682,015	-3154,134	6308,267
68,00	8595,001	2750,301	215,603	-6086,286	6205,351	-3142,950	6285,900
68,50	7520,721	1671,827	-32,379	-6147,944	5714,486	-3131,766	6263,532
69,00	6400,511	547,433	-290,899	-6219,697	5219,516	-3120,582	6241,164
69,50	5234,370	-622,880	-559,956	-6345,590	4764,487	-3109,398	6218,796
70,00	4022,300	-1839,113	-839,550	-6471,484	4295,258	-3098,214	6196,429
70,50	2764,300	-3101,266	-1129,683	-6597,377	3811,829	-3087,031	6174,061
71,00	1460,370	-4409,339	-1430,352	-6723,271	3472,787	-3075,847	6151,693
71,50	110,509	-5763,331	-1741,559	-6849,164	3154,534	-3064,663	6129,325
72,00	-1285,281	-7163,243	-2063,304	-6975,058	2822,082	-3053,479	6106,958
72,35	-2278,057	-8158,864	-2292,120	-7062,176	2583,712	-3045,740	6091,479
72,50	-2727,001	-8609,074	-2395,586	-7100,951	2475,429	-3042,295	6084,590
73,00	-4214,651	-10100,825	-2738,406	-7564,442	2452,174	-3031,111	6062,222
73,50	-5748,232	-11638,496	-3091,763	-8163,213	2549,999	-3019,927	6039,854
73,70	-6374,524	-12266,421	-3236,057	-8406,697	2589,129	-3015,454	6030,907
74,00	-7328,320	-13222,664	-3455,658	-8776,184	2647,824	-3008,743	6017,487
74,50	-8957,294	-14855,706	-3830,090	-9403,355	2745,649	-2997,560	5995,119
75,00	-10635,411	-16537,878	-4215,060	-10044,725	2843,474	-2986,376	5972,751
75,14	-11114,090	-17017,690	-4324,740	-10226,854	2870,865	-2983,244	5966,488
75,50	-12364,267	-18270,778	-4610,567	-10700,296	2941,299	-2975,192	5950,384
76,00	-14148,187	-20058,728	-5016,612	-11370,067	3039,124	-2964,008	5928,016
76,50	-15987,411	-21901,970	-5433,194	-12054,038	3136,949	-2952,824	5905,648
76,57	-16249,316	-22164,437	-5492,356	-12150,927	3150,645	-2951,258	5902,517
77,00	-17884,345	-23802,908	-5860,313	-12752,209	3234,774	-2941,640	5883,280
77,50	-19843,020	-25765,572	-6297,971	-13464,580	3332,599	-2930,456	5860,913
78,00	-21863,499	-27790,027	-6746,165	-14191,151	3430,424	-2919,272	5838,545
78,50	-19838,512	-25764,929	-6298,234	-13424,601	3288,755	-2922,066	5844,131
79,00	-17875,328	-23801,621	-5860,840	-12693,772	3147,086	-2924,859	5849,717
79,43	-16236,423	-22162,597	-5493,109	-12076,615	3026,304	-2927,261	5854,521

x [m]	M_{PP} [kNm]		M_{RCP} [kNm]	$M_{SC,min}$ [kNm]	$M_{SC,max}$ [kNm]	$M_{VDT,min}$ [kNm]	$M_{VDT,max}$ [kNm]
	Curto prazo	Longo prazo					
79,50	-15973,887	-21900,041	-5433,984	-11977,142	3010,056	-2927,652	5855,304
80,00	-14130,154	-20056,155	-5017,665	-11274,712	2894,005	-2930,445	5860,890
80,50	-12341,726	-18267,562	-4611,883	-10586,483	2777,954	-2933,238	5866,476
80,86	-11088,303	-17014,011	-4326,246	-10099,750	2694,397	-2935,249	5870,498
81,00	-10608,362	-16534,018	-4216,639	-9912,453	2661,902	-2936,031	5872,062
81,50	-8925,737	-14851,203	-3831,933	-9252,623	2545,851	-2938,824	5877,649
82,00	-7292,255	-13217,518	-3457,764	-8606,994	2429,799	-2941,617	5883,235
82,30	-6335,754	-12260,890	-3238,321	-8226,432	2360,169	-2943,293	5886,587
82,50	-5707,658	-11632,706	-3094,133	-7975,564	2313,748	-2944,411	5888,821
83,00	-4169,570	-10094,393	-2741,039	-7358,334	2197,697	-2947,204	5894,407
83,50	-2677,411	-8601,998	-2398,482	-6844,701	2171,042	-2949,997	5899,994
84,00	-1231,183	-7155,524	-2066,464	-6703,373	2502,492	-2952,790	5905,580
84,50	169,116	-5754,969	-1744,982	-6562,044	2819,741	-2955,583	5911,166
85,00	1523,484	-4400,333	-1434,038	-6420,716	3122,791	-2958,376	5916,752
85,50	2831,922	-3091,618	-1133,632	-6279,387	3494,981	-2961,169	5922,339
86,00	4094,431	-1828,822	-843,763	-6138,059	3963,051	-2963,962	5927,925
86,50	5311,009	-611,945	-564,432	-5996,730	4416,921	-2966,756	5933,511
86,60	5548,813	-374,080	-509,830	-5968,464	4505,991	-2967,314	5934,628
87,00	6481,658	559,012	-295,638	-5855,401	4856,592	-2969,549	5939,097
87,50	7606,376	1684,049	-37,381	-5807,257	5375,246	-2972,342	5944,684
88,00	8685,164	2763,166	210,338	-5780,800	5901,388	-2975,135	5950,270
88,50	9718,023	3796,364	447,519	-5754,343	6413,330	-2977,928	5955,856
89,00	10704,951	4783,642	674,163	-5727,886	6911,071	-2980,721	5961,442
89,50	11645,950	5725,001	890,269	-5701,429	7394,613	-2983,514	5967,029
90,00	12541,018	6620,440	1095,838	-5674,972	7863,955	-2986,308	5972,615
90,50	13390,156	7469,960	1290,870	-5648,516	8319,097	-2989,101	5978,201
91,00	14193,365	8273,559	1475,364	-5622,059	8760,039	-2991,894	5983,788
91,50	14950,643	9031,239	1649,320	-5595,602	9186,781	-2994,687	5989,374
92,00	15661,992	9743,000	1812,739	-5569,145	9599,323	-2997,480	5994,960
92,50	16327,410	10408,841	1965,620	-5542,688	9997,665	-3000,273	6000,546
93,00	16946,899	11028,762	2107,964	-5516,231	10381,807	-3003,066	6006,133

x [m]	M_{PP} [kNm]		M_{RCP} [kNm]	$M_{SC,min}$ [kNm]	$M_{SC,max}$ [kNm]	$M_{VDT,min}$ [kNm]	$M_{VDT,max}$ [kNm]
	Curto prazo	Longo prazo					
93,50	17520,457	11602,763	2239,770	-5489,774	10751,749	-3005,859	6011,719
94,00	18048,085	12130,845	2361,039	-5463,317	11107,491	-3008,653	6017,305
94,50	18529,784	12613,008	2471,771	-5436,860	11449,032	-3011,446	6022,891
95,00	18965,552	13049,250	2571,965	-5410,404	11776,374	-3014,239	6028,478
95,20	19126,999	13210,890	2609,092	-5399,821	11903,335	-3015,356	6030,712
95,50	19355,391	13439,573	2661,621	-5383,947	11909,516	-3017,032	6034,064
96,00	19699,299	13783,977	2740,740	-5357,490	11908,458	-3019,825	6039,650
96,50	19997,277	14082,460	2809,321	-5331,033	11893,200	-3022,618	6045,236
97,00	20249,326	14335,024	2867,365	-5304,576	11863,742	-3025,411	6050,823
97,50	20455,444	14541,669	2914,872	-5278,119	11966,160	-3028,204	6056,409
98,00	20615,633	14702,394	2951,841	-5251,662	12172,885	-3030,998	6061,995
98,50	20729,891	14817,199	2978,272	-5225,205	12365,411	-3033,791	6067,581
99,00	20798,219	14886,085	2994,166	-5198,748	12543,736	-3036,584	6073,168
99,50	20820,618	14909,050	2999,522	-5177,631	12707,862	-3039,377	6078,754
100,00	20797,086	14886,097	2994,341	-5218,012	12557,787	-3042,170	6084,340
100,50	20727,625	14817,223	2978,623	-5258,392	12393,513	-3044,963	6089,926
101,00	20612,233	14702,430	2952,366	-5298,772	12215,038	-3047,756	6095,513
101,50	20450,911	14541,718	2915,573	-5339,153	12022,364	-3050,550	6101,099
102,00	20243,660	14335,086	2868,242	-5379,533	11934,370	-3053,343	6106,685
102,50	19990,478	14082,534	2810,373	-5419,913	11977,873	-3056,136	6112,271
103,00	19691,367	13784,062	2741,967	-5460,294	12007,176	-3058,929	6117,858
103,50	19346,325	13439,671	2663,023	-5500,674	12022,279	-3061,722	6123,444
103,80	19117,254	13210,995	2610,599	-5524,902	12024,525	-3063,398	6126,796
104,00	18955,353	13049,360	2573,542	-5541,054	11903,182	-3064,515	6129,030
104,50	18518,452	12613,130	2473,524	-5581,435	11589,885	-3067,308	6134,617
105,00	18035,620	12130,980	2362,968	-5621,815	11262,388	-3070,101	6140,203
105,50	17506,859	11602,910	2241,874	-5662,195	10920,691	-3072,895	6145,789
106,00	16932,167	11028,921	2110,243	-5702,576	10564,794	-3075,688	6151,375
106,50	16311,545	10409,012	1968,074	-5742,956	10194,697	-3078,481	6156,962
107,00	15644,994	9743,183	1815,368	-5783,336	9810,400	-3081,274	6162,548
107,50	14932,512	9031,435	1652,125	-5823,717	9411,903	-3084,067	6168,134

x [m]	M_{PP} [kNm]		M_{RCP} [kNm]	$M_{SC,min}$ [kNm]	$M_{SC,max}$ [kNm]	$M_{VDT,min}$ [kNm]	$M_{VDT,max}$ [kNm]
	Curto prazo	Longo prazo					
108,00	14174,101	8273,767	1478,343	-5864,097	8999,206	-3086,860	6173,720
108,50	13369,759	7470,180	1294,025	-5904,477	8572,309	-3089,653	6179,307
109,00	12519,487	6620,672	1099,169	-5944,858	8131,212	-3092,446	6184,893
109,50	11623,286	5725,246	893,775	-5985,238	7675,915	-3095,240	6190,479
110,00	10681,154	4783,899	677,844	-6025,619	7206,418	-3098,033	6196,065
110,50	9693,093	3796,633	451,375	-6065,999	6722,721	-3100,826	6201,652
111,00	8659,101	2763,448	214,369	-6106,379	6224,824	-3103,619	6207,238
111,50	7579,180	1684,342	-33,174	-6146,760	5712,727	-3106,412	6212,824
112,00	6453,328	559,317	-291,256	-6203,072	5202,362	-3109,205	6218,410
112,50	5281,546	-611,627	-559,874	-6344,741	4763,154	-3111,998	6223,997
113,00	4063,835	-1828,491	-839,030	-6486,410	4309,746	-3114,791	6229,583
113,50	2800,193	-3091,275	-1128,724	-6628,079	3842,137	-3117,585	6235,169
114,00	1490,622	-4399,979	-1428,955	-6769,749	3521,824	-3120,378	6240,755
114,50	135,120	-5754,602	-1739,724	-6911,418	3220,138	-3123,171	6246,342
115,00	-1266,312	-7155,145	-2061,030	-7053,087	2904,252	-3125,964	6251,928
115,35	-2262,991	-8151,203	-2289,542	-7151,122	2677,346	-3127,897	6255,794
115,50	-2713,673	-8601,607	-2392,873	-7194,756	2574,166	-3128,757	6257,514
116,00	-4206,965	-10093,989	-2735,254	-7695,453	2588,909	-3131,550	6263,100
116,50	-5746,187	-11632,291	-3088,173	-8312,621	2705,922	-3134,343	6268,687
116,70	-6374,736	-12260,469	-3232,291	-8563,464	2752,727	-3135,461	6270,921
117,00	-7331,916	-13217,090	-3451,629	-8943,989	2822,935	-3137,137	6274,273
117,50	-8966,532	-14850,763	-3825,623	-9589,557	2939,948	-3139,930	6279,859
118,00	-10650,290	-16533,566	-4210,154	-10249,325	3056,961	-3142,723	6285,446
118,14	-11130,548	-17013,555	-4319,711	-10436,605	3089,724	-3143,505	6287,010
118,50	-12384,787	-18267,097	-4605,222	-10923,293	3173,973	-3145,516	6291,032
119,00	-14174,348	-20055,678	-5010,828	-11611,461	3290,986	-3148,309	6296,618
119,50	-16019,214	-21899,552	-5426,972	-12313,829	3407,999	-3151,102	6302,204
119,57	-16281,909	-22162,106	-5486,073	-12413,293	3424,381	-3151,493	6302,986
120,00	-17921,789	-23801,120	-5853,653	-13030,397	3525,012	-3153,895	6307,791
120,50	-19886,105	-25764,416	-6290,872	-13761,165	3642,025	-3156,688	6313,377
121,00	-21912,226	-27789,502	-6738,628	-14506,132	3759,038	-3159,482	6318,963

x [m]	M_{PP} [kNm]		M_{RCP} [kNm]	$M_{SC,min}$ [kNm]	$M_{SC,max}$ [kNm]	$M_{VDT,min}$ [kNm]	$M_{VDT,max}$ [kNm]
	Curto prazo	Longo prazo					
121,50	-19883,236	-25763,599	-6290,784	-13755,778	3634,118	-3159,482	6318,963
122,00	-17916,050	-23799,488	-5853,478	-13021,054	3513,296	-3159,482	6318,963
122,43	-16273,703	-22159,772	-5485,822	-12400,550	3409,390	-3159,482	6318,963
122,50	-16010,606	-21897,103	-5426,709	-12300,531	3392,475	-3159,482	6318,963
123,00	-14162,871	-20052,413	-5010,478	-11594,208	3271,653	-3159,482	6318,963
123,50	-12370,440	-18263,016	-4604,784	-10902,085	3150,832	-3159,482	6318,963
123,86	-11114,135	-17008,886	-4319,209	-10412,548	3063,840	-3159,482	6318,963
124,00	-10633,073	-16528,669	-4209,628	-10224,161	3030,010	-3159,482	6318,963
124,50	-8946,446	-14845,049	-3825,009	-9560,438	2909,189	-3159,482	6318,963
125,00	-7308,961	-13210,560	-3450,928	-8910,915	2788,367	-3159,482	6318,963
125,30	-6350,059	-12253,449	-3231,537	-8528,017	2715,875	-3159,482	6318,963
125,50	-5720,362	-11624,945	-3087,384	-8275,591	2667,546	-3159,482	6318,963
126,00	-4178,271	-10085,827	-2734,378	-7654,468	2546,725	-3159,482	6318,963
126,50	-2682,110	-8592,628	-2391,909	-7147,708	2526,066	-3159,482	6318,963
127,00	-1231,879	-7145,350	-2059,978	-7002,284	2852,544	-3159,482	6318,963
127,50	172,422	-5743,991	-1738,584	-6856,861	3164,823	-3159,482	6318,963
128,00	1530,793	-4388,551	-1427,728	-6711,438	3462,901	-3159,482	6318,963
128,50	2843,234	-3079,032	-1127,409	-6566,014	3782,274	-3159,482	6318,963
129,00	4109,745	-1815,432	-837,628	-6420,591	4246,275	-3159,482	6318,963
129,50	5330,326	-597,751	-558,384	-6275,168	4696,076	-3159,482	6318,963
129,60	5568,930	-359,725	-503,800	-6246,083	4784,332	-3159,482	6318,963
130,00	6504,977	574,010	-289,678	-6129,745	5131,677	-3159,482	6318,963
130,50	7633,698	1699,851	-31,509	-6078,394	5647,150	-3159,482	6318,963
131,00	8716,489	2779,772	216,122	-6044,882	6166,262	-3159,482	6318,963
131,50	9753,349	3813,774	453,216	-6011,370	6671,175	-3159,482	6318,963
132,00	10744,280	4801,857	679,772	-5977,859	7161,887	-3159,482	6318,963
132,50	11689,281	5744,019	895,791	-5944,347	7638,400	-3159,482	6318,963
133,00	12588,352	6640,262	1101,272	-5910,835	8100,712	-3159,482	6318,963
133,50	13441,493	7490,585	1296,216	-5877,324	8548,825	-3159,482	6318,963
134,00	14248,704	8294,989	1480,622	-5843,812	8982,737	-3159,482	6318,963
134,50	15009,985	9053,473	1654,491	-5810,300	9402,449	-3159,482	6318,963

x [m]	M_{PP} [kNm]		M_{RCP} [kNm]	$M_{SC,min}$ [kNm]	$M_{SC,max}$ [kNm]	$M_{VDT,min}$ [kNm]	$M_{VDT,max}$ [kNm]
	Curto prazo	Longo prazo					
135,00	15725,336	9766,038	1817,822	-5776,788	9807,962	-3159,482	6318,963
135,50	16394,757	10432,683	1970,616	-5743,277	10199,274	-3159,482	6318,963
136,00	17018,248	11053,408	2112,872	-5709,765	10576,387	-3159,482	6318,963
136,50	17595,809	11628,213	2244,591	-5676,253	10939,299	-3159,482	6318,963
137,00	18127,440	12157,099	2365,772	-5642,741	11288,012	-3159,482	6318,963
137,50	18613,141	12640,066	2476,416	-5609,230	11622,524	-3159,482	6318,963
138,00	19052,912	13077,112	2576,522	-5575,718	11942,836	-3159,482	6318,963
138,20	19215,960	13239,073	2613,614	-5562,313	12066,985	-3159,482	6318,963
138,50	19446,753	13468,239	2666,091	-5542,206	12068,949	-3159,482	6318,963
139,00	19794,664	13813,447	2745,122	-5508,695	12060,861	-3159,482	6318,963
139,50	20096,645	14112,734	2813,616	-5475,183	12038,574	-3159,482	6318,963
140,00	20352,696	14366,103	2871,572	-5441,671	12002,086	-3159,482	6318,963
140,50	20562,817	14573,551	2918,991	-5408,159	12097,321	-3159,482	6318,963
141,00	20727,008	14735,080	2955,872	-5374,648	12297,021	-3159,482	6318,963
141,50	20845,269	14850,689	2982,216	-5341,136	12482,521	-3159,482	6318,963
142,00	20917,600	14920,379	2998,022	-5307,624	12653,821	-3159,482	6318,963
142,50	20944,001	14944,149	3003,291	-5274,113	12810,921	-3159,482	6318,963
143,00	20924,472	14921,999	2998,022	-5307,624	12653,821	-3159,482	6318,963
143,50	20859,013	14853,930	2982,216	-5341,136	12482,521	-3159,482	6318,963
144,00	20747,624	14739,941	2955,872	-5374,648	12297,021	-3159,482	6318,963
144,50	20590,304	14580,032	2918,991	-5408,159	12097,321	-3159,482	6318,963
145,00	20387,056	14374,204	2871,572	-5441,671	12002,086	-3159,482	6318,963
145,50	20137,876	14122,456	2813,616	-5475,183	12038,574	-3159,482	6318,963
146,00	19842,767	13824,788	2745,122	-5508,695	12060,861	-3159,482	6318,963
146,50	19501,728	13481,201	2666,091	-5542,206	12068,949	-3159,482	6318,963
146,80	19275,059	13253,008	2613,614	-5562,313	12066,985	-3159,482	6318,963
147,00	19114,759	13091,694	2576,522	-5575,718	11942,836	-3159,482	6318,963
147,50	18681,860	12656,268	2476,416	-5609,230	11622,524	-3159,482	6318,963
148,00	18203,031	12174,922	2365,772	-5642,741	11288,012	-3159,482	6318,963
148,50	17678,272	11647,656	2244,591	-5676,253	10939,299	-3159,482	6318,963
149,00	17107,583	11074,471	2112,872	-5709,765	10576,387	-3159,482	6318,963

x [m]	M_{PP} [kNm]		M_{RCP} [kNm]	$M_{SC,min}$ [kNm]	$M_{SC,max}$ [kNm]	$M_{VDT,min}$ [kNm]	$M_{VDT,max}$ [kNm]
	Curto prazo	Longo prazo					
149,50	16490,964	10455,366	1970,616	-5743,277	10199,274	-3159,482	6318,963
150,00	15828,415	9790,341	1817,822	-5776,788	9807,962	-3159,482	6318,963
150,50	15119,936	9079,397	1654,491	-5810,300	9402,449	-3159,482	6318,963
151,00	14365,527	8322,533	1480,622	-5843,812	8982,737	-3159,482	6318,963
151,50	13565,188	7519,750	1296,216	-5877,324	8548,825	-3159,482	6318,963
152,00	12718,919	6671,047	1101,272	-5910,835	8100,712	-3159,482	6318,963
152,50	11826,720	5776,424	895,791	-5944,347	7638,400	-3159,482	6318,963
153,00	10888,591	4835,882	679,772	-5977,859	7161,887	-3159,482	6318,963
153,50	9904,532	3849,420	453,216	-6011,370	6671,175	-3159,482	6318,963
154,00	8874,543	2817,038	216,122	-6044,882	6166,262	-3159,482	6318,963
154,50	7798,624	1738,737	-31,509	-6078,394	5647,150	-3159,482	6318,963
155,00	6676,775	614,516	-289,678	-6129,745	5131,677	-3159,482	6318,963
155,50	5508,996	-555,625	-558,384	-6275,168	4696,076	-3159,482	6318,963
156,00	4295,287	-1771,685	-837,628	-6420,591	4246,275	-3159,482	6318,963
156,50	3035,648	-3033,665	-1127,409	-6566,014	3782,274	-3159,482	6318,963
157,00	1730,079	-4341,564	-1427,728	-6711,438	3462,901	-3159,482	6318,963
157,50	378,580	-5695,384	-1738,584	-6856,861	3164,823	-3159,482	6318,963
158,00	-1018,850	-7095,122	-2059,978	-7002,284	2852,544	-3159,482	6318,963
158,35	-2012,759	-8090,624	-2288,551	-7102,917	2628,134	-3159,482	6318,963
158,50	-2462,209	-8540,781	-2391,909	-7147,708	2526,066	-3159,482	6318,963
159,00	-3951,498	-10032,359	-2734,378	-7654,468	2546,725	-3159,482	6318,963
159,50	-5486,717	-11569,856	-3087,384	-8275,591	2667,546	-3159,482	6318,963
159,70	-6113,665	-12197,713	-3231,537	-8528,017	2715,875	-3159,482	6318,963
160,00	-7068,444	-13153,852	-3450,928	-8910,915	2788,367	-3159,482	6318,963
160,50	-8699,057	-14786,720	-3825,009	-9560,438	2909,189	-3159,482	6318,963
161,00	-10378,812	-16468,720	-4209,628	-10224,161	3030,010	-3159,482	6318,963
161,14	-10857,950	-16948,484	-4319,209	-10412,548	3063,840	-3159,482	6318,963
161,50	-12109,307	-18201,447	-4604,784	-10902,085	3150,832	-3159,482	6318,963
162,00	-13894,866	-19989,224	-5010,478	-11594,208	3271,653	-3159,482	6318,963
162,50	-15735,729	-21832,293	-5426,709	-12300,531	3392,475	-3159,482	6318,963
162,57	-15997,863	-22094,735	-5485,822	-12400,550	3409,390	-3159,482	6318,963

x [m]	M_{PP} [kNm]		M_{RCP} [kNm]	$M_{SC,min}$ [kNm]	$M_{SC,max}$ [kNm]	$M_{VDT,min}$ [kNm]	$M_{VDT,max}$ [kNm]
	Curto prazo	Longo prazo					
163,00	-17634,301	-23733,058	-5853,478	-13021,054	3513,296	-3159,482	6318,963
163,50	-19594,615	-25695,549	-6290,784	-13755,778	3634,118	-3159,482	6318,963
164,00	-21616,733	-27719,831	-6738,628	-14506,132	3759,038	-3159,482	6318,963
164,50	-19603,922	-25697,883	-6290,872	-13761,165	3642,025	-3156,688	6313,377
165,00	-17652,916	-23737,726	-5853,653	-13030,397	3525,012	-3153,895	6307,791
165,43	-16024,482	-22101,411	-5486,073	-12413,293	3424,381	-3151,493	6302,986
165,50	-15763,651	-21839,295	-5426,972	-12313,829	3407,999	-3151,102	6302,204
166,00	-13932,094	-19998,560	-5010,828	-11611,461	3290,986	-3148,309	6296,618
166,50	-12155,843	-18213,117	-4605,222	-10923,293	3173,973	-3145,516	6291,032
166,86	-10911,186	-16961,835	-4319,711	-10436,605	3089,724	-3143,505	6287,010
167,00	-10434,655	-16482,724	-4210,154	-10249,325	3056,961	-3142,723	6285,446
167,50	-8764,206	-14803,059	-3825,623	-9589,557	2939,948	-3139,930	6279,859
168,00	-7142,901	-13172,524	-3451,629	-8943,989	2822,935	-3137,137	6274,273
168,30	-6193,706	-12217,786	-3232,291	-8563,464	2752,727	-3135,461	6270,921
168,50	-5570,481	-11590,863	-3088,173	-8312,621	2705,922	-3134,343	6268,687
169,00	-4044,569	-10055,700	-2735,254	-7695,453	2588,909	-3131,550	6263,100
169,50	-2564,587	-8566,456	-2392,873	-7194,756	2574,166	-3128,757	6257,514
170,00	-1130,535	-7123,132	-2061,030	-7053,087	2904,252	-3125,964	6251,928
170,50	257,587	-5725,727	-1739,724	-6911,418	3220,138	-3123,171	6246,342
171,00	1599,779	-4374,242	-1428,955	-6769,749	3521,824	-3120,378	6240,755
171,50	2896,041	-3068,676	-1128,724	-6628,079	3842,137	-3117,585	6235,169
172,00	4146,373	-1809,031	-839,030	-6486,410	4309,746	-3114,791	6229,583
172,50	5350,775	-595,305	-559,874	-6344,741	4763,154	-3111,998	6223,997
172,60	5586,144	-358,070	-505,307	-6316,408	4852,132	-3111,440	6222,879
173,00	6509,247	572,502	-291,256	-6203,072	5202,362	-3109,205	6218,410
173,50	7621,789	1694,389	-33,174	-6146,760	5712,727	-3106,412	6212,824
174,00	8688,401	2770,356	214,369	-6106,379	6224,824	-3103,619	6207,238
174,50	9709,083	3800,403	451,375	-6065,999	6722,721	-3100,826	6201,652
175,00	10683,835	4784,531	677,844	-6025,619	7206,418	-3098,033	6196,065
175,50	11612,657	5722,740	893,775	-5985,238	7675,915	-3095,240	6190,479
176,00	12495,549	6615,028	1099,169	-5944,858	8131,212	-3092,446	6184,893

x [m]	M_{PP} [kNm]		M_{RCP} [kNm]	$M_{SC,min}$ [kNm]	$M_{SC,max}$ [kNm]	$M_{VDT,min}$ [kNm]	$M_{VDT,max}$ [kNm]
	Curto prazo	Longo prazo					
176,50	13332,510	7461,397	1294,025	-5904,477	8572,309	-3089,653	6179,307
177,00	14123,542	8261,847	1478,343	-5864,097	8999,206	-3086,860	6173,720
177,50	14868,644	9016,376	1652,125	-5823,717	9411,903	-3084,067	6168,134
178,00	15567,816	9724,987	1815,368	-5783,336	9810,400	-3081,274	6162,548
178,50	16221,058	10387,677	1968,074	-5742,956	10194,697	-3078,481	6156,962
179,00	16828,370	11004,448	2110,243	-5702,576	10564,794	-3075,688	6151,375
179,50	17389,752	11575,299	2241,874	-5662,195	10920,691	-3072,895	6145,789
180,00	17905,204	12100,231	2362,968	-5621,815	11262,388	-3070,101	6140,203
180,50	18374,726	12579,243	2473,524	-5581,435	11589,885	-3067,308	6134,617
181,00	18798,318	13012,335	2573,542	-5541,054	11903,182	-3064,515	6129,030
181,20	18954,894	13172,714	2610,599	-5524,902	12024,525	-3063,398	6126,796
181,50	19175,980	13399,508	2663,023	-5500,674	12022,279	-3061,722	6123,444
182,00	19507,712	13740,761	2741,967	-5460,294	12007,176	-3058,929	6117,858
182,50	19793,514	14036,094	2810,373	-5419,913	11977,873	-3056,136	6112,271
183,00	20033,386	14285,508	2868,242	-5379,533	11934,370	-3053,343	6106,685
183,50	20227,328	14489,002	2915,573	-5339,153	12022,364	-3050,550	6101,099
184,00	20375,340	14646,576	2952,366	-5298,772	12215,038	-3047,756	6095,513
184,50	20477,422	14758,231	2978,623	-5258,392	12393,513	-3044,963	6089,926
185,00	20533,573	14823,966	2994,341	-5218,012	12557,787	-3042,170	6084,340
185,50	20543,795	14843,782	2999,522	-5177,631	12707,862	-3039,377	6078,754
186,00	20508,087	14817,678	2994,166	-5198,748	12543,736	-3036,584	6073,168
186,50	20426,449	14745,654	2978,272	-5225,205	12365,411	-3033,791	6067,581
187,00	20298,881	14627,711	2951,841	-5251,662	12172,885	-3030,998	6061,995
187,50	20125,383	14463,848	2914,872	-5278,119	11966,160	-3028,204	6056,409
188,00	19905,955	14254,065	2867,365	-5304,576	11863,742	-3025,411	6050,823
188,50	19640,597	13998,363	2809,321	-5331,033	11893,200	-3022,618	6045,236
189,00	19329,309	13696,741	2740,740	-5357,490	11908,458	-3019,825	6039,650
189,50	18972,091	13349,200	2661,621	-5383,947	11909,516	-3017,032	6034,064
189,80	18735,714	13118,634	2609,092	-5399,821	11903,335	-3015,356	6030,712
190,00	18568,943	12955,739	2571,965	-5410,404	11776,374	-3014,239	6028,478
190,50	18119,865	12516,358	2471,771	-5436,860	11449,032	-3011,446	6022,891

x [m]	M_{PP} [kNm]		M_{RCP} [kNm]	$M_{SC,min}$ [kNm]	$M_{SC,max}$ [kNm]	$M_{VDT,min}$ [kNm]	$M_{VDT,max}$ [kNm]
	Curto prazo	Longo prazo					
191,00	17624,857	12031,058	2361,039	-5463,317	11107,491	-3008,653	6017,305
191,50	17083,919	11499,838	2239,770	-5489,774	10751,749	-3005,859	6011,719
192,00	16497,051	10922,698	2107,964	-5516,231	10381,807	-3003,066	6006,133
192,50	15864,253	10299,639	1965,620	-5542,688	9997,665	-3000,273	6000,546
193,00	15185,524	9630,660	1812,739	-5569,145	9599,323	-2997,480	5994,960
193,50	14460,866	8915,761	1649,320	-5595,602	9186,781	-2994,687	5989,374
194,00	13690,278	8154,943	1475,364	-5622,059	8760,039	-2991,894	5983,788
194,50	12873,760	7348,205	1290,870	-5648,516	8319,097	-2989,101	5978,201
195,00	12011,312	6495,548	1095,838	-5674,972	7863,955	-2986,308	5972,615
195,50	11102,934	5596,971	890,269	-5701,429	7394,613	-2983,514	5967,029
196,00	10148,626	4652,474	674,163	-5727,886	6911,071	-2980,721	5961,442
196,50	9148,388	3662,057	447,519	-5754,343	6413,330	-2977,928	5955,856
197,00	8102,220	2625,721	210,338	-5780,800	5901,388	-2975,135	5950,270
197,50	7010,122	1543,466	-37,381	-5807,257	5375,246	-2972,342	5944,684
198,00	5872,094	415,291	-295,638	-5855,401	4856,592	-2969,549	5939,097
198,50	4688,136	-758,804	-564,432	-5996,730	4416,921	-2966,756	5933,511
199,00	3458,248	-1978,819	-843,763	-6138,059	3963,051	-2963,962	5927,925
199,50	2182,430	-3244,753	-1133,632	-6279,387	3494,981	-2961,169	5922,339
200,00	860,682	-4556,607	-1434,038	-6420,716	3122,791	-2958,376	5916,752
200,50	-506,997	-5914,380	-1744,982	-6562,044	2819,741	-2955,583	5911,166
201,00	-1920,605	-7318,074	-2066,464	-6703,373	2502,492	-2952,790	5905,580
201,35	-2925,710	-8316,312	-2295,098	-6801,172	2274,642	-2950,857	5901,714
201,50	-3380,143	-8767,686	-2398,482	-6844,701	2171,042	-2949,997	5899,994
202,00	-4885,611	-10263,219	-2741,039	-7358,334	2197,697	-2947,204	5894,407
202,50	-6437,009	-11804,671	-3094,133	-7975,564	2313,748	-2944,411	5888,821
202,70	-7070,428	-12434,109	-3238,321	-8226,432	2360,169	-2943,293	5886,587
203,00	-8034,915	-13392,620	-3457,764	-8606,994	2429,799	-2941,617	5883,235
203,50	-9681,707	-15029,443	-3831,933	-9252,623	2545,851	-2938,824	5877,649
204,00	-11377,641	-16715,397	-4216,639	-9912,453	2661,902	-2936,031	5872,062
204,14	-11861,309	-17196,268	-4326,246	-10099,750	2694,397	-2935,249	5870,498
204,50	-13124,315	-18452,078	-4611,883	-10586,483	2777,954	-2933,238	5866,476

x [m]	M_{PP} [kNm]		M_{RCP} [kNm]	$M_{SC,min}$ [kNm]	$M_{SC,max}$ [kNm]	$M_{VDT,min}$ [kNm]	$M_{VDT,max}$ [kNm]
	Curto prazo	Longo prazo					
205,00	-14926,053	-20243,810	-5017,665	-11274,712	2894,005	-2930,445	5860,890
205,50	-16783,096	-22090,834	-5433,984	-11977,142	3010,056	-2927,652	5855,304
205,57	-17047,495	-22353,829	-5493,109	-12076,615	3026,304	-2927,261	5854,521
206,00	-18697,847	-23995,552	-5860,840	-12693,772	3147,086	-2924,859	5849,717
206,50	-20674,339	-25961,998	-6298,234	-13424,601	3288,755	-2922,066	5844,131
207,00	-22712,637	-27990,235	-6746,165	-14191,151	3430,424	-2919,272	5838,545
207,50	-20639,462	-25953,355	-6297,971	-13464,580	3332,599	-2930,456	5860,913
208,00	-18628,093	-23978,267	-5860,313	-12752,209	3234,774	-2941,640	5883,280
208,43	-16947,746	-22329,110	-5492,356	-12150,927	3150,645	-2951,258	5902,517
208,50	-16678,464	-22064,905	-5433,194	-12054,038	3136,949	-2952,824	5905,648
209,00	-14786,544	-20209,238	-5016,612	-11370,067	3039,124	-2964,008	5928,016
209,50	-12949,930	-18408,864	-4610,567	-10700,296	2941,299	-2975,192	5950,384
209,86	-11661,812	-17146,831	-4324,740	-10226,854	2870,865	-2983,244	5966,488
210,00	-11168,379	-16663,540	-4215,060	-10044,725	2843,474	-2986,376	5972,751
210,50	-9437,567	-14968,943	-3830,090	-9403,355	2745,649	-2997,560	5995,119
211,00	-7755,898	-13323,477	-3455,658	-8776,184	2647,824	-3008,743	6017,487
211,30	-6770,485	-12359,780	-3236,057	-8406,697	2589,129	-3015,454	6030,907
211,50	-6123,115	-11726,884	-3091,763	-8163,213	2549,999	-3019,927	6039,854
212,00	-4536,839	-10176,790	-2738,406	-7564,442	2452,174	-3031,111	6062,222
212,50	-2996,494	-8672,614	-2395,586	-7100,951	2475,429	-3042,295	6084,590
213,00	-1502,079	-7214,359	-2063,304	-6975,058	2822,082	-3053,479	6106,958
213,50	-53,594	-5802,023	-1741,559	-6849,164	3154,534	-3064,663	6129,325
214,00	1348,962	-4435,606	-1430,352	-6723,271	3472,787	-3075,847	6151,693
214,50	2705,587	-3115,110	-1129,683	-6597,377	3811,829	-3087,031	6174,061
215,00	4016,282	-1840,532	-839,550	-6471,484	4295,258	-3098,214	6196,429
215,50	5281,047	-611,875	-559,956	-6345,590	4764,487	-3109,398	6218,796
215,60	5528,488	-371,654	-505,301	-6320,411	4856,629	-3111,635	6223,270
216,00	6499,882	570,863	-290,899	-6219,697	5219,516	-3120,582	6241,164
216,50	7672,787	1707,681	-32,379	-6147,944	5714,486	-3131,766	6263,532
217,00	8799,763	2798,580	215,603	-6086,286	6205,351	-3142,950	6285,900
217,50	9880,808	3843,559	453,048	-6024,627	6682,015	-3154,134	6308,267

x [m]	M_{PP} [kNm]		M_{RCP} [kNm]	$M_{SC,min}$ [kNm]	$M_{SC,max}$ [kNm]	$M_{VDT,min}$ [kNm]	$M_{VDT,max}$ [kNm]
	Curto prazo	Longo prazo					
218,00	10915,923	4842,618	679,955	-5962,969	7144,479	-3165,318	6330,635
218,50	11905,108	5795,757	896,325	-5901,311	7592,744	-3176,502	6353,003
219,00	12848,364	6702,977	1102,157	-5839,653	8026,808	-3187,685	6375,371
219,50	13745,689	7564,278	1297,452	-5777,994	8446,673	-3198,869	6397,738
220,00	14597,084	8379,659	1482,209	-5716,336	8852,337	-3210,053	6420,106
220,50	15402,549	9149,120	1656,429	-5654,678	9243,802	-3221,237	6442,474
221,00	16162,084	9872,661	1820,111	-5593,020	9621,066	-3232,421	6464,842
221,50	16875,690	10550,283	1973,256	-5531,361	9984,130	-3243,605	6487,209
222,00	17543,365	11181,985	2115,863	-5469,703	10332,995	-3254,789	6509,577
222,50	18165,110	11767,768	2247,932	-5408,045	10667,659	-3265,972	6531,945
223,00	18740,925	12307,631	2369,465	-5346,387	10988,124	-3277,156	6554,313
223,50	19270,810	12801,574	2480,459	-5284,728	11294,388	-3288,340	6576,680
224,00	19754,766	13249,598	2580,917	-5223,070	11586,452	-3299,524	6599,048
224,20	19935,487	13415,950	2618,149	-5198,407	11699,302	-3303,998	6607,995
224,50	20192,791	13651,702	2670,836	-5161,412	11684,317	-3310,708	6621,416
225,00	20584,886	14007,886	2750,218	-5099,754	11647,981	-3321,892	6643,784
225,50	20931,051	14318,151	2819,063	-5038,095	11597,446	-3333,076	6666,151
226,00	21231,286	14582,496	2877,370	-4976,437	11532,710	-3344,260	6688,519
226,50	21485,592	14800,922	2925,140	-4914,779	11596,449	-3355,443	6710,887
227,00	21693,967	14973,427	2962,372	-4853,121	11767,746	-3366,627	6733,255
227,50	21856,412	15100,014	2989,067	-4791,462	11924,843	-3377,811	6755,622
228,00	21972,927	15180,680	3005,224	-4729,804	12067,740	-3388,995	6777,990
228,50	22043,512	15215,427	3010,844	-4668,146	12196,437	-3400,179	6800,358
229,00	22068,168	15204,255	3005,926	-4606,488	12010,934	-3411,363	6822,726
229,50	22046,893	15147,162	2990,471	-4582,306	11811,231	-3422,547	6845,093
230,00	21979,688	15044,150	2964,478	-4584,102	11597,328	-3433,731	6867,461
230,50	21866,553	14895,219	2927,947	-4585,898	11369,225	-3444,914	6889,829
231,00	21707,488	14700,367	2880,880	-4587,694	11243,432	-3456,098	6912,197
231,50	21502,494	14459,597	2823,274	-4589,490	11251,446	-3467,282	6934,564
232,00	21251,569	14172,906	2755,132	-4591,286	11245,259	-3478,466	6956,932
232,50	20954,714	13840,296	2676,451	-4593,082	11224,873	-3489,650	6979,300

x [m]	M_{PP} [kNm]		M_{RCP} [kNm]	$M_{SC,min}$ [kNm]	$M_{SC,max}$ [kNm]	$M_{VDT,min}$ [kNm]	$M_{VDT,max}$ [kNm]
	Curto prazo	Longo prazo					
232,80	20754,555	13618,688	2624,185	-4594,160	11205,825	-3496,360	6992,721
233,00	20611,929	13461,766	2587,233	-4594,878	11070,287	-3500,834	7001,668
233,50	20223,214	13037,317	2487,478	-4596,674	10721,501	-3512,018	7024,035
234,00	19788,570	12566,948	2377,185	-4598,471	10358,514	-3523,202	7046,403
234,50	19307,995	12050,659	2256,355	-4600,267	9981,328	-3534,385	7068,771
235,00	18781,490	11488,451	2124,987	-4602,063	9589,942	-3545,569	7091,139
235,50	18209,055	10880,323	1983,082	-4603,859	9184,355	-3556,753	7113,506
236,00	17590,690	10226,275	1830,639	-4605,655	8764,569	-3567,937	7135,874
236,50	16926,396	9526,308	1667,659	-4607,451	8330,583	-3579,121	7158,242
237,00	16216,171	8780,421	1494,141	-4609,247	7882,397	-3590,305	7180,610
237,50	15460,016	7988,615	1310,086	-4611,043	7420,010	-3601,489	7202,977
238,00	14657,931	7150,889	1115,493	-4612,839	6943,424	-3612,673	7225,345
238,50	13809,916	6267,243	910,362	-4614,635	6452,638	-3623,856	7247,713
239,00	12915,972	5337,678	694,695	-4616,431	5947,651	-3635,040	7270,081
239,50	11976,097	4362,193	468,489	-4618,227	5428,465	-3646,224	7292,448
240,00	10990,292	3340,788	231,746	-4620,023	4895,079	-3657,408	7314,816
240,50	9958,557	2273,464	-15,534	-4621,819	4347,493	-3668,592	7337,184
241,00	8880,892	1160,220	-273,352	-4693,065	3855,155	-3679,776	7359,552
241,50	7757,298	1,056	-541,707	-4811,466	3395,774	-3690,960	7381,919
242,00	6587,773	-1204,027	-820,600	-4929,867	2922,193	-3702,144	7404,287
242,50	5372,318	-2455,030	-1110,030	-5048,268	2434,412	-3713,327	7426,655
243,00	4110,933	-3751,952	-1409,998	-5166,669	1932,430	-3724,511	7449,023
243,50	2803,618	-5094,794	-1720,503	-5285,070	1530,926	-3735,695	7471,390
244,00	1450,374	-6483,556	-2041,546	-5403,471	1220,897	-3746,879	7493,758
244,35	487,039	-7471,462	-2269,877	-5485,405	998,044	-3754,618	7509,237
244,50	51,199	-7918,238	-2373,126	-5581,441	956,236	-3758,063	7516,126
245,00	-1393,906	-9398,838	-2715,244	-6164,165	1082,130	-3769,247	7538,494
245,50	-2884,941	-10925,359	-3067,900	-6761,089	1208,023	-3780,431	7560,861
245,70	-3494,215	-11548,825	-3211,912	-7003,834	1258,381	-3784,904	7569,808
246,00	-4422,484	-12498,377	-3431,092	-7372,212	1333,917	-3791,615	7583,229
246,50	-6008,913	-14120,269	-3804,823	-7997,536	1459,811	-3802,798	7605,597

x [m]	M_{PP} [kNm]		M_{RCP} [kNm]	$M_{SC,min}$ [kNm]	$M_{SC,max}$ [kNm]	$M_{VDT,min}$ [kNm]	$M_{VDT,max}$ [kNm]
	Curto prazo	Longo prazo					
247,00	-7644,484	-15791,291	-4189,091	-8637,060	1585,704	-3813,982	7627,965
247,14	-8111,250	-16267,982	-4298,574	-8818,671	1620,954	-3817,114	7634,227
247,50	-9330,794	-17513,041	-4583,896	-9290,784	1711,598	-3825,166	7650,332
248,00	-11072,169	-19289,842	-4989,239	-9958,707	1837,491	-3836,350	7672,700
248,50	-12868,848	-21121,934	-5405,119	-10640,831	1963,385	-3847,534	7695,068
248,57	-13124,796	-21382,839	-5464,183	-10737,462	1981,010	-3849,100	7698,199
249,00	-14723,236	-23011,721	-5831,537	-11363,510	2089,278	-3858,718	7717,436
249,50	-16639,365	-24963,236	-6268,492	-12230,932	2215,172	-3869,902	7739,803
250,00	-18617,300	-26976,541	-6715,985	-13112,553	2341,065	-3881,086	7762,171
250,50	-16693,224	-24933,427	-6256,499	-12435,331	2307,622	-3825,641	7651,283
251,00	-14830,953	-22952,103	-5807,550	-11772,309	2274,178	-3770,197	7540,395
251,43	-13278,831	-21297,585	-5429,881	-11213,467	2245,416	-3722,515	7445,031
251,50	-13030,423	-21032,506	-5369,138	-11123,487	2240,734	-3714,753	7429,507
252,00	-11287,602	-19170,605	-4941,264	-10488,865	2207,290	-3659,309	7318,618
252,50	-9600,086	-17363,995	-4523,928	-9868,442	2173,846	-3603,865	7207,730
252,86	-8419,320	-16097,473	-4229,971	-9430,531	2149,767	-3563,945	7127,891
253,00	-7967,634	-15612,436	-4117,129	-9262,220	2140,403	-3548,421	7096,842
253,50	-6385,921	-13911,605	-3720,868	-8670,198	2106,959	-3492,977	6985,954
254,00	-4853,351	-12259,904	-3335,144	-8092,376	2073,515	-3437,533	6875,066
254,30	-3957,397	-11292,466	-3108,767	-7752,499	2053,449	-3404,266	6808,533
254,50	-3369,666	-10657,076	-2959,957	-7629,050	2140,367	-3382,089	6764,178
255,00	-1932,490	-9100,746	-2595,309	-7503,983	2531,279	-3326,645	6653,289
255,50	-541,243	-7590,336	-2241,197	-7378,917	2907,991	-3271,201	6542,401
256,00	804,073	-6125,846	-1897,623	-7253,850	3326,103	-3215,757	6431,513
256,50	2103,460	-4707,275	-1564,587	-7128,784	3898,974	-3160,313	6320,625
257,00	3356,916	-3334,623	-1242,088	-7003,718	4457,644	-3104,868	6209,737
257,50	4564,442	-2007,892	-930,127	-6878,651	5002,115	-3049,424	6098,849
258,00	5726,039	-727,080	-628,703	-6753,585	5532,385	-2993,980	5987,961
258,50	6841,705	507,813	-337,816	-6628,518	6048,456	-2938,536	5877,072
258,60	7059,327	749,281	-280,904	-6603,505	6149,966	-2927,447	5854,895
259,00	7911,442	1696,785	-57,467	-6503,452	6550,327	-2883,092	5766,184

x [m]	M_{PP} [kNm]		M_{RCP} [kNm]	$M_{SC,min}$ [kNm]	$M_{SC,max}$ [kNm]	$M_{VDT,min}$ [kNm]	$M_{VDT,max}$ [kNm]
	Curto prazo	Longo prazo					
259,50	8935,248	2839,839	212,344	-6378,386	7037,997	-2827,648	5655,296
260,00	9913,124	3936,972	471,618	-6253,319	7511,468	-2772,204	5544,408
260,50	10845,071	4988,186	720,354	-6128,253	7970,739	-2716,760	5433,520
261,00	11731,087	5993,480	958,553	-6003,187	8415,809	-2661,316	5322,632
261,50	12571,174	6952,855	1186,215	-5878,120	8846,680	-2605,872	5211,743
262,00	13365,330	7866,310	1403,339	-5753,054	9263,351	-2550,428	5100,855
262,50	14113,557	8733,845	1609,925	-5627,987	9665,821	-2494,984	4989,967
263,00	14815,853	9555,461	1805,974	-5502,921	10054,092	-2439,539	4879,079
263,20	15083,911	9871,250	1881,443	-5452,894	10205,424	-2417,362	4834,724
263,50	15472,219	10331,157	1991,485	-5377,855	10248,163	-2384,095	4768,191
264,00	16082,656	11060,933	2166,459	-5252,788	10308,033	-2328,651	4657,303
264,50	16647,162	11744,790	2330,896	-5127,722	10353,704	-2273,207	4546,414
265,00	17165,739	12382,727	2484,794	-5002,655	10385,174	-2217,763	4435,526
265,50	17638,385	12974,745	2628,156	-4877,589	10655,835	-2162,319	4324,638
266,00	18065,102	13520,843	2760,980	-4752,523	10921,639	-2106,875	4213,750
266,50	18445,888	14021,021	2883,266	-4627,456	11173,243	-2051,431	4102,862
267,00	18780,744	14475,279	2995,015	-4502,390	11410,648	-1995,987	3991,974
267,50	19069,671	14883,618	3096,226	-4377,324	11633,852	-1940,543	3881,086
268,00	19312,667	15246,038	3186,900	-4252,257	11542,856	-1885,099	3770,197
268,50	19509,734	15562,537	3267,037	-4127,191	11437,660	-1829,655	3659,309
269,00	19660,870	15833,117	3336,636	-4002,124	11318,265	-1774,211	3548,421
269,50	19766,076	16057,778	3395,697	-3877,058	11184,669	-1718,766	3437,533
270,00	19825,353	16236,519	3444,221	-3751,992	11178,523	-1663,322	3326,645
270,50	19838,699	16369,340	3482,207	-3626,925	11275,806	-1607,878	3215,757
271,00	19806,116	16456,241	3509,656	-3501,859	11358,888	-1552,434	3104,868
271,50	19727,602	16497,223	3526,567	-3376,792	11427,771	-1496,990	2993,980
271,80	19658,448	16499,771	3531,656	-3301,753	11462,285	-1463,724	2927,447
272,00	19603,159	16492,286	3532,941	-3251,726	11362,454	-1441,546	2883,092
272,45	19451,512	16448,442	3529,652	-3138,916	11128,996	-1391,536	2783,071
272,50	19432,785	16441,428	3528,778	-3126,660	11102,936	-1386,102	2772,204
273,00	19216,481	16344,651	3514,077	-3001,593	10829,219	-1330,658	2661,316

x [m]	M_{PP} [kNm]		M_{RCP} [kNm]	$M_{SC,min}$ [kNm]	$M_{SC,max}$ [kNm]	$M_{VDT,min}$ [kNm]	$M_{VDT,max}$ [kNm]
	Curto prazo	Longo prazo					
273,50	18954,248	16201,955	3488,838	-2876,527	10541,301	-1275,214	2550,428
274,00	18646,084	16013,338	3453,062	-2751,461	10239,184	-1219,770	2439,539
274,50	18291,991	15778,802	3406,748	-2626,394	9922,866	-1164,326	2328,651
275,00	17891,967	15498,347	3349,897	-2501,328	9592,349	-1108,882	2217,763
275,50	17446,014	15171,972	3282,509	-2376,261	9247,631	-1053,438	2106,875
276,00	16954,130	14799,677	3204,583	-2251,195	8888,714	-997,993	1995,987
276,50	16416,316	14381,462	3116,119	-2126,129	8515,597	-942,549	1885,099
277,00	15832,573	13917,328	3017,118	-2001,062	8128,279	-887,105	1774,211
277,50	15202,899	13407,275	2907,579	-1875,996	7726,762	-831,661	1663,322
278,00	14527,296	12851,301	2787,503	-1750,929	7311,044	-776,217	1552,434
278,50	13805,762	12249,408	2656,889	-1625,863	6881,127	-720,773	1441,546
279,00	13038,299	11601,596	2515,738	-1500,797	6437,009	-665,329	1330,658
279,50	12224,905	10907,863	2364,050	-1375,730	5978,692	-609,885	1219,770
280,00	11365,581	10168,211	2201,824	-1250,664	5506,174	-554,441	1108,882
280,50	10460,328	9382,640	2029,060	-1125,598	5019,457	-498,997	997,993
280,70	10085,366	9055,554	1957,004	-1075,571	4820,794	-476,819	953,638
281,00	9508,566	8550,571	1845,759	-1000,531	4518,540	-443,553	887,105
281,50	8507,919	7669,628	1651,920	-875,465	4003,422	-388,109	776,217
282,00	7458,129	6739,555	1447,544	-750,398	3474,105	-332,665	665,329
282,14	7155,381	6470,330	1388,431	-715,380	3323,351	-317,140	634,280
282,50	6357,599	5758,754	1232,631	-625,332	2930,587	-277,220	554,441
283,00	5202,006	4722,903	1007,179	-500,266	2372,870	-221,776	443,553
283,50	3991,108	3631,760	771,191	-375,199	1800,952	-166,332	332,665
283,57	3817,169	3474,587	737,312	-357,690	1719,751	-158,570	317,140
284,00	2722,501	2482,921	524,665	-250,133	1214,835	-110,888	221,776
284,50	1392,153	1272,356	267,601	-125,066	614,517	-55,444	110,888
285,00	0,000	0,000	0,000	0,000	0,000	0,000	0,000

ii. Momento fletor devido ao pré-esforço

x [m]	Início de exploração			Longo prazo		
	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]
0,00	0,000	0,000	0,000	0,000	0,000	0,000
0,50	-2270,185	-2432,750	162,565	-1944,799	-2175,923	231,124
1,00	-4461,309	-4787,371	326,063	-3819,785	-4283,527	463,742
1,43	-6281,881	-6749,300	467,419	-5376,658	-6041,749	665,091
1,50	-6572,635	-7063,132	490,497	-5625,238	-6323,226	697,988
2,00	-8603,426	-9259,297	655,871	-7361,150	-8295,120	933,970
2,50	-10552,936	-11375,126	822,190	-9027,244	-10199,017	1171,773
2,86	-11905,834	-12848,361	942,527	-10183,322	-11527,476	1344,154
3,00	-12420,417	-13409,875	989,458	-10623,009	-12034,468	1411,458
3,50	-14205,117	-15362,796	1157,678	-12147,736	-13800,801	1653,065
4,00	-15906,280	-17233,135	1326,855	-13600,550	-15497,163	1896,614
4,30	-16886,562	-18315,385	1428,822	-14437,304	-16480,982	2043,678
4,50	-17523,143	-19020,136	1496,993	-14980,442	-17122,551	2142,109
5,00	-19054,940	-20723,036	1668,096	-16286,305	-18675,845	2389,539
5,50	-20500,901	-22341,070	1840,169	-17516,959	-20155,843	2638,883
6,00	-21860,252	-23873,466	2013,214	-18671,175	-21561,283	2890,108
6,50	-23132,213	-25319,450	2187,237	-19747,696	-22890,868	3143,172
7,00	-24316,001	-26678,242	2362,242	-20745,254	-24143,283	3398,029
7,50	-25410,825	-27949,057	2538,232	-21662,585	-25317,212	3654,627
8,00	-26415,895	-29131,108	2715,213	-22498,439	-26411,349	3912,910
8,50	-27330,412	-30223,599	2893,187	-23251,590	-27424,409	4172,818
9,00	-28153,574	-31225,734	3072,160	-23920,843	-28355,134	4434,291
9,50	-28884,574	-32136,710	3252,137	-24505,035	-29202,300	4697,265
10,00	-29522,600	-32955,720	3433,120	-25003,045	-29964,722	4961,676
10,50	-30066,837	-33681,951	3615,114	-25413,794	-30641,254	5227,460
11,00	-30516,463	-34314,588	3798,125	-25736,243	-31230,794	5494,551
11,50	-30870,653	-34852,808	3982,155	-25969,402	-31732,286	5762,884
12,00	-31128,577	-35295,786	4167,209	-26112,325	-32144,719	6032,393

x [m]	Início de exploração			Longo prazo		
	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]
12,50	-31289,398	-35642,691	4353,293	-26164,115	-32467,127	6303,013
13,00	-31352,278	-35892,687	4540,409	-26123,918	-32698,595	6574,677
13,20	-31349,817	-35965,363	4615,546	-26081,902	-32765,523	6683,621
13,50	-31316,372	-36044,935	4728,563	-25990,933	-32838,255	6847,321
14,00	-31177,823	-36092,320	4914,497	-25763,893	-32880,182	7116,289
14,50	-30974,618	-36075,845	5101,227	-25476,146	-32862,128	7385,983
15,00	-30706,331	-35995,086	5288,755	-25127,369	-32783,732	7656,363
15,50	-30372,537	-35849,621	5477,085	-24717,263	-32644,654	7927,391
16,00	-29972,807	-35639,025	5666,218	-24245,549	-32444,575	8199,026
16,50	-29506,712	-35362,870	5856,158	-23711,967	-32183,200	8471,233
17,00	-28973,821	-35020,727	6046,907	-23116,279	-31860,254	8743,975
17,50	-28373,699	-34612,166	6238,467	-22458,268	-31475,486	9017,218
18,00	-27705,911	-34136,753	6430,842	-21737,737	-31028,666	9290,930
18,50	-26970,020	-33594,054	6624,034	-20954,507	-30519,589	9565,082
19,00	-26165,586	-32983,631	6818,046	-20108,421	-29948,068	9839,648
19,50	-25292,168	-32305,048	7012,879	-19199,338	-29313,944	10114,606
20,00	-24349,324	-31557,862	7208,538	-18227,135	-28617,075	10389,941
20,50	-23336,608	-30741,632	7405,025	-17191,703	-27857,343	10665,640
21,00	-22253,572	-29855,914	7602,341	-16092,947	-27034,647	10941,701
21,50	-21099,769	-28900,261	7800,492	-14930,780	-26148,906	11218,126
21,80	-20373,331	-28293,114	7919,783	-14203,010	-25587,171	11384,161
22,00	-19874,747	-27874,225	7999,478	-13705,123	-25200,052	11494,929
22,50	-18578,053	-26777,355	8199,302	-12415,897	-24188,031	11772,134
23,00	-17209,233	-25609,201	8399,968	-11063,019	-23112,798	12049,778
23,50	-15767,830	-24369,307	8601,477	-9646,397	-21974,308	12327,911
24,00	-14253,384	-23057,218	8803,834	-8165,918	-20772,516	12606,598
24,50	-12665,436	-21672,476	9007,040	-6621,443	-19507,368	12885,924
25,00	-11003,522	-20214,620	9211,098	-5012,797	-18178,788	13165,992
25,50	-9267,178	-18683,189	9416,011	-3339,752	-16786,676	13446,924
26,00	-7455,936	-17077,718	9621,782	-1602,020	-15330,890	13728,870
26,50	-5569,329	-15397,743	9828,414	200,765	-13811,236	14012,001

x [m]	Início de exploração			Longo prazo		
	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]
27,00	-3606,885	-13642,794	10035,908	2069,059	-12227,453	14296,512
27,50	-1568,131	-11812,401	10244,270	4003,430	-10579,200	14582,630
28,00	547,407	-9906,093	10453,500	6004,565	-8866,038	14870,603
28,50	2740,206	-7923,396	10663,602	8073,296	-7087,414	15160,709
29,00	5010,746	-5863,832	10874,578	10210,608	-5242,644	15453,251
29,35	6627,718	-4394,268	11021,986	11730,367	-3927,719	15658,086
29,50	7349,542	-3721,879	11071,421	12401,321	-3326,517	15727,838
30,00	9730,878	-1503,526	11234,404	14613,944	-1343,665	15957,609
30,50	12169,585	772,966	11396,619	16879,377	690,806	16188,571
30,70	13161,040	1699,749	11461,291	17800,529	1519,166	16281,363
31,00	14573,405	3032,138	11541,268	19104,318	2710,497	16393,821
31,50	16691,623	5018,590	11673,033	21068,421	4487,943	16580,478
32,00	18519,382	6716,480	11802,902	22774,428	6008,903	16765,525
32,14	18979,758	7140,830	11838,929	23206,300	6389,343	16816,957
32,50	20061,475	8130,580	11930,894	24225,543	7277,245	16948,297
33,00	21322,637	9265,613	12057,025	25424,833	8296,609	17128,224
33,50	22307,555	10126,243	12181,313	26375,368	9070,533	17304,835
33,57	22423,664	10225,097	12198,567	26488,771	9159,498	17329,274
34,00	23020,858	10717,085	12303,774	27080,321	9602,562	17477,759
34,50	23467,124	11042,699	12424,425	27543,038	9896,313	17646,725
35,00	23650,879	11107,596	12543,283	27767,082	9955,522	17811,561
35,50	23371,130	10916,232	12454,898	27448,699	9784,068	17664,631
36,00	22840,126	10473,014	12367,112	26903,098	9385,978	17517,120
36,43	22185,829	9893,736	12292,093	26255,463	8865,523	17389,940
36,50	22062,220	9782,297	12279,923	26134,629	8765,408	17369,220
37,00	21041,714	8848,388	12193,326	25147,834	7926,614	17221,219
37,50	19782,860	7675,543	12107,317	23947,401	6873,896	17073,505
37,86	18731,261	6685,509	12045,752	22953,479	5985,881	16967,598
38,00	18289,860	6267,968	12021,892	22538,093	5611,529	16926,565
38,50	16566,870	4629,822	11937,048	20924,652	4143,666	16780,987
39,00	14617,997	2765,216	11852,781	19111,683	2474,224	16637,459

x [m]	Início de exploração			Longo prazo		
	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]
39,30	13341,938	1539,442	11802,496	17929,943	1377,297	16552,647
39,50	12489,477	698,837	11790,640	17149,872	625,207	16524,665
40,00	10407,677	-1353,376	11761,053	15245,851	-1210,800	16456,651
40,50	8396,033	-3335,506	11731,539	13406,613	-2984,587	16391,200
41,00	6454,114	-5247,986	11702,100	11630,846	-4697,203	16328,049
41,50	4581,490	-7091,244	11672,734	9917,385	-6349,550	16266,935
42,00	2777,733	-8865,710	11643,442	8265,215	-7942,386	16207,601
42,50	1042,415	-10571,808	11614,223	6673,455	-9476,342	16149,797
43,00	-624,887	-12209,965	11585,078	5141,352	-10951,931	16093,284
43,50	-2224,596	-13780,601	11556,005	3668,270	-12369,568	16037,838
43,60	-2536,463	-14086,663	11550,199	3380,687	-12646,171	16026,858
44,00	-3761,378	-15301,410	11540,032	2256,241	-13745,228	16001,469
44,50	-5251,840	-16813,593	11561,754	902,125	-15116,179	16018,304
45,00	-6688,356	-18271,872	11583,516	-405,812	-16441,269	16035,457
45,50	-8070,550	-19675,869	11605,319	-1667,182	-17719,952	16052,770
46,00	-9398,042	-21025,205	11627,163	-2881,541	-18951,642	16070,101
46,50	-10670,451	-22319,500	11649,049	-4048,401	-20135,721	16087,320
47,00	-11887,395	-23558,370	11670,975	-5167,241	-21271,551	16104,310
47,50	-13048,490	-24741,432	11692,942	-6237,508	-22358,476	16120,968
48,00	-14153,349	-25868,299	11714,951	-7258,633	-23395,834	16137,201
48,50	-15201,585	-26938,585	11737,000	-8230,030	-24382,958	16152,929
49,00	-16192,808	-27951,900	11759,092	-9151,106	-25319,185	16168,079
49,50	-17126,627	-28907,852	11781,224	-10021,265	-26203,856	16182,591
50,00	-18002,650	-29806,048	11803,399	-10839,910	-27036,319	16196,408
50,50	-18820,481	-30646,096	11825,614	-11606,450	-27815,935	16209,485
51,00	-19579,725	-31427,597	11847,872	-12320,299	-28542,080	16221,781
51,50	-20279,982	-32150,153	11870,171	-12980,879	-29214,141	16233,261
52,00	-20920,854	-32813,366	11892,512	-13587,627	-29831,523	16243,897
52,20	-21160,485	-33061,945	11901,460	-13815,128	-30063,037	16247,908
52,50	-21501,938	-33416,833	11914,895	-14139,989	-30393,650	16253,662
53,00	-22022,831	-33960,151	11937,320	-14637,426	-30899,961	16262,535

x [m]	Início de exploração			Longo prazo		
	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]
53,50	-22483,128	-34442,914	11959,787	-15079,415	-31349,915	16270,500
54,00	-22882,421	-34864,716	11982,296	-15465,448	-31742,990	16277,542
54,50	-23220,301	-35225,148	12004,847	-15795,034	-32078,682	16283,648
55,00	-23496,359	-35523,799	12027,441	-16067,699	-32356,508	16288,809
55,50	-23710,181	-35760,257	12050,077	-16282,987	-32576,004	16293,018
56,00	-23861,352	-35934,108	12072,755	-16440,459	-32736,728	16296,268
56,50	-23949,458	-36044,935	12095,476	-16539,697	-32838,255	16298,558
57,00	-23974,080	-36092,320	12118,240	-16580,298	-32880,182	16299,884
57,50	-23934,798	-36075,845	12141,046	-16561,882	-32862,128	16300,246
58,00	-23831,191	-35995,086	12163,895	-16484,085	-32783,732	16299,647
58,50	-23662,834	-35849,621	12186,788	-16346,565	-32644,654	16298,089
59,00	-23429,303	-35639,025	12209,722	-16148,998	-32444,575	16295,577
59,50	-23130,170	-35362,870	12232,700	-15891,080	-32183,200	16292,120
60,00	-22765,006	-35020,727	12255,721	-15572,528	-31860,254	16287,727
60,50	-22333,380	-34612,166	12278,786	-15193,076	-31475,486	16282,410
60,80	-22042,323	-34334,968	12292,645	-14936,071	-31214,854	16278,783
61,00	-21834,860	-34136,753	12301,893	-14752,481	-31028,666	16276,185
61,50	-21269,009	-33594,054	12325,044	-14250,517	-30519,589	16269,072
62,00	-20635,393	-32983,631	12348,238	-13686,975	-29948,068	16261,093
62,50	-19933,571	-32305,048	12371,476	-13061,668	-29313,944	16252,276
63,00	-19163,105	-31557,862	12394,758	-12374,421	-28617,075	16242,654
63,50	-18323,550	-30741,632	12418,083	-11625,077	-27857,343	16232,266
64,00	-17414,462	-29855,914	12441,451	-10813,491	-27034,647	16221,156
64,50	-16435,397	-28900,261	12464,864	-9939,527	-26148,906	16209,379
65,00	-15385,904	-27874,225	12488,321	-9003,059	-25200,052	16196,994
65,50	-14265,534	-26777,355	12511,821	-8003,960	-24188,031	16184,072
66,00	-13073,835	-25609,201	12535,366	-6942,105	-23112,798	16170,693
66,50	-11810,352	-24369,307	12558,955	-5817,359	-21974,308	16156,949
67,00	-10474,630	-23057,218	12582,588	-4629,573	-20772,516	16142,943
67,50	-9066,210	-21672,476	12606,265	-3378,576	-19507,368	16128,792
68,00	-7584,633	-20214,620	12629,987	-2064,164	-18178,788	16114,624

x [m]	Início de exploração			Longo prazo		
	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]
68,50	-6029,435	-18683,189	12653,754	-686,091	-16786,676	16100,585
69,00	-4400,154	-17077,718	12677,564	755,943	-15330,890	16086,833
69,50	-2696,323	-15397,743	12701,420	2262,304	-13811,236	16073,540
70,00	-917,473	-13642,794	12725,320	3833,441	-12227,453	16060,893
70,50	936,864	-11812,401	12749,266	5469,895	-10579,200	16049,095
71,00	2867,163	-9906,093	12773,256	7172,320	-8866,038	16038,358
71,50	4873,895	-7923,396	12797,291	8941,493	-7087,414	16028,907
72,00	6957,539	-5863,832	12821,371	10778,330	-5242,644	16020,973
72,35	8444,689	-4394,268	12838,958	12089,577	-3927,719	16017,296
72,50	9106,225	-3721,879	12828,103	12667,212	-3326,517	15993,729
73,00	11292,377	-1503,526	12795,903	14577,793	-1343,665	15921,459
73,50	13536,749	772,966	12763,783	16542,527	690,806	15851,721
73,70	14450,706	1699,749	12750,957	17343,743	1519,166	15824,577
74,00	15744,572	3032,138	12712,434	18469,294	2710,497	15758,797
74,50	17667,072	5018,590	12648,482	20138,860	4487,943	15650,918
75,00	19301,323	6716,480	12584,843	21553,446	6008,903	15544,543
75,14	19707,911	7140,830	12567,081	21904,277	6389,343	15514,934
75,50	20652,098	8130,580	12521,517	22716,248	7277,245	15439,002
76,00	21724,114	9265,613	12458,502	23630,362	8296,609	15333,754
76,50	22522,038	10126,243	12395,796	24298,914	9070,533	15228,381
76,57	22612,139	10225,097	12387,042	24373,098	9159,498	15213,600
77,00	23050,482	10717,085	12333,398	24725,144	9602,562	15122,582
77,50	23314,006	11042,699	12271,306	24912,471	9896,313	15016,158
78,00	23317,116	11107,596	12209,520	24864,531	9955,522	14909,010
78,50	23042,680	10916,232	12126,448	24604,435	9784,068	14820,366
79,00	22516,940	10473,014	12043,926	24116,815	9385,978	14730,837
79,43	21867,130	9893,736	11973,394	23518,771	8865,523	14653,247
79,50	21744,248	9782,297	11961,951	23405,983	8765,408	14640,575
80,00	20728,907	8848,388	11880,518	22476,433	7926,614	14549,819
80,50	19475,168	7675,543	11799,625	21332,790	6873,896	14458,894
80,86	18427,223	6685,509	11741,715	20379,432	5985,881	14393,551

x [m]	Início de exploração			Longo prazo		
	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]
81,00	17987,237	6267,968	11719,269	19979,741	5611,529	14368,212
81,50	16269,266	4629,822	11639,444	18421,941	4143,666	14278,276
82,00	14325,364	2765,216	11560,149	16663,900	2474,224	14189,675
82,30	13052,266	1539,442	11512,824	15514,732	1377,297	14137,435
82,50	12201,359	698,837	11502,522	14752,770	625,207	14127,563
83,00	10123,432	-1353,376	11476,808	12893,632	-1210,800	14104,432
83,50	8115,647	-3335,506	11451,153	11098,764	-2984,587	14083,351
84,00	6177,570	-5247,986	11425,556	9366,903	-4697,203	14064,107
84,50	4308,773	-7091,244	11400,017	7696,938	-6349,550	14046,488
85,00	2508,827	-8865,710	11374,537	6087,897	-7942,386	14030,283
85,50	777,306	-10571,808	11349,114	4538,944	-9476,342	14015,286
86,00	-886,215	-12209,965	11323,749	3049,368	-10951,931	14001,300
86,50	-2482,159	-13780,601	11298,442	1618,568	-12369,568	13988,136
86,60	-2793,275	-14086,663	11293,388	1339,415	-12646,171	13985,586
87,00	-4015,478	-15301,410	11285,932	246,320	-13745,228	13991,548
87,50	-5503,303	-16813,593	11310,290	-1074,602	-15116,179	14041,578
88,00	-6937,170	-18271,872	11334,702	-2349,168	-16441,269	14092,101
88,50	-8316,701	-19675,869	11359,168	-3576,969	-17719,952	14142,983
89,00	-9641,517	-21025,205	11383,688	-4757,542	-18951,642	14194,099
89,50	-10911,238	-22319,500	11408,261	-5890,384	-20135,721	14245,337
90,00	-12125,481	-23558,370	11432,889	-6974,957	-21271,551	14296,593
90,50	-13283,861	-24741,432	11457,571	-8010,701	-22358,476	14347,775
91,00	-14385,992	-25868,299	11482,307	-8997,034	-23395,834	14398,800
91,50	-15431,488	-26938,585	11507,098	-9933,365	-24382,958	14449,593
92,00	-16419,957	-27951,900	11531,943	-10819,096	-25319,185	14500,089
92,50	-17351,009	-28907,852	11556,842	-11653,627	-26203,856	14550,228
93,00	-18224,251	-29806,048	11581,797	-12436,359	-27036,319	14599,959
93,50	-19039,289	-30646,096	11606,806	-13166,699	-27815,935	14649,236
94,00	-19795,726	-31427,597	11631,871	-13844,062	-28542,080	14698,018
94,50	-20493,163	-32150,153	11656,991	-14467,872	-29214,141	14746,269
95,00	-21131,201	-32813,366	11682,165	-15037,564	-29831,523	14793,959

x [m]	Início de exploração			Longo prazo		
	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]
95,20	-21369,694	-33061,945	11692,251	-15250,165	-30063,037	14812,871
95,50	-21709,437	-33416,833	11707,396	-15552,591	-30393,650	14841,059
96,00	-22227,469	-33960,151	11732,682	-16012,415	-30899,961	14887,546
96,50	-22684,891	-34442,914	11758,023	-16416,516	-31349,915	14933,399
97,00	-23081,296	-34864,716	11783,420	-16764,392	-31742,990	14978,598
97,50	-23416,275	-35225,148	11808,874	-17055,555	-32078,682	15023,127
98,00	-23689,417	-35523,799	11834,383	-17289,536	-32356,508	15066,971
98,50	-23900,309	-35760,257	11859,948	-17465,885	-32576,004	15110,119
99,00	-24048,538	-35934,108	11885,569	-17584,168	-32736,728	15152,560
99,50	-24133,687	-36044,935	11911,248	-17643,971	-32838,255	15194,283
100,00	-24155,338	-36092,320	11936,982	-17644,900	-32880,182	15235,282
100,50	-24113,071	-36075,845	11962,773	-17586,578	-32862,128	15275,551
101,00	-24006,465	-35995,086	11988,621	-17468,648	-32783,732	15315,084
101,50	-23835,095	-35849,621	12014,526	-17290,775	-32644,654	15353,879
102,00	-23598,537	-35639,025	12040,488	-17052,641	-32444,575	15391,934
102,50	-23296,363	-35362,870	12066,507	-16753,949	-32183,200	15429,251
103,00	-22928,144	-35020,727	12092,584	-16394,421	-31860,254	15465,833
103,50	-22493,448	-34612,166	12118,718	-15973,800	-31475,486	15501,686
103,80	-22200,542	-34334,968	12134,426	-15692,003	-31214,854	15522,852
104,00	-21991,844	-34136,753	12144,909	-15491,848	-31028,666	15536,819
104,50	-21422,895	-33594,054	12171,158	-14948,345	-30519,589	15571,243
105,00	-20786,166	-32983,631	12197,465	-14343,092	-29948,068	15604,976
105,50	-20081,218	-32305,048	12223,830	-13675,906	-29313,944	15638,038
106,00	-19307,609	-31557,862	12250,253	-12946,620	-28617,075	15670,455
106,50	-18464,898	-30741,632	12276,734	-12155,083	-27857,343	15702,260
107,00	-17552,641	-29855,914	12303,273	-11301,157	-27034,647	15733,490
107,50	-16570,390	-28900,261	12329,871	-10384,713	-26148,906	15764,193
108,00	-15517,697	-27874,225	12356,528	-9405,628	-25200,052	15794,424
108,50	-14394,112	-26777,355	12383,243	-8363,784	-24188,031	15824,247
109,00	-13199,184	-25609,201	12410,017	-7259,060	-23112,798	15853,738
109,50	-11932,457	-24369,307	12436,850	-6091,325	-21974,308	15882,983

x [m]	Início de exploração			Longo prazo		
	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]
110,00	-10593,476	-23057,218	12463,742	-4860,433	-20772,516	15912,083
110,50	-9181,782	-21672,476	12490,694	-3566,217	-19507,368	15941,150
111,00	-7696,915	-20214,620	12517,705	-2208,474	-18178,788	15970,314
111,50	-6138,414	-18683,189	12544,775	-786,959	-16786,676	15999,717
112,00	-4505,813	-17077,718	12571,905	698,630	-15330,890	16029,520
112,50	-2798,648	-15397,743	12599,095	2248,662	-13811,236	16059,898
113,00	-1016,449	-13642,794	12626,345	3863,590	-12227,453	16091,043
113,50	841,254	-11812,401	12653,655	5543,964	-10579,200	16123,164
114,00	2774,931	-9906,093	12681,025	7290,445	-8866,038	16156,483
114,50	4785,059	-7923,396	12708,455	9103,823	-7087,414	16191,237
115,00	6872,114	-5863,832	12735,946	10985,028	-5242,644	16227,671
115,35	8361,633	-4394,268	12755,902	12327,083	-3927,719	16254,801
115,50	9024,336	-3721,879	12746,215	12918,128	-3326,517	16244,645
116,00	11214,269	-1503,526	12717,795	14872,142	-1343,665	16215,808
116,50	13462,406	772,966	12689,440	16880,156	690,806	16189,350
116,70	14377,865	1699,749	12678,116	17698,646	1519,166	16179,481
117,00	15674,129	3032,138	12641,991	18849,280	2710,497	16138,783
117,50	17600,590	5018,590	12582,000	20560,309	4487,943	16072,367
118,00	19238,760	6716,480	12522,280	22015,926	6008,903	16007,024
118,14	19646,437	7140,830	12505,607	22378,167	6389,343	15988,824
118,50	20593,410	8130,580	12462,829	23219,316	7277,245	15942,071
119,00	21669,260	9265,613	12403,647	24173,562	8296,609	15876,953
119,50	22470,975	10126,243	12344,732	24881,772	9070,533	15811,239
119,57	22561,603	10225,097	12336,506	24961,469	9159,498	15801,972
120,00	23003,168	10717,085	12286,084	25347,171	9602,562	15744,609
120,50	23270,400	11042,699	12227,700	25573,165	9896,313	15676,853
121,00	23277,177	11107,596	12169,581	25563,377	9955,522	15607,856
121,50	23004,088	10916,232	12087,856	25291,331	9784,068	15507,263
122,00	22479,681	10473,014	12006,667	24791,811	9385,978	15405,832
122,43	21831,006	9893,736	11937,270	24183,578	8865,523	15318,055
122,50	21708,308	9782,297	11926,010	24069,136	8765,408	15303,728

x [m]	Início de exploração			Longo prazo		
	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]
123,00	20694,271	8848,388	11845,883	23127,814	7926,614	15201,200
123,50	19441,824	7675,543	11766,281	21972,483	6873,896	15098,587
123,86	18394,799	6685,509	11709,291	21010,772	5985,881	15024,891
124,00	17955,169	6267,968	11687,201	20607,849	5611,529	14996,320
124,50	16238,463	4629,822	11608,641	19038,589	4143,666	14894,924
125,00	14295,811	2765,216	11530,595	17269,237	2474,224	14795,012
125,30	13023,456	1539,442	11484,014	16113,364	1377,297	14736,067
125,50	12173,002	698,837	11474,165	15347,822	625,207	14722,615
126,00	10096,204	-1353,376	11449,580	13479,824	-1210,800	14690,624
126,50	8089,543	-3335,506	11425,049	11676,213	-2984,587	14660,800
127,00	6152,585	-5247,986	11400,571	9935,716	-4697,203	14632,920
127,50	4284,902	-7091,244	11376,146	8257,210	-6349,550	14606,760
128,00	2486,065	-8865,710	11351,775	6639,711	-7942,386	14582,097
128,50	755,649	-10571,808	11327,457	5082,375	-9476,342	14558,716
129,00	-906,772	-12209,965	11303,192	3584,478	-10951,931	14536,409
129,50	-2501,621	-13780,601	11278,980	2145,411	-12369,568	14514,980
129,60	-2812,518	-14086,663	11274,144	1864,611	-12646,171	14510,783
130,00	-4033,870	-15301,410	11267,540	765,536	-13745,228	14510,765
130,50	-5520,684	-16813,593	11292,909	-561,304	-15116,179	14554,875
131,00	-6953,535	-18271,872	11318,337	-1841,819	-16441,269	14599,451
131,50	-8332,047	-19675,869	11343,823	-3075,602	-17719,952	14644,350
132,00	-9655,839	-21025,205	11369,367	-4262,198	-18951,642	14689,444
132,50	-10924,530	-22319,500	11394,969	-5401,106	-20135,721	14734,615
133,00	-12137,739	-23558,370	11420,631	-6491,793	-21271,551	14779,758
133,50	-13295,081	-24741,432	11446,351	-7533,700	-22358,476	14824,776
134,00	-14396,170	-25868,299	11472,130	-8526,250	-23395,834	14869,584
134,50	-15440,617	-26938,585	11497,968	-9468,853	-24382,958	14914,105
135,00	-16428,034	-27951,900	11523,865	-10360,913	-25319,185	14958,272
135,50	-17358,030	-28907,852	11549,822	-11201,830	-26203,856	15002,025
136,00	-18230,210	-29806,048	11575,838	-11991,008	-27036,319	15045,311
136,50	-19044,182	-30646,096	11601,914	-12727,853	-27815,935	15088,083

x [m]	Início de exploração			Longo prazo		
	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]
137,00	-19799,547	-31427,597	11628,049	-13411,780	-28542,080	15130,300
137,50	-20495,909	-32150,153	11654,245	-14042,214	-29214,141	15171,927
138,00	-21132,866	-32813,366	11680,500	-14618,591	-29831,523	15212,933
138,20	-21370,926	-33061,945	11691,019	-14833,882	-30063,037	15229,154
138,50	-21710,017	-33416,833	11706,816	-15140,361	-30393,650	15253,289
139,00	-22226,959	-33960,151	11733,192	-15606,988	-30899,961	15292,973
139,50	-22683,286	-34442,914	11759,628	-16017,952	-31349,915	15331,963
140,00	-23078,592	-34864,716	11786,125	-16372,748	-31742,990	15370,242
140,50	-23412,466	-35225,148	11812,682	-16670,889	-32078,682	15407,793
141,00	-23684,498	-35523,799	11839,301	-16911,904	-32356,508	15444,603
141,50	-23894,277	-35760,257	11865,980	-17095,343	-32576,004	15480,661
142,00	-24041,387	-35934,108	11892,721	-17220,771	-32736,728	15515,957
142,50	-24125,412	-36044,935	11919,523	-17287,773	-32838,255	15550,481
143,00	-24145,934	-36092,320	11946,386	-17295,954	-32880,182	15584,229
143,50	-24102,533	-36075,845	11973,312	-17244,935	-32862,128	15617,193
144,00	-23994,788	-35995,086	12000,298	-17134,360	-32783,732	15649,372
144,50	-23822,275	-35849,621	12027,347	-16963,890	-32644,654	15680,763
145,00	-23584,568	-35639,025	12054,458	-16733,208	-32444,575	15711,367
145,50	-23281,240	-35362,870	12081,630	-16442,015	-32183,200	15741,186
146,00	-22911,862	-35020,727	12108,865	-16090,031	-31860,254	15770,223
146,50	-22476,003	-34612,166	12136,163	-15676,999	-31475,486	15798,487
146,80	-22182,397	-34334,968	12152,571	-15399,775	-31214,854	15815,079
147,00	-21973,230	-34136,753	12163,523	-15202,678	-31028,666	15825,988
147,50	-21403,108	-33594,054	12190,946	-14666,849	-30519,589	15852,740
148,00	-20765,200	-32983,631	12218,432	-14069,309	-29948,068	15878,760
148,50	-20059,067	-32305,048	12245,980	-13409,874	-29313,944	15904,070
149,00	-19284,270	-31557,862	12273,592	-12688,377	-28617,075	15928,698
149,50	-18440,365	-30741,632	12301,267	-11904,664	-27857,343	15952,679
150,00	-17526,908	-29855,914	12329,006	-11058,596	-27034,647	15976,052
150,50	-16543,452	-28900,261	12356,809	-10150,041	-26148,906	15998,865
151,00	-15489,550	-27874,225	12384,675	-9178,877	-25200,052	16021,175

x [m]	Início de exploração			Longo prazo		
	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]
151,50	-14364,751	-26777,355	12412,605	-8144,982	-24188,031	16043,049
152,00	-13168,602	-25609,201	12440,599	-7048,234	-23112,798	16064,564
152,50	-11900,650	-24369,307	12468,657	-5888,500	-21974,308	16085,807
153,00	-10560,438	-23057,218	12496,780	-4665,634	-20772,516	16106,882
153,50	-9147,508	-21672,476	12524,967	-3379,466	-19507,368	16127,902
154,00	-7661,401	-20214,620	12553,219	-2029,791	-18178,788	16148,997
154,50	-6101,653	-18683,189	12581,536	-616,363	-16786,676	16170,313
155,00	-4467,801	-17077,718	12609,918	861,120	-15330,890	16192,010
155,50	-2759,378	-15397,743	12638,364	2403,030	-13811,236	16214,266
156,00	-975,917	-13642,794	12666,876	4009,820	-12227,453	16237,273
156,50	883,053	-11812,401	12695,454	5682,040	-10579,200	16261,240
157,00	2818,004	-9906,093	12724,097	7420,353	-8866,038	16286,391
157,50	4829,410	-7923,396	12752,806	9225,547	-7087,414	16312,961
158,00	6917,748	-5863,832	12781,580	11098,553	-5242,644	16341,196
158,35	8408,160	-4394,268	12802,428	12434,924	-3927,719	16362,643
158,50	9071,197	-3721,879	12793,075	13023,299	-3326,517	16349,816
159,00	11262,211	-1503,526	12765,737	14968,677	-1343,665	16312,342
159,50	13511,425	772,966	12738,459	16968,106	690,806	16277,301
159,70	14427,313	1699,749	12727,564	17783,177	1519,166	16264,012
160,00	15724,113	3032,138	12691,975	18928,530	2710,497	16218,033
160,50	17651,458	5018,590	12632,867	20630,838	4487,943	16142,895
161,00	19290,499	6716,480	12574,019	22077,828	6008,903	16068,925
161,14	19698,417	7140,830	12557,587	22437,669	6389,343	16048,326
161,50	20646,008	8130,580	12515,428	23272,680	7277,245	15995,435
162,00	21722,706	9265,613	12457,094	24218,477	8296,609	15921,868
162,50	22525,258	10126,243	12399,016	24918,324	9070,533	15847,791
162,57	22616,002	10225,097	12390,905	24996,857	9159,498	15837,360
163,00	23058,277	10717,085	12341,192	25375,447	9602,562	15772,885
163,50	23326,322	11042,699	12283,623	25593,253	9896,313	15696,940
164,00	23333,902	11107,596	12226,306	25575,365	9955,522	15619,843
164,50	23057,305	10916,232	12141,073	25294,400	9784,068	15510,332

x [m]	Início de exploração			Longo prazo		
	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]
165,00	22529,428	10473,014	12056,414	24786,064	9385,978	15400,086
165,43	21877,799	9893,736	11984,063	24170,333	8865,523	15304,809
165,50	21754,622	9782,297	11972,325	24054,677	8765,408	15289,269
166,00	20737,192	8848,388	11888,804	23104,748	7926,614	15178,134
166,50	19481,388	7675,543	11805,845	21940,915	6873,896	15067,019
166,86	18431,970	6685,509	11746,461	20973,148	5985,881	14987,267
167,00	17991,414	6267,968	11723,446	20567,884	5611,529	14956,355
167,50	16271,425	4629,822	11641,602	18990,329	4143,666	14846,664
168,00	14325,527	2765,216	11560,311	17212,781	2474,224	14738,556
168,30	13051,242	1539,442	11511,800	16052,035	1377,297	14674,739
168,50	12199,546	698,837	11500,709	15283,171	625,207	14657,964
169,00	10119,652	-1353,376	11473,028	13406,884	-1210,800	14617,684
169,50	8109,909	-3335,506	11445,415	11595,009	-2984,587	14579,596
170,00	6169,883	-5247,986	11417,869	9846,272	-4697,203	14543,475
170,50	4299,145	-7091,244	11390,389	8159,545	-6349,550	14509,095
171,00	2497,267	-8865,710	11362,976	6533,845	-7942,386	14476,231
171,50	763,822	-10571,808	11335,630	4968,326	-9476,342	14444,667
172,00	-901,615	-12209,965	11308,350	3462,264	-10951,931	14414,196
172,50	-2499,465	-13780,601	11281,136	2015,051	-12369,568	14384,619
172,60	-2810,962	-14086,663	11275,701	1732,623	-12646,171	14378,795
173,00	-4034,704	-15301,410	11266,706	626,889	-13745,228	14372,117
173,50	-5524,514	-16813,593	11289,079	-708,723	-15116,179	14407,457
174,00	-6960,374	-18271,872	11311,498	-1998,064	-16441,269	14443,205
174,50	-8341,908	-19675,869	11333,961	-3240,729	-17719,952	14479,223
175,00	-9668,736	-21025,205	11356,470	-4436,260	-18951,642	14515,382
175,50	-10940,476	-22319,500	11379,024	-5584,155	-20135,721	14551,566
176,00	-12156,747	-23558,370	11401,623	-6683,881	-21271,551	14587,670
176,50	-13317,165	-24741,432	11424,267	-7734,877	-22358,476	14623,599
177,00	-14421,342	-25868,299	11446,957	-8736,564	-23395,834	14659,269
177,50	-15468,892	-26938,585	11469,693	-9688,352	-24382,958	14694,606
178,00	-16459,425	-27951,900	11492,474	-10589,642	-25319,185	14729,543

x [m]	Início de exploração			Longo prazo		
	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]
178,50	-17392,550	-28907,852	11515,301	-11439,833	-26203,856	14764,022
179,00	-18267,874	-29806,048	11538,174	-12238,327	-27036,319	14797,992
179,50	-19085,002	-30646,096	11561,093	-12984,529	-27815,935	14831,407
180,00	-19843,539	-31427,597	11584,058	-13677,852	-28542,080	14864,228
180,50	-20543,084	-32150,153	11607,069	-14317,719	-29214,141	14896,421
181,00	-21183,240	-32813,366	11630,126	-14903,566	-29831,523	14927,957
181,20	-21422,582	-33061,945	11639,362	-15122,655	-30063,037	14940,382
181,50	-21763,603	-33416,833	11653,230	-15434,840	-30393,650	14958,810
182,00	-22283,771	-33960,151	11676,380	-15911,004	-30899,961	14988,957
182,50	-22743,338	-34442,914	11699,577	-16331,536	-31349,915	15018,379
183,00	-23141,896	-34864,716	11722,820	-16695,929	-31742,990	15047,060
183,50	-23479,038	-35225,148	11746,110	-17003,696	-32078,682	15074,986
184,00	-23754,353	-35523,799	11769,447	-17254,363	-32356,508	15102,145
184,50	-23967,427	-35760,257	11792,830	-17447,479	-32576,004	15128,526
185,00	-24117,847	-35934,108	11816,261	-17582,607	-32736,728	15154,121
185,50	-24205,196	-36044,935	11839,738	-17659,331	-32838,255	15178,923
186,00	-24229,057	-36092,320	11863,263	-17677,254	-32880,182	15202,928
186,50	-24189,009	-36075,845	11886,835	-17635,997	-32862,128	15226,131
187,00	-24084,631	-35995,086	11910,455	-17535,201	-32783,732	15248,531
187,50	-23915,499	-35849,621	11934,122	-17374,527	-32644,654	15270,127
188,00	-23681,188	-35639,025	11957,837	-17153,654	-32444,575	15290,921
188,50	-23381,271	-35362,870	11981,599	-16872,284	-32183,200	15310,916
189,00	-23015,318	-35020,727	12005,409	-16530,136	-31860,254	15330,119
189,50	-22582,899	-34612,166	12029,267	-16126,950	-31475,486	15348,536
189,80	-22291,363	-34334,968	12043,605	-15855,639	-31214,854	15359,215
190,00	-22083,580	-34136,753	12053,173	-15662,486	-31028,666	15366,181
190,50	-21516,927	-33594,054	12077,127	-15136,522	-30519,589	15383,067
191,00	-20882,502	-32983,631	12101,129	-14548,856	-29948,068	15399,212
191,50	-20179,868	-32305,048	12125,179	-13899,303	-29313,944	15414,641
192,00	-19408,584	-31557,862	12149,278	-13187,695	-28617,075	15429,380
192,50	-18568,207	-30741,632	12173,425	-12413,879	-27857,343	15443,464

x [m]	Início de exploração			Longo prazo		
	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]
193,00	-17658,293	-29855,914	12197,621	-11577,715	-27034,647	15456,933
193,50	-16678,395	-28900,261	12221,865	-10679,072	-26148,906	15469,834
194,00	-15628,066	-27874,225	12246,159	-9717,829	-25200,052	15482,223
194,50	-14506,855	-26777,355	12270,501	-8693,866	-24188,031	15494,165
195,00	-13314,309	-25609,201	12294,892	-7607,062	-23112,798	15505,736
195,50	-12049,975	-24369,307	12319,332	-6457,287	-21974,308	15517,021
196,00	-10713,397	-23057,218	12343,821	-5244,398	-20772,516	15528,118
196,50	-9304,116	-21672,476	12368,360	-3968,228	-19507,368	15539,139
197,00	-7821,673	-20214,620	12392,947	-2628,579	-18178,788	15550,209
197,50	-6265,604	-18683,189	12417,585	-1225,209	-16786,676	15561,467
198,00	-4635,447	-17077,718	12442,271	242,178	-15330,890	15573,068
198,50	-2930,735	-15397,743	12467,008	1773,945	-13811,236	15585,181
199,00	-1151,000	-13642,794	12491,794	3370,537	-12227,453	15597,990
199,50	704,229	-11812,401	12516,630	5032,495	-10579,200	15611,695
200,00	2635,423	-9906,093	12541,516	6760,470	-8866,038	15626,509
200,50	4643,057	-7923,396	12566,452	8555,240	-7087,414	15642,654
201,00	6727,607	-5863,832	12591,439	10417,722	-5242,644	15660,365
201,35	8215,388	-4394,268	12609,656	11746,746	-3927,719	15674,465
201,50	8877,514	-3721,879	12599,392	12332,741	-3326,517	15659,258
202,00	11065,579	-1503,526	12569,105	14270,355	-1343,665	15614,020
202,50	13311,858	772,966	12538,892	16261,958	690,806	15571,152
202,70	14226,576	1699,749	12526,827	17073,878	1519,166	15554,713
203,00	15522,057	3032,138	12489,919	18215,971	2710,497	15505,473
203,50	17447,229	5018,590	12428,639	19912,854	4487,943	15424,912
204,00	19084,129	6716,480	12367,650	21354,462	6008,903	15345,559
204,14	19491,454	7140,830	12350,624	21712,807	6389,343	15323,464
204,50	20437,530	8130,580	12306,949	22544,002	7277,245	15266,757
205,00	21512,149	9265,613	12246,537	23484,582	8296,609	15187,973
205,50	22312,654	10126,243	12186,411	24179,328	9070,533	15108,794
205,57	22403,113	10225,097	12178,016	24257,157	9159,498	15097,659
206,00	22843,655	10717,085	12126,570	24631,481	9602,562	15028,918

x [m]	Início de exploração			Longo prazo		
	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]
206,50	23109,713	11042,699	12067,014	24844,458	9896,313	14948,145
207,00	23115,336	11107,596	12007,740	24821,891	9955,522	14866,369
207,50	22851,957	10916,232	11935,725	24588,695	9784,068	14804,627
208,00	22337,153	10473,014	11864,139	24127,667	9385,978	14741,689
208,43	21696,653	9893,736	11802,917	23552,243	8865,523	14686,719
208,50	21575,278	9782,297	11792,981	23443,115	8765,408	14677,707
209,00	20570,635	8848,388	11722,247	22539,529	7926,614	14612,915
209,50	19327,478	7675,543	11651,935	21421,533	6873,896	14547,637
209,86	18287,079	6685,509	11601,571	20486,445	5985,881	14500,564
210,00	17850,011	6267,968	11582,043	20093,816	5611,529	14482,287
210,50	16142,390	4629,822	11512,568	18561,040	4143,666	14417,374
211,00	14208,723	2765,216	11443,508	16827,724	2474,224	14353,499
211,30	12941,712	1539,442	11402,270	15693,254	1377,297	14315,957
211,50	12094,688	698,837	11395,851	14941,307	625,207	14316,100
212,00	10026,440	-1353,376	11379,816	13107,148	-1210,800	14317,948
212,50	8028,292	-3335,506	11363,798	11337,183	-2984,587	14321,770
213,00	6099,810	-5247,986	11347,796	9630,157	-4697,203	14327,360
213,50	4240,566	-7091,244	11331,810	7984,963	-6349,550	14334,513
214,00	2450,132	-8865,710	11315,841	6400,635	-7942,386	14343,021
214,50	728,081	-10571,808	11299,889	4876,340	-9476,342	14352,682
215,00	-926,011	-12209,965	11283,953	3411,367	-10951,931	14363,298
215,50	-2512,566	-13780,601	11268,034	2005,115	-12369,568	14374,683
215,60	-2821,810	-14086,663	11264,852	1730,865	-12646,171	14377,036
216,00	-4036,563	-15301,410	11264,847	657,830	-13745,228	14403,058
216,50	-5515,123	-16813,593	11298,470	-636,691	-15116,179	14479,489
217,00	-6939,684	-18271,872	11332,188	-1884,689	-16441,269	14556,580
217,50	-8309,869	-19675,869	11366,001	-3085,757	-17719,952	14634,195
218,00	-9625,297	-21025,205	11399,908	-4239,436	-18951,642	14712,206
218,50	-10885,589	-22319,500	11433,911	-5345,225	-20135,721	14790,496
219,00	-12090,361	-23558,370	11468,009	-6402,591	-21271,551	14868,959
219,50	-13239,230	-24741,432	11502,202	-7410,977	-22358,476	14947,499

x [m]	Início de exploração			Longo prazo		
	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]
220,00	-14331,808	-25868,299	11536,492	-8369,806	-23395,834	15026,028
220,50	-15367,707	-26938,585	11570,878	-9278,492	-24382,958	15104,467
221,00	-16346,539	-27951,900	11605,360	-10136,440	-25319,185	15182,746
221,50	-17267,912	-28907,852	11639,939	-10943,055	-26203,856	15260,800
222,00	-18131,433	-29806,048	11674,615	-11697,744	-27036,319	15338,574
222,50	-18936,707	-30646,096	11709,389	-12399,918	-27815,935	15416,017
223,00	-19683,337	-31427,597	11744,260	-13048,996	-28542,080	15493,084
223,50	-20370,925	-32150,153	11779,228	-13644,408	-29214,141	15569,733
224,00	-20999,071	-32813,366	11814,295	-14185,594	-29831,523	15645,929
224,20	-21233,596	-33061,945	11828,349	-14386,763	-30063,037	15676,273
224,50	-21567,373	-33416,833	11849,460	-14672,011	-30393,650	15721,639
225,00	-22075,427	-33960,151	11884,724	-15103,126	-30899,961	15796,835
225,50	-22522,828	-34442,914	11920,086	-15478,424	-31349,915	15871,491
226,00	-22909,169	-34864,716	11955,548	-15797,407	-31742,990	15945,582
226,50	-23234,039	-35225,148	11991,109	-16059,593	-32078,682	16019,088
227,00	-23497,030	-35523,799	12026,769	-16264,517	-32356,508	16091,991
227,50	-23697,727	-35760,257	12062,530	-16411,733	-32576,004	16164,271
228,00	-23835,717	-35934,108	12098,391	-16500,813	-32736,728	16235,915
228,50	-23910,583	-36044,935	12134,352	-16531,346	-32838,255	16306,908
229,00	-23921,907	-36092,320	12170,414	-16502,943	-32880,182	16377,239
229,50	-23869,268	-36075,845	12206,577	-16415,232	-32862,128	16446,896
230,00	-23752,245	-35995,086	12242,841	-16267,861	-32783,732	16515,871
230,50	-23570,415	-35849,621	12279,206	-16060,498	-32644,654	16584,156
231,00	-23323,351	-35639,025	12315,674	-15792,828	-32444,575	16651,747
231,50	-23010,627	-35362,870	12352,244	-15464,560	-32183,200	16718,640
232,00	-22631,812	-35020,727	12388,916	-15075,419	-31860,254	16784,835
232,50	-22186,476	-34612,166	12425,690	-14625,151	-31475,486	16850,335
232,80	-21887,164	-34334,968	12447,805	-14325,551	-31214,854	16889,303
233,00	-21674,185	-34136,753	12462,568	-14113,522	-31028,666	16915,145
233,50	-21094,505	-33594,054	12499,549	-13540,314	-30519,589	16979,274
234,00	-20446,998	-32983,631	12536,633	-12905,330	-29948,068	17042,738

x [m]	Início de exploração			Longo prazo		
	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]
234,50	-19731,227	-32305,048	12573,821	-12208,390	-29313,944	17105,554
235,00	-18946,749	-31557,862	12611,113	-11449,327	-28617,075	17167,749
235,50	-18093,123	-30741,632	12648,509	-10627,990	-27857,343	17229,353
236,00	-17169,904	-29855,914	12686,010	-9744,242	-27034,647	17290,406
236,50	-16176,645	-28900,261	12723,616	-8797,950	-26148,906	17350,956
237,00	-15112,898	-27874,225	12761,327	-7788,991	-25200,052	17411,061
237,50	-13978,212	-26777,355	12799,143	-6717,241	-24188,031	17470,790
238,00	-12772,135	-25609,201	12837,065	-5582,573	-23112,798	17530,224
238,50	-11494,214	-24369,307	12875,094	-4384,850	-21974,308	17589,458
239,00	-10143,990	-23057,218	12913,228	-3123,916	-20772,516	17648,600
239,50	-8721,007	-21672,476	12951,469	-1799,591	-19507,368	17707,777
240,00	-7224,803	-20214,620	12989,817	-411,659	-18178,788	17767,129
240,50	-5654,917	-18683,189	13028,272	1040,143	-16786,676	17826,819
241,00	-4010,884	-17077,718	13066,835	2556,134	-15330,890	17887,024
241,50	-2292,238	-15397,743	13105,505	4136,708	-13811,236	17947,944
242,00	-498,511	-13642,794	13144,283	5782,343	-12227,453	18009,796
242,50	1370,768	-11812,401	13183,170	7493,618	-10579,200	18072,818
243,00	3316,072	-9906,093	13222,165	9271,226	-8866,038	18137,264
243,50	5337,873	-7923,396	13261,269	11115,992	-7087,414	18203,405
244,00	7436,650	-5863,832	13300,482	13028,884	-5242,644	18271,527
244,35	8934,310	-4394,268	13328,578	14393,061	-3927,719	18320,780
244,50	9599,864	-3721,879	13321,742	14991,281	-3326,517	18317,798
245,00	11799,026	-1503,526	13302,552	16968,696	-1343,665	18312,362
245,50	14056,350	772,966	13283,383	19000,298	690,806	18309,492
245,70	14975,471	1699,749	13275,722	19828,285	1519,166	18309,119
246,00	16275,927	3032,138	13243,790	20988,762	2710,497	18278,265
246,50	18209,298	5018,590	13190,708	22716,165	4487,943	18228,223
247,00	19854,276	6716,480	13137,797	24188,031	6008,903	18179,129
247,14	20263,842	7140,830	13123,012	24554,787	6389,343	18165,444
247,50	21215,637	8130,580	13085,057	25407,457	7277,245	18130,212
248,00	22298,101	9265,613	13032,488	26377,452	8296,609	18080,844

x [m]	Início de exploração			Longo prazo		
	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]
248,50	23106,333	10126,243	12980,091	27101,064	9070,533	18030,531
248,57	23197,866	10225,097	12972,769	27182,887	9159,498	18023,389
249,00	23644,948	10717,085	12927,864	27581,471	9602,562	17978,909
249,50	23918,506	11042,699	12875,807	27822,044	9896,313	17925,732
250,00	23931,516	11107,596	12823,920	27826,387	9955,522	17870,866
250,50	23473,405	10916,232	12557,173	27288,765	9784,068	17504,697
251,00	22766,078	10473,014	12293,064	26526,476	9385,978	17140,497
251,43	21961,762	9893,736	12068,026	25694,554	8865,523	16829,030
251,50	21813,871	9782,297	12031,574	25543,901	8765,408	16778,492
252,00	20621,069	8848,388	11772,680	24345,606	7926,614	16418,991
252,50	19191,905	7675,543	11516,362	22936,279	6873,896	16062,383
252,86	18018,904	6685,509	11333,396	21793,553	5985,881	15807,672
253,00	17530,566	6267,968	11262,598	21320,657	5611,529	15709,128
253,50	15641,190	4629,822	11011,368	19503,422	4143,666	15359,756
254,00	13527,865	2765,216	10762,650	17489,081	2474,224	15014,856
254,30	12154,059	1539,442	10614,617	16187,622	1377,297	14810,325
254,50	11235,028	698,837	10536,191	15325,564	625,207	14700,357
255,00	8987,319	-1353,376	10340,695	13217,020	-1210,800	14427,820
255,50	6810,501	-3335,506	10146,007	11173,840	-2984,587	14158,427
256,00	4704,139	-5247,986	9952,125	9194,656	-4697,203	13891,860
256,50	2667,801	-7091,244	9759,045	7278,264	-6349,550	13627,814
257,00	701,057	-8865,710	9566,766	5423,615	-7942,386	13366,001
257,50	-1196,523	-10571,808	9375,285	3629,812	-9476,342	13106,153
258,00	-3025,365	-12209,965	9184,599	1896,093	-10951,931	12848,024
258,50	-4785,895	-13780,601	8994,706	221,822	-12369,568	12591,390
258,60	-5129,841	-14086,663	8956,822	-105,947	-12646,171	12540,225
259,00	-7285,715	-17188,434	9902,719	-1565,908	-15427,944	13862,035
259,50	-9153,497	-18887,105	9733,608	-3329,853	-16965,610	13635,757
260,00	-10961,517	-20525,224	9563,707	-5043,291	-18451,620	13408,330
260,50	-12709,354	-22102,367	9393,013	-6705,775	-19885,374	13179,599
261,00	-14396,585	-23618,108	9221,523	-8316,793	-21266,227	12949,434

x [m]	Início de exploração			Longo prazo		
	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]
261,50	-16022,785	-25072,019	9049,234	-9875,776	-22593,497	12717,721
262,00	-17587,527	-26463,671	8876,144	-11382,114	-23866,478	12484,364
262,50	-19090,382	-27792,633	8702,251	-12835,160	-25084,445	12249,284
263,00	-20530,919	-29058,470	8527,550	-14234,243	-26246,663	12012,420
263,20	-21089,588	-29547,032	8457,444	-14778,613	-26695,775	11917,162
263,50	-21908,706	-30260,747	8352,041	-15578,675	-27352,394	11773,719
264,00	-23223,307	-31399,027	8175,720	-16867,754	-28400,900	11533,146
264,50	-24474,286	-32472,870	7998,584	-18100,777	-29391,449	11290,672
265,00	-25661,206	-33481,836	7820,630	-19277,037	-30323,319	11046,282
265,50	-26783,624	-34425,480	7641,856	-20395,832	-31195,799	10799,966
266,00	-27841,099	-35303,359	7462,260	-21456,467	-32008,192	10551,724
266,50	-28833,186	-36115,024	7281,838	-22458,257	-32759,819	10301,562
267,00	-29759,439	-36860,026	7100,587	-23400,529	-33450,019	10049,490
267,50	-30619,409	-37537,915	6918,506	-24282,625	-34078,149	9795,524
268,00	-31412,647	-38148,236	6735,590	-25103,901	-34643,588	9539,687
268,50	-32138,699	-38690,536	6551,837	-25863,733	-35145,733	9282,001
269,00	-32797,111	-39164,356	6367,245	-26561,512	-35584,006	9022,494
269,50	-33387,427	-39569,238	6181,811	-27196,651	-35957,848	8761,197
270,00	-33909,188	-39904,720	5995,532	-27768,581	-36266,724	8498,143
270,50	-34361,934	-40170,339	5808,405	-28276,754	-36510,121	8233,367
271,00	-34745,203	-40365,629	5620,426	-28720,644	-36687,549	7966,905
271,50	-35058,529	-40490,123	5431,595	-29099,746	-36798,543	7698,797
271,80	-35219,635	-40539,637	5320,002	-29300,449	-36840,446	7539,997
272,00	-35305,008	-40550,393	5245,386	-29413,802	-36847,500	7433,699
272,45	-35432,568	-40508,882	5076,314	-29609,106	-36801,718	7192,612
272,50	-35421,189	-40476,445	5055,256	-29609,421	-36772,077	7162,656
273,00	-35243,327	-40082,494	4839,167	-29554,837	-36410,671	6855,834
273,50	-34955,167	-39579,440	4624,273	-29396,910	-35947,102	6550,192
274,00	-34557,660	-38968,228	4410,568	-29136,639	-35382,448	6245,809
274,50	-34051,747	-38249,796	4198,048	-28775,076	-34717,840	5942,764
275,00	-33438,367	-37425,075	3986,708	-28313,327	-33954,464	5641,137

x [m]	Início de exploração			Longo prazo		
	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]	M_{PE} [kNm]	$M_{PE,ISO}$ [kNm]	$M_{PE,Hip}$ [kNm]
275,50	-32718,452	-36494,994	3776,541	-27752,550	-33093,556	5341,006
276,00	-31892,929	-35460,474	3567,545	-27093,955	-32136,402	5042,447
276,50	-30962,720	-34322,432	3359,712	-26338,796	-31084,333	4745,538
277,00	-29928,741	-33081,780	3153,039	-25488,373	-29938,724	4450,351
277,50	-28791,903	-31739,424	2947,521	-24544,028	-28700,987	4156,959
278,00	-27553,112	-30296,265	2743,153	-23507,132	-27372,563	3865,431
278,50	-26213,269	-28753,198	2539,929	-22379,086	-25954,919	3575,833
279,00	-24773,269	-27111,114	2337,845	-21161,303	-24449,529	3288,225
279,50	-23234,002	-25370,898	2136,896	-19855,201	-22857,864	3002,662
280,00	-21596,354	-23533,432	1937,077	-18462,183	-21181,374	2719,191
280,50	-19861,205	-21599,589	1738,384	-16983,618	-19421,467	2437,849
280,70	-19140,041	-20799,262	1659,221	-16368,536	-18694,450	2325,914
281,00	-18029,429	-19570,241	1540,811	-15420,821	-17579,482	2158,661
281,50	-16101,897	-17446,252	1344,354	-13775,019	-15656,658	1881,639
282,00	-14079,473	-15228,482	1149,008	-12047,325	-13654,104	1606,779
282,14	-13496,307	-14590,817	1094,510	-11549,031	-13079,234	1530,202
282,50	-11963,017	-12917,786	954,769	-10238,702	-11572,758	1334,055
283,00	-9753,384	-10515,014	761,631	-8349,924	-9413,347	1063,423
283,50	-7451,423	-8021,012	569,590	-6381,537	-7176,349	794,812
283,57	-7121,829	-7664,620	542,791	-6099,630	-6856,992	757,362
284,00	-5057,980	-5436,620	378,640	-4333,822	-4861,947	528,125
284,50	-2573,894	-2762,672	188,779	-2206,759	-2469,997	263,239
285,00	0,000	0,000	0,000	0,000	0,000	0,000

2. Esforço transverso

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
0.000	-2740.892	4364.336	-545.740	-1243.235	250.133	-221.776	110.888
0.500	-2617.282	4191.346	-524.665	-1214.835	250.133	-221.776	110.888
1.000	-2493.672	4018.356	-503.590	-1186.435	250.133	-221.776	110.888
1.430	-2387.367	3869.584	-485.465	-1162.011	250.133	-221.776	110.888
1.500	-2371.882	3845.366	-482.515	-1158.035	250.133	-221.776	110.888
2.000	-2261.272	3672.376	-461.440	-1129.635	250.133	-221.776	110.888
2.500	-2150.662	3499.386	-440.365	-1101.235	250.133	-221.776	110.888
2.860	-2071.022	3374.833	-425.191	-1080.787	250.133	-221.776	110.888
3.000	-2043.503	3326.396	-419.290	-1072.835	250.133	-221.776	110.888
3.500	-1945.218	3153.406	-398.215	-1044.435	250.133	-221.776	110.888
4.000	-1846.933	2980.416	-377.140	-1016.035	250.133	-221.776	110.888
4.300	-1787.962	2876.622	-364.495	-998.995	250.133	-221.776	110.888
4.500	-1751.218	2807.426	-356.065	-987.635	250.133	-221.776	110.888
5.000	-1659.358	2634.436	-334.990	-959.235	250.133	-221.776	110.888
5.500	-1567.498	2461.446	-313.915	-930.835	250.133	-221.776	110.888
6.000	-1475.638	2288.456	-292.840	-902.435	250.133	-221.776	110.888
6.500	-1383.778	2115.466	-271.765	-874.035	250.133	-221.776	110.888
7.000	-1291.918	1942.476	-250.690	-845.635	250.133	-221.776	110.888
7.500	-1200.058	1769.486	-229.615	-817.235	250.133	-221.776	110.888
8.000	-1108.198	1596.496	-208.540	-788.835	250.133	-221.776	110.888
8.500	-1016.338	1423.506	-187.465	-760.435	250.133	-221.776	110.888
9.000	-924.478	1250.516	-166.390	-732.035	250.133	-221.776	110.888
9.500	-832.618	1077.526	-145.315	-703.635	250.133	-221.776	110.888
10.000	-740.758	904.536	-124.240	-675.235	250.133	-221.776	110.888
10.500	-648.898	731.546	-103.165	-646.835	250.133	-221.776	110.888
11.000	-557.038	558.556	-82.090	-618.435	250.133	-221.776	110.888
11.500	-465.178	385.566	-61.015	-590.035	250.133	-221.776	110.888
12.000	-373.318	212.576	-39.940	-561.635	250.133	-221.776	110.888
12.500	-281.458	39.586	-18.865	-533.235	250.133	-221.776	110.888
13.000	-189.598	-133.404	2.210	-504.835	250.133	-221.776	110.888

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
13.200	-152.854	-202.600	10.640	-493.475	250.133	-221.776	110.888
13.200	-152.854	-202.600	10.640	-412.032	458.152	-221.776	110.888
13.500	-97.738	-306.394	23.285	-394.992	458.152	-221.776	110.888
14.000	-5.878	-417.679	44.360	-366.592	458.152	-221.776	110.888
14.500	85.982	-528.964	65.435	-338.192	458.152	-221.776	110.888
15.000	177.842	-640.249	86.510	-309.792	458.152	-221.776	110.888
15.500	269.702	-751.534	107.585	-292.303	469.064	-221.776	110.888
16.000	361.562	-862.819	128.660	-292.303	497.464	-221.776	110.888
16.500	453.422	-974.104	149.735	-292.303	525.864	-221.776	110.888
17.000	545.282	-1085.389	170.810	-292.303	554.264	-221.776	110.888
17.500	637.142	-1196.674	191.885	-292.303	582.664	-221.776	110.888
17.500	637.142	-1196.674	191.885	-217.770	664.107	-221.776	110.888
18.000	729.002	-1307.959	212.960	-217.770	692.507	-221.776	110.888
18.500	820.862	-1419.244	234.035	-217.770	720.907	-221.776	110.888
19.000	912.722	-1530.529	255.110	-217.770	749.307	-221.776	110.888
19.500	1004.582	-1641.814	276.185	-217.770	777.707	-221.776	110.888
20.000	1096.442	-1753.099	297.260	-217.770	806.107	-221.776	110.888
20.500	1188.302	-1864.384	318.335	-217.770	834.507	-221.776	110.888
21.000	1280.162	-1975.669	339.410	-217.770	862.907	-221.776	110.888
21.500	1372.022	-2086.954	360.485	-217.770	891.307	-221.776	110.888
21.800	1427.138	-2153.725	373.130	-217.770	908.347	-221.776	110.888
21.800	1427.138	-2153.725	373.130	-66.888	982.880	-221.776	110.888
22.000	1463.882	-2198.239	381.560	-66.888	994.240	-221.776	110.888
22.500	1555.742	-2309.524	402.635	-66.888	1022.640	-221.776	110.888
23.000	1647.602	-2420.809	423.710	-66.888	1051.040	-221.776	110.888
23.500	1739.462	-2532.094	444.785	-66.888	1079.440	-221.776	110.888
24.000	1831.322	-2643.379	465.860	-66.888	1107.840	-221.776	110.888
24.500	1923.182	-2754.664	486.935	-66.888	1136.240	-221.776	110.888
25.000	2015.042	-2865.949	508.010	-66.888	1164.640	-221.776	110.888
25.500	2106.902	-2977.234	529.085	-66.888	1193.040	-221.776	110.888
26.000	2198.762	-3088.519	550.160	-66.888	1221.440	-221.776	110.888
26.500	2290.622	-3199.804	571.235	-66.888	1249.840	-221.776	110.888

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
27.000	2382.482	-3311.089	592.310	-66.888	1278.240	-221.776	110.888
27.500	2474.342	-3422.374	613.385	-66.888	1306.640	-221.776	110.888
28.000	2566.202	-3533.659	634.460	-66.888	1335.040	-221.776	110.888
28.500	2658.062	-3644.944	655.535	-66.888	1363.440	-221.776	110.888
29.000	2749.922	-3756.229	676.610	-66.888	1391.840	-221.776	110.888
29.346	2813.490	-3833.239	691.194	-66.888	1411.493	-221.776	110.888
29.500	2841.782	-3867.514	697.685	-66.888	1420.240	-221.776	110.888
30.000	2933.642	-3978.799	718.760	-66.888	1448.640	-221.776	110.888
30.500	3025.502	-4090.084	739.835	-66.888	1477.040	-221.776	110.888
30.700	3062.246	-4134.598	748.265	-66.888	1488.400	-221.776	110.888
31.000	3121.217	-3869.026	760.910	-66.888	1505.440	-221.776	110.888
31.500	3219.502	-3426.406	781.985	-66.888	1533.840	-221.776	110.888
32.000	3317.787	-2983.786	803.060	-66.888	1562.240	-221.776	110.888
32.140	3345.307	-2859.853	808.961	-66.888	1570.192	-221.776	110.888
32.500	3424.946	-2541.166	824.135	-66.888	1590.640	-221.776	110.888
33.000	3535.556	-2098.546	845.210	-66.888	1619.040	-221.776	110.888
33.500	3646.166	-1655.926	866.285	-66.888	1647.440	-221.776	110.888
33.570	3661.652	-1593.960	869.236	-66.888	1651.416	-221.776	110.888
34.000	3767.956	-1213.306	887.360	-66.888	1675.840	-221.776	110.888
34.500	3891.566	-770.686	908.435	-66.888	1704.240	-221.776	110.888
35.000	4015.176	-328.066	929.510	-66.888	1732.640	-221.776	110.888
35.000	-4123.062	28.366	-905.523	-1777.443	251.787	-22.368	44.735
35.500	-3999.452	470.986	-884.448	-1749.043	251.787	-22.368	44.735
36.000	-3875.842	913.606	-863.373	-1720.643	251.787	-22.368	44.735
36.430	-3769.537	1294.259	-845.249	-1696.219	251.787	-22.368	44.735
36.500	-3754.052	1356.226	-842.298	-1692.243	251.787	-22.368	44.735
37.000	-3643.442	1798.846	-821.223	-1663.843	251.787	-22.368	44.735
37.500	-3532.832	2241.466	-800.148	-1635.443	251.787	-22.368	44.735
37.860	-3453.193	2560.152	-784.974	-1614.995	251.787	-22.368	44.735
38.000	-3425.673	2684.086	-779.073	-1607.043	251.787	-22.368	44.735
38.500	-3327.388	3126.706	-757.998	-1578.643	251.787	-22.368	44.735
39.000	-3229.103	3569.326	-736.923	-1550.243	251.787	-22.368	44.735

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
39.300	-3170.132	3834.898	-724.278	-1533.203	251.787	-22.368	44.735
39.500	-3133.388	3790.384	-715.848	-1521.843	251.787	-22.368	44.735
40.000	-3041.528	3679.099	-694.773	-1493.443	251.787	-22.368	44.735
40.500	-2949.668	3567.814	-673.698	-1465.043	251.787	-22.368	44.735
41.000	-2857.808	3456.529	-652.623	-1436.643	251.787	-22.368	44.735
41.500	-2765.948	3345.244	-631.548	-1408.243	251.787	-22.368	44.735
42.000	-2674.088	3233.959	-610.473	-1379.843	251.787	-22.368	44.735
42.500	-2582.228	3122.674	-589.398	-1351.443	251.787	-22.368	44.735
43.000	-2490.368	3011.389	-568.323	-1323.043	251.787	-22.368	44.735
43.500	-2398.508	2900.104	-547.248	-1294.643	251.787	-22.368	44.735
43.600	-2380.136	2877.847	-543.033	-1288.963	251.787	-22.368	44.735
43.600	-2380.136	2877.847	-543.033	-1288.963	251.787	-22.368	44.735
44.000	-2306.648	2788.819	-526.173	-1266.243	251.787	-22.368	44.735
44.500	-2214.788	2677.534	-505.098	-1237.843	251.787	-22.368	44.735
45.000	-2122.928	2566.249	-484.023	-1209.443	251.787	-22.368	44.735
45.500	-2031.068	2454.964	-462.948	-1181.043	251.787	-22.368	44.735
46.000	-1939.208	2343.679	-441.873	-1152.643	251.787	-22.368	44.735
46.500	-1847.348	2232.394	-420.798	-1124.243	251.787	-22.368	44.735
47.000	-1755.488	2121.109	-399.723	-1095.843	251.787	-22.368	44.735
47.500	-1663.628	2009.824	-378.648	-1067.443	251.787	-22.368	44.735
48.000	-1571.768	1898.539	-357.573	-1039.043	251.787	-22.368	44.735
48.500	-1479.908	1787.254	-336.498	-1010.643	251.787	-22.368	44.735
49.000	-1388.048	1675.969	-315.423	-982.243	251.787	-22.368	44.735
49.500	-1296.188	1564.684	-294.348	-953.843	251.787	-22.368	44.735
50.000	-1204.328	1453.399	-273.273	-925.443	251.787	-22.368	44.735
50.500	-1112.468	1342.114	-252.198	-897.043	251.787	-22.368	44.735
51.000	-1020.608	1230.829	-231.123	-868.643	251.787	-22.368	44.735
51.500	-928.748	1119.544	-210.048	-840.243	251.787	-22.368	44.735
52.000	-836.888	1008.259	-188.973	-811.843	251.787	-22.368	44.735
52.200	-800.144	963.745	-180.543	-800.483	251.787	-22.368	44.735
52.200	-800.144	963.745	-180.543	-729.517	411.083	-22.368	44.735
52.500	-745.028	896.974	-167.898	-712.477	411.083	-22.368	44.735

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
53.000	-653.168	785.689	-146.823	-684.077	411.083	-22.368	44.735
53.500	-561.308	674.404	-125.748	-655.677	411.083	-22.368	44.735
54.000	-469.448	563.119	-104.673	-627.277	411.083	-22.368	44.735
54.500	-377.588	451.834	-83.598	-598.877	411.083	-22.368	44.735
55.000	-285.728	340.549	-62.523	-570.477	411.083	-22.368	44.735
55.500	-193.868	229.264	-41.448	-542.077	411.083	-22.368	44.735
56.000	-102.008	117.979	-20.373	-513.677	411.083	-22.368	44.735
56.500	-10.148	6.694	0.702	-485.277	411.083	-22.368	44.735
56.500	-10.148	6.694	0.702	-414.142	482.049	-22.368	44.735
57.000	81.712	-104.591	21.777	-408.496	504.804	-22.368	44.735
57.500	173.572	-215.876	42.852	-408.496	533.204	-22.368	44.735
58.000	265.432	-327.161	63.927	-408.496	561.604	-22.368	44.735
58.500	357.292	-438.446	85.002	-408.496	590.004	-22.368	44.735
59.000	449.152	-549.731	106.077	-408.496	618.404	-22.368	44.735
59.500	541.012	-661.016	127.152	-408.496	646.804	-22.368	44.735
60.000	632.872	-772.301	148.227	-408.496	675.204	-22.368	44.735
60.500	724.732	-883.586	169.302	-408.496	703.604	-22.368	44.735
60.800	779.848	-950.357	181.947	-408.496	720.644	-22.368	44.735
60.800	779.848	-950.357	181.947	-236.802	791.779	-22.368	44.735
61.000	816.592	-994.871	190.377	-236.802	803.139	-22.368	44.735
61.500	908.452	-1106.156	211.452	-236.802	831.539	-22.368	44.735
62.000	1000.312	-1217.441	232.527	-236.802	859.939	-22.368	44.735
62.500	1092.172	-1328.726	253.602	-236.802	888.339	-22.368	44.735
63.000	1184.032	-1440.011	274.677	-236.802	916.739	-22.368	44.735
63.500	1275.892	-1551.296	295.752	-236.802	945.139	-22.368	44.735
64.000	1367.752	-1662.581	316.827	-236.802	973.539	-22.368	44.735
64.500	1459.612	-1773.866	337.902	-236.802	1001.939	-22.368	44.735
65.000	1551.472	-1885.151	358.977	-236.802	1030.339	-22.368	44.735
65.500	1643.332	-1996.436	380.052	-236.802	1058.739	-22.368	44.735
66.000	1735.192	-2107.721	401.127	-236.802	1087.139	-22.368	44.735
66.500	1827.052	-2219.006	422.202	-236.802	1115.539	-22.368	44.735
67.000	1918.912	-2330.291	443.277	-236.802	1143.939	-22.368	44.735

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
67.500	2010.772	-2441.576	464.352	-236.802	1172.339	-22.368	44.735
68.000	2102.632	-2552.861	485.427	-236.802	1200.739	-22.368	44.735
68.500	2194.492	-2664.146	506.502	-236.802	1229.139	-22.368	44.735
69.000	2286.352	-2775.431	527.577	-236.802	1257.539	-22.368	44.735
69.500	2378.212	-2886.716	548.652	-236.802	1285.939	-22.368	44.735
70.000	2470.072	-2998.001	569.727	-236.802	1314.339	-22.368	44.735
70.500	2561.932	-3109.286	590.802	-236.802	1342.739	-22.368	44.735
71.000	2653.792	-3220.571	611.877	-236.802	1371.139	-22.368	44.735
71.500	2745.652	-3331.856	632.952	-236.802	1399.539	-22.368	44.735
72.000	2837.512	-3443.141	654.027	-236.802	1427.939	-22.368	44.735
72.346	2901.079	-3520.150	668.611	-236.802	1447.592	-22.368	44.735
72.500	2929.372	-3554.426	675.102	-236.802	1456.339	-22.368	44.735
73.000	3021.232	-3665.711	696.177	-236.802	1484.739	-22.368	44.735
73.500	3113.092	-3776.996	717.252	-236.802	1513.139	-22.368	44.735
73.700	3149.836	-3821.510	725.682	-236.802	1524.499	-22.368	44.735
74.000	3208.807	-3555.938	738.327	-236.802	1541.539	-22.368	44.735
74.500	3307.092	-3113.318	759.402	-236.802	1569.939	-22.368	44.735
75.000	3405.377	-2670.698	780.477	-236.802	1598.339	-22.368	44.735
75.140	3432.896	-2546.765	786.378	-236.802	1606.291	-22.368	44.735
75.500	3512.536	-2228.078	801.552	-236.802	1626.739	-22.368	44.735
76.000	3623.146	-1785.458	822.627	-236.802	1655.139	-22.368	44.735
76.500	3733.756	-1342.838	843.702	-236.802	1683.539	-22.368	44.735
76.570	3749.241	-1280.871	846.652	-236.802	1687.515	-22.368	44.735
77.000	3855.546	-900.218	864.777	-236.802	1711.939	-22.368	44.735
77.500	3979.156	-457.598	885.852	-236.802	1740.339	-22.368	44.735
78.000	4102.766	-14.978	906.927	-236.802	1768.739	-22.368	44.735
78.000	-4111.781	22.472	-906.400	-1808.661	283.338	-11.173	5.586
78.500	-3988.171	465.092	-885.325	-1780.261	283.338	-11.173	5.586
79.000	-3864.561	907.712	-864.250	-1751.861	283.338	-11.173	5.586
79.430	-3758.256	1288.365	-846.126	-1727.437	283.338	-11.173	5.586
79.500	-3742.771	1350.332	-843.175	-1723.461	283.338	-11.173	5.586
80.000	-3632.161	1792.952	-822.100	-1695.061	283.338	-11.173	5.586

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
80.500	-3521.551	2235.572	-801.025	-1666.661	283.338	-11.173	5.586
80.860	-3441.912	2554.258	-785.851	-1646.213	283.338	-11.173	5.586
81.000	-3414.392	2678.192	-779.950	-1638.261	283.338	-11.173	5.586
81.500	-3316.107	3120.812	-758.875	-1609.861	283.338	-11.173	5.586
82.000	-3217.822	3563.432	-737.800	-1581.461	283.338	-11.173	5.586
82.300	-3158.851	3829.004	-725.155	-1564.421	283.338	-11.173	5.586
82.500	-3122.107	3784.490	-716.725	-1553.061	283.338	-11.173	5.586
83.000	-3030.247	3673.205	-695.650	-1524.661	283.338	-11.173	5.586
83.500	-2938.387	3561.920	-674.575	-1496.261	283.338	-11.173	5.586
84.000	-2846.527	3450.635	-653.500	-1467.861	283.338	-11.173	5.586
84.500	-2754.667	3339.350	-632.425	-1439.461	283.338	-11.173	5.586
85.000	-2662.807	3228.065	-611.350	-1411.061	283.338	-11.173	5.586
85.500	-2570.947	3116.780	-590.275	-1382.661	283.338	-11.173	5.586
86.000	-2479.087	3005.495	-569.200	-1354.261	283.338	-11.173	5.586
86.500	-2387.227	2894.210	-548.125	-1325.861	283.338	-11.173	5.586
86.600	-2368.855	2871.953	-543.910	-1320.181	283.338	-11.173	5.586
86.600	-2368.855	2871.953	-543.910	-1320.181	283.338	-11.173	5.586
87.000	-2295.367	2782.925	-527.050	-1297.461	283.338	-11.173	5.586
87.500	-2203.507	2671.640	-505.975	-1269.061	283.338	-11.173	5.586
88.000	-2111.647	2560.355	-484.900	-1240.661	283.338	-11.173	5.586
88.500	-2019.787	2449.070	-463.825	-1212.261	283.338	-11.173	5.586
89.000	-1927.927	2337.785	-442.750	-1183.861	283.338	-11.173	5.586
89.500	-1836.067	2226.500	-421.675	-1155.461	283.338	-11.173	5.586
90.000	-1744.207	2115.215	-400.600	-1127.061	283.338	-11.173	5.586
90.500	-1652.347	2003.930	-379.525	-1098.661	283.338	-11.173	5.586
91.000	-1560.487	1892.645	-358.450	-1070.261	283.338	-11.173	5.586
91.500	-1468.627	1781.360	-337.375	-1041.861	283.338	-11.173	5.586
92.000	-1376.767	1670.075	-316.300	-1013.461	283.338	-11.173	5.586
92.500	-1284.907	1558.790	-295.225	-985.061	283.338	-11.173	5.586
93.000	-1193.047	1447.505	-274.150	-956.661	283.338	-11.173	5.586
93.500	-1101.187	1336.220	-253.075	-928.261	283.338	-11.173	5.586
94.000	-1009.327	1224.935	-232.000	-899.861	283.338	-11.173	5.586

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
94.500	-917.467	1113.650	-210.925	-871.461	283.338	-11.173	5.586
95.000	-825.607	1002.365	-189.850	-843.061	283.338	-11.173	5.586
95.200	-788.863	957.851	-181.420	-831.701	283.338	-11.173	5.586
95.200	-788.863	957.851	-181.420	-760.868	445.262	-11.173	5.586
95.500	-733.747	891.080	-168.775	-743.828	445.262	-11.173	5.586
96.000	-641.887	779.795	-147.700	-715.428	445.262	-11.173	5.586
96.500	-550.027	668.510	-126.625	-687.028	445.262	-11.173	5.586
97.000	-458.167	557.225	-105.550	-658.628	445.262	-11.173	5.586
97.500	-366.307	445.940	-84.475	-630.228	445.262	-11.173	5.586
98.000	-274.447	334.655	-63.400	-601.828	445.262	-11.173	5.586
98.500	-182.587	223.370	-42.325	-573.428	445.262	-11.173	5.586
99.000	-90.727	112.085	-21.250	-545.028	445.262	-11.173	5.586
99.500	1.133	0.800	-0.175	-516.628	445.262	-11.173	5.586
99.500	1.133	0.800	-0.175	-445.783	516.095	-11.173	5.586
100.000	92.993	-110.485	20.900	-445.381	544.092	-11.173	5.586
100.500	184.853	-221.770	41.975	-445.381	572.492	-11.173	5.586
101.000	276.713	-333.055	63.050	-445.381	600.892	-11.173	5.586
101.500	368.573	-444.340	84.125	-445.381	629.292	-11.173	5.586
102.000	460.433	-555.625	105.200	-445.381	657.692	-11.173	5.586
102.500	552.293	-666.910	126.275	-445.381	686.092	-11.173	5.586
103.000	644.153	-778.195	147.350	-445.381	714.492	-11.173	5.586
103.500	736.013	-889.480	168.425	-445.381	742.892	-11.173	5.586
103.800	791.129	-956.251	181.070	-445.381	759.932	-11.173	5.586
103.800	791.129	-956.251	181.070	-282.657	830.777	-11.173	5.586
104.000	827.873	-1000.765	189.500	-282.657	842.137	-11.173	5.586
104.500	919.733	-1112.050	210.575	-282.657	870.537	-11.173	5.586
105.000	1011.593	-1223.335	231.650	-282.657	898.937	-11.173	5.586
105.500	1103.453	-1334.620	252.725	-282.657	927.337	-11.173	5.586
106.000	1195.313	-1445.905	273.800	-282.657	955.737	-11.173	5.586
106.500	1287.173	-1557.190	294.875	-282.657	984.137	-11.173	5.586
107.000	1379.033	-1668.475	315.950	-282.657	1012.537	-11.173	5.586
107.500	1470.893	-1779.760	337.025	-282.657	1040.937	-11.173	5.586

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
108.000	1562.753	-1891.045	358.100	-282.657	1069.337	-11.173	5.586
108.500	1654.613	-2002.330	379.175	-282.657	1097.737	-11.173	5.586
109.000	1746.473	-2113.615	400.250	-282.657	1126.137	-11.173	5.586
109.500	1838.333	-2224.900	421.325	-282.657	1154.537	-11.173	5.586
110.000	1930.193	-2336.185	442.400	-282.657	1182.937	-11.173	5.586
110.500	2022.053	-2447.470	463.475	-282.657	1211.337	-11.173	5.586
111.000	2113.913	-2558.755	484.550	-282.657	1239.737	-11.173	5.586
111.500	2205.773	-2670.040	505.625	-282.657	1268.137	-11.173	5.586
112.000	2297.633	-2781.325	526.700	-282.657	1296.537	-11.173	5.586
112.500	2389.493	-2892.610	547.775	-282.657	1324.937	-11.173	5.586
113.000	2481.353	-3003.895	568.850	-282.657	1353.337	-11.173	5.586
113.500	2573.213	-3115.180	589.925	-282.657	1381.737	-11.173	5.586
114.000	2665.073	-3226.465	611.000	-282.657	1410.137	-11.173	5.586
114.500	2756.933	-3337.750	632.075	-282.657	1438.537	-11.173	5.586
115.000	2848.793	-3449.035	653.150	-282.657	1466.937	-11.173	5.586
115.346	2912.360	-3526.044	667.734	-282.657	1486.590	-11.173	5.586
115.500	2940.653	-3560.320	674.225	-282.657	1495.337	-11.173	5.586
116.000	3032.513	-3671.605	695.300	-282.657	1523.737	-11.173	5.586
116.500	3124.373	-3782.890	716.375	-282.657	1552.137	-11.173	5.586
116.700	3161.117	-3827.404	724.805	-282.657	1563.497	-11.173	5.586
117.000	3220.088	-3561.832	737.450	-282.657	1580.537	-11.173	5.586
117.500	3318.373	-3119.212	758.525	-282.657	1608.937	-11.173	5.586
118.000	3416.658	-2676.592	779.600	-282.657	1637.337	-11.173	5.586
118.140	3444.177	-2552.658	785.501	-282.657	1645.289	-11.173	5.586
118.500	3523.817	-2233.972	800.675	-282.657	1665.737	-11.173	5.586
119.000	3634.427	-1791.352	821.750	-282.657	1694.137	-11.173	5.586
119.500	3745.037	-1348.732	842.825	-282.657	1722.537	-11.173	5.586
119.570	3760.522	-1286.765	845.775	-282.657	1726.513	-11.173	5.586
120.000	3866.827	-906.112	863.900	-282.657	1750.937	-11.173	5.586
120.500	3990.437	-463.492	884.975	-282.657	1779.337	-11.173	5.586
121.000	4114.047	-20.872	906.050	-282.657	1807.737	-11.173	5.586
121.000	-4119.786	20.534	-906.225	-1815.848	290.847	0.000	0.000

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
121.500	-3996.176	463.154	-885.150	-1787.448	290.847	0.000	0.000
121.500	-3996.176	463.154	-885.150	-1787.448	290.847	0.000	0.000
122.000	-3872.566	905.774	-864.075	-1759.048	290.847	0.000	0.000
122.000	-3872.566	905.774	-864.075	-1759.048	290.847	0.000	0.000
122.430	-3766.261	1286.427	-845.951	-1734.624	290.847	0.000	0.000
122.430	-3766.261	1286.427	-845.951	-1734.624	290.847	0.000	0.000
122.500	-3750.776	1348.394	-843.000	-1730.648	290.847	0.000	0.000
122.500	-3750.776	1348.394	-843.000	-1730.648	290.847	0.000	0.000
123.000	-3640.166	1791.014	-821.925	-1702.248	290.847	0.000	0.000
123.000	-3640.166	1791.014	-821.925	-1702.248	290.847	0.000	0.000
123.500	-3529.556	2233.634	-800.850	-1673.848	290.847	0.000	0.000
123.500	-3529.556	2233.634	-800.850	-1673.848	290.847	0.000	0.000
123.860	-3449.917	2552.320	-785.676	-1653.400	290.847	0.000	0.000
123.860	-3449.917	2552.320	-785.676	-1653.400	290.847	0.000	0.000
124.000	-3422.397	2676.254	-779.775	-1645.448	290.847	0.000	0.000
124.000	-3422.397	2676.254	-779.775	-1645.448	290.847	0.000	0.000
124.500	-3324.112	3118.874	-758.700	-1617.048	290.847	0.000	0.000
124.500	-3324.112	3118.874	-758.700	-1617.048	290.847	0.000	0.000
125.000	-3225.827	3561.494	-737.625	-1588.648	290.847	0.000	0.000
125.000	-3225.827	3561.494	-737.625	-1588.648	290.847	0.000	0.000
125.300	-3166.856	3827.066	-724.980	-1571.608	290.847	0.000	0.000
125.300	-3166.856	3827.066	-724.980	-1571.608	290.847	0.000	0.000
125.500	-3130.112	3782.552	-716.550	-1560.248	290.847	0.000	0.000
125.500	-3130.112	3782.552	-716.550	-1560.248	290.847	0.000	0.000
126.000	-3038.252	3671.267	-695.475	-1531.848	290.847	0.000	0.000
126.000	-3038.252	3671.267	-695.475	-1531.848	290.847	0.000	0.000
126.500	-2946.392	3559.982	-674.400	-1503.448	290.847	0.000	0.000
126.500	-2946.392	3559.982	-674.400	-1503.448	290.847	0.000	0.000
127.000	-2854.532	3448.697	-653.325	-1475.048	290.847	0.000	0.000
127.000	-2854.532	3448.697	-653.325	-1475.048	290.847	0.000	0.000
127.500	-2762.672	3337.412	-632.250	-1446.648	290.847	0.000	0.000
128.000	-2670.812	3226.127	-611.175	-1418.248	290.847	0.000	0.000

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
128.000	-2670.812	3226.127	-611.175	-1418.248	290.847	0.000	0.000
128.500	-2578.952	3114.842	-590.100	-1389.848	290.847	0.000	0.000
128.500	-2578.952	3114.842	-590.100	-1389.848	290.847	0.000	0.000
129.000	-2487.092	3003.557	-569.025	-1361.448	290.847	0.000	0.000
129.000	-2487.092	3003.557	-569.025	-1361.448	290.847	0.000	0.000
129.500	-2395.232	2892.272	-547.950	-1333.048	290.847	0.000	0.000
129.500	-2395.232	2892.272	-547.950	-1333.048	290.847	0.000	0.000
129.600	-2376.860	2870.015	-543.735	-1327.368	290.847	0.000	0.000
129.600	-2376.860	2870.015	-543.735	-1327.368	290.847	0.000	0.000
130.000	-2303.372	2780.987	-526.875	-1304.648	290.847	0.000	0.000
130.000	-2303.372	2780.987	-526.875	-1304.648	290.847	0.000	0.000
130.500	-2211.512	2669.702	-505.800	-1276.248	290.847	0.000	0.000
130.500	-2211.512	2669.702	-505.800	-1276.248	290.847	0.000	0.000
131.000	-2119.652	2558.417	-484.725	-1247.848	290.847	0.000	0.000
131.000	-2119.652	2558.417	-484.725	-1247.848	290.847	0.000	0.000
131.500	-2027.792	2447.132	-463.650	-1219.448	290.847	0.000	0.000
132.000	-1935.932	2335.847	-442.575	-1191.048	290.847	0.000	0.000
132.500	-1844.072	2224.562	-421.500	-1162.648	290.847	0.000	0.000
133.000	-1752.212	2113.277	-400.425	-1134.248	290.847	0.000	0.000
133.000	-1752.212	2113.277	-400.425	-1134.248	290.847	0.000	0.000
133.500	-1660.352	2001.992	-379.350	-1105.848	290.847	0.000	0.000
133.500	-1660.352	2001.992	-379.350	-1105.848	290.847	0.000	0.000
134.000	-1568.492	1890.707	-358.275	-1077.448	290.847	0.000	0.000
134.000	-1568.492	1890.707	-358.275	-1077.448	290.847	0.000	0.000
134.500	-1476.632	1779.422	-337.200	-1049.048	290.847	0.000	0.000
134.500	-1476.632	1779.422	-337.200	-1049.048	290.847	0.000	0.000
135.000	-1384.772	1668.137	-316.125	-1020.648	290.847	0.000	0.000
135.000	-1384.772	1668.137	-316.125	-1020.648	290.847	0.000	0.000
135.500	-1292.912	1556.852	-295.050	-992.248	290.847	0.000	0.000
135.500	-1292.912	1556.852	-295.050	-992.248	290.847	0.000	0.000
136.000	-1201.052	1445.567	-273.975	-963.848	290.847	0.000	0.000
136.000	-1201.052	1445.567	-273.975	-963.848	290.847	0.000	0.000

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
136.500	-1109.192	1334.282	-252.900	-935.448	290.847	0.000	0.000
136.500	-1109.192	1334.282	-252.900	-935.448	290.847	0.000	0.000
137.000	-1017.332	1222.997	-231.825	-907.048	290.847	0.000	0.000
137.000	-1017.332	1222.997	-231.825	-907.048	290.847	0.000	0.000
137.500	-925.472	1111.712	-210.750	-878.648	290.847	0.000	0.000
137.500	-925.472	1111.712	-210.750	-878.648	290.847	0.000	0.000
138.000	-833.612	1000.427	-189.675	-850.248	290.847	0.000	0.000
138.000	-833.612	1000.427	-189.675	-850.248	290.847	0.000	0.000
138.200	-796.868	955.913	-181.245	-838.888	290.847	0.000	0.000
138.200	-796.868	955.913	-181.245	-768.063	452.998	0.000	0.000
138.500	-741.752	889.142	-168.600	-751.023	452.998	0.000	0.000
138.500	-741.752	889.142	-168.600	-751.023	452.998	0.000	0.000
139.000	-649.892	777.857	-147.525	-722.623	452.998	0.000	0.000
139.000	-649.892	777.857	-147.525	-722.623	452.998	0.000	0.000
139.500	-558.032	666.572	-126.450	-694.223	452.998	0.000	0.000
140.000	-466.172	555.287	-105.375	-665.823	452.998	0.000	0.000
140.000	-466.172	555.287	-105.375	-665.823	452.998	0.000	0.000
140.500	-374.312	444.002	-84.300	-637.423	452.998	0.000	0.000
141.000	-282.452	332.717	-63.225	-609.023	452.998	0.000	0.000
141.000	-282.452	332.717	-63.225	-609.023	452.998	0.000	0.000
141.500	-190.592	221.432	-42.150	-580.623	452.998	0.000	0.000
141.500	-190.592	221.432	-42.150	-580.623	452.998	0.000	0.000
142.000	-98.732	110.147	-21.075	-552.223	452.998	0.000	0.000
142.000	-98.732	110.147	-21.075	-552.223	452.998	0.000	0.000
142.500	-6.872	-1.138	0.000	-523.823	452.998	0.000	0.000
142.500	-6.872	-1.138	0.000	-452.998	523.823	0.000	0.000
143.000	84.988	-112.423	21.075	-452.998	552.223	0.000	0.000
143.000	84.988	-112.423	21.075	-452.998	552.223	0.000	0.000
143.500	176.848	-223.708	42.150	-452.998	580.623	0.000	0.000
143.500	176.848	-223.708	42.150	-452.998	580.623	0.000	0.000
144.000	268.708	-334.993	63.225	-452.998	609.023	0.000	0.000
144.000	268.708	-334.993	63.225	-452.998	609.023	0.000	0.000

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
144.500	360.568	-446.278	84.300	-452.998	637.423	0.000	0.000
145.000	452.428	-557.563	105.375	-452.998	665.823	0.000	0.000
145.000	452.428	-557.563	105.375	-452.998	665.823	0.000	0.000
145.500	544.288	-668.848	126.450	-452.998	694.223	0.000	0.000
145.500	544.288	-668.848	126.450	-452.998	694.223	0.000	0.000
146.000	636.148	-780.133	147.525	-452.998	722.623	0.000	0.000
146.500	728.008	-891.418	168.600	-452.998	751.023	0.000	0.000
146.500	728.008	-891.418	168.600	-452.998	751.023	0.000	0.000
146.800	783.124	-958.189	181.245	-452.998	768.063	0.000	0.000
146.800	783.124	-958.189	181.245	-290.847	838.888	0.000	0.000
147.000	819.868	-1002.703	189.675	-290.847	850.248	0.000	0.000
147.000	819.868	-1002.703	189.675	-290.847	850.248	0.000	0.000
147.500	911.728	-1113.988	210.750	-290.847	878.648	0.000	0.000
147.500	911.728	-1113.988	210.750	-290.847	878.648	0.000	0.000
148.000	1003.588	-1225.273	231.825	-290.847	907.048	0.000	0.000
148.000	1003.588	-1225.273	231.825	-290.847	907.048	0.000	0.000
148.500	1095.448	-1336.558	252.900	-290.847	935.448	0.000	0.000
148.500	1095.448	-1336.558	252.900	-290.847	935.448	0.000	0.000
149.000	1187.308	-1447.843	273.975	-290.847	963.848	0.000	0.000
149.000	1187.308	-1447.843	273.975	-290.847	963.848	0.000	0.000
149.500	1279.168	-1559.128	295.050	-290.847	992.248	0.000	0.000
149.500	1279.168	-1559.128	295.050	-290.847	992.248	0.000	0.000
150.000	1371.028	-1670.413	316.125	-290.847	1020.648	0.000	0.000
150.000	1371.028	-1670.413	316.125	-290.847	1020.648	0.000	0.000
150.500	1462.888	-1781.698	337.200	-290.847	1049.048	0.000	0.000
150.500	1462.888	-1781.698	337.200	-290.847	1049.048	0.000	0.000
151.000	1554.748	-1892.983	358.275	-290.847	1077.448	0.000	0.000
151.000	1554.748	-1892.983	358.275	-290.847	1077.448	0.000	0.000
151.500	1646.608	-2004.268	379.350	-290.847	1105.848	0.000	0.000
151.500	1646.608	-2004.268	379.350	-290.847	1105.848	0.000	0.000
152.000	1738.468	-2115.553	400.425	-290.847	1134.248	0.000	0.000
152.000	1738.468	-2115.553	400.425	-290.847	1134.248	0.000	0.000

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
152.500	1830.328	-2226.838	421.500	-290.847	1162.648	0.000	0.000
152.500	1830.328	-2226.838	421.500	-290.847	1162.648	0.000	0.000
153.000	1922.188	-2338.123	442.575	-290.847	1191.048	0.000	0.000
153.000	1922.188	-2338.123	442.575	-290.847	1191.048	0.000	0.000
153.500	2014.048	-2449.408	463.650	-290.847	1219.448	0.000	0.000
153.500	2014.048	-2449.408	463.650	-290.847	1219.448	0.000	0.000
154.000	2105.908	-2560.693	484.725	-290.847	1247.848	0.000	0.000
154.000	2105.908	-2560.693	484.725	-290.847	1247.848	0.000	0.000
154.500	2197.768	-2671.978	505.800	-290.847	1276.248	0.000	0.000
154.500	2197.768	-2671.978	505.800	-290.847	1276.248	0.000	0.000
155.000	2289.628	-2783.263	526.875	-290.847	1304.648	0.000	0.000
155.000	2289.628	-2783.263	526.875	-290.847	1304.648	0.000	0.000
155.500	2381.488	-2894.548	547.950	-290.847	1333.048	0.000	0.000
155.500	2381.488	-2894.548	547.950	-290.847	1333.048	0.000	0.000
156.000	2473.348	-3005.833	569.025	-290.847	1361.448	0.000	0.000
156.000	2473.348	-3005.833	569.025	-290.847	1361.448	0.000	0.000
156.500	2565.208	-3117.118	590.100	-290.847	1389.848	0.000	0.000
156.500	2565.208	-3117.118	590.100	-290.847	1389.848	0.000	0.000
157.000	2657.068	-3228.403	611.175	-290.847	1418.248	0.000	0.000
157.000	2657.068	-3228.403	611.175	-290.847	1418.248	0.000	0.000
157.500	2748.928	-3339.688	632.250	-290.847	1446.648	0.000	0.000
157.500	2748.928	-3339.688	632.250	-290.847	1446.648	0.000	0.000
158.000	2840.788	-3450.973	653.325	-290.847	1475.048	0.000	0.000
158.000	2840.788	-3450.973	653.325	-290.847	1475.048	0.000	0.000
158.346	2904.355	-3527.982	667.909	-290.847	1494.701	0.000	0.000
158.346	2904.355	-3527.982	667.909	-290.847	1494.701	0.000	0.000
158.500	2932.648	-3562.258	674.400	-290.847	1503.448	0.000	0.000
158.500	2932.648	-3562.258	674.400	-290.847	1503.448	0.000	0.000
159.000	3024.508	-3673.543	695.475	-290.847	1531.848	0.000	0.000
159.000	3024.508	-3673.543	695.475	-290.847	1531.848	0.000	0.000
159.500	3116.368	-3784.828	716.550	-290.847	1560.248	0.000	0.000
159.500	3116.368	-3784.828	716.550	-290.847	1560.248	0.000	0.000

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
159.700	3153.112	-3829.342	724.980	-290.847	1571.608	0.000	0.000
159.700	3153.112	-3829.342	724.980	-290.847	1571.608	0.000	0.000
160.000	3212.083	-3563.770	737.625	-290.847	1588.648	0.000	0.000
160.000	3212.083	-3563.770	737.625	-290.847	1588.648	0.000	0.000
160.500	3310.368	-3121.150	758.700	-290.847	1617.048	0.000	0.000
160.500	3310.368	-3121.150	758.700	-290.847	1617.048	0.000	0.000
161.000	3408.653	-2678.530	779.775	-290.847	1645.448	0.000	0.000
161.000	3408.653	-2678.530	779.775	-290.847	1645.448	0.000	0.000
161.140	3436.173	-2554.596	785.676	-290.847	1653.400	0.000	0.000
161.140	3436.173	-2554.596	785.676	-290.847	1653.400	0.000	0.000
161.500	3515.812	-2235.910	800.850	-290.847	1673.848	0.000	0.000
161.500	3515.812	-2235.910	800.850	-290.847	1673.848	0.000	0.000
162.000	3626.422	-1793.290	821.925	-290.847	1702.248	0.000	0.000
162.000	3626.422	-1793.290	821.925	-290.847	1702.248	0.000	0.000
162.500	3737.032	-1350.670	843.000	-290.847	1730.648	0.000	0.000
162.500	3737.032	-1350.670	843.000	-290.847	1730.648	0.000	0.000
162.570	3752.517	-1288.703	845.951	-290.847	1734.624	0.000	0.000
162.570	3752.517	-1288.703	845.951	-290.847	1734.624	0.000	0.000
163.000	3858.822	-908.050	864.075	-290.847	1759.048	0.000	0.000
163.000	3858.822	-908.050	864.075	-290.847	1759.048	0.000	0.000
163.500	3982.432	-465.430	885.150	-290.847	1787.448	0.000	0.000
163.500	3982.432	-465.430	885.150	-290.847	1787.448	0.000	0.000
164.000	4106.042	-22.810	906.225	-290.847	1815.848	0.000	0.000
164.000	-4087.428	26.055	-906.050	-1807.737	282.657	-5.586	11.173
164.500	-3963.818	468.675	-884.975	-1779.337	282.657	-5.586	11.173
165.000	-3840.208	911.295	-863.900	-1750.937	282.657	-5.586	11.173
165.430	-3733.903	1291.948	-845.775	-1726.513	282.657	-5.586	11.173
165.500	-3718.418	1353.915	-842.825	-1722.537	282.657	-5.586	11.173
166.000	-3607.808	1796.535	-821.750	-1694.137	282.657	-5.586	11.173
166.500	-3497.198	2239.155	-800.675	-1665.737	282.657	-5.586	11.173
166.860	-3417.559	2557.841	-785.501	-1645.289	282.657	-5.586	11.173
167.000	-3390.039	2681.775	-779.600	-1637.337	282.657	-5.586	11.173

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
167.500	-3291.754	3124.395	-758.525	-1608.937	282.657	-5.586	11.173
168.000	-3193.469	3567.015	-737.450	-1580.537	282.657	-5.586	11.173
168.300	-3134.498	3832.587	-724.805	-1563.497	282.657	-5.586	11.173
168.500	-3097.754	3788.073	-716.375	-1552.137	282.657	-5.586	11.173
169.000	-3005.894	3676.788	-695.300	-1523.737	282.657	-5.586	11.173
169.500	-2914.034	3565.503	-674.225	-1495.337	282.657	-5.586	11.173
170.000	-2822.174	3454.218	-653.150	-1466.937	282.657	-5.586	11.173
170.500	-2730.314	3342.933	-632.075	-1438.537	282.657	-5.586	11.173
171.000	-2638.454	3231.648	-611.000	-1410.137	282.657	-5.586	11.173
171.500	-2546.594	3120.363	-589.925	-1381.737	282.657	-5.586	11.173
172.000	-2454.734	3009.078	-568.850	-1353.337	282.657	-5.586	11.173
172.500	-2362.874	2897.793	-547.775	-1324.937	282.657	-5.586	11.173
172.600	-2344.502	2875.536	-543.560	-1319.257	282.657	-5.586	11.173
172.600	-2344.502	2875.536	-543.560	-1319.257	282.657	-5.586	11.173
173.000	-2271.014	2786.508	-526.700	-1296.537	282.657	-5.586	11.173
173.500	-2179.154	2675.223	-505.625	-1268.137	282.657	-5.586	11.173
174.000	-2087.294	2563.938	-484.550	-1239.737	282.657	-5.586	11.173
174.500	-1995.434	2452.653	-463.475	-1211.337	282.657	-5.586	11.173
175.000	-1903.574	2341.368	-442.400	-1182.937	282.657	-5.586	11.173
175.500	-1811.714	2230.083	-421.325	-1154.537	282.657	-5.586	11.173
176.000	-1719.854	2118.798	-400.250	-1126.137	282.657	-5.586	11.173
176.500	-1627.994	2007.513	-379.175	-1097.737	282.657	-5.586	11.173
177.000	-1536.134	1896.228	-358.100	-1069.337	282.657	-5.586	11.173
177.500	-1444.274	1784.943	-337.025	-1040.937	282.657	-5.586	11.173
178.000	-1352.414	1673.658	-315.950	-1012.537	282.657	-5.586	11.173
178.500	-1260.554	1562.373	-294.875	-984.137	282.657	-5.586	11.173
179.000	-1168.694	1451.088	-273.800	-955.737	282.657	-5.586	11.173
179.500	-1076.834	1339.803	-252.725	-927.337	282.657	-5.586	11.173
180.000	-984.974	1228.518	-231.650	-898.937	282.657	-5.586	11.173
180.500	-893.114	1117.233	-210.575	-870.537	282.657	-5.586	11.173
181.000	-801.254	1005.948	-189.500	-842.137	282.657	-5.586	11.173
181.200	-764.510	961.434	-181.070	-830.777	282.657	-5.586	11.173

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
181.200	-764.510	961.434	-181.070	-759.932	445.381	-5.586	11.173
181.500	-709.394	894.663	-168.425	-742.892	445.381	-5.586	11.173
182.000	-617.534	783.378	-147.350	-714.492	445.381	-5.586	11.173
182.500	-525.674	672.093	-126.275	-686.092	445.381	-5.586	11.173
183.000	-433.814	560.808	-105.200	-657.692	445.381	-5.586	11.173
183.500	-341.954	449.523	-84.125	-629.292	445.381	-5.586	11.173
184.000	-250.094	338.238	-63.050	-600.892	445.381	-5.586	11.173
184.500	-158.234	226.953	-41.975	-572.492	445.381	-5.586	11.173
185.000	-66.374	115.668	-20.900	-544.092	445.381	-5.586	11.173
185.500	25.486	4.383	0.175	-516.095	445.783	-5.586	11.173
185.500	25.486	4.383	0.175	-445.262	516.628	-5.586	11.173
186.000	117.346	-106.902	21.250	-445.262	545.028	-5.586	11.173
186.500	209.206	-218.187	42.325	-445.262	573.428	-5.586	11.173
187.000	301.066	-329.472	63.400	-445.262	601.828	-5.586	11.173
187.500	392.926	-440.757	84.475	-445.262	630.228	-5.586	11.173
188.000	484.786	-552.042	105.550	-445.262	658.628	-5.586	11.173
188.500	576.646	-663.327	126.625	-445.262	687.028	-5.586	11.173
189.000	668.506	-774.612	147.700	-445.262	715.428	-5.586	11.173
189.500	760.366	-885.897	168.775	-445.262	743.828	-5.586	11.173
189.800	815.482	-952.668	181.420	-445.262	760.868	-5.586	11.173
189.800	815.482	-952.668	181.420	-283.338	831.701	-5.586	11.173
190.000	852.226	-997.182	189.850	-283.338	843.061	-5.586	11.173
190.500	944.086	-1108.467	210.925	-283.338	871.461	-5.586	11.173
191.000	1035.946	-1219.752	232.000	-283.338	899.861	-5.586	11.173
191.500	1127.806	-1331.037	253.075	-283.338	928.261	-5.586	11.173
192.000	1219.666	-1442.322	274.150	-283.338	956.661	-5.586	11.173
192.500	1311.526	-1553.607	295.225	-283.338	985.061	-5.586	11.173
193.000	1403.386	-1664.892	316.300	-283.338	1013.461	-5.586	11.173
193.500	1495.246	-1776.177	337.375	-283.338	1041.861	-5.586	11.173
194.000	1587.106	-1887.462	358.450	-283.338	1070.261	-5.586	11.173
194.500	1678.966	-1998.747	379.525	-283.338	1098.661	-5.586	11.173
195.000	1770.826	-2110.032	400.600	-283.338	1127.061	-5.586	11.173

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
195.500	1862.686	-2221.317	421.675	-283.338	1155.461	-5.586	11.173
196.000	1954.546	-2332.602	442.750	-283.338	1183.861	-5.586	11.173
196.500	2046.406	-2443.887	463.825	-283.338	1212.261	-5.586	11.173
197.000	2138.266	-2555.172	484.900	-283.338	1240.661	-5.586	11.173
197.500	2230.126	-2666.457	505.975	-283.338	1269.061	-5.586	11.173
198.000	2321.986	-2777.742	527.050	-283.338	1297.461	-5.586	11.173
198.500	2413.846	-2889.027	548.125	-283.338	1325.861	-5.586	11.173
199.000	2505.706	-3000.312	569.200	-283.338	1354.261	-5.586	11.173
199.500	2597.566	-3111.597	590.275	-283.338	1382.661	-5.586	11.173
200.000	2689.426	-3222.882	611.350	-283.338	1411.061	-5.586	11.173
200.500	2781.286	-3334.167	632.425	-283.338	1439.461	-5.586	11.173
201.000	2873.146	-3445.452	653.500	-283.338	1467.861	-5.586	11.173
201.346	2936.713	-3522.461	668.084	-283.338	1487.514	-5.586	11.173
201.500	2965.006	-3556.737	674.575	-283.338	1496.261	-5.586	11.173
202.000	3056.866	-3668.022	695.650	-283.338	1524.661	-5.586	11.173
202.500	3148.726	-3779.307	716.725	-283.338	1553.061	-5.586	11.173
202.700	3185.470	-3823.821	725.155	-283.338	1564.421	-5.586	11.173
203.000	3244.441	-3558.249	737.800	-283.338	1581.461	-5.586	11.173
203.500	3342.726	-3115.629	758.875	-283.338	1609.861	-5.586	11.173
204.000	3441.011	-2673.009	779.950	-283.338	1638.261	-5.586	11.173
204.140	3468.531	-2549.075	785.851	-283.338	1646.213	-5.586	11.173
204.500	3548.170	-2230.389	801.025	-283.338	1666.661	-5.586	11.173
205.000	3658.780	-1787.769	822.100	-283.338	1695.061	-5.586	11.173
205.500	3769.390	-1345.149	843.175	-283.338	1723.461	-5.586	11.173
205.570	3784.876	-1283.182	846.126	-283.338	1727.437	-5.586	11.173
206.000	3891.180	-902.529	864.250	-283.338	1751.861	-5.586	11.173
206.500	4014.790	-459.909	885.325	-283.338	1780.261	-5.586	11.173
207.000	4138.400	-17.289	906.400	-283.338	1808.661	-5.586	11.173
207.000	-4208.154	5.303	-906.927	-1768.739	236.802	-44.735	22.368
207.500	-4084.544	447.923	-885.852	-1740.339	236.802	-44.735	22.368
208.000	-3960.934	890.543	-864.777	-1711.939	236.802	-44.735	22.368
208.430	-3854.629	1271.196	-846.652	-1687.515	236.802	-44.735	22.368

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
208.500	-3839.144	1333.163	-843.702	-1683.539	236.802	-44.735	22.368
209.000	-3728.534	1775.783	-822.627	-1655.139	236.802	-44.735	22.368
209.500	-3617.924	2218.403	-801.552	-1626.739	236.802	-44.735	22.368
209.860	-3538.285	2537.089	-786.378	-1606.291	236.802	-44.735	22.368
210.000	-3510.765	2661.023	-780.477	-1598.339	236.802	-44.735	22.368
210.500	-3412.480	3103.643	-759.402	-1569.939	236.802	-44.735	22.368
211.000	-3314.195	3546.263	-738.327	-1541.539	236.802	-44.735	22.368
211.300	-3255.224	3811.835	-725.682	-1524.499	236.802	-44.735	22.368
211.500	-3218.480	3767.321	-717.252	-1513.139	236.802	-44.735	22.368
212.000	-3126.620	3656.036	-696.177	-1484.739	236.802	-44.735	22.368
212.500	-3034.760	3544.751	-675.102	-1456.339	236.802	-44.735	22.368
213.000	-2942.900	3433.466	-654.027	-1427.939	236.802	-44.735	22.368
213.500	-2851.040	3322.181	-632.952	-1399.539	236.802	-44.735	22.368
214.000	-2759.180	3210.896	-611.877	-1371.139	236.802	-44.735	22.368
214.500	-2667.320	3099.611	-590.802	-1342.739	236.802	-44.735	22.368
215.000	-2575.460	2988.326	-569.727	-1314.339	236.802	-44.735	22.368
215.500	-2483.600	2877.041	-548.652	-1285.939	236.802	-44.735	22.368
215.600	-2465.228	2854.784	-544.437	-1280.259	236.802	-44.735	22.368
215.600	-2465.228	2854.784	-544.437	-1280.259	236.802	-44.735	22.368
216.000	-2391.740	2765.756	-527.577	-1257.539	236.802	-44.735	22.368
216.500	-2299.880	2654.471	-506.502	-1229.139	236.802	-44.735	22.368
217.000	-2208.020	2543.186	-485.427	-1200.739	236.802	-44.735	22.368
217.500	-2116.160	2431.901	-464.352	-1172.339	236.802	-44.735	22.368
218.000	-2024.300	2320.616	-443.277	-1143.939	236.802	-44.735	22.368
218.500	-1932.440	2209.331	-422.202	-1115.539	236.802	-44.735	22.368
219.000	-1840.580	2098.046	-401.127	-1087.139	236.802	-44.735	22.368
219.500	-1748.720	1986.761	-380.052	-1058.739	236.802	-44.735	22.368
220.000	-1656.860	1875.476	-358.977	-1030.339	236.802	-44.735	22.368
220.500	-1565.000	1764.191	-337.902	-1001.939	236.802	-44.735	22.368
221.000	-1473.140	1652.906	-316.827	-973.539	236.802	-44.735	22.368
221.500	-1381.280	1541.621	-295.752	-945.139	236.802	-44.735	22.368
222.000	-1289.420	1430.336	-274.677	-916.739	236.802	-44.735	22.368

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
222.500	-1197.560	1319.051	-253.602	-888.339	236.802	-44.735	22.368
223.000	-1105.700	1207.766	-232.527	-859.939	236.802	-44.735	22.368
223.500	-1013.840	1096.481	-211.452	-831.539	236.802	-44.735	22.368
224.000	-921.980	985.196	-190.377	-803.139	236.802	-44.735	22.368
224.200	-885.236	940.682	-181.947	-791.779	236.802	-44.735	22.368
224.200	-885.236	940.682	-181.947	-720.644	408.496	-44.735	22.368
224.500	-830.120	873.911	-169.302	-703.604	408.496	-44.735	22.368
225.000	-738.260	762.626	-148.227	-675.204	408.496	-44.735	22.368
225.500	-646.400	651.341	-127.152	-646.804	408.496	-44.735	22.368
226.000	-554.540	540.056	-106.077	-618.404	408.496	-44.735	22.368
226.500	-462.680	428.771	-85.002	-590.004	408.496	-44.735	22.368
227.000	-370.820	317.486	-63.927	-561.604	408.496	-44.735	22.368
227.500	-278.960	206.201	-42.852	-533.204	408.496	-44.735	22.368
228.000	-187.100	94.916	-21.777	-504.804	408.496	-44.735	22.368
228.500	-95.240	-16.369	-0.702	-482.049	414.142	-44.735	22.368
228.500	-95.240	-16.369	-0.702	-411.083	485.277	-44.735	22.368
229.000	-3.380	-127.654	20.373	-411.083	513.677	-44.735	22.368
229.500	88.480	-238.939	41.448	-411.083	542.077	-44.735	22.368
230.000	180.340	-350.224	62.523	-411.083	570.477	-44.735	22.368
230.500	272.200	-461.509	83.598	-411.083	598.877	-44.735	22.368
231.000	364.060	-572.794	104.673	-411.083	627.277	-44.735	22.368
231.500	455.920	-684.079	125.748	-411.083	655.677	-44.735	22.368
232.000	547.780	-795.364	146.823	-411.083	684.077	-44.735	22.368
232.500	639.640	-906.649	167.898	-411.083	712.477	-44.735	22.368
232.800	694.756	-973.420	180.543	-411.083	729.517	-44.735	22.368
232.800	694.756	-973.420	180.543	-251.787	800.483	-44.735	22.368
233.000	731.500	-1017.934	188.973	-251.787	811.843	-44.735	22.368
233.500	823.360	-1129.219	210.048	-251.787	840.243	-44.735	22.368
234.000	915.220	-1240.504	231.123	-251.787	868.643	-44.735	22.368
234.500	1007.080	-1351.789	252.198	-251.787	897.043	-44.735	22.368
235.000	1098.940	-1463.074	273.273	-251.787	925.443	-44.735	22.368
235.500	1190.800	-1574.359	294.348	-251.787	953.843	-44.735	22.368

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
236.000	1282.660	-1685.644	315.423	-251.787	982.243	-44.735	22.368
236.500	1374.520	-1796.929	336.498	-251.787	1010.643	-44.735	22.368
237.000	1466.380	-1908.214	357.573	-251.787	1039.043	-44.735	22.368
237.500	1558.240	-2019.499	378.648	-251.787	1067.443	-44.735	22.368
238.000	1650.100	-2130.784	399.723	-251.787	1095.843	-44.735	22.368
238.500	1741.960	-2242.069	420.798	-251.787	1124.243	-44.735	22.368
239.000	1833.820	-2353.354	441.873	-251.787	1152.643	-44.735	22.368
239.500	1925.680	-2464.639	462.948	-251.787	1181.043	-44.735	22.368
240.000	2017.540	-2575.924	484.023	-251.787	1209.443	-44.735	22.368
240.500	2109.400	-2687.209	505.098	-251.787	1237.843	-44.735	22.368
241.000	2201.260	-2798.494	526.173	-251.787	1266.243	-44.735	22.368
241.500	2293.120	-2909.779	547.248	-251.787	1294.643	-44.735	22.368
242.000	2384.980	-3021.064	568.323	-251.787	1323.043	-44.735	22.368
242.500	2476.840	-3132.349	589.398	-251.787	1351.443	-44.735	22.368
243.000	2568.700	-3243.634	610.473	-251.787	1379.843	-44.735	22.368
243.500	2660.560	-3354.919	631.548	-251.787	1408.243	-44.735	22.368
244.000	2752.420	-3466.204	652.623	-251.787	1436.643	-44.735	22.368
244.346	2815.987	-3543.213	667.207	-251.787	1456.296	-44.735	22.368
244.500	2844.280	-3577.489	673.698	-251.787	1465.043	-44.735	22.368
245.000	2936.140	-3688.774	694.773	-251.787	1493.443	-44.735	22.368
245.500	3028.000	-3800.059	715.848	-251.787	1521.843	-44.735	22.368
245.700	3064.744	-3844.573	724.278	-251.787	1533.203	-44.735	22.368
246.000	3123.715	-3579.001	736.923	-251.787	1550.243	-44.735	22.368
246.500	3222.000	-3136.381	757.998	-251.787	1578.643	-44.735	22.368
247.000	3320.285	-2693.761	779.073	-251.787	1607.043	-44.735	22.368
247.140	3347.805	-2569.828	784.974	-251.787	1614.995	-44.735	22.368
247.500	3427.444	-2251.141	800.148	-251.787	1635.443	-44.735	22.368
248.000	3538.054	-1808.521	821.223	-251.787	1663.843	-44.735	22.368
248.500	3648.664	-1365.901	842.298	-251.787	1692.243	-44.735	22.368
248.570	3664.149	-1303.934	845.249	-251.787	1696.219	-44.735	22.368
249.000	3770.454	-923.281	863.373	-251.787	1720.643	-44.735	22.368
249.500	3894.064	-480.661	884.448	-251.787	1749.043	-44.735	22.368

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
250.000	4017.674	-38.041	905.523	-251.787	1777.443	-44.735	22.368
250.000	-3909.957	334.980	-929.510	-1732.640	66.888	-110.888	221.776
250.500	-3786.347	777.600	-908.435	-1704.240	66.888	-110.888	221.776
251.000	-3662.737	1220.220	-887.360	-1675.840	66.888	-110.888	221.776
251.430	-3556.432	1600.873	-869.236	-1651.416	66.888	-110.888	221.776
251.500	-3540.947	1662.840	-866.285	-1647.440	66.888	-110.888	221.776
252.000	-3430.337	2105.460	-845.210	-1619.040	66.888	-110.888	221.776
252.500	-3319.727	2548.080	-824.135	-1590.640	66.888	-110.888	221.776
252.860	-3240.088	2866.766	-808.961	-1570.192	66.888	-110.888	221.776
253.000	-3212.568	2990.700	-803.060	-1562.240	66.888	-110.888	221.776
253.500	-3114.283	3433.320	-781.985	-1533.840	66.888	-110.888	221.776
254.000	-3015.998	3875.940	-760.910	-1505.440	66.888	-110.888	221.776
254.300	-2957.027	4141.512	-748.265	-1488.400	66.888	-110.888	221.776
254.500	-2920.283	4096.998	-739.835	-1477.040	66.888	-110.888	221.776
255.000	-2828.423	3985.713	-718.760	-1448.640	66.888	-110.888	221.776
255.500	-2736.563	3874.428	-697.685	-1420.240	66.888	-110.888	221.776
256.000	-2644.703	3763.143	-676.610	-1391.840	66.888	-110.888	221.776
256.500	-2552.843	3651.858	-655.535	-1363.440	66.888	-110.888	221.776
257.000	-2460.983	3540.573	-634.460	-1335.040	66.888	-110.888	221.776
257.500	-2369.123	3429.288	-613.385	-1306.640	66.888	-110.888	221.776
258.000	-2277.263	3318.003	-592.310	-1278.240	66.888	-110.888	221.776
258.500	-2185.403	3206.718	-571.235	-1249.840	66.888	-110.888	221.776
258.600	-2167.031	3184.461	-567.020	-1244.160	66.888	-110.888	221.776
258.600	-2167.031	3184.461	-567.020	-1244.160	66.888	-110.888	221.776
259.000	-2093.543	3095.433	-550.160	-1221.440	66.888	-110.888	221.776
259.500	-2001.683	2984.148	-529.085	-1193.040	66.888	-110.888	221.776
260.000	-1909.823	2872.863	-508.010	-1164.640	66.888	-110.888	221.776
260.500	-1817.963	2761.578	-486.935	-1136.240	66.888	-110.888	221.776
261.000	-1726.103	2650.293	-465.860	-1107.840	66.888	-110.888	221.776
261.500	-1634.243	2539.008	-444.785	-1079.440	66.888	-110.888	221.776
262.000	-1542.383	2427.723	-423.710	-1051.040	66.888	-110.888	221.776
262.500	-1450.523	2316.438	-402.635	-1022.640	66.888	-110.888	221.776

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
263.000	-1358.663	2205.153	-381.560	-994.240	66.888	-110.888	221.776
263.200	-1321.919	2160.639	-373.130	-982.880	66.888	-110.888	221.776
263.200	-1321.919	2160.639	-373.130	-908.347	217.770	-110.888	221.776
263.500	-1266.803	2093.868	-360.485	-891.307	217.770	-110.888	221.776
264.000	-1174.943	1982.583	-339.410	-862.907	217.770	-110.888	221.776
264.500	-1083.083	1871.298	-318.335	-834.507	217.770	-110.888	221.776
265.000	-991.223	1760.013	-297.260	-806.107	217.770	-110.888	221.776
265.500	-899.363	1648.728	-276.185	-777.707	217.770	-110.888	221.776
266.000	-807.503	1537.443	-255.110	-749.307	217.770	-110.888	221.776
266.500	-715.643	1426.158	-234.035	-720.907	217.770	-110.888	221.776
267.000	-623.783	1314.873	-212.960	-692.507	217.770	-110.888	221.776
267.500	-531.923	1203.588	-191.885	-664.107	217.770	-110.888	221.776
267.500	-531.923	1203.588	-191.885	-582.664	292.303	-110.888	221.776
268.000	-440.063	1092.303	-170.810	-554.264	292.303	-110.888	221.776
268.500	-348.203	981.018	-149.735	-525.864	292.303	-110.888	221.776
269.000	-256.343	869.733	-128.660	-497.464	292.303	-110.888	221.776
269.500	-164.483	758.448	-107.585	-469.064	292.303	-110.888	221.776
270.000	-72.623	647.163	-86.510	-458.152	309.792	-110.888	221.776
270.500	19.237	535.878	-65.435	-458.152	338.192	-110.888	221.776
271.000	111.097	424.593	-44.360	-458.152	366.592	-110.888	221.776
271.500	202.957	313.308	-23.285	-458.152	394.992	-110.888	221.776
271.800	258.073	209.514	-10.640	-458.152	412.032	-110.888	221.776
271.800	258.073	209.514	-10.640	-250.133	493.475	-110.888	221.776
272.000	294.817	140.318	-2.210	-250.133	504.835	-110.888	221.776
272.451	377.675	-15.719	16.799	-250.133	530.452	-110.888	221.776
272.500	386.677	-32.672	18.865	-250.133	533.235	-110.888	221.776
273.000	478.537	-205.662	39.940	-250.133	561.635	-110.888	221.776
273.500	570.397	-378.652	61.015	-250.133	590.035	-110.888	221.776
274.000	662.257	-551.642	82.090	-250.133	618.435	-110.888	221.776
274.500	754.117	-724.632	103.165	-250.133	646.835	-110.888	221.776
275.000	845.977	-897.622	124.240	-250.133	675.235	-110.888	221.776
275.500	937.837	-1070.612	145.315	-250.133	703.635	-110.888	221.776

x [m]	V_{PP} [kN]	V_{PE} [kN]	V_{RCP} [kN]	$V_{SC,min}$ [kN]	$V_{SC,max}$ [kN]	$V_{VDT,min}$ [kN]	$V_{VDT,max}$ [kN]
276.000	1029.697	-1243.602	166.390	-250.133	732.035	-110.888	221.776
276.500	1121.557	-1416.592	187.465	-250.133	760.435	-110.888	221.776
277.000	1213.417	-1589.582	208.540	-250.133	788.835	-110.888	221.776
277.500	1305.277	-1762.572	229.615	-250.133	817.235	-110.888	221.776
278.000	1397.137	-1935.562	250.690	-250.133	845.635	-110.888	221.776
278.500	1488.997	-2108.552	271.765	-250.133	874.035	-110.888	221.776
279.000	1580.857	-2281.542	292.840	-250.133	902.435	-110.888	221.776
279.500	1672.717	-2454.532	313.915	-250.133	930.835	-110.888	221.776
280.000	1764.577	-2627.522	334.990	-250.133	959.235	-110.888	221.776
280.500	1856.437	-2800.512	356.065	-250.133	987.635	-110.888	221.776
280.700	1893.181	-2869.708	364.495	-250.133	998.995	-110.888	221.776
281.000	1952.152	-2973.502	377.140	-250.133	1016.035	-110.888	221.776
281.500	2050.437	-3146.492	398.215	-250.133	1044.435	-110.888	221.776
282.000	2148.722	-3319.482	419.290	-250.133	1072.835	-110.888	221.776
282.140	2176.242	-3367.920	425.191	-250.133	1080.787	-110.888	221.776
282.500	2255.881	-3492.472	440.365	-250.133	1101.235	-110.888	221.776
283.000	2366.491	-3665.462	461.440	-250.133	1129.635	-110.888	221.776
283.500	2477.101	-3838.452	482.515	-250.133	1158.035	-110.888	221.776
283.570	2492.587	-3862.671	485.465	-250.133	1162.011	-110.888	221.776
284.000	2598.891	-4011.442	503.590	-250.133	1186.435	-110.888	221.776
284.500	2722.501	-4184.432	524.665	-250.133	1214.835	-110.888	221.776
285.000	2846.111	-4357.422	545.740	-250.133	1243.235	-110.888	221.776

Anexo D – Estado limite de descompressão – Início de exploração

I_c [m^4]	A_c [m^2]	v_{sup} [m]	v_{inf} [m]	f_{ctm} [MPa]	f_{ctk} [MPa]
4,708	7,349	0,695	1,995	3,200	2,200

x [m]	M_{Eqp} [kNm]	$P_0 \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_0 [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
0,00	0,000	0,000	0,000	19685,088	-2,679	-2,679
0,50	1763,315	-2432,750	162,565	19741,469	-2,612	-2,901
1,00	3451,448	-4787,371	326,063	19798,012	-2,545	-3,122
1,43	4843,111	-6749,300	467,419	19846,769	-2,488	-3,310
1,50	5064,462	-7063,132	490,497	19854,717	-2,479	-3,341
2,00	6606,389	-9259,297	655,871	19911,585	-2,415	-3,556
2,50	8079,634	-11375,126	822,190	19968,615	-2,352	-3,765
2,86	9097,843	-12848,361	942,527	20009,778	-2,308	-3,913
3,00	9484,439	-13409,875	989,458	20025,809	-2,292	-3,969
3,50	10825,126	-15362,796	1157,678	20083,166	-2,234	-4,165
4,00	12103,292	-17233,135	1326,855	20140,688	-2,179	-4,352
4,30	12840,183	-18315,385	1428,822	20175,280	-2,148	-4,460
4,50	13319,196	-19020,136	1496,993	20198,374	-2,128	-4,530
5,00	14475,214	-20723,036	1668,096	20256,226	-2,080	-4,697
5,50	15571,925	-22341,070	1840,169	20314,243	-2,037	-4,853
6,00	16609,328	-23873,466	2013,214	20372,427	-1,997	-4,997
6,50	17587,424	-25319,450	2187,237	20430,777	-1,962	-5,130
7,00	18506,212	-26678,242	2362,242	20489,295	-1,931	-5,250
7,50	19365,693	-27949,057	2538,232	20547,980	-1,904	-5,357
8,00	20165,866	-29131,108	2715,213	20606,833	-1,882	-5,452
8,50	20906,731	-30223,599	2893,187	20665,854	-1,864	-5,534
9,00	21588,289	-31225,734	3072,160	20725,045	-1,851	-5,602
9,50	22210,540	-32136,710	3252,137	20784,405	-1,843	-5,656

x [m]	M_{Eqp} [kNm]	$P_0 \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_0 [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
10,00	22773,483	-32955,720	3433,120	20843,935	-1,840	-5,696
10,50	23277,119	-33681,951	3615,114	20903,636	-1,842	-5,721
11,00	23721,447	-34314,588	3798,125	20963,508	-1,850	-5,732
11,50	24106,468	-34852,808	3982,155	21023,551	-1,862	-5,727
12,00	24432,181	-35295,786	4167,209	21083,766	-1,881	-5,706
12,50	24698,586	-35642,691	4353,293	21144,154	-1,904	-5,670
13,00	24905,685	-35892,687	4540,409	21204,714	-1,934	-5,617
13,20	24971,918	-35965,363	4615,546	21228,987	-1,947	-5,591
13,50	25017,475	-36044,935	4728,563	21265,448	-1,964	-5,563
14,00	25045,958	-36092,320	4914,497	21312,211	-1,995	-5,498
14,50	25015,134	-36075,845	5101,227	21359,077	-2,027	-5,432
15,00	24925,002	-35995,086	5288,755	21406,046	-2,059	-5,362
15,50	24799,089	-35849,621	5477,085	21453,118	-2,097	-5,281
16,00	24642,197	-35639,025	5666,218	21500,293	-2,139	-5,184
16,50	24425,999	-35362,870	5856,158	21547,572	-2,182	-5,085
17,00	24150,492	-35020,727	6046,907	21594,956	-2,227	-4,982
17,50	23815,679	-34612,166	6238,467	21642,443	-2,272	-4,876
18,00	23361,557	-34136,753	6430,842	21690,035	-2,310	-4,792
18,50	22848,129	-33594,054	6624,034	21737,732	-2,350	-4,704
19,00	22275,393	-32983,631	6818,046	21785,533	-2,390	-4,613
19,50	21643,349	-32305,048	7012,879	21833,440	-2,432	-4,517
20,00	20953,866	-31557,862	7208,538	21881,451	-2,476	-4,416
20,50	20255,754	-30741,632	7405,025	21929,569	-2,529	-4,289
21,00	19498,335	-29855,914	7602,341	21977,792	-2,584	-4,158
21,50	18681,608	-28900,261	7800,492	22026,122	-2,640	-4,022
21,80	18163,104	-28293,114	7919,783	22055,170	-2,675	-3,938
22,00	17781,573	-27874,225	7999,478	22074,557	-2,695	-3,891
22,50	16786,231	-26777,355	8199,302	22123,099	-2,746	-3,770
23,00	15731,582	-25609,201	8399,968	22171,748	-2,799	-3,643
23,50	14617,625	-24369,307	8601,477	22220,504	-2,854	-3,511
24,00	13444,361	-23057,218	8803,834	22269,367	-2,911	-3,373
24,50	12211,789	-21672,476	9007,040	22318,337	-2,970	-3,229

x [m]	$\mathbf{M_{Eqp}}$ [kNm]	$\mathbf{P_0 \times e}$ [kNm]	$\mathbf{M_{PE,Hip}}$ [kNm]	$\mathbf{P_0}$ [kN]	$\boldsymbol{\sigma}_{\mathbf{sup}}$ [MPa]	$\boldsymbol{\sigma}_{\mathbf{inf}}$ [MPa]
25,00	10919,909	-20214,620	9211,098	22367,416	-3,031	-3,079
25,50	9568,722	-18683,189	9416,011	22416,602	-3,095	-2,923
26,00	8158,228	-17077,718	9621,782	22465,896	-3,161	-2,760
26,50	6688,426	-15397,743	9828,414	22515,299	-3,229	-2,590
27,00	5159,316	-13642,794	10035,908	22564,810	-3,300	-2,413
27,50	3570,899	-11812,401	10244,270	22614,430	-3,373	-2,229
28,00	1923,175	-9906,093	10453,500	22664,159	-3,449	-2,037
28,50	-4833,690	-7923,396	10663,602	22713,998	-2,782	-3,978
29,00	-6560,368	-5863,832	10874,578	22763,946	-2,869	-3,754
29,35	-7788,288	-4394,268	11021,986	22798,554	-2,931	-3,594
29,50	-8343,514	-3721,879	11071,421	22783,114	-2,954	-3,521
30,00	-10183,127	-1503,526	11234,404	22733,123	-3,027	-3,285
30,50	-12079,208	772,966	11396,619	22683,243	-3,100	-3,048
30,70	-12868,136	1699,749	11461,291	22663,321	-3,127	-2,960
31,00	-14099,987	3032,138	11541,268	22585,141	-3,143	-2,873
31,50	-16203,087	5018,590	11673,033	22455,439	-3,128	-2,849
32,00	-18368,708	6716,480	11802,902	22326,483	-3,060	-2,974
32,14	-18986,285	7140,830	11838,929	22290,508	-3,032	-3,036
32,50	-20598,446	8130,580	11930,894	22198,267	-2,941	-3,248
33,00	-22896,625	9265,613	12057,025	22070,787	-2,771	-3,670
33,50	-25263,487	10126,243	12181,313	21944,040	-2,550	-4,239
33,57	-25600,328	10225,097	12198,567	21926,353	-2,515	-4,330
34,00	-27701,434	10717,085	12303,774	21818,020	-2,278	-4,952
34,50	-30214,501	11042,699	12424,425	21692,724	-1,956	-5,811
35,00	-32802,750	11107,596	12543,283	21568,147	-1,584	-6,813
35,50	-30144,948	10916,232	12454,898	21444,286	-1,918	-5,788
36,00	-27562,329	10473,014	12367,112	21321,137	-2,204	-4,902
36,43	-25423,123	9893,736	12292,093	21215,794	-2,409	-4,259
36,50	-25080,937	9782,297	12279,923	21198,694	-2,439	-4,164
37,00	-22675,903	8848,388	12193,326	21076,955	-2,627	-3,561
37,00	-22675,903	8848,388	12193,325	21076,955	-2,627	-3,561
37,50	-20339,551	7675,543	12107,317	20955,915	-2,769	-3,087

x [m]	**M_{Eqp}** [kNm]	**$P_0 \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_0** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
37,50	-20339,551	7675,543	12107,317	20955,915	-2,769	-3,087
37,86	-18699,906	6685,509	12045,752	20869,196	-2,844	-2,827
38,00	-18071,640	6267,968	12021,892	20835,569	-2,867	-2,743
38,00	-18071,640	6267,968	12021,892	20835,569	-2,867	-2,743
38,50	-15867,846	4629,822	11937,048	20715,915	-2,922	-2,523
39,00	-13726,572	2765,216	11852,781	20596,949	-2,934	-2,425
39,00	-13726,572	2765,216	11852,781	20596,949	-2,934	-2,425
39,30	-12471,818	1539,442	11802,496	20525,897	-2,922	-2,424
39,30	-12471,818	1539,442	11802,496	20525,897	-2,922	-2,424
39,50	-11647,562	698,837	11790,640	20507,870	-2,915	-2,434
39,50	-11647,562	698,837	11790,640	20507,870	-2,915	-2,434
40,00	-9628,437	-1353,376	11761,053	20462,872	-2,900	-2,454
40,50	-7668,619	-3335,506	11731,539	20417,972	-2,886	-2,470
41,00	-5846,220	-5247,986	11702,100	20373,172	-2,862	-2,515
41,50	-4092,202	-7091,244	11672,734	20328,469	-2,838	-2,559
42,00	2377,229	-8865,710	11643,442	20283,865	-3,521	-0,576
42,50	4084,962	-10571,808	11614,223	20239,358	-3,511	-0,582
43,00	5733,388	-12209,965	11585,078	20194,950	-3,502	-0,584
43,50	7322,506	-13780,601	11556,005	20150,638	-3,495	-0,582
43,50	7322,506	-13780,601	11556,005	20150,638	-3,495	-0,582
43,60	7633,213	-14086,663	11550,199	20141,788	-3,493	-0,581
43,60	7633,213	-14053,104	11522,684	20093,804	-3,488	-0,572
44,00	8852,318	-15301,410	11540,032	20129,145	-3,491	-0,582
44,50	10332,252	-16813,593	11561,754	20173,410	-3,495	-0,593
45,00	11766,769	-18271,872	11583,516	20217,771	-3,501	-0,599
45,50	13141,979	-19675,869	11605,319	20262,230	-3,506	-0,608
46,00	14457,881	-21025,205	11627,163	20306,787	-3,510	-0,619
46,50	15714,475	-22319,500	11649,049	20351,442	-3,514	-0,632
47,00	16911,762	-23558,370	11670,975	20396,195	-3,517	-0,647
47,50	18049,742	-24741,432	11692,942	20441,046	-3,520	-0,662
48,00	19128,414	-25868,299	11714,951	20485,996	-3,522	-0,680
48,50	20147,778	-26938,585	11737,000	20531,045	-3,524	-0,698

x [m]	$\mathbf{M_{Eqp}}$ [kNm]	$\mathbf{P_0 \times e}$ [kNm]	$\mathbf{M_{PE,Hip}}$ [kNm]	$\mathbf{P_0}$ [kN]	$\boldsymbol{\sigma}_{\mathbf{sup}}$ [MPa]	$\boldsymbol{\sigma}_{\mathbf{inf}}$ [MPa]
49,00	21107,835	-27951,900	11759,092	20576,193	-3,525	-0,717
49,50	22008,585	-28907,852	11781,224	20621,440	-3,527	-0,738
50,00	22850,027	-29806,048	11803,399	20666,787	-3,528	-0,758
50,50	23632,161	-30646,096	11825,614	20712,233	-3,529	-0,780
51,00	24354,988	-31427,597	11847,872	20757,779	-3,530	-0,801
51,50	25018,508	-32150,153	11870,171	20803,426	-3,530	-0,823
52,00	25622,720	-32813,366	11892,512	20849,173	-3,531	-0,845
52,20	25847,799	-33061,945	11901,460	20867,500	-3,531	-0,854
52,50	26131,624	-33416,833	11914,895	20895,020	-3,527	-0,882
53,00	26557,221	-33960,151	11937,320	20940,969	-3,519	-0,928
53,50	26923,511	-34442,914	11959,787	20987,018	-3,511	-0,974
54,00	27230,493	-34864,716	11982,296	21033,168	-3,504	-1,020
54,50	27507,769	-35225,148	12004,847	21079,421	-3,501	-1,052
55,00	27749,039	-35523,799	12027,441	21125,774	-3,502	-1,073
55,50	27931,002	-35760,257	12050,077	21172,230	-3,504	-1,093
56,00	28053,657	-35934,108	12072,755	21218,788	-3,506	-1,111
56,50	28117,005	-36044,935	12095,476	21265,448	-3,509	-1,128
57,00	28061,045	-36092,320	12118,240	21312,211	-3,503	-1,168
57,50	27945,778	-36075,845	12141,046	21359,077	-3,499	-1,207
58,00	27771,203	-35995,086	12163,895	21406,046	-3,494	-1,243
58,50	27537,321	-35849,621	12186,788	21453,118	-3,491	-1,278
59,00	27268,483	-35639,025	12209,722	21500,293	-3,492	-1,299
59,50	26968,873	-35362,870	12232,700	21547,572	-3,499	-1,306
60,00	26609,955	-35020,727	12255,721	21594,956	-3,506	-1,309
60,50	26191,729	-34612,166	12278,786	21642,443	-3,515	-1,310
60,80	25912,326	-34334,968	12292,645	21670,986	-3,520	-1,309
61,00	25690,196	-34136,753	12301,893	21690,035	-3,521	-1,318
61,50	25093,355	-33594,054	12325,044	21737,732	-3,523	-1,338
62,00	24437,207	-32983,631	12348,238	21785,533	-3,526	-1,354
62,50	23721,752	-32305,048	12371,476	21833,440	-3,530	-1,366
63,00	22946,988	-31557,862	12394,758	21881,451	-3,536	-1,374
63,50	22112,918	-30741,632	12418,083	21929,569	-3,543	-1,379

x [m]	M_{Eqp} [kNm]	$P_0 \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_0 [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
64,00	21219,539	-29855,914	12441,451	21977,792	-3,552	-1,378
64,50	20266,854	-28900,261	12464,864	22026,122	-3,563	-1,374
65,00	19254,861	-27874,225	12488,321	22074,557	-3,575	-1,365
65,50	18183,560	-26777,355	12511,821	22123,099	-3,589	-1,350
66,00	17052,952	-25609,201	12535,366	22171,748	-3,604	-1,331
66,50	15863,036	-24369,307	12558,955	22220,504	-3,622	-1,307
67,00	14613,813	-23057,218	12582,588	22269,367	-3,641	-1,277
67,50	13305,283	-21672,476	12606,265	22318,337	-3,663	-1,241
68,00	11937,444	-20214,620	12629,987	22367,416	-3,686	-1,199
68,50	10510,299	-18683,189	12653,754	22416,602	-3,712	-1,152
69,00	9025,865	-17077,718	12677,564	22465,896	-3,740	-1,097
69,50	7492,951	-15397,743	12701,420	22515,299	-3,772	-1,031
70,00	5900,730	-13642,794	12725,320	22564,810	-3,806	-0,959
70,50	4249,201	-11812,401	12749,266	22614,430	-3,843	-0,880
71,00	2570,083	-9906,093	12773,256	22664,159	-3,887	-0,780
71,50	838,654	-7923,396	12797,291	22713,998	-3,934	-0,670
72,00	-5659,640	-5863,832	12821,371	22763,946	-3,289	-2,548
72,35	-6896,334	-4394,268	12838,958	22798,554	-3,331	-2,446
72,50	-7455,466	-3721,879	12828,103	22783,114	-3,344	-2,401
73,00	-9375,279	-1503,526	12795,903	22733,123	-3,376	-2,281
73,50	-11378,615	772,966	12763,783	22683,243	-3,405	-2,172
73,70	-12196,556	1699,749	12750,957	22663,321	-3,417	-2,129
74,00	-13441,838	3032,138	12712,434	22585,141	-3,413	-2,098
74,50	-15567,323	5018,590	12648,482	22455,439	-3,366	-2,166
75,00	-17755,328	6716,480	12584,843	22326,483	-3,266	-2,383
75,14	-18379,173	7140,830	12567,081	22290,508	-3,229	-2,470
75,50	-20007,451	8130,580	12521,517	22198,267	-3,116	-2,748
76,00	-22328,014	9265,613	12458,502	22070,787	-2,914	-3,259
76,50	-24717,260	10126,243	12395,796	21944,040	-2,662	-3,916
76,57	-25057,235	10225,097	12387,042	21926,353	-2,623	-4,020
77,00	-27177,592	10717,085	12333,398	21818,020	-2,360	-4,718
77,50	-29713,043	11042,699	12271,306	21692,724	-2,007	-5,663

x [m]	**M_{Eqp}** [kNm]	**$P_0 \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_0** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
78,00	-32323,676	11107,596	12209,520	21568,147	-1,605	-6,751
78,50	-29698,285	10916,232	12126,448	21444,286	-1,936	-5,738
79,00	-27152,380	10473,014	12043,926	21321,137	-2,217	-4,865
79,43	-25023,033	9893,736	11973,394	21215,794	-2,421	-4,224
79,50	-24681,594	9782,297	11961,951	21198,694	-2,451	-4,129
80,00	-22281,895	8848,388	11880,518	21076,955	-2,639	-3,526
80,50	-19950,877	7675,543	11799,625	20955,915	-2,781	-3,053
80,86	-18315,073	6685,509	11741,715	20869,196	-2,856	-2,792
81,00	-17688,301	6267,968	11719,269	20835,569	-2,879	-2,709
81,50	-15489,842	4629,822	11639,444	20715,915	-2,934	-2,489
82,00	-13353,903	2765,216	11560,149	20596,949	-2,946	-2,391
82,30	-12102,349	1539,442	11512,824	20525,897	-2,933	-2,391
82,50	-11280,227	698,837	11502,522	20507,870	-2,927	-2,400
83,00	-9266,436	-1353,376	11476,808	20462,872	-2,911	-2,421
83,50	-7329,833	-3335,506	11451,153	20417,972	-2,894	-2,445
84,00	-5524,158	-5247,986	11425,556	20373,172	-2,869	-2,495
84,50	761,431	-7091,244	11400,017	20328,469	-3,515	-0,618
85,00	2489,030	-8865,710	11374,537	20283,865	-3,498	-0,643
85,50	4173,988	-10571,808	11349,114	20239,358	-3,485	-0,656
86,00	5821,655	-12209,965	11323,749	20194,950	-3,477	-0,657
86,50	7410,015	-13780,601	11298,442	20150,638	-3,469	-0,654
86,60	7720,570	-14086,663	11293,388	20141,788	-3,468	-0,653
86,60	7720,570	-14053,104	11266,483	20093,804	-3,463	-0,644
87,00	8939,067	-15301,410	11285,932	20129,145	-3,466	-0,653
87,50	10427,449	-16813,593	11310,290	20173,410	-3,472	-0,659
88,00	11860,860	-18271,872	11334,702	20217,771	-3,478	-0,665
88,50	13234,964	-19675,869	11359,168	20262,230	-3,483	-0,673
89,00	14549,761	-21025,205	11383,688	20306,787	-3,488	-0,684
89,50	15805,250	-22319,500	11408,261	20351,442	-3,492	-0,696
90,00	17001,432	-23558,370	11432,889	20396,195	-3,495	-0,709
90,50	18138,306	-24741,432	11457,571	20441,046	-3,498	-0,725
91,00	19215,872	-25868,299	11482,307	20485,996	-3,501	-0,741

x [m]	**M_{Eqp}** [kNm]	**$P_0 \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_0** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
91,50	20234,132	-26938,585	11507,098	20531,045	-3,503	-0,759
92,00	21193,083	-27951,900	11531,943	20576,193	-3,504	-0,778
92,50	22092,727	-28907,852	11556,842	20621,440	-3,506	-0,797
93,00	22933,064	-29806,048	11581,797	20666,787	-3,507	-0,817
93,50	23714,093	-30646,096	11606,806	20712,233	-3,508	-0,838
94,00	24435,814	-31427,597	11631,871	20757,779	-3,510	-0,859
94,50	25098,228	-32150,153	11656,991	20803,426	-3,511	-0,880
95,00	25701,335	-32813,366	11682,165	20849,173	-3,512	-0,901
95,20	25925,971	-33061,945	11692,251	20867,500	-3,512	-0,909
95,50	26209,134	-33416,833	11707,396	20895,020	-3,508	-0,937
96,00	26633,625	-33960,151	11732,682	20940,969	-3,500	-0,983
96,50	26998,810	-34442,914	11758,023	20987,018	-3,493	-1,028
97,00	27304,686	-34864,716	11783,420	21033,168	-3,486	-1,073
97,50	27580,470	-35225,148	11808,874	21079,421	-3,483	-1,104
98,00	27820,649	-35523,799	11834,383	21125,774	-3,485	-1,124
98,50	28001,519	-35760,257	11859,948	21172,230	-3,486	-1,143
99,00	28123,083	-35934,108	11885,569	21218,788	-3,489	-1,161
99,50	28185,338	-36044,935	11911,248	21265,448	-3,492	-1,177
100,00	28128,287	-36092,320	11936,982	21312,211	-3,487	-1,217
100,50	28011,927	-36075,845	11962,773	21359,077	-3,482	-1,254
101,00	27836,261	-35995,086	11988,621	21406,046	-3,478	-1,290
101,50	27601,287	-35849,621	12014,526	21453,118	-3,475	-1,323
102,00	27330,781	-35639,025	12040,488	21500,293	-3,477	-1,344
102,50	27030,107	-35362,870	12066,507	21547,572	-3,483	-1,350
103,00	26670,126	-35020,727	12092,584	21594,956	-3,491	-1,353
103,50	26250,837	-34612,166	12118,718	21642,443	-3,500	-1,353
103,80	25970,796	-34334,968	12134,426	21670,986	-3,505	-1,351
104,00	25748,241	-34136,753	12144,909	21690,035	-3,506	-1,360
104,50	25150,338	-33594,054	12171,158	21737,732	-3,508	-1,379
105,00	24493,126	-32983,631	12197,465	21785,533	-3,512	-1,394
105,50	23776,607	-32305,048	12223,830	21833,440	-3,516	-1,405
106,00	23000,781	-31557,862	12250,253	21881,451	-3,523	-1,413

x [m]	$\mathbf{M_{Eqp}}$ [kNm]	$\mathbf{P_0 \times e}$ [kNm]	$\mathbf{M_{PE,Hip}}$ [kNm]	$\mathbf{P_0}$ [kN]	$\boldsymbol{\sigma}_{\mathbf{sup}}$ [MPa]	$\boldsymbol{\sigma}_{\mathbf{inf}}$ [MPa]
106,50	22165,647	-30741,632	12276,734	21929,569	-3,530	-1,416
107,00	21271,206	-29855,914	12303,273	21977,792	-3,540	-1,415
107,50	20317,458	-28900,261	12329,871	22026,122	-3,550	-1,410
108,00	19304,401	-27874,225	12356,528	22074,557	-3,563	-1,399
108,50	18232,037	-26777,355	12383,243	22123,099	-3,577	-1,384
109,00	17100,366	-25609,201	12410,017	22171,748	-3,593	-1,364
109,50	15909,388	-24369,307	12436,850	22220,504	-3,611	-1,339
110,00	14659,101	-23057,218	12463,742	22269,367	-3,630	-1,308
110,50	13349,508	-21672,476	12490,694	22318,337	-3,652	-1,271
111,00	11980,606	-20214,620	12517,705	22367,416	-3,676	-1,229
111,50	10552,398	-18683,189	12544,775	22416,602	-3,702	-1,180
112,00	9068,068	-17077,718	12571,905	22465,896	-3,731	-1,124
112,50	7541,502	-15397,743	12599,095	22515,299	-3,764	-1,054
113,00	5955,629	-13642,794	12626,345	22564,810	-3,800	-0,978
113,50	4310,447	-11812,401	12653,655	22614,430	-3,838	-0,894
114,00	2638,258	-9906,093	12681,025	22664,159	-3,883	-0,790
114,50	913,327	-7923,396	12708,455	22713,998	-3,932	-0,676
115,00	-5675,748	-5863,832	12735,946	22763,946	-3,274	-2,591
115,35	-6921,127	-4394,268	12755,902	22798,554	-3,315	-2,492
115,50	-7484,125	-3721,879	12746,215	22783,114	-3,328	-2,448
116,00	-9420,775	-1503,526	12717,795	22733,123	-3,358	-2,334
116,50	-11437,187	772,966	12689,440	22683,243	-3,386	-2,229
116,70	-12260,357	1699,749	12678,116	22663,321	-3,397	-2,187
117,00	-13513,484	3032,138	12641,991	22585,141	-3,392	-2,158
117,50	-15652,045	5018,590	12582,000	22455,439	-3,343	-2,230
118,00	-17853,125	6716,480	12522,280	22326,483	-3,243	-2,451
118,14	-18480,631	7140,830	12505,607	22290,508	-3,205	-2,539
118,50	-20118,323	8130,580	12462,829	22198,267	-3,091	-2,819
119,00	-22451,961	9265,613	12403,647	22070,787	-2,888	-3,335
119,50	-24854,283	10126,243	12344,732	21944,040	-2,634	-3,996
119,57	-25196,089	10225,097	12336,506	21926,353	-2,595	-4,100
120,00	-27327,690	10717,085	12286,084	21818,020	-2,331	-4,801

x [m]	**M_{Eqp}** [kNm]	**$P_0 \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_0** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
120,50	-29876,216	11042,699	12227,700	21692,724	-1,977	-5,751
121,00	-32499,925	11107,596	12169,581	21568,147	-1,574	-6,843
121,50	-29873,020	10916,232	12087,856	21444,286	-1,904	-5,829
122,00	-27321,584	10473,014	12006,667	21321,137	-2,187	-4,953
122,43	-25187,479	9893,736	11937,270	21215,794	-2,392	-4,309
122,50	-24845,266	9782,297	11926,010	21198,694	-2,422	-4,214
123,00	-22440,035	8848,388	11845,883	21076,955	-2,610	-3,608
123,50	-20103,486	7675,543	11766,281	20955,915	-2,754	-3,132
123,86	-18463,699	6685,509	11709,291	20869,196	-2,830	-2,869
124,00	-17835,378	6267,968	11687,201	20835,569	-2,853	-2,784
124,50	-15631,387	4629,822	11608,641	20715,915	-2,909	-2,562
125,00	-13489,917	2765,216	11530,595	20596,949	-2,922	-2,461
125,30	-12235,044	1539,442	11484,014	20525,897	-2,909	-2,459
125,50	-11410,709	698,837	11474,165	20507,870	-2,903	-2,468
126,00	-9391,387	-1353,376	11449,580	20462,872	-2,889	-2,486
126,50	-7451,405	-3335,506	11425,049	20417,972	-2,873	-2,508
127,00	-5640,158	-5247,986	11400,571	20373,172	-2,848	-2,555
127,50	962,491	-7091,244	11376,146	20328,469	-3,541	-0,543
128,00	2691,334	-8865,710	11351,775	20283,865	-3,524	-0,566
128,50	4367,968	-10571,808	11327,457	20239,358	-3,510	-0,583
129,00	6017,061	-12209,965	11303,192	20194,950	-3,502	-0,583
129,50	7606,845	-13780,601	11278,980	20150,638	-3,496	-0,579
129,60	7917,686	-14086,663	11274,144	20141,788	-3,494	-0,578
129,60	7917,686	-14053,104	11247,286	20093,804	-3,489	-0,568
130,00	9137,323	-15301,410	11267,540	20129,145	-3,492	-0,577
130,50	10627,307	-16813,593	11292,909	20173,410	-3,499	-0,581
131,00	12061,552	-18271,872	11318,337	20217,771	-3,505	-0,587
131,50	13436,489	-19675,869	11343,823	20262,230	-3,511	-0,594
132,00	14752,119	-21025,205	11369,367	20306,787	-3,516	-0,604
132,50	16008,441	-22319,500	11394,969	20351,442	-3,520	-0,615
133,00	17205,456	-23558,370	11420,631	20396,195	-3,523	-0,628
133,50	18343,163	-24741,432	11446,351	20441,046	-3,527	-0,643

x [m]	$\mathbf{M_{Eqp}}$ [kNm]	$\mathbf{P_0 \times e}$ [kNm]	$\mathbf{M_{PE,Hip}}$ [kNm]	$\mathbf{P_0}$ [kN]	$\boldsymbol{\sigma}_{\mathbf{sup}}$ [MPa]	$\boldsymbol{\sigma}_{\mathbf{inf}}$ [MPa]
134,00	19421,563	-25868,299	11472,130	20485,996	-3,529	-0,658
134,50	20440,655	-26938,585	11497,968	20531,045	-3,532	-0,675
135,00	21400,440	-27951,900	11523,865	20576,193	-3,534	-0,693
135,50	22300,917	-28907,852	11549,822	20621,440	-3,536	-0,712
136,00	23142,087	-29806,048	11575,838	20666,787	-3,537	-0,731
136,50	23923,949	-30646,096	11601,914	20712,233	-3,539	-0,751
137,00	24646,503	-31427,597	11628,049	20757,779	-3,540	-0,771
137,50	25309,751	-32150,153	11654,245	20803,426	-3,541	-0,791
138,00	25913,690	-32813,366	11680,500	20849,173	-3,543	-0,811
138,20	26138,660	-33061,945	11691,019	20867,500	-3,543	-0,819
138,50	26422,322	-33416,833	11706,816	20895,020	-3,539	-0,847
139,00	26847,647	-33960,151	11733,192	20940,969	-3,532	-0,892
139,50	27213,664	-34442,914	11759,628	20987,018	-3,525	-0,936
140,00	27520,374	-34864,716	11786,125	21033,168	-3,518	-0,980
140,50	27796,961	-35225,148	11812,682	21079,421	-3,516	-1,011
141,00	28037,973	-35523,799	11839,301	21125,774	-3,517	-1,030
141,50	28219,678	-35760,257	11865,980	21172,230	-3,520	-1,048
142,00	28342,075	-35934,108	11892,721	21218,788	-3,522	-1,065
142,50	28405,164	-36044,935	11919,523	21265,448	-3,525	-1,080
143,00	28348,947	-36092,320	11946,386	21312,211	-3,520	-1,119
143,50	28233,421	-36075,845	11973,312	21359,077	-3,516	-1,156
144,00	28058,589	-35995,086	12000,298	21406,046	-3,513	-1,191
144,50	27824,448	-35849,621	12027,347	21453,118	-3,510	-1,224
145,00	27554,734	-35639,025	12054,458	21500,293	-3,512	-1,243
145,50	27254,896	-35362,870	12081,630	21547,572	-3,519	-1,248
146,00	26895,751	-35020,727	12108,865	21594,956	-3,527	-1,251
146,50	26477,298	-34612,166	12136,163	21642,443	-3,536	-1,250
146,80	26197,759	-34334,968	12152,571	21670,986	-3,542	-1,248
147,00	25975,538	-34136,753	12163,523	21690,035	-3,542	-1,256
147,50	25378,470	-33594,054	12190,946	21737,732	-3,545	-1,274
148,00	24722,095	-32983,631	12218,432	21785,533	-3,549	-1,288
148,50	24006,412	-32305,048	12245,980	21833,440	-3,554	-1,298

x [m]	**M_{Eqp}** [kNm]	**$P_0 \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_0** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
149,00	23231,422	-31557,862	12273,592	21881,451	-3,560	-1,305
149,50	22397,124	-30741,632	12301,267	21929,569	-3,568	-1,308
150,00	21503,519	-29855,914	12329,006	21977,792	-3,578	-1,306
150,50	20550,606	-28900,261	12356,809	22026,122	-3,589	-1,299
151,00	19538,385	-27874,225	12384,675	22074,557	-3,601	-1,288
151,50	18466,858	-26777,355	12412,605	22123,099	-3,616	-1,272
152,00	17336,022	-25609,201	12440,599	22171,748	-3,632	-1,251
152,50	16145,880	-24369,307	12468,657	22220,504	-3,650	-1,225
153,00	14896,429	-23057,218	12496,780	22269,367	-3,670	-1,193
153,50	13587,672	-21672,476	12524,967	22318,337	-3,692	-1,156
154,00	12219,606	-20214,620	12553,219	22367,416	-3,717	-1,112
154,50	10792,234	-18683,189	12581,536	22416,602	-3,743	-1,063
155,00	9309,121	-17077,718	12609,918	22465,896	-3,772	-1,006
155,50	7785,516	-15397,743	12638,364	22515,299	-3,806	-0,934
156,00	6202,603	-13642,794	12666,876	22564,810	-3,842	-0,856
156,50	4560,382	-11812,401	12695,454	22614,430	-3,881	-0,771
157,00	2890,620	-9906,093	12724,097	22664,159	-3,927	-0,665
157,50	1168,649	-7923,396	12752,806	22713,998	-3,976	-0,549
158,00	-5427,129	-5863,832	12781,580	22763,946	-3,318	-2,466
158,35	-6669,738	-4394,268	12802,428	22798,554	-3,359	-2,366
158,50	-7231,504	-3721,879	12793,075	22783,114	-3,372	-2,321
159,00	-9164,613	-1503,526	12765,737	22733,123	-3,403	-2,205
159,50	-11177,063	772,966	12738,459	22683,243	-3,431	-2,098
159,70	-11998,649	1699,749	12727,564	22663,321	-3,442	-2,055
160,00	-13249,399	3032,138	12691,975	22585,141	-3,439	-2,025
160,50	-15383,998	5018,590	12632,867	22455,439	-3,390	-2,095
161,00	-17581,116	6716,480	12574,019	22326,483	-3,290	-2,314
161,14	-18207,513	7140,830	12557,587	22290,508	-3,253	-2,402
161,50	-19842,353	8130,580	12515,428	22198,267	-3,139	-2,680
162,00	-22172,029	9265,613	12457,094	22070,787	-2,937	-3,194
162,50	-24570,389	10126,243	12399,016	21944,040	-2,684	-3,853
162,57	-24911,640	10225,097	12390,905	21926,353	-2,645	-3,956

x [m]	$\mathbf{M_{Eqp}}$ [kNm]	$\mathbf{P_0 \times e}$ [kNm]	$\mathbf{M_{PE,Hip}}$ [kNm]	$\mathbf{P_0}$ [kN]	$\boldsymbol{\sigma}_{\mathbf{sup}}$ [MPa]	$\boldsymbol{\sigma}_{\mathbf{inf}}$ [MPa]
163,00	-27039,835	10717,085	12341,192	21818,020	-2,381	-4,656
163,50	-29584,399	11042,699	12283,623	21692,724	-2,028	-5,603
164,00	-32204,432	11107,596	12226,306	21568,147	-1,626	-6,693
164,50	-29594,033	10916,232	12141,073	21444,286	-1,953	-5,688
165,00	-27058,817	10473,014	12056,414	21321,137	-2,233	-4,820
165,43	-24938,661	9893,736	11984,063	21215,794	-2,435	-4,184
165,50	-24598,719	9782,297	11972,325	21198,694	-2,465	-4,090
166,00	-22209,707	8848,388	11888,804	21076,955	-2,651	-3,492
166,50	-19889,378	7675,543	11805,845	20955,915	-2,791	-3,024
166,86	-18261,269	6685,509	11746,461	20869,196	-2,865	-2,767
167,00	-17637,490	6267,968	11723,446	20835,569	-2,887	-2,685
167,50	-15449,719	4629,822	11641,602	20715,915	-2,940	-2,471
168,00	-13324,469	2765,216	11560,311	20596,949	-2,951	-2,379
168,30	-12079,327	1539,442	11511,800	20525,897	-2,937	-2,381
168,50	-11261,481	698,837	11500,709	20507,870	-2,929	-2,393
169,00	-9258,379	-1353,376	11473,028	20462,872	-2,912	-2,420
169,50	-7335,038	-3335,506	11445,415	20417,972	-2,893	-2,450
170,00	-5539,971	-5247,986	11417,869	20373,172	-2,865	-2,505
170,50	1035,794	-7091,244	11390,389	20328,469	-3,554	-0,506
171,00	2747,416	-8865,710	11362,976	20283,865	-3,534	-0,538
171,50	4406,296	-10571,808	11335,630	20239,358	-3,517	-0,563
172,00	6038,167	-12209,965	11308,350	20194,950	-3,506	-0,572
172,50	7610,731	-13780,601	11281,136	20150,638	-3,496	-0,576
172,50	7610,731	-13780,601	11281,136	20150,638	-3,496	-0,576
172,60	7918,127	-14086,663	11275,701	20141,788	-3,495	-0,577
172,60	7918,127	-14053,104	11248,839	20093,804	-3,489	-0,567
173,00	9123,987	-15301,410	11266,706	20129,145	-3,490	-0,583
173,50	10595,007	-16813,593	11289,079	20173,410	-3,494	-0,597
174,00	12009,906	-18271,872	11311,498	20217,771	-3,497	-0,612
174,50	13365,498	-19675,869	11333,961	20262,230	-3,499	-0,629
175,00	14661,782	-21025,205	11356,470	20306,787	-3,500	-0,648
175,50	15898,758	-22319,500	11379,024	20351,442	-3,501	-0,668

x [m]	M_{Eqp} [kNm]	$P_0 \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_0 [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
176,00	17076,427	-23558,370	11401,623	20396,195	-3,502	-0,691
176,50	18194,789	-24741,432	11424,267	20441,046	-3,502	-0,715
177,00	19253,843	-25868,299	11446,957	20485,996	-3,501	-0,740
177,50	20253,590	-26938,585	11469,693	20531,045	-3,500	-0,766
178,00	21194,029	-27951,900	11492,474	20576,193	-3,499	-0,794
178,50	22075,160	-28907,852	11515,301	20621,440	-3,497	-0,822
179,00	22896,984	-29806,048	11538,174	20666,787	-3,496	-0,851
179,50	23659,501	-30646,096	11561,093	20712,233	-3,494	-0,880
180,00	24362,710	-31427,597	11584,058	20757,779	-3,492	-0,910
180,50	25006,612	-32150,153	11607,069	20803,426	-3,490	-0,940
181,00	25591,206	-32813,366	11630,126	20849,173	-3,488	-0,969
181,20	25808,437	-33061,945	11639,362	20867,500	-3,487	-0,981
181,50	26080,492	-33416,833	11653,230	20895,020	-3,481	-1,014
182,00	26486,471	-33960,151	11676,380	20940,969	-3,470	-1,069
182,50	26833,143	-34442,914	11699,577	20987,018	-3,460	-1,123
183,00	27120,507	-34864,716	11722,820	21033,168	-3,449	-1,176
183,50	27377,703	-35225,148	11746,110	21079,421	-3,444	-1,217
184,00	27599,367	-35523,799	11769,447	21125,774	-3,442	-1,246
184,50	27761,724	-35760,257	11792,830	21172,230	-3,441	-1,273
185,00	27864,774	-35934,108	11816,261	21218,788	-3,440	-1,300
185,50	27908,516	-36044,935	11839,738	21265,448	-3,440	-1,325
186,00	27832,951	-36092,320	11863,263	21312,211	-3,432	-1,373
186,50	27698,078	-36075,845	11886,835	21359,077	-3,424	-1,420
187,00	27503,897	-35995,086	11910,455	21406,046	-3,418	-1,464
187,50	27250,409	-35849,621	11934,122	21453,118	-3,412	-1,506
188,00	26961,315	-35639,025	11957,837	21500,293	-3,410	-1,536
188,50	26642,129	-35362,870	11981,599	21547,572	-3,413	-1,550
189,00	26263,635	-35020,727	12005,409	21594,956	-3,418	-1,562
189,50	25825,834	-34612,166	12029,267	21642,443	-3,424	-1,571
189,80	25534,686	-34334,968	12043,605	21670,986	-3,428	-1,575
190,00	25304,726	-34136,753	12053,173	21690,035	-3,427	-1,587
190,50	24688,309	-33594,054	12077,127	21737,732	-3,426	-1,614

x [m]	M_{Eqp} [kNm]	$P_0 \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_0 [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
191,00	24012,586	-32983,631	12101,129	21785,533	-3,427	-1,638
191,50	23277,554	-32305,048	12125,179	21833,440	-3,428	-1,658
192,00	22483,216	-31557,862	12149,278	21881,451	-3,431	-1,675
192,50	21629,570	-30741,632	12173,425	21929,569	-3,436	-1,687
193,00	20716,616	-29855,914	12197,621	21977,792	-3,442	-1,695
193,50	19744,355	-28900,261	12221,865	22026,122	-3,450	-1,698
194,00	18712,786	-27874,225	12246,159	22074,557	-3,459	-1,697
194,50	17621,910	-26777,355	12270,501	22123,099	-3,470	-1,691
195,00	16471,726	-25609,201	12294,892	22171,748	-3,483	-1,679
195,50	15262,235	-24369,307	12319,332	22220,504	-3,498	-1,663
196,00	13993,436	-23057,218	12343,821	22269,367	-3,515	-1,641
196,50	12665,330	-21672,476	12368,360	22318,337	-3,533	-1,613
197,00	11277,916	-20214,620	12392,947	22367,416	-3,554	-1,579
197,50	9831,195	-18683,189	12417,585	22416,602	-3,577	-1,540
198,00	8329,504	-17077,718	12442,271	22465,896	-3,602	-1,492
198,50	6787,142	-15397,743	12467,008	22515,299	-3,633	-1,430
199,00	5185,472	-13642,794	12491,794	22564,810	-3,666	-1,361
199,50	3524,495	-11812,401	12516,630	22614,430	-3,701	-1,286
200,00	1826,227	-9906,093	12541,516	22664,159	-3,743	-1,194
200,50	-4451,062	-7923,396	12566,452	22713,998	-3,119	-3,009
201,00	-6213,580	-5863,832	12591,439	22763,946	-3,174	-2,880
201,35	-7466,300	-4394,268	12609,656	22798,554	-3,213	-2,785
201,50	-8032,564	-3721,879	12599,392	22783,114	-3,225	-2,742
202,00	-9982,477	-1503,526	12569,105	22733,123	-3,253	-2,635
202,50	-12009,578	772,966	12538,892	22683,243	-3,279	-2,535
202,70	-12837,024	1699,749	12526,827	22663,321	-3,289	-2,495
203,00	-14096,563	3032,138	12489,919	22585,141	-3,284	-2,469
203,50	-16245,812	5018,590	12428,639	22455,439	-3,233	-2,547
204,00	-18457,581	6716,480	12367,650	22326,483	-3,131	-2,773
204,14	-19088,079	7140,830	12350,624	22290,508	-3,093	-2,862
204,50	-20733,467	8130,580	12306,949	22198,267	-2,977	-3,146
205,00	-23077,794	9265,613	12246,537	22070,787	-2,772	-3,667

x [m]	**M_{Eqp}** [kNm]	**$P_0 \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_0** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
205,50	-25490,803	10126,243	12186,411	21944,040	-2,517	-4,333
205,57	-25834,105	10225,097	12178,016	21926,353	-2,477	-4,437
206,00	-27974,899	10717,085	12126,570	21818,020	-2,212	-5,143
206,50	-30534,113	11042,699	12067,014	21692,724	-1,856	-6,098
207,00	-33172,814	11107,596	12007,740	21568,147	-1,450	-7,196
207,50	-30509,486	10916,232	11935,725	21444,286	-1,788	-6,163
208,00	-27921,340	10473,014	11864,139	21321,137	-2,077	-5,267
208,43	-25755,665	9893,736	11802,917	21215,794	-2,288	-4,607
208,50	-25408,313	9782,297	11792,981	21198,694	-2,319	-4,509
209,00	-22966,372	8848,388	11722,247	21076,955	-2,514	-3,883
209,50	-20593,113	7675,543	11651,935	20955,915	-2,665	-3,388
209,86	-18926,896	6685,509	11601,571	20869,196	-2,745	-3,111
210,00	-18288,296	6267,968	11582,043	20835,569	-2,771	-3,021
210,50	-16047,596	4629,822	11512,568	20715,915	-2,833	-2,779
211,00	-13869,416	2765,216	11443,508	20596,949	-2,853	-2,659
211,30	-12592,517	1539,442	11402,270	20525,897	-2,845	-2,645
211,50	-11753,498	698,837	11395,851	20507,870	-2,841	-2,646
212,00	-9697,467	-1353,376	11379,816	20462,872	-2,833	-2,645
212,50	-7724,959	-3335,506	11363,798	20417,972	-2,823	-2,650
213,00	-5876,438	-5247,986	11347,796	20373,172	-2,805	-2,678
213,50	-4084,385	-7091,244	11331,810	20328,469	-2,789	-2,700
214,00	2458,675	-8865,710	11315,841	20283,865	-3,485	-0,680
214,50	4190,488	-10571,808	11299,889	20239,358	-3,480	-0,670
215,00	5894,712	-12209,965	11283,953	20194,950	-3,481	-0,643
215,50	7539,628	-13780,601	11268,034	20150,638	-3,484	-0,612
215,60	7861,494	-14086,663	11264,852	20141,788	-3,485	-0,605
215,60	7861,494	-14053,104	11238,016	20093,804	-3,479	-0,596
216,00	9125,236	-15301,410	11264,847	20129,145	-3,490	-0,583
216,50	10662,365	-16813,593	11298,470	20173,410	-3,505	-0,564
217,00	12142,206	-18271,872	11332,188	20217,771	-3,519	-0,547
217,50	13562,739	-19675,869	11366,001	20262,230	-3,533	-0,532
218,00	14923,965	-21025,205	11399,908	20306,787	-3,545	-0,518

x [m]	M_{Eqp} [kNm]	$P_0 \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_0 [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
218,50	16225,883	-22319,500	11433,911	20351,442	-3,558	-0,507
219,00	17468,494	-23558,370	11468,009	20396,195	-3,569	-0,497
219,50	18651,797	-24741,432	11502,202	20441,046	-3,580	-0,488
220,00	19775,792	-25868,299	11536,492	20485,996	-3,591	-0,481
220,50	20840,480	-26938,585	11570,878	20531,045	-3,602	-0,475
221,00	21845,861	-27951,900	11605,360	20576,193	-3,612	-0,470
221,50	22791,934	-28907,852	11639,939	20621,440	-3,621	-0,466
222,00	23678,700	-29806,048	11674,615	20666,787	-3,631	-0,462
222,50	24506,158	-30646,096	11709,389	20712,233	-3,641	-0,459
223,00	25274,308	-31427,597	11744,260	20757,779	-3,650	-0,456
223,50	25983,151	-32150,153	11779,228	20803,426	-3,659	-0,453
224,00	26632,687	-32813,366	11814,295	20849,173	-3,669	-0,450
224,20	26875,895	-33061,945	11828,349	20867,500	-3,672	-0,449
224,50	27186,915	-33416,833	11849,460	20895,020	-3,673	-0,462
225,00	27657,836	-33960,151	11884,724	20940,969	-3,674	-0,484
225,50	28069,449	-34442,914	11920,086	20987,018	-3,675	-0,506
226,00	28421,754	-34864,716	11955,548	21033,168	-3,676	-0,526
226,50	28743,287	-35225,148	11991,109	21079,421	-3,682	-0,534
227,00	29029,864	-35523,799	12026,769	21125,774	-3,691	-0,530
227,50	29257,134	-35760,257	12062,530	21172,230	-3,702	-0,525
228,00	29425,096	-35934,108	12098,391	21218,788	-3,712	-0,519
228,50	29533,751	-36044,935	12134,352	21265,448	-3,724	-0,511
229,00	29523,098	-36092,320	12170,414	21312,211	-3,727	-0,527
229,50	29453,137	-36075,845	12206,577	21359,077	-3,731	-0,541
230,00	29323,870	-35995,086	12242,841	21406,046	-3,735	-0,552
230,50	29135,294	-35849,621	12279,206	21453,118	-3,741	-0,561
231,00	28910,713	-35639,025	12315,674	21500,293	-3,750	-0,558
231,50	28656,426	-35362,870	12352,244	21547,572	-3,765	-0,540
232,00	28342,832	-35020,727	12388,916	21594,956	-3,782	-0,519
232,50	27969,930	-34612,166	12425,690	21642,443	-3,799	-0,495
232,80	27717,721	-34334,968	12447,805	21670,986	-3,810	-0,478
233,00	27513,720	-34136,753	12462,568	21690,035	-3,813	-0,477

x [m]	M_{Eqp} [kNm]	$P_0 \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_0 [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
233,50	26962,203	-33594,054	12499,549	21737,732	-3,824	-0,472
234,00	26351,379	-32983,631	12536,633	21785,533	-3,836	-0,463
234,50	25681,247	-32305,048	12573,821	21833,440	-3,849	-0,450
235,00	24951,807	-31557,862	12611,113	21881,451	-3,864	-0,433
235,50	24163,060	-30741,632	12648,509	21929,569	-3,880	-0,412
236,00	23315,005	-29855,914	12686,010	21977,792	-3,898	-0,387
236,50	22407,643	-28900,261	12723,616	22026,122	-3,917	-0,357
237,00	21440,974	-27874,225	12761,327	22074,557	-3,938	-0,323
237,50	20414,997	-26777,355	12799,143	22123,099	-3,961	-0,283
238,00	19329,712	-25609,201	12837,065	22171,748	-3,985	-0,239
238,50	18185,120	-24369,307	12875,094	22220,504	-4,011	-0,189
239,00	16981,221	-23057,218	12913,228	22269,367	-4,040	-0,133
239,50	15718,013	-21672,476	12951,469	22318,337	-4,070	-0,072
240,00	14395,499	-20214,620	12989,817	22367,416	-4,102	-0,005
240,50	13013,677	-18683,189	13028,272	22416,602	-4,137	0,068
241,00	11586,437	-17077,718	13066,835	22465,896	-4,175	0,153
241,50	10109,321	-15397,743	13105,505	22515,299	-4,218	0,248
242,00	8572,898	-13642,794	13144,283	22564,810	-4,262	0,351
242,50	6977,167	-11812,401	13183,170	22614,430	-4,310	0,460
243,00	5322,128	-9906,093	13222,165	22664,159	-4,359	0,576
243,50	3630,717	-7923,396	13261,269	22713,998	-4,415	0,709
244,00	1901,134	-5863,832	13300,482	22763,946	-4,476	0,859
244,35	669,542	-4394,268	13328,578	22798,554	-4,520	0,967
244,50	124,157	-3721,879	13321,742	22783,114	-4,536	1,020
245,00	-6472,757	-1503,526	13302,552	22733,123	-3,880	-0,837
245,50	-8439,187	772,966	13283,383	22683,243	-3,916	-0,707
245,70	-9242,365	1699,749	13275,722	22663,321	-3,930	-0,655
246,00	-10465,503	3032,138	13243,790	22585,141	-3,931	-0,611
246,50	-12554,082	5018,590	13190,708	22455,439	-3,890	-0,659
247,00	-14705,181	6716,480	13137,797	22326,483	-3,798	-0,856
247,14	-15318,692	7140,830	13123,012	22290,508	-3,763	-0,938
247,50	-16920,397	8130,580	13085,057	22198,267	-3,655	-1,201

x [m]	M_{Eqp} [kNm]	$P_0 \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_0 [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
248,00	-19204,054	9265,613	13032,488	22070,787	-3,460	-1,692
248,50	-21556,393	10126,243	12980,091	21944,040	-3,215	-2,329
248,57	-21891,202	10225,097	12972,769	21926,353	-3,177	-2,430
249,00	-23985,090	10717,085	12927,864	21818,020	-2,919	-3,113
249,50	-26515,014	11042,699	12875,807	21692,724	-2,569	-4,052
250,00	-29120,121	11107,596	12823,920	21568,147	-2,169	-5,133
250,50	-26584,481	10916,232	12557,173	21444,286	-2,459	-4,236
251,00	-24124,023	10473,014	12293,064	21321,137	-2,701	-3,477
251,43	-22068,161	9893,736	12068,026	21215,794	-2,871	-2,932
251,50	-21738,685	9782,297	12031,574	21198,694	-2,896	-2,853
252,00	-19424,432	8848,388	11772,680	21076,955	-3,045	-2,361
252,50	-17178,862	7675,543	11516,362	20955,915	-3,149	-1,999
252,86	-15604,580	6685,509	11333,396	20869,196	-3,196	-1,817
253,00	-15001,733	6267,968	11262,598	20835,569	-3,209	-1,764
253,50	-12888,721	4629,822	11011,368	20715,915	-3,225	-1,653
254,00	-10838,230	2765,216	10762,650	20596,949	-3,200	-1,663
254,30	-9637,944	1539,442	10614,617	20525,897	-3,164	-1,727
254,50	-8870,060	698,837	10536,191	20507,870	-3,140	-1,789
255,00	-7026,588	-1353,376	10340,695	20462,872	-3,074	-1,954
255,50	-5239,584	-3335,506	10146,007	20417,972	-3,010	-2,113
256,00	1501,124	-5247,986	9952,125	20373,172	-3,688	-0,143
256,50	3214,855	-7091,244	9759,045	20328,469	-3,635	-0,274
257,00	4869,278	-8865,710	9566,766	20283,865	-3,582	-0,400
257,50	6464,393	-10571,808	9375,285	20239,358	-3,532	-0,522
258,00	8000,201	-12209,965	9184,599	20194,950	-3,482	-0,640
258,50	9476,702	-13780,601	8994,706	20150,638	-3,434	-0,754
258,60	9764,885	-14086,663	8956,822	20141,788	-3,425	-0,777
258,60	9764,885	-15786,183	10037,440	22571,843	-3,664	-1,370
259,00	10893,895	-17188,434	9902,719	22611,543	-3,610	-1,548
259,50	12251,780	-18887,105	9733,608	22661,266	-3,541	-1,771
260,00	13550,358	-20525,224	9563,707	22711,098	-3,473	-1,994
260,50	14789,629	-22102,367	9393,013	22761,040	-3,404	-2,216

x [m]	M_{Eqp} [kNm]	$P_0 \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_0 [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
261,00	15969,592	-23618,108	9221,523	22811,092	-3,336	-2,438
261,50	17090,247	-25072,019	9049,234	22861,253	-3,268	-2,659
262,00	18151,595	-26463,671	8876,144	22911,525	-3,201	-2,879
262,50	19153,636	-27792,633	8702,251	22961,908	-3,134	-3,098
263,00	20096,369	-29058,470	8527,550	23012,401	-3,067	-3,316
263,20	20456,856	-29547,032	8457,444	23032,630	-3,041	-3,402
263,50	20943,794	-30260,747	8352,041	23063,006	-2,996	-3,547
264,00	21707,912	-31399,027	8175,720	23113,722	-2,922	-3,787
264,50	22412,723	-32472,870	7998,584	23164,549	-2,848	-4,026
265,00	23058,226	-33481,836	7820,630	23215,488	-2,775	-4,262
265,50	23695,099	-34425,480	7641,856	23266,539	-2,710	-4,475
266,00	24274,534	-35303,359	7462,260	23317,702	-2,647	-4,684
266,50	24794,661	-36115,024	7281,838	23368,978	-2,584	-4,891
267,00	25255,481	-36860,026	7100,587	23420,366	-2,522	-5,095
267,50	25656,993	-37537,915	6918,506	23471,868	-2,461	-5,297
268,00	25939,198	-38148,236	6735,590	23523,483	-2,393	-5,520
268,50	26162,095	-38690,536	6551,837	23575,211	-2,326	-5,740
269,00	26325,685	-39164,356	6367,245	23627,053	-2,260	-5,957
269,50	26429,967	-39569,238	6181,811	23679,009	-2,195	-6,170
270,00	26503,272	-39904,720	5995,532	23731,079	-2,136	-6,367
270,50	26540,795	-40170,339	5808,405	23783,264	-2,082	-6,550
271,00	26519,010	-40365,629	5620,426	23835,564	-2,029	-6,729
271,50	26437,918	-40490,123	5431,595	23887,978	-1,978	-6,903
271,80	26360,795	-40539,637	5320,002	23929,007	-1,949	-7,010
272,00	26273,518	-40550,393	5245,386	23956,398	-1,927	-7,087
272,45	26041,884	-40508,882	5076,314	24018,336	-1,882	-7,247
272,50	26013,811	-40476,445	5055,256	24011,660	-1,879	-7,253
273,00	25694,796	-40082,494	4839,167	23943,083	-1,849	-7,304
273,50	25316,474	-39579,440	4624,273	23874,701	-1,826	-7,333
274,00	24878,845	-38968,228	4410,568	23806,515	-1,811	-7,341
274,50	24381,908	-38249,796	4198,048	23738,524	-1,803	-7,327
275,00	23825,663	-37425,075	3986,708	23670,727	-1,802	-7,294

x [m]	**M_{Eqp}** [kNm]	**$P_0 \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_0** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
275,50	23210,111	-36494,994	3776,541	23603,123	-1,808	-7,241
276,00	22535,251	-35460,474	3567,545	23535,713	-1,821	-7,168
276,50	21801,084	-34322,432	3359,712	23468,495	-1,841	-7,075
277,00	21007,609	-33081,780	3153,039	23401,469	-1,868	-6,964
277,50	20154,827	-31739,424	2947,521	23334,634	-1,900	-6,835
278,00	19242,738	-30296,265	2743,153	23267,991	-1,940	-6,687
278,50	18271,341	-28753,198	2539,929	23201,538	-1,985	-6,522
279,00	17240,636	-27111,114	2337,845	23135,274	-2,036	-6,340
279,50	16150,624	-25370,898	2136,896	23069,200	-2,094	-6,140
280,00	15001,304	-23533,432	1937,077	23003,314	-2,157	-5,925
280,50	13792,677	-21599,589	1738,384	22937,617	-2,226	-5,693
280,70	13292,620	-20799,262	1659,221	22911,390	-2,255	-5,595
281,00	12524,164	-19570,241	1540,811	22872,107	-2,300	-5,445
281,50	11193,388	-17446,252	1344,354	22806,784	-2,379	-5,183
282,00	9800,093	-15228,482	1149,008	22741,648	-2,463	-4,908
282,14	9398,766	-14590,817	1094,510	22723,444	-2,487	-4,828
282,50	8342,679	-12917,786	954,769	22676,698	-2,551	-4,620
283,00	6816,825	-10515,014	761,631	22611,934	-2,643	-4,321
283,50	5222,289	-8021,012	569,590	22547,354	-2,739	-4,013
283,57	4993,573	-7664,620	542,791	22538,328	-2,753	-3,969
284,00	3556,666	-5436,620	378,640	22482,959	-2,838	-3,696
284,50	1815,924	-2762,672	188,779	22418,748	-2,939	-3,372
285,00	0,000	0,000	0,000	22354,720	-3,042	-3,042

Anexo E – Estado limite de descompressão – Longo prazo

I_c [m^4]	A_c [m^2]	v_{sup} [m]	v_{inf} [m]	f_{ctm} [MPa]	f_{ctk} [MPa]
4,708	7,349	0,695	1,995	3,200	2,200

x [m]	M_{Eqp} [kNm]	$P_\infty \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_∞ [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
0,000	0,000	0,000	0,000	17617,168	-2,397	-2,397
0,500	1683,723	-2175,923	231,124	17670,309	-2,366	-2,515
1,000	3292,278	-4283,527	463,742	17727,303	-2,334	-2,636
1,430	4615,516	-6041,749	665,091	17779,043	-2,307	-2,742
1,500	4825,728	-6323,226	697,988	17787,682	-2,302	-2,759
2,000	6288,106	-8295,120	933,970	17850,972	-2,271	-2,884
2,500	7681,814	-10199,017	1171,773	17916,706	-2,239	-3,008
2,860	8642,764	-11527,476	1344,154	17965,294	-2,217	-3,097
3,000	9007,095	-12034,468	1411,458	17984,434	-2,209	-3,132
3,500	10268,270	-13800,801	1653,065	18053,735	-2,179	-3,253
4,000	11466,937	-15497,163	1896,614	18124,213	-2,151	-3,370
4,300	12156,134	-16480,982	2043,678	18166,915	-2,135	-3,439
4,500	12603,353	-17122,551	2142,109	18195,511	-2,125	-3,483
5,000	13679,894	-18675,845	2389,539	18267,303	-2,101	-3,590
5,500	14697,138	-20155,843	2638,883	18339,300	-2,079	-3,690
6,000	15655,085	-21561,283	2890,108	18411,244	-2,060	-3,783
6,500	16553,735	-22890,868	3143,172	18482,910	-2,044	-3,868
7,000	17393,087	-24143,283	3398,029	18554,104	-2,030	-3,945
7,500	18173,143	-25317,212	3654,627	18624,655	-2,019	-4,013
8,000	18893,901	-26411,349	3912,910	18694,418	-2,012	-4,071
8,500	19555,362	-27424,409	4172,818	18763,268	-2,008	-4,119
9,000	20157,526	-28355,134	4434,291	18831,098	-2,007	-4,157
9,500	20700,393	-29202,300	4697,265	18897,820	-2,010	-4,184

x [m]	M_{Eqp} [kNm]	$P_\infty \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_∞ [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
10,000	21183,963	-29964,722	4961,676	18963,355	-2,017	-4,199
10,500	21608,235	-30641,254	5227,460	19027,639	-2,027	-4,202
11,000	21973,211	-31230,794	5494,551	19090,618	-2,042	-4,192
11,500	22278,889	-31732,286	5762,884	19152,246	-2,061	-4,170
12,000	22525,270	-32144,719	6032,393	19212,482	-2,085	-4,134
12,500	22712,354	-32467,127	6303,013	19271,296	-2,113	-4,085
13,000	22840,141	-32698,595	6574,677	19328,659	-2,145	-4,022
13,200	22874,653	-32765,523	6683,621	19351,194	-2,160	-3,992
13,500	22872,631	-32838,255	6847,321	19384,551	-2,177	-3,959
14,000	22821,824	-32880,182	7116,289	19426,423	-2,209	-3,890
14,500	22711,719	-32862,128	7385,983	19467,324	-2,241	-3,820
15,000	22542,318	-32783,732	7656,363	19507,250	-2,273	-3,750
15,500	22337,145	-32644,654	7927,391	19546,199	-2,308	-3,668
16,000	22101,004	-32444,575	8199,026	19584,171	-2,348	-3,574
16,500	21805,567	-32183,200	8471,233	19621,169	-2,389	-3,478
17,000	21450,833	-31860,254	8743,975	19657,197	-2,429	-3,381
17,500	21036,801	-31475,486	9017,218	19692,266	-2,470	-3,282
18,000	20503,472	-31028,666	9290,930	19726,388	-2,502	-3,207
18,500	19910,846	-30519,589	9565,082	19759,580	-2,535	-3,131
19,000	19258,923	-29948,068	9839,648	19791,863	-2,568	-3,053
19,500	18547,703	-29313,944	10114,606	19823,266	-2,601	-2,974
20,000	17779,055	-28617,075	10389,941	19853,823	-2,636	-2,891
20,500	17001,787	-27857,343	10665,640	19883,575	-2,678	-2,786
21,000	16165,222	-27034,647	10941,701	19912,573	-2,720	-2,679
21,500	15269,360	-26148,906	11218,126	19940,875	-2,763	-2,570
21,800	14703,380	-25587,171	11384,161	19957,552	-2,790	-2,504
22,000	14290,201	-25200,052	11494,929	19968,553	-2,804	-2,469
22,500	13215,745	-24188,031	11772,134	19995,688	-2,839	-2,382
23,000	12081,991	-23112,798	12049,778	20022,377	-2,875	-2,293
23,500	10888,941	-21974,308	12327,911	20048,727	-2,912	-2,202
24,000	9636,593	-20772,516	12606,598	20074,867	-2,949	-2,109
24,500	8324,948	-19507,368	12885,924	20100,937	-2,987	-2,013

x [m]	**M_{Eqp}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
25,000	6954,006	-18178,788	13165,992	20127,098	-3,025	-1,916
25,500	5523,767	-16786,676	13446,924	20153,530	-3,065	-1,817
26,000	4034,231	-15330,890	13728,870	20180,433	-3,105	-1,716
26,500	-2694,680	-13811,236	14012,001	20208,026	-2,382	-3,807
27,000	-4274,509	-12227,453	14296,512	20236,548	-2,428	-3,688
27,500	-5910,795	-10579,200	14582,630	20266,257	-2,476	-3,566
28,000	-7603,539	-8866,038	14870,603	20297,430	-2,526	-3,440
28,500	-9352,740	-7087,414	15160,709	20330,359	-2,578	-3,309
29,000	-11158,397	-5242,644	15453,251	20365,350	-2,631	-3,173
29,346	-12440,964	-3927,719	15658,086	20390,919	-2,670	-3,076
29,500	-13020,512	-3326,517	15727,838	20375,895	-2,681	-3,035
30,000	-14939,085	-1343,665	15957,609	20329,018	-2,718	-2,904
30,500	-16914,114	690,806	16188,571	20285,154	-2,755	-2,775
30,700	-17734,618	1519,166	16281,363	20268,509	-2,768	-2,730
31,000	-19013,830	2710,497	16393,821	20202,330	-2,762	-2,711
31,500	-21195,857	4487,943	16580,478	20094,011	-2,716	-2,788
32,000	-23440,391	6008,903	16765,525	19987,297	-2,622	-3,002
32,140	-24080,062	6389,343	16816,957	19957,584	-2,587	-3,086
32,500	-25749,031	7277,245	16948,297	19881,335	-2,481	-3,351
33,000	-28126,098	8296,609	17128,224	19775,435	-2,292	-3,836
33,500	-30571,835	9070,533	17304,835	19669,064	-2,057	-4,455
33,570	-30919,718	9159,498	17329,274	19654,110	-2,020	-4,552
34,000	-33088,645	9602,562	17477,759	19561,829	-1,775	-5,208
34,500	-35680,559	9896,313	17646,725	19453,474	-1,446	-6,095
35,000	-38347,642	9955,522	17811,561	19343,863	-1,070	-7,115
35,500	-35694,740	9784,068	17664,631	19232,977	-1,400	-6,111
36,000	-33117,007	9385,978	17517,120	19120,904	-1,685	-5,235
36,430	-30981,991	8865,523	17389,940	19023,722	-1,891	-4,591
36,500	-30640,486	8765,408	17369,220	19007,844	-1,921	-4,496
37,000	-28240,309	7926,614	17221,219	18894,105	-2,115	-3,881
37,000	-28240,309	7926,614	17221,219	18894,105	-2,115	-3,881
37,500	-25908,802	6873,896	17073,505	18780,103	-2,266	-3,387

x [m]	M_{Eqp} [kNm]	$P_\infty \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_∞ [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
37,500	-25908,802	6873,896	17073,505	18780,103	-2,266	-3,387
37,860	-24272,637	5985,881	16967,598	18698,155	-2,350	-3,103
38,000	-23645,722	5611,529	16926,565	18666,373	-2,377	-3,009
38,000	-23645,722	5611,529	16926,565	18666,373	-2,377	-3,009
38,500	-21446,748	4143,666	16780,987	18553,561	-2,448	-2,746
39,000	-19310,282	2474,224	16637,459	18442,432	-2,480	-2,594
39,000	-19310,282	2474,224	16637,459	18442,432	-2,480	-2,594
39,300	-18058,406	1377,297	16552,647	18376,921	-2,482	-2,555
39,300	-18058,406	1377,297	16552,647	18376,921	-2,482	-2,555
39,500	-17236,067	625,207	16524,665	18360,111	-2,486	-2,535
39,500	-17236,067	625,207	16524,665	18360,111	-2,486	-2,535
40,000	-15221,727	-1210,800	16456,651	18320,115	-2,497	-2,483
40,500	-13266,684	-2984,587	16391,200	18282,803	-2,509	-2,429
41,000	-11449,049	-4697,203	16328,049	18247,899	-2,510	-2,406
41,500	-9699,784	-6349,550	16266,935	18215,125	-2,511	-2,386
42,000	-8006,977	-7942,386	16207,601	18184,206	-2,513	-2,365
42,500	-6370,627	-9476,342	16149,797	18154,873	-2,515	-2,342
43,000	-4790,735	-10951,931	16093,284	18126,870	-2,518	-2,318
43,500	-3267,299	-12369,568	16037,838	18099,953	-2,522	-2,293
43,500	-3267,299	-12369,568	16037,838	18099,953	-2,522	-2,293
43,600	-2969,387	-12646,171	16026,858	18094,679	-2,523	-2,288
43,600	-2969,387	-12615,782	15988,345	18051,227	-2,516	-2,286
44,000	3221,122	-13745,228	16001,469	18094,481	-3,271	-0,141
44,500	4696,365	-15116,179	16018,304	18149,223	-3,296	-0,098
45,000	6126,201	-16441,269	16035,457	18204,539	-3,322	-0,053
45,500	7496,739	-17719,952	16052,770	18260,254	-3,345	-0,015
46,000	8807,981	-18951,642	16070,101	18316,211	-3,367	0,019
46,500	10059,925	-20135,721	16087,320	18372,261	-3,387	0,047
47,000	11252,573	-21271,551	16104,310	18428,275	-3,406	0,071
47,500	12385,923	-22358,476	16120,968	18484,134	-3,423	0,090
48,000	13459,976	-23395,834	16137,201	18539,731	-3,438	0,105
48,500	14474,731	-24382,958	16152,929	18594,971	-3,452	0,116

x [m]	M_{Eqp} [kNm]	$P_\infty \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_∞ [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
49,000	15430,190	-25319,185	16168,079	18649,772	-3,465	0,123
49,500	16326,352	-26203,856	16182,591	18704,058	-3,476	0,126
50,000	17163,216	-27036,319	16196,408	18757,765	-3,486	0,127
50,500	17940,784	-27815,935	16209,485	18810,834	-3,495	0,124
51,000	18659,054	-28542,080	16221,781	18863,214	-3,502	0,119
51,500	19318,027	-29214,141	16233,261	18914,863	-3,509	0,111
52,000	19917,703	-29831,523	16243,897	18965,740	-3,515	0,101
52,200	20140,970	-30063,037	16247,908	18985,867	-3,517	0,097
52,500	20422,081	-30393,650	16253,662	19015,811	-3,515	0,074
53,000	20843,163	-30899,961	16262,535	19065,048	-3,510	0,035
53,500	21204,948	-31349,915	16270,500	19113,425	-3,505	-0,005
54,000	21507,435	-31742,990	16277,542	19160,919	-3,499	-0,047
54,500	21780,226	-32078,682	16283,648	19207,510	-3,497	-0,078
55,000	22017,023	-32356,508	16288,809	19253,183	-3,498	-0,099
55,500	22194,522	-32576,004	16293,018	19297,921	-3,499	-0,121
56,000	22312,724	-32736,728	16296,268	19341,714	-3,499	-0,144
56,500	22371,629	-32838,255	16298,558	19384,551	-3,499	-0,167
57,000	22311,237	-32880,182	16299,884	19426,423	-3,489	-0,215
57,500	22191,548	-32862,128	16300,246	19467,324	-3,480	-0,264
58,000	22012,562	-32783,732	16299,647	19507,250	-3,471	-0,312
58,500	21774,278	-32644,654	16298,089	19546,199	-3,461	-0,360
59,000	21501,049	-32444,575	16295,577	19584,171	-3,455	-0,397
59,500	21197,058	-32183,200	16292,120	19621,169	-3,453	-0,422
60,000	20833,770	-31860,254	16287,727	19657,197	-3,451	-0,446
60,500	20411,184	-31475,486	16282,410	19692,266	-3,450	-0,469
60,800	20129,170	-31214,854	16278,783	19712,852	-3,449	-0,482
61,000	19905,301	-31028,666	16276,185	19726,388	-3,445	-0,501
61,500	19304,122	-30519,589	16269,072	19759,580	-3,435	-0,548
62,000	18643,645	-29948,068	16261,093	19791,863	-3,425	-0,593
62,500	17923,871	-29313,944	16252,276	19823,266	-3,415	-0,637
63,000	17144,799	-28617,075	16242,654	19853,823	-3,406	-0,680
63,500	16306,431	-27857,343	16232,266	19883,575	-3,397	-0,722

x [m]	**M_{Eqp}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
64,000	15408,766	-27034,647	16221,156	19912,573	-3,388	-0,763
64,500	14451,803	-26148,906	16209,379	19940,875	-3,380	-0,802
65,000	13435,543	-25200,052	16196,994	19968,553	-3,372	-0,839
65,500	12359,986	-24188,031	16184,072	19995,688	-3,364	-0,875
66,000	11225,132	-23112,798	16170,693	20022,377	-3,357	-0,910
66,500	10030,981	-21974,308	16156,949	20048,727	-3,350	-0,943
67,000	8777,533	-20772,516	16142,943	20074,867	-3,344	-0,974
67,500	7464,788	-19507,368	16128,792	20100,937	-3,338	-1,004
68,000	6092,745	-18178,788	16114,624	20127,098	-3,333	-1,032
68,500	4661,405	-16786,676	16100,585	20153,530	-3,329	-1,058
69,000	3172,787	-15330,890	16086,833	20180,433	-3,326	-1,081
69,500	-3384,773	-13811,236	16073,540	20208,026	-2,584	-3,225
70,000	-4902,425	-12227,453	16060,893	20236,548	-2,596	-3,207
70,500	-6476,533	-10579,200	16049,095	20266,257	-2,609	-3,184
71,000	-8107,099	-8866,038	16038,358	20297,430	-2,624	-3,158
71,500	-9794,122	-7087,414	16028,907	20330,359	-2,641	-3,128
72,000	-11537,602	-5242,644	16020,973	20365,350	-2,659	-3,093
72,346	-12777,142	-3927,719	16017,296	20390,919	-2,673	-3,066
72,500	-13337,539	-3326,517	15993,729	20375,895	-2,674	-3,057
73,000	-15261,453	-1343,665	15921,459	20329,018	-2,665	-3,056
73,500	-17268,879	690,806	15851,721	20285,154	-2,653	-3,068
73,700	-18088,453	1519,166	15824,577	20268,509	-2,648	-3,074
74,000	-19336,181	2710,497	15758,797	20202,330	-2,621	-3,116
74,500	-21465,734	4487,943	15650,918	20094,011	-2,538	-3,297
75,000	-23657,795	6008,903	15544,543	19987,297	-2,409	-3,611
75,140	-24282,774	6389,343	15514,934	19957,584	-2,365	-3,724
75,500	-25913,961	7277,245	15439,002	19881,335	-2,233	-4,060
76,000	-28238,555	8296,609	15333,754	19775,435	-2,011	-4,644
76,500	-30631,819	9070,533	15228,381	19669,064	-1,742	-5,360
76,570	-30972,356	9159,498	15213,600	19654,110	-1,700	-5,471
77,000	-33096,155	9602,562	15122,582	19561,829	-1,426	-6,209
77,500	-35635,596	9896,313	15016,158	19453,474	-1,064	-7,191

x [m]	M_{Eqp} [kNm]	$P_\infty \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_∞ [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
78,000	-38250,205	9955,522	14909,010	19343,863	-0,656	-8,304
78,500	-35624,703	9784,068	14820,366	19232,977	-0,990	-7,287
79,000	-33078,673	9385,978	14730,837	19120,904	-1,279	-6,399
79,430	-30949,207	8865,523	14653,247	19023,722	-1,492	-5,737
79,500	-30607,748	8765,408	14640,575	19007,844	-1,523	-5,638
80,000	-28207,896	7926,614	14549,819	18894,105	-1,725	-5,000
80,500	-25876,713	6873,896	14458,894	18780,103	-1,885	-4,481
80,860	-24240,781	5985,881	14393,551	18698,155	-1,974	-4,180
81,000	-23613,958	5611,529	14368,212	18666,373	-2,004	-4,080
81,500	-21415,308	4143,666	14278,276	18553,561	-2,083	-3,793
82,000	-19279,166	2474,224	14189,675	18442,432	-2,124	-3,618
82,300	-18027,485	1377,297	14137,435	18376,921	-2,130	-3,565
82,500	-17205,275	625,207	14127,563	18360,111	-2,136	-3,538
83,000	-15191,259	-1210,800	14104,432	18320,115	-2,154	-3,466
83,500	-13254,420	-2984,587	14083,351	18282,803	-2,170	-3,401
84,000	-11448,499	-4697,203	14064,107	18247,899	-2,176	-3,365
84,500	-9699,035	-6349,550	14046,488	18215,125	-2,183	-3,327
85,000	-8006,028	-7942,386	14030,283	18184,206	-2,191	-3,287
85,500	-6369,478	-9476,342	14015,286	18154,873	-2,200	-3,246
86,000	-4789,385	-10951,931	14001,300	18126,870	-2,210	-3,204
86,500	-3265,749	-12369,568	13988,136	18099,953	-2,220	-3,161
86,600	-2967,797	-12646,171	13985,586	18094,679	-2,222	-3,152
86,600	-2967,797	-12615,782	13951,978	18051,227	-2,216	-3,148
87,000	3016,421	-13745,228	13991,548	18094,481	-2,944	-1,080
87,500	4505,122	-15116,179	14041,578	18149,223	-2,976	-1,016
88,000	5938,862	-16441,269	14092,101	18204,539	-3,007	-0,956
88,500	7313,306	-17719,952	14142,983	18260,254	-3,036	-0,902
89,000	8628,452	-18951,642	14194,099	18316,211	-3,064	-0,852
89,500	9884,302	-20135,721	14245,337	18372,261	-3,090	-0,808
90,000	11080,854	-21271,551	14296,593	18428,275	-3,114	-0,768
90,500	12218,109	-22358,476	14347,775	18484,134	-3,136	-0,733
91,000	13296,067	-23395,834	14398,800	18539,731	-3,157	-0,701

x [m]	M_{Eqp} [kNm]	$P_\infty \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_∞ [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
91,500	14314,728	-24382,958	14449,593	18594,971	-3,177	-0,674
92,000	15274,091	-25319,185	14500,089	18649,772	-3,195	-0,650
92,500	16174,158	-26203,856	14550,228	18704,058	-3,212	-0,630
93,000	17014,927	-27036,319	14599,959	18757,765	-3,228	-0,613
93,500	17796,399	-27815,935	14649,236	18810,834	-3,243	-0,598
94,000	18518,574	-28542,080	14698,018	18863,214	-3,257	-0,586
94,500	19181,452	-29214,141	14746,269	18914,863	-3,270	-0,577
95,000	19785,033	-29831,523	14793,959	18965,740	-3,282	-0,569
95,200	20009,862	-30063,037	14812,871	18985,867	-3,286	-0,567
95,500	20293,317	-30393,650	14841,059	19015,811	-3,287	-0,579
96,000	20718,303	-30899,961	14887,546	19065,048	-3,289	-0,600
96,500	21083,993	-31349,915	14933,399	19113,425	-3,290	-0,623
97,000	21390,385	-31742,990	14978,598	19160,919	-3,290	-0,647
97,500	21666,695	-32078,682	15023,127	19207,510	-3,294	-0,660
98,000	21907,410	-32356,508	15066,971	19253,183	-3,302	-0,663
98,500	22088,827	-32576,004	15110,119	19297,921	-3,308	-0,667
99,000	22210,948	-32736,728	15152,560	19341,714	-3,315	-0,672
99,500	22273,771	-32838,255	15194,283	19384,551	-3,321	-0,676
100,000	22217,297	-32880,182	15235,282	19426,423	-3,318	-0,706
100,500	22101,526	-32862,128	15275,551	19467,324	-3,315	-0,736
101,000	21926,458	-32783,732	15315,084	19507,250	-3,312	-0,766
101,500	21692,093	-32644,654	15353,879	19546,199	-3,309	-0,795
102,000	21422,207	-32444,575	15391,934	19584,171	-3,310	-0,814
102,500	21122,163	-32183,200	15429,251	19621,169	-3,315	-0,819
103,000	20762,822	-31860,254	15465,833	19657,197	-3,320	-0,824
103,500	20344,183	-31475,486	15501,686	19692,266	-3,325	-0,828
103,800	20064,538	-31214,854	15522,852	19712,852	-3,328	-0,830
104,000	19842,248	-31028,666	15536,819	19726,388	-3,326	-0,841
104,500	19245,015	-30519,589	15571,243	19759,580	-3,323	-0,868
105,000	18588,486	-29948,068	15604,976	19791,863	-3,320	-0,894
105,500	17872,659	-29313,944	15638,038	19823,266	-3,317	-0,919
106,000	17097,535	-28617,075	15670,455	19853,823	-3,314	-0,943

x [m]	M_{Eqp} [kNm]	$P_\infty \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_∞ [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
106,500	16263,114	-27857,343	15702,260	19883,575	-3,312	-0,965
107,000	15369,396	-27034,647	15733,490	19912,573	-3,310	-0,986
107,500	14416,380	-26148,906	15764,193	19940,875	-3,309	-1,005
108,000	13404,068	-25200,052	15794,424	19968,553	-3,307	-1,023
108,500	12332,458	-24188,031	15824,247	19995,688	-3,307	-1,039
109,000	11201,551	-23112,798	15853,738	20022,377	-3,307	-1,054
109,500	10011,348	-21974,308	15882,983	20048,727	-3,307	-1,067
110,000	8761,846	-20772,516	15912,083	20074,867	-3,308	-1,079
110,500	7453,048	-19507,368	15941,150	20100,937	-3,309	-1,088
111,000	6084,953	-18178,788	15970,314	20127,098	-3,311	-1,096
111,500	4657,561	-16786,676	15999,717	20153,530	-3,314	-1,102
112,000	3174,057	-15330,890	16029,520	20180,433	-3,318	-1,105
112,500	-3374,049	-13811,236	16059,898	20208,026	-2,584	-3,227
113,000	-4899,241	-12227,453	16091,043	20236,548	-2,601	-3,193
113,500	-6480,890	-10579,200	16123,164	20266,257	-2,619	-3,155
114,000	-8118,997	-8866,038	16156,483	20297,430	-2,640	-3,113
114,500	-9813,560	-7087,414	16191,237	20330,359	-2,662	-3,067
115,000	-11564,581	-5242,644	16227,671	20365,350	-2,686	-3,017
115,346	-12809,339	-3927,719	16254,801	20390,919	-2,704	-2,979
115,500	-13372,058	-3326,517	16244,645	20375,895	-2,706	-2,965
116,000	-15307,799	-1343,665	16215,808	20329,018	-2,702	-2,951
116,500	-17323,291	690,806	16189,350	20285,154	-2,695	-2,948
116,700	-18146,091	1519,166	16179,481	20268,509	-2,692	-2,948
117,000	-19398,658	2710,497	16138,783	20202,330	-2,668	-2,982
117,500	-21536,276	4487,943	16072,367	20094,011	-2,590	-3,148
118,000	-23736,402	6008,903	16007,024	19987,297	-2,466	-3,449
118,140	-24363,638	6389,343	15988,824	19957,584	-2,423	-3,557
118,500	-26000,633	7277,245	15942,071	19881,335	-2,295	-3,884
119,000	-28333,291	8296,609	15876,953	19775,435	-2,077	-4,453
119,500	-30734,620	9070,533	15811,239	19669,064	-1,813	-5,156
119,570	-31076,286	9159,498	15801,972	19654,110	-1,772	-5,265
120,000	-33207,021	9602,562	15744,609	19561,829	-1,502	-5,992

x [m]	**M_{Eqp}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
120,500	-35754,527	9896,313	15676,853	19453,474	-1,144	-6,961
121,000	-38377,200	9955,522	15607,856	19343,863	-0,741	-8,062
121,500	-35753,383	9784,068	15507,263	19232,977	-1,073	-7,050
122,000	-33205,021	9385,978	15405,832	19120,904	-1,360	-6,167
122,430	-31073,548	8865,523	15318,055	19023,722	-1,572	-5,508
122,500	-30731,763	8765,408	15303,728	19007,844	-1,603	-5,410
123,000	-28329,577	7926,614	15201,200	18894,105	-1,803	-4,775
123,500	-25996,061	6873,896	15098,587	18780,103	-1,962	-4,260
123,860	-24358,450	5985,881	15024,891	18698,155	-2,050	-3,963
124,000	-23730,973	5611,529	14996,320	18666,373	-2,079	-3,863
124,500	-21529,990	4143,666	14894,924	18553,561	-2,157	-3,580
125,000	-19391,515	2474,224	14795,012	18442,432	-2,196	-3,409
125,300	-18138,434	1377,297	14736,067	18376,921	-2,202	-3,359
125,500	-17315,291	625,207	14722,615	18360,111	-2,208	-3,332
126,000	-15298,943	-1210,800	14690,624	18320,115	-2,224	-3,264
126,500	-13361,923	-2984,587	14660,800	18282,803	-2,239	-3,202
127,000	-11553,629	-4697,203	14632,920	18247,899	-2,244	-3,169
127,500	-9801,792	-6349,550	14606,760	18215,125	-2,251	-3,133
128,000	-8106,411	-7942,386	14582,097	18184,206	-2,258	-3,096
128,500	-6467,488	-9476,342	14558,716	18154,873	-2,266	-3,057
129,000	-4885,022	-10951,931	14536,409	18126,870	-2,275	-3,018
129,500	-3359,013	-12369,568	14514,980	18099,953	-2,284	-2,977
129,600	-3060,586	-12646,171	14510,783	18094,679	-2,286	-2,969
129,600	-3060,586	-12615,782	14475,913	18051,227	-2,279	-2,965
130,000	3206,356	-13745,228	14510,765	18094,481	-3,049	-0,779
130,500	4693,461	-15116,179	14554,875	18149,223	-3,080	-0,719
131,000	6124,836	-16441,269	14599,451	18204,539	-3,109	-0,662
131,500	7496,914	-17719,952	14644,350	18260,254	-3,137	-0,611
132,000	8809,695	-18951,642	14689,444	18316,211	-3,164	-0,566
132,500	10063,179	-20135,721	14734,615	18372,261	-3,188	-0,525
133,000	11257,366	-21271,551	14779,758	18428,275	-3,211	-0,488
133,500	12392,255	-22358,476	14824,776	18484,134	-3,232	-0,457

x [m]	M_{Eqp} [kNm]	$P_\infty \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_∞ [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
134,000	13467,848	-23395,834	14869,584	18539,731	-3,252	-0,429
134,500	14484,143	-24382,958	14914,105	18594,971	-3,271	-0,405
135,000	15441,141	-25319,185	14958,272	18649,772	-3,288	-0,385
135,500	16338,842	-26203,856	15002,025	18704,058	-3,303	-0,369
136,000	17177,246	-27036,319	15045,311	18757,765	-3,318	-0,355
136,500	17956,353	-27815,935	15088,083	18810,834	-3,331	-0,344
137,000	18676,163	-28542,080	15130,300	18863,214	-3,344	-0,336
137,500	19336,675	-29214,141	15171,927	18914,863	-3,355	-0,331
138,000	19937,891	-29831,523	15212,933	18965,740	-3,366	-0,327
138,200	20161,774	-30063,037	15229,154	18985,867	-3,370	-0,326
138,500	20443,809	-30393,650	15253,289	19015,811	-3,370	-0,340
139,000	20866,430	-30899,961	15292,973	19065,048	-3,371	-0,366
139,500	21229,754	-31349,915	15331,963	19113,425	-3,370	-0,393
140,000	21533,781	-31742,990	15370,242	19160,919	-3,369	-0,421
140,500	21807,695	-32078,682	15407,793	19207,510	-3,372	-0,437
141,000	22046,045	-32356,508	15444,603	19253,183	-3,378	-0,445
141,500	22225,098	-32576,004	15480,661	19297,921	-3,383	-0,452
142,000	22344,854	-32736,728	15515,957	19341,714	-3,388	-0,461
142,500	22405,312	-32838,255	15550,481	19384,551	-3,393	-0,469
143,000	22346,474	-32880,182	15584,229	19426,423	-3,389	-0,504
143,500	22228,338	-32862,128	15617,193	19467,324	-3,385	-0,538
144,000	22050,906	-32783,732	15649,372	19507,250	-3,380	-0,571
144,500	21814,176	-32644,654	15680,763	19546,199	-3,376	-0,605
145,000	21541,882	-32444,575	15711,367	19584,171	-3,375	-0,627
145,500	21239,475	-32183,200	15741,186	19621,169	-3,378	-0,637
146,000	20877,772	-31860,254	15770,223	19657,197	-3,382	-0,646
146,500	20456,771	-31475,486	15798,487	19692,266	-3,385	-0,654
146,800	20175,708	-31214,854	15815,079	19712,852	-3,387	-0,659
147,000	19952,473	-31028,666	15825,988	19726,388	-3,385	-0,672
147,500	19352,878	-30519,589	15852,740	19759,580	-3,381	-0,703
148,000	18693,985	-29948,068	15878,760	19791,863	-3,376	-0,734
148,500	17975,796	-29313,944	15904,070	19823,266	-3,371	-0,763

x [m]	**M_{Eqp}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
149,000	17198,309	-28617,075	15928,698	19853,823	-3,367	-0,791
149,500	16361,526	-27857,343	15952,679	19883,575	-3,364	-0,817
150,000	15465,445	-27034,647	15976,052	19912,573	-3,360	-0,842
150,500	14510,067	-26148,906	15998,865	19940,875	-3,357	-0,866
151,000	13495,392	-25200,052	16021,175	19968,553	-3,354	-0,888
151,500	12421,420	-24188,031	16043,049	19995,688	-3,352	-0,909
152,000	11288,150	-23112,798	16064,564	20022,377	-3,350	-0,928
152,500	10095,584	-21974,308	16085,807	20048,727	-3,349	-0,946
153,000	8843,720	-20772,516	16106,882	20074,867	-3,348	-0,961
153,500	7532,559	-19507,368	16127,902	20100,937	-3,348	-0,976
154,000	6162,101	-18178,788	16148,997	20127,098	-3,349	-0,988
154,500	4732,346	-16786,676	16170,313	20153,530	-3,350	-0,998
155,000	3246,862	-15330,890	16192,010	20180,433	-3,352	-1,005
155,500	-3316,887	-13811,236	16214,266	20208,026	-2,615	-3,137
156,000	-4841,276	-12227,453	16237,273	20236,548	-2,631	-3,106
156,500	-6422,121	-10579,200	16261,240	20266,257	-2,649	-3,071
157,000	-8059,424	-8866,038	16286,391	20297,430	-2,668	-3,033
157,500	-9753,184	-7087,414	16312,961	20330,359	-2,689	-2,990
158,000	-11503,401	-5242,644	16341,196	20365,350	-2,711	-2,943
158,346	-12747,603	-3927,719	16362,643	20390,919	-2,729	-2,907
158,500	-13310,076	-3326,517	16349,816	20375,895	-2,730	-2,894
159,000	-15245,475	-1343,665	16312,342	20329,018	-2,725	-2,884
159,500	-17260,203	690,806	16277,301	20285,154	-2,717	-2,884
159,700	-18082,698	1519,166	16264,012	20268,509	-2,714	-2,885
160,000	-19334,807	2710,497	16218,033	20202,330	-2,689	-2,921
160,500	-21471,662	4487,943	16142,895	20094,011	-2,610	-3,091
161,000	-23671,024	6008,903	16068,925	19987,297	-2,485	-3,395
161,140	-24298,047	6389,343	16048,326	19957,584	-2,441	-3,504
161,500	-25934,492	7277,245	15995,435	19881,335	-2,312	-3,833
162,000	-28266,388	8296,609	15921,868	19775,435	-2,093	-4,406
162,500	-30666,953	9070,533	15847,791	19669,064	-1,828	-5,112
162,570	-31008,512	9159,498	15837,360	19654,110	-1,787	-5,222

x [m]	**M_{Eqp}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
163,000	-33138,591	9602,562	15772,885	19561,829	-1,516	-5,951
163,500	-35685,333	9896,313	15696,940	19453,474	-1,157	-6,923
164,000	-38307,530	9955,522	15619,843	19343,863	-0,753	-8,027
164,500	-35687,994	9784,068	15510,332	19232,977	-1,083	-7,021
165,000	-33143,627	9385,978	15400,086	19120,904	-1,368	-6,143
165,430	-31015,590	8865,523	15304,809	19023,722	-1,578	-5,489
165,500	-30674,364	8765,408	15289,269	19007,844	-1,609	-5,391
166,000	-28276,173	7926,614	15178,134	18894,105	-1,808	-4,762
166,500	-25946,653	6873,896	15067,019	18780,103	-1,964	-4,253
166,860	-24311,918	5985,881	14987,267	18698,155	-2,052	-3,959
167,000	-23685,560	5611,529	14956,355	18666,373	-2,080	-3,861
167,500	-21488,572	4143,666	14846,664	18553,561	-2,156	-3,583
168,000	-19354,092	2474,224	14738,556	18442,432	-2,194	-3,417
168,300	-18103,408	1377,297	14674,739	18376,921	-2,198	-3,370
168,500	-17281,863	625,207	14657,964	18360,111	-2,203	-3,345
169,000	-15269,510	-1210,800	14617,684	18320,115	-2,218	-3,282
169,500	-13336,907	-2984,587	14579,596	18282,803	-2,231	-3,226
170,000	-11532,568	-4697,203	14543,475	18247,899	-2,234	-3,198
170,500	-9784,685	-6349,550	14509,095	18215,125	-2,239	-3,167
171,000	-8093,260	-7942,386	14476,231	18184,206	-2,244	-3,135
171,500	-6458,292	-9476,342	14444,667	18154,873	-2,251	-3,102
172,000	-4879,780	-10951,931	14414,196	18126,870	-2,257	-3,067
172,500	-3357,727	-12369,568	14384,619	18099,953	-2,265	-3,032
172,500	-3357,727	-12369,568	14384,619	18099,953	-2,265	-3,032
172,600	-3060,091	-12646,171	14378,795	18094,679	-2,266	-3,025
172,600	-3060,091	-12615,782	14344,242	18051,227	-2,260	-3,021
173,000	3187,242	-13745,228	14372,117	18094,481	-3,025	-0,846
173,500	4667,607	-15116,179	14407,457	18149,223	-3,054	-0,792
174,000	6091,861	-16441,269	14443,205	18204,539	-3,081	-0,743
174,500	7456,818	-17719,952	14479,223	18260,254	-3,107	-0,698
175,000	8762,478	-18951,642	14515,382	18316,211	-3,131	-0,659
175,500	10008,841	-20135,721	14551,566	18372,261	-3,153	-0,625

x [m]	M_{Eqp} [kNm]	$P_\infty \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_∞ [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
176,000	11195,907	-21271,551	14587,670	18428,275	-3,174	-0,596
176,500	12323,676	-22358,476	14623,599	18484,134	-3,193	-0,571
177,000	13392,147	-23395,834	14659,269	18539,731	-3,210	-0,550
177,500	14401,322	-24382,958	14694,606	18594,971	-3,226	-0,533
178,000	15351,199	-25319,185	14729,543	18649,772	-3,241	-0,520
178,500	16241,779	-26203,856	14764,022	18704,058	-3,254	-0,511
179,000	17073,062	-27036,319	14797,992	18757,765	-3,266	-0,504
179,500	17845,048	-27815,935	14831,407	18810,834	-3,277	-0,500
180,000	18557,737	-28542,080	14864,228	18863,214	-3,287	-0,499
180,500	19211,128	-29214,141	14896,421	18914,863	-3,296	-0,500
181,000	19805,223	-29831,523	14927,957	18965,740	-3,304	-0,504
181,200	20026,257	-30063,037	14940,382	18985,867	-3,307	-0,506
181,500	20304,020	-30393,650	14958,810	19015,811	-3,306	-0,524
182,000	20719,520	-30899,961	14988,957	19065,048	-3,304	-0,557
182,500	21075,723	-31349,915	15018,379	19113,425	-3,301	-0,591
183,000	21372,629	-31742,990	15047,060	19160,919	-3,298	-0,626
183,500	21639,377	-32078,682	15074,986	19207,510	-3,298	-0,650
184,000	21870,604	-32356,508	15102,145	19253,183	-3,301	-0,664
184,500	22042,534	-32576,004	15128,526	19297,921	-3,304	-0,679
185,000	22155,167	-32736,728	15154,121	19341,714	-3,307	-0,695
185,500	22208,503	-32838,255	15178,923	19384,551	-3,309	-0,710
186,000	22142,541	-32880,182	15202,928	19426,423	-3,303	-0,751
186,500	22017,283	-32862,128	15226,131	19467,324	-3,296	-0,793
187,000	21832,727	-32783,732	15248,531	19507,250	-3,289	-0,834
187,500	21588,874	-32644,654	15270,127	19546,199	-3,282	-0,874
188,000	21309,426	-32444,575	15290,921	19584,171	-3,278	-0,904
188,500	20999,895	-32183,200	15310,916	19621,169	-3,279	-0,921
189,000	20631,068	-31860,254	15330,119	19657,197	-3,280	-0,937
189,500	20202,943	-31475,486	15348,536	19692,266	-3,281	-0,953
189,800	19917,606	-31214,854	15359,215	19712,852	-3,282	-0,961
190,000	19691,522	-31028,666	15366,181	19726,388	-3,279	-0,977
190,500	19084,803	-30519,589	15383,067	19759,580	-3,272	-1,016

x [m]	M_{Eqp} [kNm]	$P_\infty \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_∞ [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
191,000	18418,787	-29948,068	15399,212	19791,863	-3,264	-1,053
191,500	17693,473	-29313,944	15414,641	19823,266	-3,258	-1,090
192,000	16908,863	-28617,075	15429,380	19853,823	-3,251	-1,125
192,500	16064,956	-27857,343	15443,464	19883,575	-3,245	-1,159
193,000	15161,751	-27034,647	15456,933	19912,573	-3,239	-1,191
193,500	14199,249	-26148,906	15469,834	19940,875	-3,233	-1,222
194,000	13177,451	-25200,052	15482,223	19968,553	-3,228	-1,251
194,500	12096,354	-24188,031	15494,165	19995,688	-3,223	-1,279
195,000	10955,961	-23112,798	15505,736	20022,377	-3,219	-1,306
195,500	9756,271	-21974,308	15517,021	20048,727	-3,215	-1,330
196,000	8497,284	-20772,516	15528,118	20074,867	-3,212	-1,353
196,500	7178,999	-19507,368	15539,139	20100,937	-3,209	-1,375
197,000	5801,418	-18178,788	15550,209	20127,098	-3,207	-1,394
197,500	4364,539	-16786,676	15561,467	20153,530	-3,206	-1,412
198,000	2872,700	-15330,890	15573,068	20180,433	-3,206	-1,426
198,500	-3412,609	-13811,236	15585,181	20208,026	-2,508	-3,444
199,000	-4939,382	-12227,453	15597,990	20236,548	-2,522	-3,418
199,500	-6522,613	-10579,200	15611,695	20266,257	-2,538	-3,389
200,000	-8162,301	-8866,038	15626,509	20297,430	-2,555	-3,356
200,500	-9858,446	-7087,414	15642,654	20330,359	-2,574	-3,319
201,000	-11611,049	-5242,644	15660,365	20365,350	-2,595	-3,277
201,346	-12856,901	-3927,719	15674,465	20390,919	-2,611	-3,245
201,500	-13420,108	-3326,517	15659,258	20375,895	-2,612	-3,233
202,000	-15360,085	-1343,665	15614,020	20329,018	-2,605	-3,228
202,500	-17377,239	690,806	15571,152	20285,154	-2,596	-3,233
202,700	-18200,704	1519,166	15554,713	20268,509	-2,592	-3,236
203,000	-19454,268	2710,497	15505,473	20202,330	-2,566	-3,274
203,500	-21593,548	4487,943	15424,912	20094,011	-2,486	-3,446
204,000	-23795,336	6008,903	15345,559	19987,297	-2,360	-3,754
204,140	-24423,038	6389,343	15323,464	19957,584	-2,316	-3,864
204,500	-26061,229	7277,245	15266,757	19881,335	-2,186	-4,196
205,000	-28395,550	8296,609	15187,973	19775,435	-1,966	-4,772

x [m]	M_{Eqp} [kNm]	$P_\infty \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_∞ [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
205,500	-30798,541	9070,533	15108,794	19669,064	-1,699	-5,481
205,570	-31140,440	9159,498	15097,659	19654,110	-1,658	-5,591
206,000	-33272,604	9602,562	15028,918	19561,829	-1,386	-6,323
206,500	-35821,772	9896,313	14948,145	19453,474	-1,027	-7,298
207,000	-38450,412	9955,522	14866,369	19343,863	-0,621	-8,407
207,500	-35823,379	9784,068	14804,627	19232,977	-0,959	-7,377
208,000	-33271,514	9385,978	14741,689	19120,904	-1,252	-6,476
208,430	-31137,029	8865,523	14686,719	19023,722	-1,469	-5,802
208,500	-30794,753	8765,408	14677,707	19007,844	-1,501	-5,701
209,000	-28389,066	7926,614	14612,915	18894,105	-1,708	-5,050
209,500	-26052,047	6873,896	14547,637	18780,103	-1,872	-4,518
209,860	-24411,914	5985,881	14500,564	18698,155	-1,965	-4,208
210,000	-23783,457	5611,529	14482,287	18666,373	-1,995	-4,103
210,500	-21578,972	4143,666	14417,374	18553,561	-2,079	-3,803
211,000	-19436,994	2474,224	14353,499	18442,432	-2,124	-3,615
211,300	-18181,812	1377,297	14315,957	18376,921	-2,133	-3,555
211,500	-17357,268	625,207	14316,100	18360,111	-2,142	-3,522
212,000	-15337,417	-1210,800	14317,948	18320,115	-2,164	-3,438
212,500	-13401,079	-2984,587	14321,770	18282,803	-2,183	-3,362
213,000	-11588,718	-4697,203	14327,360	18247,899	-2,194	-3,313
213,500	-9832,814	-6349,550	14334,513	18215,125	-2,206	-3,262
214,000	-8133,367	-7942,386	14343,021	18184,206	-2,219	-3,209
214,500	-6490,377	-9476,342	14352,682	18154,873	-2,232	-3,154
215,000	-4903,844	-10951,931	14363,298	18126,870	-2,246	-3,099
215,500	-3373,768	-12369,568	14374,683	18099,953	-2,261	-3,043
215,600	-3074,528	-12646,171	14377,036	18094,679	-2,264	-3,032
215,600	-3074,528	-12615,782	14342,488	18051,227	-2,257	-3,027
216,000	3196,217	-13745,228	14403,058	18094,481	-3,031	-0,829
216,500	4697,259	-15116,179	14479,489	18149,223	-3,069	-0,749
217,000	6141,023	-16441,269	14556,580	18204,539	-3,105	-0,674
217,500	7525,490	-17719,952	14634,195	18260,254	-3,140	-0,604
218,000	8850,660	-18951,642	14712,206	18316,211	-3,173	-0,539

x [m]	M_{Eqp} [kNm]	$P_\infty \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_∞ [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
218,500	10116,532	-20135,721	14790,496	18372,261	-3,204	-0,478
219,000	11323,108	-21271,551	14868,959	18428,275	-3,234	-0,423
219,500	12470,386	-22358,476	14947,499	18484,134	-3,262	-0,372
220,000	13558,367	-23395,834	15026,028	18539,731	-3,289	-0,324
220,500	14587,051	-24382,958	15104,467	18594,971	-3,314	-0,281
221,000	15556,438	-25319,185	15182,746	18649,772	-3,338	-0,241
221,500	16466,528	-26203,856	15260,800	18704,058	-3,360	-0,205
222,000	17317,320	-27036,319	15338,574	18757,765	-3,382	-0,171
222,500	18108,816	-27815,935	15416,017	18810,834	-3,402	-0,141
223,000	18841,014	-28542,080	15493,084	18863,214	-3,422	-0,113
223,500	19513,915	-29214,141	15569,733	18914,863	-3,440	-0,087
224,000	20127,519	-29831,523	15645,929	18965,740	-3,458	-0,063
224,200	20356,358	-30063,037	15676,273	18985,867	-3,465	-0,054
224,500	20645,826	-30393,650	15721,639	19015,811	-3,469	-0,056
225,000	21080,836	-30899,961	15796,835	19065,048	-3,477	-0,061
225,500	21456,549	-31349,915	15871,491	19113,425	-3,483	-0,068
226,000	21772,964	-31742,990	15945,582	19160,919	-3,489	-0,075
226,500	22058,617	-32078,682	16019,088	19207,510	-3,499	-0,072
227,000	22309,325	-32356,508	16091,991	19253,183	-3,512	-0,059
227,500	22500,736	-32576,004	16164,271	19297,921	-3,525	-0,046
228,000	22632,849	-32736,728	16235,915	19341,714	-3,537	-0,034
228,500	22705,666	-32838,255	16306,908	19384,551	-3,549	-0,022
229,000	22659,185	-32880,182	16377,239	19426,423	-3,552	-0,035
229,500	22553,407	-32862,128	16446,896	19467,324	-3,555	-0,048
230,000	22388,332	-32783,732	16515,871	19507,250	-3,558	-0,061
230,500	22163,960	-32644,654	16584,156	19546,199	-3,561	-0,074
231,000	21903,592	-32444,575	16651,747	19584,171	-3,567	-0,076
231,500	21613,529	-32183,200	16718,640	19621,169	-3,578	-0,065
232,000	21264,169	-31860,254	16784,835	19657,197	-3,588	-0,053
232,500	20855,512	-31475,486	16850,335	19692,266	-3,599	-0,040
232,800	20581,855	-31214,854	16889,303	19712,852	-3,606	-0,032
233,000	20363,557	-31028,666	16915,145	19726,388	-3,607	-0,036

x [m]	M_{Eqp} [kNm]	$P_\infty \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_∞ [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
233,500	19776,306	-30519,589	16979,274	19759,580	-3,609	-0,047
234,000	19129,757	-29948,068	17042,738	19791,863	-3,612	-0,056
234,500	18423,911	-29313,944	17105,554	19823,266	-3,615	-0,064
235,000	17658,768	-28617,075	17167,749	19853,823	-3,618	-0,071
235,500	16834,328	-27857,343	17229,353	19883,575	-3,622	-0,076
236,000	15950,590	-27034,647	17290,406	19912,573	-3,626	-0,080
236,500	15007,556	-26148,906	17350,956	19940,875	-3,630	-0,082
237,000	14005,224	-25200,052	17411,061	19968,553	-3,635	-0,083
237,500	12943,596	-24188,031	17470,790	19995,688	-3,640	-0,083
238,000	11822,670	-23112,798	17530,224	20022,377	-3,646	-0,081
238,500	10642,447	-21974,308	17589,458	20048,727	-3,652	-0,077
239,000	9402,927	-20772,516	17648,600	20074,867	-3,659	-0,071
239,500	8104,109	-19507,368	17707,777	20100,937	-3,666	-0,064
240,000	6745,995	-18178,788	17767,129	20127,098	-3,674	-0,055
240,500	5328,583	-16786,676	17826,819	20153,530	-3,683	-0,044
241,000	3865,765	-15330,890	17887,024	20180,433	-3,694	-0,025
241,500	2353,080	-13811,236	17947,944	20208,026	-3,708	0,000
242,000	-4121,243	-12227,453	18009,796	20236,548	-2,999	-2,050
242,500	-5688,712	-10579,200	18072,818	20266,257	-3,024	-1,993
243,000	-7312,638	-8866,038	18137,264	20297,430	-3,051	-1,932
243,500	-8993,020	-7087,414	18203,405	20330,359	-3,080	-1,867
244,000	-10729,860	-5242,644	18271,527	20365,350	-3,111	-1,797
244,346	-11964,805	-3927,719	18320,780	20390,919	-3,133	-1,746
244,500	-12535,071	-3326,517	18317,798	20375,895	-3,135	-1,732
245,000	-14477,690	-1343,665	18312,362	20329,018	-3,134	-1,711
245,500	-16479,606	690,806	18309,492	20285,154	-3,132	-1,692
245,700	-17296,975	1519,166	18309,119	20268,509	-3,132	-1,686
246,000	-18541,397	2710,497	18278,265	20202,330	-3,110	-1,712
246,500	-20665,439	4487,943	18228,223	20094,011	-3,037	-1,865
247,000	-22851,989	6008,903	18179,129	19987,297	-2,917	-2,154
247,140	-23475,424	6389,343	18165,444	19957,584	-2,875	-2,258
247,500	-25102,644	7277,245	18130,212	19881,335	-2,750	-2,576

x [m]	M_{Eqp} [kNm]	$P_\infty \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_∞ [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
248,000	-27421,727	8296,609	18080,844	19775,435	-2,537	-3,133
248,500	-29809,479	9070,533	18030,531	19669,064	-2,277	-3,824
248,570	-30149,244	9159,498	18023,389	19654,110	-2,237	-3,931
249,000	-32273,575	9602,562	17978,909	19561,829	-1,969	-4,650
249,500	-34838,885	9896,313	17925,732	19453,474	-1,611	-5,620
250,000	-37479,362	9955,522	17870,866	19343,863	-1,207	-6,722
250,500	-34824,684	9784,068	17504,697	19232,977	-1,505	-5,810
251,000	-32245,174	9385,978	17140,497	19120,904	-1,758	-5,025
251,430	-30086,914	8865,523	16829,030	19023,722	-1,940	-4,450
251,500	-29740,768	8765,408	16778,492	19007,844	-1,967	-4,365
252,000	-27307,435	7926,614	16418,991	18894,105	-2,134	-3,826
252,500	-24942,771	6873,896	16062,383	18780,103	-2,259	-3,406
252,860	-23282,733	5985,881	15807,672	18698,155	-2,325	-3,175
253,000	-22646,536	5611,529	15709,128	18666,373	-2,344	-3,102
253,500	-20414,405	4143,666	15359,756	18553,561	-2,390	-2,911
254,000	-18244,782	2474,224	15014,856	18442,432	-2,398	-2,830
254,300	-16973,013	1377,297	14810,325	18376,921	-2,385	-2,833
254,500	-16157,470	625,207	14700,357	18360,111	-2,376	-2,851
255,000	-14194,845	-1210,800	14427,820	18320,115	-2,349	-2,907
255,500	-12288,677	-2984,587	14158,427	18282,803	-2,323	-2,960
256,000	-10438,966	-4697,203	13891,860	18247,899	-2,299	-3,010
256,500	-8645,712	-6349,550	13627,814	18215,125	-2,277	-3,058
257,000	-6908,915	-7942,386	13366,001	18184,206	-2,255	-3,104
257,500	-5228,576	-9476,342	13106,153	18154,873	-2,234	-3,148
258,000	-3604,693	-10951,931	12848,024	18126,870	-2,214	-3,191
258,500	3142,809	-12369,568	12591,390	18099,953	-2,960	-1,037
258,600	3454,839	-12646,171	12540,225	18094,679	-2,957	-1,043
258,600	3454,839	-14160,985	14042,347	20260,632	-3,249	-1,343
259,000	4679,239	-15427,944	13862,035	20308,109	-3,223	-1,444
259,500	6156,371	-16965,610	13635,757	20368,220	-3,189	-1,574
260,000	7574,206	-18451,620	13408,330	20428,986	-3,153	-1,708
260,500	8932,744	-19885,374	13179,599	20490,208	-3,117	-1,845

x [m]	M_{Eqp} [kNm]	$P_\infty \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_∞ [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
261,000	10231,985	-21266,227	12949,434	20551,708	-3,079	-1,985
261,500	11471,928	-22593,497	12717,721	20613,319	-3,041	-2,129
262,000	12652,575	-23866,478	12484,364	20674,892	-3,001	-2,275
262,500	13773,924	-25084,445	12249,284	20736,293	-2,960	-2,424
263,000	14835,977	-26246,663	12012,420	20797,400	-2,919	-2,575
263,200	15244,194	-26695,775	11917,162	20821,736	-2,902	-2,636
263,500	15802,732	-27352,394	11773,719	20858,105	-2,871	-2,743
264,000	16686,190	-28400,900	11533,146	20918,310	-2,820	-2,923
264,500	17510,351	-29391,449	11290,672	20977,931	-2,767	-3,105
265,000	18275,214	-30323,319	11046,282	21036,891	-2,715	-3,287
265,500	19031,459	-31195,799	10799,966	21095,122	-2,669	-3,449
266,000	19730,275	-32008,192	10551,724	21152,565	-2,624	-3,610
266,500	20369,794	-32759,819	10301,562	21209,168	-2,578	-3,771
267,000	20950,016	-33450,019	10049,490	21264,883	-2,532	-3,932
267,500	21470,941	-34078,149	9795,524	21319,671	-2,486	-4,092
268,000	21872,568	-34643,588	9539,687	21373,494	-2,431	-4,278
268,500	22214,899	-35145,733	9282,001	21426,322	-2,377	-4,462
269,000	22497,932	-35584,006	9022,494	21478,125	-2,323	-4,644
269,500	22721,668	-35957,848	8761,197	21528,880	-2,269	-4,826
270,000	22914,438	-36266,724	8498,143	21578,563	-2,220	-4,993
270,500	23071,435	-36510,121	8233,367	21627,156	-2,175	-5,149
271,000	23169,136	-36687,549	7966,905	21674,641	-2,130	-5,302
271,500	23207,539	-36798,543	7698,797	21721,004	-2,086	-5,452
271,800	23202,118	-36840,446	7539,997	21756,466	-2,060	-5,544
272,000	23162,645	-36847,500	7433,699	21779,753	-2,041	-5,612
272,451	23038,814	-36801,718	7192,612	21831,267	-2,001	-5,755
272,500	23022,454	-36772,077	7162,656	21825,102	-1,998	-5,761
273,000	22822,966	-36410,671	6855,834	21760,728	-1,967	-5,813
273,500	22564,181	-35947,102	6550,192	21694,663	-1,944	-5,847
274,000	22246,099	-35382,448	6245,809	21626,951	-1,926	-5,863
274,500	21868,719	-34717,840	5942,764	21557,644	-1,914	-5,860
275,000	21432,043	-33954,464	5641,137	21486,800	-1,908	-5,840

x [m]	$\mathbf{M_{Eqp}}$ [kNm]	$\mathbf{P_\infty \times e}$ [kNm]	$\mathbf{M_{PE,Hip}}$ [kNm]	$\mathbf{P_\infty}$ [kN]	$\boldsymbol{\sigma_{sup}}$ [MPa]	$\boldsymbol{\sigma_{inf}}$ [MPa]
275,500	20936,069	-33093,556	5341,006	21414,488	-1,908	-5,802
276,000	20380,798	-32136,402	5042,447	21340,790	-1,913	-5,748
276,500	19766,230	-31084,333	4745,538	21265,798	-1,924	-5,679
277,000	19092,365	-29938,724	4450,351	21189,621	-1,939	-5,593
277,500	18359,203	-28700,987	4156,959	21112,386	-1,960	-5,493
278,000	17566,743	-27372,563	3865,431	21034,240	-1,985	-5,379
278,500	16714,987	-25954,919	3575,833	20955,356	-2,015	-5,251
279,000	15803,933	-24449,529	3288,225	20875,929	-2,050	-5,111
279,500	14833,582	-22857,864	3002,662	20796,188	-2,089	-4,958
280,000	13803,934	-21181,374	2719,191	20716,393	-2,131	-4,793
280,500	12714,989	-19421,467	2437,849	20636,838	-2,178	-4,617
280,700	12262,808	-18694,450	2325,914	20605,157	-2,198	-4,544
281,000	11566,169	-17579,482	2158,661	20557,857	-2,228	-4,431
281,500	10355,098	-15656,658	1881,639	20479,821	-2,282	-4,236
282,000	9081,519	-13654,104	1606,779	20403,139	-2,339	-4,033
282,140	8713,715	-13079,234	1530,202	20381,970	-2,355	-3,975
282,500	7743,834	-11572,758	1334,055	20328,257	-2,398	-3,823
283,000	6337,722	-9413,347	1063,423	20255,655	-2,459	-3,609
283,500	4862,940	-7176,349	794,812	20185,841	-2,523	-3,390
283,570	4650,991	-6856,992	757,362	20176,319	-2,532	-3,359
284,000	3317,086	-4861,947	528,125	20119,340	-2,588	-3,169
284,500	1696,127	-2469,997	263,239	20056,684	-2,654	-2,946
285,000	0,000	0,000	0,000	19998,399	-2,721	-2,721

Anexo F – Estado limite de largura das fendas – Início de exploração

I_c [m^4]	A_c [m^2]	v_{sup} [m]	v_{inf} [m]	f_{ctm} [MPa]	f_{ctk} [MPa]
4,708	7,349	0,695	1,995	3,200	2,200

x [m]	M_{Efreq} [kNm]	$P_0 \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_0 [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
0,00	0,000	0,000	0,000	19685,088	-2,679	-2,679
0,50	1886,219	-2432,750	162,565	19741,469	-2,630	-2,849
1,00	3694,415	-4787,371	326,063	19798,012	-2,581	-3,019
1,43	5187,061	-6749,300	467,419	19846,769	-2,539	-3,165
1,50	5424,652	-7063,132	490,497	19854,717	-2,532	-3,188
2,00	7080,963	-9259,297	655,871	19911,585	-2,485	-3,355
2,50	8665,752	-11375,126	822,190	19968,615	-2,439	-3,517
2,86	9762,513	-12848,361	942,527	20009,778	-2,406	-3,631
3,00	10179,259	-13409,875	989,458	20025,809	-2,394	-3,675
3,50	11625,810	-15362,796	1157,678	20083,166	-2,352	-3,826
4,00	13007,000	-17233,135	1326,855	20140,688	-2,313	-3,969
4,30	13804,342	-18315,385	1428,822	20175,280	-2,290	-4,051
4,50	14323,088	-19020,136	1496,993	20198,374	-2,276	-4,104
5,00	15576,449	-20723,036	1668,096	20256,226	-2,243	-4,230
5,50	16767,663	-22341,070	1840,169	20314,243	-2,213	-4,346
6,00	17896,730	-23873,466	2013,214	20372,427	-2,187	-4,452
6,50	18963,649	-25319,450	2187,237	20430,777	-2,165	-4,546
7,00	19968,421	-26678,242	2362,242	20489,295	-2,146	-4,630
7,50	20911,045	-27949,057	2538,232	20547,980	-2,132	-4,703
8,00	21791,521	-29131,108	2715,213	20606,833	-2,122	-4,764
8,50	22609,851	-30223,599	2893,187	20665,854	-2,115	-4,812
9,00	23366,032	-31225,734	3072,160	20725,045	-2,114	-4,849
9,50	24060,066	-32136,710	3252,137	20784,405	-2,116	-4,872

x [m]	**M_{Efreq}** [kNm]	**$P_0 \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_0** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
10,00	24691,953	-32955,720	3433,120	20843,935	-2,123	-4,883
10,50	25261,692	-33681,951	3615,114	20903,636	-2,135	-4,880
11,00	25769,284	-34314,588	3798,125	20963,508	-2,152	-4,864
11,50	26214,728	-34852,808	3982,155	21023,551	-2,174	-4,834
12,00	26598,024	-35295,786	4167,209	21083,766	-2,200	-4,789
12,50	26919,174	-35642,691	4353,293	21144,154	-2,232	-4,729
13,00	27178,175	-35892,687	4540,409	21204,714	-2,269	-4,654
13,20	27264,375	-35965,363	4615,546	21228,987	-2,286	-4,620
13,50	27303,029	-36044,935	4728,563	21265,448	-2,301	-4,594
14,00	27317,736	-36092,320	4914,497	21312,211	-2,330	-4,536
14,50	27270,295	-36075,845	5101,227	21359,077	-2,360	-4,476
15,00	27160,707	-35995,086	5288,755	21406,046	-2,389	-4,415
15,50	27036,022	-35849,621	5477,085	21453,118	-2,427	-4,333
16,00	26905,850	-35639,025	5666,218	21500,293	-2,473	-4,225
16,50	26713,531	-35362,870	5856,158	21547,572	-2,520	-4,116
17,00	26459,063	-35020,727	6046,907	21594,956	-2,567	-4,004
17,50	26142,449	-34612,166	6238,467	21642,443	-2,616	-3,890
18,00	25643,687	-34136,753	6430,842	21690,035	-2,647	-3,825
18,50	25082,777	-33594,054	6624,034	21737,732	-2,679	-3,758
19,00	24459,720	-32983,631	6818,046	21785,533	-2,713	-3,687
19,50	23774,516	-32305,048	7012,879	21833,440	-2,747	-3,614
20,00	23030,901	-31557,862	7208,538	21881,451	-2,783	-3,536
20,50	22326,495	-30741,632	7405,025	21929,569	-2,835	-3,412
21,00	21559,941	-29855,914	7602,341	21977,792	-2,888	-3,285
21,50	20731,241	-28900,261	7800,492	22026,122	-2,943	-3,153
21,80	20204,189	-28293,114	7919,783	22055,170	-2,976	-3,073
22,00	19792,392	-27874,225	7999,478	22074,557	-2,992	-3,039
22,50	18719,396	-26777,355	8199,302	22123,099	-3,031	-2,951
23,00	17584,252	-25609,201	8399,968	22171,748	-3,072	-2,858
23,50	16386,961	-24369,307	8601,477	22220,504	-3,115	-2,761
24,00	15127,522	-23057,218	8803,834	22269,367	-3,159	-2,660
24,50	13805,936	-21672,476	9007,040	22318,337	-3,205	-2,554

x [m]	**M_{Efreq}** [kNm]	**$P_0 \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_0** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
25,00	12422,203	-20214,620	9211,098	22367,416	-3,253	-2,443
25,50	10976,322	-18683,189	9416,011	22416,602	-3,303	-2,326
26,00	9468,293	-17077,718	9621,782	22465,896	-3,354	-2,204
26,50	7898,117	-15397,743	9828,414	22515,299	-3,408	-2,077
27,00	6265,793	-13642,794	10035,908	22564,810	-3,463	-1,944
27,50	4571,322	-11812,401	10244,270	22614,430	-3,521	-1,805
28,00	2814,704	-9906,093	10453,500	22664,159	-3,580	-1,660
28,50	-6259,447	-7923,396	10663,602	22713,998	-2,571	-4,582
29,00	-8011,138	-5863,832	10874,578	22763,946	-2,655	-4,369
29,35	-9256,367	-4394,268	11021,986	22798,554	-2,714	-4,216
29,50	-9819,297	-3721,879	11071,421	22783,114	-2,736	-4,147
30,00	-11683,924	-1503,526	11234,404	22733,123	-2,805	-3,921
30,50	-13605,018	772,966	11396,619	22683,243	-2,875	-3,695
30,70	-14418,636	1699,749	11461,291	22663,321	-2,898	-3,617
31,00	-15718,462	3032,138	11541,268	22585,141	-2,904	-3,558
31,50	-17937,127	5018,590	11673,033	22455,439	-2,872	-3,583
32,00	-20221,152	6716,480	11802,902	22326,483	-2,787	-3,759
32,14	-20872,392	7140,830	11838,929	22290,508	-2,754	-3,835
32,50	-22572,135	8130,580	11930,894	22198,267	-2,650	-4,084
33,00	-24994,398	9265,613	12057,025	22070,787	-2,461	-4,559
33,50	-27488,184	10126,243	12181,313	21944,040	-2,221	-5,181
33,57	-27843,021	10225,097	12198,567	21926,353	-2,184	-5,280
34,00	-30055,896	10717,085	12303,774	21818,020	-1,930	-5,950
34,50	-32701,567	11042,699	12424,425	21692,724	-1,589	-6,865
35,00	-35425,260	11107,596	12543,283	21568,147	-1,197	-7,924
35,50	-32591,135	10916,232	12454,898	21444,286	-1,557	-6,825
36,00	-29835,031	10473,014	12367,112	21321,137	-1,869	-5,865
36,43	-27570,615	9893,736	12292,093	21215,794	-2,092	-5,169
36,50	-27209,103	9782,297	12279,923	21198,694	-2,125	-5,065
37,00	-24667,644	8848,388	12193,326	21076,955	-2,333	-4,404
37,00	-24667,644	8848,388	12193,325	21076,955	-2,333	-4,404
37,50	-22197,707	7675,543	12107,317	20955,915	-2,495	-3,875

x [m]	M_{Efreq} [kNm]	$P_0 \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_0 [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
37,50	-22197,707	7675,543	12107,317	20955,915	-2,495	-3,875
37,86	-20463,640	6685,509	12045,752	20869,196	-2,584	-3,574
38,00	-19799,052	6267,968	12021,892	20835,569	-2,612	-3,475
38,00	-19799,052	6267,968	12021,892	20835,569	-2,612	-3,475
38,50	-17467,353	4629,822	11937,048	20715,915	-2,686	-3,200
39,00	-15201,015	2765,216	11852,781	20596,949	-2,717	-3,050
39,00	-15201,015	2765,216	11852,781	20596,949	-2,717	-3,050
39,30	-13872,585	1539,442	11802,496	20525,897	-2,715	-3,018
39,30	-13872,585	1539,442	11802,496	20525,897	-2,715	-3,018
39,50	-12999,779	698,837	11790,640	20507,870	-2,715	-3,007
39,50	-12999,779	698,837	11790,640	20507,870	-2,715	-3,007
40,00	-10861,269	-1353,376	11761,053	20462,872	-2,718	-2,977
40,50	-8784,907	-3335,506	11731,539	20417,972	-2,721	-2,943
41,00	-6926,914	-5247,986	11702,100	20373,172	-2,703	-2,973
41,50	-5149,216	-7091,244	11672,734	20328,469	-2,682	-3,007
42,00	2763,715	-8865,710	11643,442	20283,865	-3,578	-0,412
42,50	4571,844	-10571,808	11614,223	20239,358	-3,583	-0,375
43,00	6317,827	-12209,965	11585,078	20194,950	-3,588	-0,336
43,50	8001,661	-13780,601	11556,005	20150,638	-3,595	-0,294
43,50	8001,661	-13780,601	11556,005	20150,638	-3,595	-0,294
43,60	8330,971	-14086,663	11550,199	20141,788	-3,596	-0,286
43,60	8330,971	-14053,104	11522,684	20093,804	-3,591	-0,277
44,00	9623,349	-15301,410	11540,032	20129,145	-3,604	-0,255
44,50	11201,751	-16813,593	11561,754	20173,410	-3,623	-0,224
45,00	12745,785	-18271,872	11583,516	20217,771	-3,645	-0,185
45,50	14227,672	-19675,869	11605,319	20262,230	-3,666	-0,148
46,00	15647,411	-21025,205	11627,163	20306,787	-3,686	-0,115
46,50	17005,003	-22319,500	11649,049	20351,442	-3,704	-0,085
47,00	18300,447	-23558,370	11670,975	20396,195	-3,722	-0,058
47,50	19533,744	-24741,432	11692,942	20441,046	-3,739	-0,034
48,00	20704,893	-25868,299	11714,951	20485,996	-3,755	-0,012
48,50	21813,895	-26938,585	11737,000	20531,045	-3,770	0,008

x [m]	**M_{Efreq}** [kNm]	**$P_0 \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_0** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
49,00	22860,749	-27951,900	11759,092	20576,193	-3,784	0,025
49,50	23845,456	-28907,852	11781,224	20621,440	-3,798	0,041
50,00	24768,015	-29806,048	11803,399	20666,787	-3,811	0,054
50,50	25628,427	-30646,096	11825,614	20712,233	-3,823	0,066
51,00	26426,691	-31427,597	11847,872	20757,779	-3,835	0,076
51,50	27162,808	-32150,153	11870,171	20803,426	-3,847	0,085
52,00	27836,777	-32813,366	11892,512	20849,173	-3,858	0,093
52,20	28088,964	-33061,945	11901,460	20867,500	-3,862	0,096
52,50	28376,599	-33416,833	11914,895	20895,020	-3,858	0,070
53,00	28806,273	-33960,151	11937,320	20940,969	-3,851	0,025
53,50	29173,800	-34442,914	11959,787	20987,018	-3,843	-0,021
54,00	29479,179	-34864,716	11982,296	21033,168	-3,836	-0,067
54,50	29781,614	-35225,148	12004,847	21079,421	-3,837	-0,088
55,00	30068,505	-35523,799	12027,441	21125,774	-3,845	-0,090
55,50	30293,248	-35760,257	12050,077	21172,230	-3,853	-0,092
56,00	30455,844	-35934,108	12072,755	21218,788	-3,861	-0,093
56,50	30556,293	-36044,935	12095,476	21265,448	-3,869	-0,094
57,00	30474,593	-36092,320	12118,240	21312,211	-3,860	-0,146
57,50	30330,747	-36075,845	12141,046	21359,077	-3,851	-0,196
58,00	30124,753	-35995,086	12163,895	21406,046	-3,842	-0,246
58,50	29856,611	-35849,621	12186,788	21453,118	-3,834	-0,295
59,00	29575,025	-35639,025	12209,722	21500,293	-3,833	-0,322
59,50	29288,362	-35362,870	12232,700	21547,572	-3,841	-0,323
60,00	28939,551	-35020,727	12255,721	21594,956	-3,850	-0,322
60,50	28528,592	-34612,166	12278,786	21642,443	-3,859	-0,320
60,80	28252,187	-34334,968	12292,645	21670,986	-3,866	-0,318
61,00	28007,486	-34136,753	12301,893	21690,035	-3,863	-0,336
61,50	27352,233	-33594,054	12325,044	21737,732	-3,856	-0,380
62,00	26634,832	-32983,631	12348,238	21785,533	-3,850	-0,422
62,50	25855,283	-32305,048	12371,476	21833,440	-3,845	-0,462
63,00	25013,587	-31557,862	12394,758	21881,451	-3,841	-0,499
63,50	24109,744	-30741,632	12418,083	21929,569	-3,838	-0,532

x [m]	**M_{Efreq}** [kNm]	**$P_0 \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_0** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
64,00	23143,753	-29855,914	12441,451	21977,792	-3,836	-0,563
64,50	22115,614	-28900,261	12464,864	22026,122	-3,836	-0,590
65,00	21025,328	-27874,225	12488,321	22074,557	-3,836	-0,614
65,50	19872,895	-26777,355	12511,821	22123,099	-3,838	-0,635
66,00	18658,314	-25609,201	12535,366	22171,748	-3,841	-0,651
66,50	17381,585	-24369,307	12558,955	22220,504	-3,846	-0,663
67,00	16042,709	-23057,218	12582,588	22269,367	-3,852	-0,671
67,50	14641,686	-21672,476	12606,265	22318,337	-3,860	-0,675
68,00	13178,515	-20214,620	12629,987	22367,416	-3,869	-0,673
68,50	11653,196	-18683,189	12653,754	22416,602	-3,880	-0,668
69,00	10069,768	-17077,718	12677,564	22465,896	-3,894	-0,655
69,50	8445,848	-15397,743	12701,420	22515,299	-3,912	-0,628
70,00	6759,781	-13642,794	12725,320	22564,810	-3,933	-0,595
70,50	5011,567	-11812,401	12749,266	22614,430	-3,955	-0,557
71,00	3264,640	-9906,093	12773,256	22664,159	-3,989	-0,486
71,50	1469,561	-7923,396	12797,291	22713,998	-4,027	-0,403
72,00	-7054,652	-5863,832	12821,371	22763,946	-3,083	-3,139
72,35	-8308,769	-4394,268	12838,958	22798,554	-3,122	-3,045
72,50	-8875,656	-3721,879	12828,103	22783,114	-3,134	-3,003
73,00	-10888,167	-1503,526	12795,903	22733,123	-3,153	-2,922
73,50	-13011,258	772,966	12763,783	22683,243	-3,164	-2,864
73,70	-13877,896	1699,749	12750,957	22663,321	-3,169	-2,841
74,00	-15197,074	3032,138	12712,434	22585,141	-3,154	-2,841
74,50	-17447,994	5018,590	12648,482	22455,439	-3,088	-2,963
75,00	-19764,273	6716,480	12584,843	22326,483	-2,970	-3,234
75,14	-20424,544	7140,830	12567,081	22290,508	-2,927	-3,337
75,50	-22147,510	8130,580	12521,517	22198,267	-2,800	-3,654
76,00	-24602,027	9265,613	12458,502	22070,787	-2,579	-4,223
76,50	-27128,068	10126,243	12395,796	21944,040	-2,306	-4,938
76,57	-27487,421	10225,097	12387,042	21926,353	-2,264	-5,049
77,00	-29728,034	10717,085	12333,398	21818,020	-1,983	-5,798
77,50	-32405,959	11042,699	12271,306	21692,724	-1,610	-6,804

x [m]	**M_{Efreq}** [kNm]	**$P_0 \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_0** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
78,00	-35161,907	11107,596	12209,520	21568,147	-1,187	-7,954
78,50	-32383,206	10916,232	12126,448	21444,286	-1,539	-6,876
79,00	-29691,135	10473,014	12043,926	21321,137	-1,842	-5,941
79,43	-27438,356	9893,736	11973,394	21215,794	-2,065	-5,248
79,50	-27077,023	9782,297	11961,951	21198,694	-2,097	-5,144
80,00	-24536,837	8848,388	11880,518	21076,955	-2,306	-4,482
80,50	-22068,174	7675,543	11799,625	20955,915	-2,469	-3,950
80,86	-20335,023	6685,509	11741,715	20869,196	-2,558	-3,648
81,00	-19670,791	6267,968	11719,269	20835,569	-2,587	-3,549
81,50	-17340,366	4629,822	11639,444	20715,915	-2,661	-3,273
82,00	-15075,302	2765,216	11560,149	20596,949	-2,692	-3,121
82,30	-13747,635	1539,442	11512,824	20525,897	-2,690	-3,088
82,50	-12875,340	698,837	11502,522	20507,870	-2,691	-3,076
83,00	-10738,103	-1353,376	11476,808	20462,872	-2,694	-3,045
83,50	-8698,773	-3335,506	11451,153	20417,972	-2,692	-3,025
84,00	-6864,832	-5247,986	11425,556	20373,172	-2,671	-3,064
84,50	1325,380	-7091,244	11400,017	20328,469	-3,598	-0,379
85,00	3113,588	-8865,710	11374,537	20283,865	-3,590	-0,378
85,50	4872,984	-10571,808	11349,114	20239,358	-3,588	-0,360
86,00	6614,266	-12209,965	11323,749	20194,950	-3,594	-0,321
86,50	8293,399	-13780,601	11298,442	20150,638	-3,600	-0,280
86,60	8621,768	-14086,663	11293,388	20141,788	-3,601	-0,271
86,60	8621,768	-14053,104	11266,483	20093,804	-3,596	-0,262
87,00	9910,386	-15301,410	11285,932	20129,145	-3,609	-0,241
87,50	11502,498	-16813,593	11310,290	20173,410	-3,631	-0,203
88,00	13041,138	-18271,872	11334,702	20217,771	-3,652	-0,165
88,50	14517,630	-19675,869	11359,168	20262,230	-3,673	-0,130
89,00	15931,975	-21025,205	11383,688	20306,787	-3,692	-0,098
89,50	17284,173	-22319,500	11408,261	20351,442	-3,710	-0,069
90,00	18574,223	-23558,370	11432,889	20396,195	-3,727	-0,043
90,50	19802,125	-24741,432	11457,571	20441,046	-3,744	-0,020
91,00	20967,880	-25868,299	11482,307	20485,996	-3,759	0,001

x [m]	**M_{Efreq}** [kNm]	**$P_0 \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_0** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
91,50	22071,488	-26938,585	11507,098	20531,045	-3,774	0,020
92,00	23112,947	-27951,900	11531,943	20576,193	-3,788	0,036
92,50	24092,260	-28907,852	11556,842	20621,440	-3,801	0,050
93,00	25009,425	-29806,048	11581,797	20666,787	-3,814	0,063
93,50	25864,442	-30646,096	11606,806	20712,233	-3,826	0,073
94,00	26657,312	-31427,597	11631,871	20757,779	-3,837	0,083
94,50	27388,035	-32150,153	11656,991	20803,426	-3,849	0,091
95,00	28056,610	-32813,366	11682,165	20849,173	-3,859	0,097
95,20	28306,638	-33061,945	11692,251	20867,500	-3,864	0,100
95,50	28591,037	-33416,833	11707,396	20895,020	-3,859	0,072
96,00	29015,317	-33960,151	11732,682	20940,969	-3,852	0,027
96,50	29377,450	-34442,914	11758,023	20987,018	-3,844	-0,020
97,00	29677,434	-34864,716	11783,420	21033,168	-3,836	-0,067
97,50	29973,702	-35225,148	11808,874	21079,421	-3,836	-0,090
98,00	30255,226	-35523,799	11834,383	21125,774	-3,844	-0,093
98,50	30474,601	-35760,257	11859,948	21172,230	-3,851	-0,095
99,00	30631,830	-35934,108	11885,569	21218,788	-3,859	-0,098
99,50	30726,911	-36044,935	11911,248	21265,448	-3,867	-0,100
100,00	30639,844	-36092,320	11936,982	21312,211	-3,857	-0,153
100,50	30490,630	-36075,845	11962,773	21359,077	-3,848	-0,204
101,00	30279,268	-35995,086	11988,621	21406,046	-3,839	-0,255
101,50	30005,759	-35849,621	12014,526	21453,118	-3,830	-0,305
102,00	29717,655	-35639,025	12040,488	21500,293	-3,829	-0,333
102,50	29425,682	-35362,870	12066,507	21547,572	-3,837	-0,335
103,00	29071,561	-35020,727	12092,584	21594,956	-3,845	-0,336
103,50	28655,293	-34612,166	12118,718	21642,443	-3,855	-0,334
103,80	28375,701	-34334,968	12134,426	21670,986	-3,860	-0,332
104,00	28128,877	-34136,753	12144,909	21690,035	-3,857	-0,351
104,50	27468,315	-33594,054	12171,158	21737,732	-3,850	-0,396
105,00	26745,604	-32983,631	12197,465	21785,533	-3,844	-0,439
105,50	25960,746	-32305,048	12223,830	21833,440	-3,839	-0,480
106,00	25113,740	-31557,862	12250,253	21881,451	-3,835	-0,517

x [m]	**M_{Efreq}** [kNm]	**$P_0 \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_0** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
106,50	24204,587	-30741,632	12276,734	21929,569	-3,831	-0,552
107,00	23233,286	-29855,914	12303,273	21977,792	-3,829	-0,584
107,50	22199,838	-28900,261	12329,871	22026,122	-3,828	-0,612
108,00	21104,243	-27874,225	12356,528	22074,557	-3,828	-0,637
108,50	19946,499	-26777,355	12383,243	22123,099	-3,830	-0,658
109,00	18726,609	-25609,201	12410,017	22171,748	-3,833	-0,675
109,50	17444,571	-24369,307	12436,850	22220,504	-3,837	-0,688
110,00	16100,385	-23057,218	12463,742	22269,367	-3,843	-0,697
110,50	14694,052	-21672,476	12490,694	22318,337	-3,851	-0,701
111,00	13225,571	-20214,620	12517,705	22367,416	-3,860	-0,701
111,50	11694,943	-18683,189	12544,775	22416,602	-3,871	-0,696
112,00	10108,540	-17077,718	12571,905	22465,896	-3,884	-0,683
112,50	8494,133	-15397,743	12599,095	22515,299	-3,905	-0,651
113,00	6817,578	-13642,794	12626,345	22564,810	-3,927	-0,613
113,50	5078,875	-11812,401	12653,655	22614,430	-3,951	-0,569
114,00	3342,623	-9906,093	12681,025	22664,159	-3,987	-0,492
114,50	1557,354	-7923,396	12708,455	22713,998	-4,027	-0,403
115,00	-7086,365	-5863,832	12735,946	22763,946	-3,066	-3,188
115,35	-8351,351	-4394,268	12755,902	22798,554	-3,104	-3,098
115,50	-8923,076	-3721,879	12746,215	22783,114	-3,115	-3,057
116,00	-10959,866	-1503,526	12717,795	22733,123	-3,131	-2,986
116,50	-13099,711	772,966	12689,440	22683,243	-3,140	-2,933
116,70	-13973,050	1699,749	12678,116	22663,321	-3,144	-2,912
117,00	-15302,282	3032,138	12641,991	22585,141	-3,128	-2,916
117,50	-17569,956	5018,590	12582,000	22455,439	-3,060	-3,043
118,00	-19902,990	6716,480	12522,280	22326,483	-2,940	-3,320
118,14	-20567,952	7140,830	12505,607	22290,508	-2,897	-3,424
118,50	-22302,982	8130,580	12462,829	22198,267	-2,768	-3,745
119,00	-24774,254	9265,613	12403,647	22070,787	-2,545	-4,319
119,50	-27317,048	10126,243	12344,732	21944,040	-2,271	-5,039
119,57	-27678,747	10225,097	12336,506	21926,353	-2,228	-5,152
120,00	-29933,770	10717,085	12286,084	21818,020	-1,946	-5,905

x [m]	**M_{Efreq}** [kNm]	**$P_0 \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_0** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
120,50	-32628,449	11042,699	12227,700	21692,724	-1,571	-6,917
121,00	-35401,152	11107,596	12169,581	21568,147	-1,145	-8,072
121,50	-32624,175	10916,232	12087,856	21444,286	-1,498	-6,994
122,00	-29925,794	10473,014	12006,667	21321,137	-1,802	-6,056
122,43	-27667,589	9893,736	11937,270	21215,794	-2,025	-5,360
122,50	-27305,372	9782,297	11926,010	21198,694	-2,058	-5,256
123,00	-24758,876	8848,388	11845,883	21076,955	-2,268	-4,590
123,50	-22283,903	7675,543	11766,281	20955,915	-2,432	-4,056
123,86	-20546,208	6685,509	11709,291	20869,196	-2,522	-3,751
124,00	-19880,210	6267,968	11687,201	20835,569	-2,551	-3,651
124,50	-17543,475	4629,822	11608,641	20715,915	-2,626	-3,372
125,00	-15272,100	2765,216	11530,595	20596,949	-2,659	-3,216
125,30	-13940,647	1539,442	11484,014	20525,897	-2,658	-3,182
125,50	-13065,827	698,837	11474,165	20507,870	-2,659	-3,169
126,00	-10922,281	-1353,376	11449,580	20462,872	-2,663	-3,135
126,50	-8880,947	-3335,506	11425,049	20417,972	-2,662	-3,114
127,00	-7040,615	-5247,986	11400,571	20373,172	-2,641	-3,149
127,50	1595,456	-7091,244	11376,146	20328,469	-3,634	-0,275
128,00	3383,914	-8865,710	11351,775	20283,865	-3,627	-0,273
128,50	5124,423	-10571,808	11327,457	20239,358	-3,622	-0,263
129,00	6866,316	-12209,965	11303,192	20194,950	-3,628	-0,223
129,50	8546,061	-13780,601	11278,980	20150,638	-3,634	-0,181
129,60	8874,552	-14086,663	11274,144	20141,788	-3,636	-0,172
129,60	8874,552	-14053,104	11247,286	20093,804	-3,630	-0,163
130,00	10163,658	-15301,410	11267,540	20129,145	-3,644	-0,142
130,50	11756,737	-16813,593	11292,909	20173,410	-3,666	-0,103
131,00	13294,805	-18271,872	11318,337	20217,771	-3,687	-0,064
131,50	14770,724	-19675,869	11343,823	20262,230	-3,708	-0,029
132,00	16184,496	-21025,205	11369,367	20306,787	-3,727	0,003
132,50	17536,121	-22319,500	11394,969	20351,442	-3,745	0,032
133,00	18825,598	-23558,370	11420,631	20396,195	-3,763	0,058
133,50	20052,928	-24741,432	11446,351	20441,046	-3,779	0,082

x [m]	M_{Efreq} [kNm]	$P_0 \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_0 [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
134,00	21218,110	-25868,299	11472,130	20485,996	-3,795	0,103
134,50	22321,145	-26938,585	11497,968	20531,045	-3,809	0,122
135,00	23362,032	-27951,900	11523,865	20576,193	-3,823	0,138
135,50	24340,772	-28907,852	11549,822	20621,440	-3,837	0,153
136,00	25257,364	-29806,048	11575,838	20666,787	-3,850	0,165
136,50	26111,809	-30646,096	11601,914	20712,233	-3,862	0,176
137,00	26904,106	-31427,597	11628,049	20757,779	-3,873	0,186
137,50	27634,255	-32150,153	11654,245	20803,426	-3,885	0,194
138,00	28302,258	-32813,366	11680,500	20849,173	-3,895	0,201
138,20	28552,057	-33061,945	11691,019	20867,500	-3,900	0,203
138,50	28836,112	-33416,833	11706,816	20895,020	-3,895	0,176
139,00	29259,819	-33960,151	11733,192	20940,969	-3,888	0,130
139,50	29621,379	-34442,914	11759,628	20987,018	-3,880	0,084
140,00	29920,791	-34864,716	11786,125	21033,168	-3,872	0,037
140,50	30216,425	-35225,148	11812,682	21079,421	-3,873	0,014
141,00	30497,377	-35523,799	11839,301	21125,774	-3,880	0,012
141,50	30716,182	-35760,257	11865,980	21172,230	-3,888	0,009
142,00	30872,839	-35934,108	11892,721	21218,788	-3,896	0,007
142,50	30967,349	-36044,935	11919,523	21265,448	-3,904	0,005
143,00	30879,711	-36092,320	11946,386	21312,211	-3,894	-0,047
143,50	30729,926	-36075,845	11973,312	21359,077	-3,885	-0,098
144,00	30517,993	-35995,086	12000,298	21406,046	-3,876	-0,149
144,50	30243,912	-35849,621	12027,347	21453,118	-3,867	-0,198
145,00	29955,151	-35639,025	12054,458	21500,293	-3,866	-0,226
145,50	29662,611	-35362,870	12081,630	21547,572	-3,874	-0,228
146,00	29307,923	-35020,727	12108,865	21594,956	-3,883	-0,228
146,50	28891,087	-34612,166	12136,163	21642,443	-3,892	-0,227
146,80	28611,156	-34334,968	12152,571	21670,986	-3,898	-0,225
147,00	28364,105	-34136,753	12163,523	21690,035	-3,895	-0,244
147,50	27702,975	-33594,054	12190,946	21737,732	-3,888	-0,289
148,00	26979,697	-32983,631	12218,432	21785,533	-3,882	-0,331
148,50	26194,272	-32305,048	12245,980	21833,440	-3,877	-0,371

x [m]	M_{Efreq} [kNm]	$P_0 \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_0 [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
149,00	25346,699	-31557,862	12273,592	21881,451	-3,872	-0,409
149,50	24436,979	-30741,632	12301,267	21929,569	-3,869	-0,443
150,00	23465,111	-29855,914	12329,006	21977,792	-3,867	-0,475
150,50	22431,096	-28900,261	12356,809	22026,122	-3,866	-0,503
151,00	21334,933	-27874,225	12384,675	22074,557	-3,867	-0,527
151,50	20176,623	-26777,355	12412,605	22123,099	-3,868	-0,548
152,00	18956,165	-25609,201	12440,599	22171,748	-3,871	-0,565
152,50	17673,560	-24369,307	12468,657	22220,504	-3,876	-0,578
153,00	16328,807	-23057,218	12496,780	22269,367	-3,882	-0,586
153,50	14921,907	-21672,476	12524,967	22318,337	-3,889	-0,590
154,00	13452,859	-20214,620	12553,219	22367,416	-3,899	-0,590
154,50	11921,664	-18683,189	12581,536	22416,602	-3,909	-0,584
155,00	10335,457	-17077,718	12609,918	22465,896	-3,923	-0,571
155,50	8724,731	-15397,743	12638,364	22515,299	-3,944	-0,536
156,00	7051,858	-13642,794	12666,876	22564,810	-3,967	-0,496
156,50	5316,837	-11812,401	12695,454	22614,430	-3,992	-0,450
157,00	3583,200	-9906,093	12724,097	22664,159	-4,029	-0,372
157,50	1801,613	-7923,396	12752,806	22713,998	-4,070	-0,281
158,00	-6827,585	-5863,832	12781,580	22763,946	-3,111	-3,059
158,35	-8090,322	-4394,268	12802,428	22798,554	-3,149	-2,968
158,50	-8661,045	-3721,879	12793,075	22783,114	-3,161	-2,926
159,00	-10695,507	-1503,526	12765,737	22733,123	-3,177	-2,853
159,50	-12832,182	772,966	12738,459	22683,243	-3,187	-2,799
159,70	-13704,253	1699,749	12727,564	22663,321	-3,191	-2,778
160,00	-15031,582	3032,138	12691,975	22585,141	-3,176	-2,780
160,50	-17296,085	5018,590	12632,867	22455,439	-3,108	-2,905
161,00	-19625,949	6716,480	12574,019	22326,483	-2,989	-3,180
161,14	-20290,023	7140,830	12557,587	22290,508	-2,946	-3,284
161,50	-22022,769	8130,580	12515,428	22198,267	-2,817	-3,604
162,00	-24490,871	9265,613	12457,094	22070,787	-2,595	-4,176
162,50	-27030,495	10126,243	12399,016	21944,040	-2,321	-4,895
162,57	-27391,750	10225,097	12390,905	21926,353	-2,279	-5,007

x [m]	**M_{Efreq}** [kNm]	**$P_0 \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_0** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
163,00	-29644,045	10717,085	12341,192	21818,020	-1,997	-5,759
163,50	-32335,554	11042,699	12283,623	21692,724	-1,622	-6,769
164,00	-35105,659	11107,596	12226,306	21568,147	-1,197	-7,923
164,50	-32346,266	10916,232	12141,073	21444,286	-1,547	-6,854
165,00	-29664,896	10473,014	12056,414	21321,137	-1,848	-5,925
165,43	-27421,320	9893,736	11984,063	21215,794	-2,069	-5,236
165,50	-27061,485	9782,297	11972,325	21198,694	-2,101	-5,133
166,00	-24531,999	8848,388	11888,804	21076,955	-2,308	-4,476
166,50	-22074,037	7675,543	11805,845	20955,915	-2,469	-3,950
166,86	-20348,590	6685,509	11746,461	20869,196	-2,557	-3,652
167,00	-19687,355	6267,968	11723,446	20835,569	-2,585	-3,554
167,50	-17367,631	4629,822	11641,602	20715,915	-2,657	-3,283
168,00	-15113,266	2765,216	11560,311	20596,949	-2,686	-3,137
168,30	-13792,020	1539,442	11511,800	20525,897	-2,684	-3,107
168,50	-12924,005	698,837	11500,709	20507,870	-2,684	-3,098
169,00	-10797,469	-1353,376	11473,028	20462,872	-2,684	-3,072
169,50	-8773,989	-3335,506	11445,415	20417,972	-2,680	-3,060
170,00	-6950,588	-5247,986	11417,869	20373,172	-2,657	-3,103
170,50	1679,822	-7091,244	11390,389	20328,469	-3,649	-0,233
171,00	3451,781	-8865,710	11362,976	20283,865	-3,638	-0,239
171,50	5174,723	-10571,808	11335,630	20239,358	-3,631	-0,238
172,00	6900,116	-12209,965	11308,350	20194,950	-3,633	-0,206
172,50	8563,361	-13780,601	11281,136	20150,638	-3,637	-0,173
172,50	8563,361	-13780,601	11281,136	20150,638	-3,637	-0,173
172,60	8888,553	-14086,663	11275,701	20141,788	-3,638	-0,166
172,60	8888,553	-14053,104	11248,839	20093,804	-3,632	-0,156
173,00	10164,460	-15301,410	11266,706	20129,145	-3,644	-0,142
173,50	11737,553	-16813,593	11289,079	20173,410	-3,662	-0,113
174,00	13254,871	-18271,872	11311,498	20217,771	-3,680	-0,084
174,50	14710,042	-19675,869	11333,961	20262,230	-3,697	-0,059
175,00	16103,065	-21025,205	11356,470	20306,787	-3,713	-0,037
175,50	17433,941	-22319,500	11379,024	20351,442	-3,728	-0,018

x [m]	M_{Efreq} [kNm]	$P_0 \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_0 [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
176,00	18702,670	-23558,370	11401,623	20396,195	-3,742	-0,002
176,50	19909,251	-24741,432	11424,267	20441,046	-3,755	0,012
177,00	21053,684	-25868,299	11446,957	20485,996	-3,767	0,023
177,50	22135,970	-26938,585	11469,693	20531,045	-3,778	0,031
178,00	23156,109	-27951,900	11492,474	20576,193	-3,788	0,038
178,50	24114,100	-28907,852	11515,301	20621,440	-3,798	0,042
179,00	25009,943	-29806,048	11538,174	20666,787	-3,807	0,044
179,50	25843,639	-30646,096	11561,093	20712,233	-3,816	0,045
180,00	26615,188	-31427,597	11584,058	20757,779	-3,824	0,045
180,50	27324,589	-32150,153	11607,069	20803,426	-3,832	0,043
181,00	27971,842	-32813,366	11630,126	20849,173	-3,839	0,039
181,20	28213,342	-33061,945	11639,362	20867,500	-3,842	0,038
181,50	28484,948	-33416,833	11653,230	20895,020	-3,835	0,005
182,00	28887,907	-33960,151	11676,380	20940,969	-3,824	-0,051
182,50	29228,717	-34442,914	11699,577	20987,018	-3,813	-0,108
183,00	29507,381	-34864,716	11722,820	21033,168	-3,802	-0,165
183,50	29782,176	-35225,148	11746,110	21079,421	-3,799	-0,198
184,00	30042,375	-35523,799	11769,447	21125,774	-3,803	-0,210
184,50	30240,427	-35760,257	11792,830	21172,230	-3,807	-0,223
185,00	30376,331	-35934,108	11816,261	21218,788	-3,811	-0,236
185,50	30450,088	-36044,935	11839,738	21265,448	-3,816	-0,248
186,00	30341,698	-36092,320	11863,263	21312,211	-3,802	-0,310
186,50	30171,160	-36075,845	11886,835	21359,077	-3,789	-0,372
187,00	29938,474	-35995,086	11910,455	21406,046	-3,777	-0,433
187,50	29643,641	-35849,621	11934,122	21453,118	-3,765	-0,492
188,00	29334,064	-35639,025	11957,837	21500,293	-3,760	-0,531
188,50	29020,769	-35362,870	11981,599	21547,572	-3,765	-0,543
189,00	28645,327	-35020,727	12005,409	21594,956	-3,770	-0,553
189,50	28207,737	-34612,166	12029,267	21642,443	-3,775	-0,562
189,80	27915,353	-34334,968	12043,605	21670,986	-3,779	-0,566
190,00	27660,000	-34136,753	12053,173	21690,035	-3,775	-0,589
190,50	26978,116	-33594,054	12077,127	21737,732	-3,764	-0,644

x [m]	**M_{Efreq}** [kNm]	**$P_0 \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_0** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
191,00	26234,084	-32983,631	12101,129	21785,533	-3,754	-0,697
191,50	25427,904	-32305,048	12125,179	21833,440	-3,746	-0,747
192,00	24559,577	-31557,862	12149,278	21881,451	-3,738	-0,795
192,50	23629,102	-30741,632	12173,425	21929,569	-3,731	-0,840
193,00	22636,480	-29855,914	12197,621	21977,792	-3,725	-0,881
193,50	21581,711	-28900,261	12221,865	22026,122	-3,721	-0,920
194,00	20464,794	-27874,225	12246,159	22074,557	-3,718	-0,954
194,50	19285,729	-26777,355	12270,501	22123,099	-3,716	-0,986
195,00	18044,517	-25609,201	12294,892	22171,748	-3,715	-1,013
195,50	16741,157	-24369,307	12319,332	22220,504	-3,716	-1,036
196,00	15375,650	-23057,218	12343,821	22269,367	-3,719	-1,055
196,50	13947,996	-21672,476	12368,360	22318,337	-3,722	-1,069
197,00	12458,194	-20214,620	12392,947	22367,416	-3,728	-1,079
197,50	10906,244	-18683,189	12417,585	22416,602	-3,735	-1,084
198,00	9300,822	-17077,718	12442,271	22465,896	-3,746	-1,080
198,50	7670,526	-15397,743	12467,008	22515,299	-3,763	-1,056
199,00	5978,083	-13642,794	12491,794	22564,810	-3,783	-1,025
199,50	4223,492	-11812,401	12516,630	22614,430	-3,805	-0,989
200,00	2450,785	-9906,093	12541,516	22664,159	-3,835	-0,929
200,50	-5763,471	-7923,396	12566,452	22713,998	-2,925	-3,566
201,00	-7554,254	-5863,832	12591,439	22763,946	-2,976	-3,448
201,35	-8826,534	-4394,268	12609,656	22798,554	-3,012	-3,361
201,50	-9401,505	-3721,879	12599,392	22783,114	-3,023	-3,322
202,00	-11454,144	-1503,526	12569,105	22733,123	-3,036	-3,258
202,50	-13604,690	772,966	12538,892	22683,243	-3,043	-3,211
202,70	-14482,310	1699,749	12526,827	22663,321	-3,046	-3,192
203,00	-15817,962	3032,138	12489,919	22585,141	-3,030	-3,199
203,50	-18096,337	5018,590	12428,639	22455,439	-2,960	-3,331
204,00	-20440,071	6716,480	12367,650	22326,483	-2,838	-3,613
204,14	-21108,029	7140,830	12350,624	22290,508	-2,795	-3,718
204,50	-22850,763	8130,580	12306,949	22198,267	-2,664	-4,043
205,00	-25332,736	9265,613	12246,537	22070,787	-2,439	-4,622

x [m]	M_{Efreq} [kNm]	$P_0 \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_0 [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
205,50	-27886,231	10126,243	12186,411	21944,040	-2,163	-5,348
205,57	-28249,428	10225,097	12178,016	21926,353	-2,121	-5,461
206,00	-30513,653	10717,085	12126,570	21818,020	-1,837	-6,219
206,50	-33219,033	11042,699	12067,014	21692,724	-1,460	-7,235
207,00	-36011,044	11107,596	12007,740	21568,147	-1,031	-8,399
207,50	-33202,402	10916,232	11935,725	21444,286	-1,390	-7,304
208,00	-30471,782	10473,014	11864,139	21321,137	-1,701	-6,348
208,43	-28185,851	9893,736	11802,917	21215,794	-1,929	-5,637
208,50	-27819,120	9782,297	11792,981	21198,694	-1,963	-5,530
209,00	-25240,385	8848,388	11722,247	21076,955	-2,179	-4,847
209,50	-22733,173	7675,543	11651,935	20955,915	-2,349	-4,295
209,86	-20972,266	6685,509	11601,571	20869,196	-2,443	-3,978
210,00	-20297,241	6267,968	11582,043	20835,569	-2,474	-3,872
210,50	-17928,267	4629,822	11512,568	20715,915	-2,555	-3,576
211,00	-15624,652	2765,216	11443,508	20596,949	-2,594	-3,403
211,30	-14273,856	1539,442	11402,270	20525,897	-2,596	-3,358
211,50	-13386,141	698,837	11395,851	20507,870	-2,600	-3,338
212,00	-11210,355	-1353,376	11379,816	20462,872	-2,610	-3,286
212,50	-9145,149	-3335,506	11363,798	20417,972	-2,614	-3,252
213,00	-7271,450	-5247,986	11347,796	20373,172	-2,599	-3,269
213,50	-5454,218	-7091,244	11331,810	20328,469	-2,587	-3,280
214,00	3153,232	-8865,710	11315,841	20283,865	-3,587	-0,386
214,50	4952,854	-10571,808	11299,889	20239,358	-3,593	-0,347
215,00	6753,763	-12209,965	11283,953	20194,950	-3,608	-0,279
215,50	8492,525	-13780,601	11268,034	20150,638	-3,625	-0,208
215,60	8832,820	-14086,663	11264,852	20141,788	-3,628	-0,194
215,60	8832,820	-14053,104	11238,016	20093,804	-3,623	-0,185
216,00	10169,139	-15301,410	11264,847	20129,145	-3,644	-0,141
216,50	11805,263	-16813,593	11298,470	20173,410	-3,674	-0,080
217,00	13383,276	-18271,872	11332,188	20217,771	-3,702	-0,021
217,50	14899,142	-19675,869	11366,001	20262,230	-3,730	0,035
218,00	16352,861	-21025,205	11399,908	20306,787	-3,756	0,087

x [m]	**M_{Efreq}** [kNm]	**$P_0 \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_0** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
218,50	17744,432	-22319,500	11433,911	20351,442	-3,782	0,137
219,00	19073,855	-23558,370	11468,009	20396,195	-3,806	0,184
219,50	20341,131	-24741,432	11502,202	20441,046	-3,830	0,228
220,00	21546,260	-25868,299	11536,492	20485,996	-3,853	0,269
220,50	22689,241	-26938,585	11570,878	20531,045	-3,875	0,308
221,00	23770,074	-27951,900	11605,360	20576,193	-3,896	0,345
221,50	24788,760	-28907,852	11639,939	20621,440	-3,916	0,381
222,00	25745,299	-29806,048	11674,615	20666,787	-3,936	0,414
222,50	26639,689	-30646,096	11709,389	20712,233	-3,955	0,445
223,00	27471,933	-31427,597	11744,260	20757,779	-3,974	0,475
223,50	28242,029	-32150,153	11779,228	20803,426	-3,993	0,504
224,00	28949,977	-32813,366	11814,295	20849,173	-4,011	0,532
224,20	29215,756	-33061,945	11828,349	20867,500	-4,018	0,543
224,50	29523,778	-33416,833	11849,460	20895,020	-4,018	0,528
225,00	29987,432	-33960,151	11884,724	20940,969	-4,017	0,503
225,50	30388,938	-34442,914	11920,086	20987,018	-4,017	0,477
226,00	30728,296	-34864,716	11955,548	21033,168	-4,016	0,451
226,50	31062,577	-35225,148	11991,109	21079,421	-4,024	0,449
227,00	31383,414	-35523,799	12026,769	21125,774	-4,039	0,467
227,50	31642,103	-35760,257	12062,530	21172,230	-4,054	0,485
228,00	31838,644	-35934,108	12098,391	21218,788	-4,069	0,504
228,50	31973,038	-36044,935	12134,352	21265,448	-4,084	0,522
229,00	31925,285	-36092,320	12170,414	21312,211	-4,081	0,491
229,50	31815,384	-36075,845	12206,577	21359,077	-4,079	0,460
230,00	31643,335	-35995,086	12242,841	21406,046	-4,078	0,431
230,50	31409,139	-35849,621	12279,206	21453,118	-4,076	0,402
231,00	31159,400	-35639,025	12315,674	21500,293	-4,082	0,395
231,50	30906,715	-35362,870	12352,244	21547,572	-4,098	0,414
232,00	30591,884	-35020,727	12388,916	21594,956	-4,114	0,434
232,50	30214,904	-34612,166	12425,690	21642,443	-4,130	0,457
232,80	29958,886	-34334,968	12447,805	21670,986	-4,140	0,471
233,00	29727,777	-34136,753	12462,568	21690,035	-4,140	0,461

x [m]	**M_{Efreq}** [kNm]	**$P_0 \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_0** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
233,50	29106,503	-33594,054	12499,549	21737,732	-4,141	0,437
234,00	28423,081	-32983,631	12536,633	21785,533	-4,142	0,415
234,50	27677,512	-32305,048	12573,821	21833,440	-4,144	0,396
235,00	26869,795	-31557,862	12611,113	21881,451	-4,147	0,380
235,50	25999,931	-30741,632	12648,509	21929,569	-4,151	0,366
236,00	25067,919	-29855,914	12686,010	21977,792	-4,156	0,356
236,50	24073,760	-28900,261	12723,616	22026,122	-4,163	0,349
237,00	23017,453	-27874,225	12761,327	22074,557	-4,171	0,345
237,50	21898,999	-26777,355	12799,143	22123,099	-4,180	0,346
238,00	20718,397	-25609,201	12837,065	22171,748	-4,190	0,350
238,50	19475,648	-24369,307	12875,094	22220,504	-4,202	0,358
239,00	18170,751	-23057,218	12913,228	22269,367	-4,215	0,371
239,50	16803,706	-21672,476	12951,469	22318,337	-4,230	0,388
240,00	15374,515	-20214,620	12989,817	22367,416	-4,247	0,409
240,50	13883,175	-18683,189	13028,272	22416,602	-4,265	0,436
241,00	12357,468	-17077,718	13066,835	22465,896	-4,289	0,479
241,50	10788,476	-15397,743	13105,505	22515,299	-4,318	0,536
242,00	9157,336	-13642,794	13144,283	22564,810	-4,349	0,598
242,50	7464,049	-11812,401	13183,170	22614,430	-4,381	0,666
243,00	5708,614	-9906,093	13222,165	22664,159	-4,416	0,740
243,50	3936,903	-7923,396	13261,269	22713,998	-4,460	0,839
244,00	2145,314	-5863,832	13300,482	22763,946	-4,512	0,962
244,35	869,151	-4394,268	13328,578	22798,554	-4,549	1,051
244,50	315,405	-3721,879	13321,742	22783,114	-4,564	1,101
245,00	-7705,590	-1503,526	13302,552	22733,123	-3,698	-1,359
245,50	-9791,405	772,966	13283,383	22683,243	-3,716	-1,280
245,70	-10643,132	1699,749	13275,722	22663,321	-3,723	-1,248
246,00	-11939,946	3032,138	13243,790	22585,141	-3,713	-1,236
246,50	-14153,589	5018,590	13190,708	22455,439	-3,654	-1,337
247,00	-16432,593	6716,480	13137,797	22326,483	-3,543	-1,588
247,14	-17082,426	7140,830	13123,012	22290,508	-3,503	-1,685
247,50	-18778,553	8130,580	13085,057	22198,267	-3,380	-1,988

x [m]	**M_{Efreq}** [kNm]	**$P_0 \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_0** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
248,00	-21195,795	9265,613	13032,488	22070,787	-3,166	-2,536
248,50	-23684,559	10126,243	12980,091	21944,040	-2,901	-3,231
248,57	-24038,694	10225,097	12972,769	21926,353	-2,860	-3,340
249,00	-26257,792	10717,085	12927,864	21818,020	-2,583	-4,076
249,50	-28961,201	11042,699	12875,807	21692,724	-2,208	-5,089
250,00	-31742,631	11107,596	12823,920	21568,147	-1,782	-6,245
250,50	-29071,547	10916,232	12557,173	21444,286	-2,092	-5,290
251,00	-26478,485	10473,014	12293,064	21321,137	-2,353	-4,474
251,43	-24310,854	9893,736	12068,026	21215,794	-2,540	-3,882
251,50	-23963,382	9782,297	12031,574	21198,694	-2,567	-3,795
252,00	-21522,205	8848,388	11772,680	21076,955	-2,735	-3,250
252,50	-19152,551	7675,543	11516,362	20955,915	-2,857	-2,835
252,86	-17490,686	6685,509	11333,396	20869,196	-2,918	-2,616
253,00	-16854,177	6267,968	11262,598	20835,569	-2,935	-2,549
253,50	-14622,761	4629,822	11011,368	20715,915	-2,969	-2,387
254,00	-12456,705	2765,216	10762,650	20596,949	-2,961	-2,349
254,30	-11188,444	1539,442	10614,617	20525,897	-2,936	-2,384
254,50	-10395,870	698,837	10536,191	20507,870	-2,915	-2,435
255,00	-8527,385	-1353,376	10340,695	20462,872	-2,852	-2,590
255,50	-6715,367	-3335,506	10146,007	20417,972	-2,792	-2,738
256,00	2166,345	-5247,986	9952,125	20373,172	-3,786	0,139
256,50	3994,650	-7091,244	9759,045	20328,469	-3,750	0,057
257,00	5760,807	-8865,710	9566,766	20283,865	-3,714	-0,022
257,50	7464,816	-10571,808	9375,285	20239,358	-3,679	-0,098
258,00	9106,678	-12209,965	9184,599	20194,950	-3,646	-0,171
258,50	10686,393	-13780,601	8994,706	20150,638	-3,613	-0,242
258,60	10994,878	-14086,663	8956,822	20141,788	-3,607	-0,256
258,60	10994,878	-15786,183	10037,440	22571,843	-3,846	-0,849
259,00	12203,960	-17188,434	9902,719	22611,543	-3,803	-0,993
259,50	13659,380	-18887,105	9733,608	22661,266	-3,749	-1,174
260,00	15052,652	-20525,224	9563,707	22711,098	-3,694	-1,357
260,50	16383,776	-22102,367	9393,013	22761,040	-3,640	-1,540

x [m]	M_{Efreq} [kNm]	$P_0 \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_0 [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
261,00	17652,754	-23618,108	9221,523	22811,092	-3,585	-1,724
261,50	18859,583	-25072,019	9049,234	22861,253	-3,530	-1,909
262,00	20004,265	-26463,671	8876,144	22911,525	-3,474	-2,094
262,50	21086,800	-27792,633	8702,251	22961,908	-3,419	-2,279
263,00	22107,187	-29058,470	8527,550	23012,401	-3,364	-2,464
263,20	22497,941	-29547,032	8457,444	23032,630	-3,342	-2,537
263,50	22993,427	-30260,747	8352,041	23063,006	-3,298	-2,679
264,00	23769,519	-31399,027	8175,720	23113,722	-3,226	-2,914
264,50	24483,464	-32472,870	7998,584	23164,549	-3,154	-3,148
265,00	25135,261	-33481,836	7820,630	23215,488	-3,081	-3,382
265,50	25826,266	-34425,480	7641,856	23266,539	-3,025	-3,572
266,00	26458,862	-35303,359	7462,260	23317,702	-2,969	-3,759
266,50	27029,310	-36115,024	7281,838	23368,978	-2,914	-3,944
267,00	27537,610	-36860,026	7100,587	23420,366	-2,859	-4,128
267,50	27983,763	-37537,915	6918,506	23471,868	-2,805	-4,311
268,00	28247,769	-38148,236	6735,590	23523,483	-2,734	-4,542
268,50	28449,627	-38690,536	6551,837	23575,211	-2,663	-4,771
269,00	28589,338	-39164,356	6367,245	23627,053	-2,594	-4,998
269,50	28666,901	-39569,238	6181,811	23679,009	-2,525	-5,222
270,00	28738,976	-39904,720	5995,532	23731,079	-2,466	-5,420
270,50	28795,956	-40170,339	5808,405	23783,264	-2,415	-5,595
271,00	28790,788	-40365,629	5620,426	23835,564	-2,365	-5,766
271,50	28723,472	-40490,123	5431,595	23887,978	-2,315	-5,935
271,80	28653,252	-40539,637	5320,002	23929,007	-2,287	-6,038
272,00	28546,009	-40550,393	5245,386	23956,398	-2,262	-6,124
272,45	28267,683	-40508,882	5076,314	24018,336	-2,211	-6,304
272,50	28234,398	-40476,445	5055,256	24011,660	-2,207	-6,313
273,00	27860,640	-40082,494	4839,167	23943,083	-2,168	-6,386
273,50	27424,735	-39579,440	4624,273	23874,701	-2,137	-6,440
274,00	26926,681	-38968,228	4410,568	23806,515	-2,113	-6,473
274,50	26366,481	-38249,796	4198,048	23738,524	-2,096	-6,487
275,00	25744,133	-37425,075	3986,708	23670,727	-2,085	-6,481

x [m]	**M_{Efreq}** [kNm]	**$P_0 \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_0** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
275,50	25059,637	-36494,994	3776,541	23603,123	-2,081	-6,457
276,00	24312,994	-35460,474	3567,545	23535,713	-2,084	-6,414
276,50	23504,203	-34322,432	3359,712	23468,495	-2,093	-6,354
277,00	22633,265	-33081,780	3153,039	23401,469	-2,108	-6,276
277,50	21700,180	-31739,424	2947,521	23334,634	-2,128	-6,180
278,00	20704,947	-30296,265	2743,153	23267,991	-2,155	-6,068
278,50	19647,566	-28753,198	2539,929	23201,538	-2,188	-5,939
279,00	18528,038	-27111,114	2337,845	23135,274	-2,226	-5,794
279,50	17346,362	-25370,898	2136,896	23069,200	-2,270	-5,634
280,00	16102,539	-23533,432	1937,077	23003,314	-2,319	-5,458
280,50	14796,569	-21599,589	1738,384	22937,617	-2,374	-5,267
280,70	14256,779	-20799,262	1659,221	22911,390	-2,397	-5,187
281,00	13427,872	-19570,241	1540,811	22872,107	-2,433	-5,062
281,50	11994,073	-17446,252	1344,354	22806,784	-2,497	-4,844
282,00	10494,913	-15228,482	1149,008	22741,648	-2,565	-4,613
282,14	10063,436	-14590,817	1094,510	22723,444	-2,585	-4,547
282,50	8928,797	-12917,786	954,769	22676,698	-2,638	-4,371
283,00	7291,399	-10515,014	761,631	22611,934	-2,714	-4,120
283,50	5582,479	-8021,012	569,590	22547,354	-2,792	-3,860
283,57	5337,523	-7664,620	542,791	22538,328	-2,804	-3,823
284,00	3799,633	-5436,620	378,640	22482,959	-2,874	-3,593
284,50	1938,828	-2762,672	188,779	22418,748	-2,957	-3,320
285,00	0,000	0,000	0,000	22354,720	-3,042	-3,042

Anexo G – Estado limite de largura das fendas – Longo prazo

I_c [m^4]	A_c [m^2]	v_{sup} [m]	v_{inf} [m]	f_{ctm} [MPa]	f_{ctk} [MPa]
4,708	7,349	0,695	1,995	3,200	2,200

X [m]	M_{Efreq} [kNm]	$P_\infty \times e$ [kNm]	$M_{PE,Hip}$ [kNm]	P_∞ [kN]	σ_{sup} [MPa]	σ_{inf} [MPa]
0,000	0,000	0,000	0,000	17617,168	-2,397	-2,397
0,500	1806,626	-2175,923	231,124	17670,309	-2,384	-2,463
1,000	3535,245	-4283,527	463,742	17727,303	-2,370	-2,533
1,000	3535,245	-4283,527	463,742	17727,303	-2,370	-2,533
1,430	4959,466	-6041,749	665,091	17779,043	-2,358	-2,596
1,430	4959,466	-6041,749	665,091	17779,043	-2,358	-2,596
1,500	5185,919	-6323,226	697,988	17787,682	-2,356	-2,607
1,500	5185,919	-6323,226	697,988	17787,682	-2,356	-2,607
2,000	6762,680	-8295,120	933,970	17850,972	-2,341	-2,683
2,000	6762,680	-8295,120	933,970	17850,972	-2,341	-2,683
2,500	8267,932	-10199,017	1171,773	17916,706	-2,326	-2,760
2,500	8267,932	-10199,017	1171,773	17916,706	-2,326	-2,760
2,860	9307,434	-11527,476	1344,154	17965,294	-2,315	-2,816
2,860	9307,434	-11527,476	1344,154	17965,294	-2,315	-2,816
3,000	9701,916	-12034,468	1411,458	17984,434	-2,311	-2,838
3,000	9701,916	-12034,468	1411,458	17984,434	-2,311	-2,838
3,500	11068,954	-13800,801	1653,065	18053,735	-2,297	-2,914
3,500	11068,954	-13800,801	1653,065	18053,735	-2,297	-2,914
4,000	12370,645	-15497,163	1896,614	18124,213	-2,285	-2,987
4,000	12370,645	-15497,163	1896,614	18124,213	-2,285	-2,987
4,300	13120,292	-16480,982	2043,678	18166,915	-2,278	-3,030
4,300	13120,292	-16480,982	2043,678	18166,915	-2,278	-3,030
4,500	13607,245	-17122,551	2142,109	18195,511	-2,273	-3,058

X [m]	**M_{Efreq}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
4,500	13607,245	-17122,551	2142,109	18195,511	-2,273	-3,058
5,000	14781,129	-18675,845	2389,539	18267,303	-2,264	-3,124
5,000	14781,129	-18675,845	2389,539	18267,303	-2,264	-3,124
5,500	15892,877	-20155,843	2638,883	18339,300	-2,256	-3,184
5,500	15892,877	-20155,843	2638,883	18339,300	-2,256	-3,184
6,000	16942,487	-21561,283	2890,108	18411,244	-2,250	-3,238
6,000	16942,487	-21561,283	2890,108	18411,244	-2,250	-3,238
6,500	17929,960	-22890,868	3143,172	18482,910	-2,247	-3,285
6,500	17929,960	-22890,868	3143,172	18482,910	-2,247	-3,285
7,000	18855,296	-24143,283	3398,029	18554,104	-2,246	-3,326
7,000	18855,296	-24143,283	3398,029	18554,104	-2,246	-3,326
7,500	19718,495	-25317,212	3654,627	18624,655	-2,247	-3,358
7,500	19718,495	-25317,212	3654,627	18624,655	-2,247	-3,358
8,000	20519,557	-26411,349	3912,910	18694,418	-2,252	-3,382
8,000	20519,557	-26411,349	3912,910	18694,418	-2,252	-3,382
8,500	21258,482	-27424,409	4172,818	18763,268	-2,259	-3,398
8,500	21258,482	-27424,409	4172,818	18763,268	-2,259	-3,398
9,000	21935,269	-28355,134	4434,291	18831,098	-2,269	-3,404
9,000	21935,269	-28355,134	4434,291	18831,098	-2,269	-3,404
9,500	22549,919	-29202,300	4697,265	18897,820	-2,283	-3,400
9,500	22549,919	-29202,300	4697,265	18897,820	-2,283	-3,400
10,000	23102,433	-29964,722	4961,676	18963,355	-2,300	-3,386
10,000	23102,433	-29964,722	4961,676	18963,355	-2,300	-3,386
10,500	23592,809	-30641,254	5227,460	19027,639	-2,320	-3,361
10,500	23592,809	-30641,254	5227,460	19027,639	-2,320	-3,361
11,000	24021,048	-31230,794	5494,551	19090,618	-2,345	-3,325
11,000	24021,048	-31230,794	5494,551	19090,618	-2,345	-3,325
11,500	24387,149	-31732,286	5762,884	19152,246	-2,373	-3,277
11,500	24387,149	-31732,286	5762,884	19152,246	-2,373	-3,277
12,000	24691,114	-32144,719	6032,393	19212,482	-2,405	-3,217
12,000	24691,114	-32144,719	6032,393	19212,482	-2,405	-3,217
12,500	24932,942	-32467,127	6303,013	19271,296	-2,441	-3,144

X [m]	$\mathbf{M_{Efreq}}$ [kNm]	$\mathbf{P_\infty \times e}$ [kNm]	$\mathbf{M_{PE,Hip}}$ [kNm]	$\mathbf{P_\infty}$ [kN]	$\boldsymbol{\sigma_{sup}}$ [MPa]	$\boldsymbol{\sigma_{inf}}$ [MPa]
12,500	24932,942	-32467,127	6303,013	19271,296	-2,441	-3,144
13,000	25112,632	-32698,595	6574,677	19328,659	-2,481	-3,059
13,000	25112,632	-32698,595	6574,677	19328,659	-2,481	-3,059
13,200	25167,110	-32765,523	6683,621	19351,194	-2,498	-3,021
13,200	25167,110	-32765,523	6683,621	19351,194	-2,498	-3,021
13,500	25158,185	-32838,255	6847,321	19384,551	-2,515	-2,991
13,500	25158,185	-32838,255	6847,321	19384,551	-2,515	-2,991
14,000	25093,602	-32880,182	7116,289	19426,423	-2,545	-2,927
14,000	25093,602	-32880,182	7116,289	19426,423	-2,545	-2,927
14,500	24966,881	-32862,128	7385,983	19467,324	-2,574	-2,865
14,500	24966,881	-32862,128	7385,983	19467,324	-2,574	-2,865
15,000	24778,023	-32783,732	7656,363	19507,250	-2,603	-2,803
15,000	24778,023	-32783,732	7656,363	19507,250	-2,603	-2,803
15,500	24574,078	-32644,654	7927,391	19546,199	-2,639	-2,720
15,500	24574,078	-32644,654	7927,391	19546,199	-2,639	-2,720
16,000	24364,657	-32444,575	8199,026	19584,171	-2,683	-2,614
16,000	24364,657	-32444,575	8199,026	19584,171	-2,683	-2,614
16,500	24093,099	-32183,200	8471,233	19621,169	-2,726	-2,508
16,500	24093,099	-32183,200	8471,233	19621,169	-2,726	-2,508
17,000	23759,404	-31860,254	8743,975	19657,197	-2,770	-2,402
17,000	23759,404	-31860,254	8743,975	19657,197	-2,770	-2,402
17,500	23363,571	-31475,486	9017,218	19692,266	-2,813	-2,296
17,500	23363,571	-31475,486	9017,218	19692,266	-2,813	-2,296
18,000	22785,602	-31028,666	9290,930	19726,388	-2,839	-2,240
18,000	22785,602	-31028,666	9290,930	19726,388	-2,839	-2,240
18,500	22145,495	-30519,589	9565,082	19759,580	-2,865	-2,184
18,500	22145,495	-30519,589	9565,082	19759,580	-2,865	-2,184
19,000	21443,251	-29948,068	9839,648	19791,863	-2,890	-2,128
19,000	21443,251	-29948,068	9839,648	19791,863	-2,890	-2,128
19,500	20678,870	-29313,944	10114,606	19823,266	-2,916	-2,071
19,500	20678,870	-29313,944	10114,606	19823,266	-2,916	-2,071
20,000	19856,089	-28617,075	10389,941	19853,823	-2,942	-2,011

X [m]	**M_{Efreq}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
20,000	19856,089	-28617,075	10389,941	19853,823	-2,942	-2,011
20,500	19072,528	-27857,343	10665,640	19883,575	-2,983	-1,909
20,500	19072,528	-27857,343	10665,640	19883,575	-2,983	-1,909
21,000	18226,829	-27034,647	10941,701	19912,573	-3,025	-1,805
21,000	18226,829	-27034,647	10941,701	19912,573	-3,025	-1,805
21,500	17318,993	-26148,906	11218,126	19940,875	-3,066	-1,702
21,500	17318,993	-26148,906	11218,126	19940,875	-3,066	-1,702
21,800	16744,465	-25587,171	11384,161	19957,552	-3,091	-1,639
21,800	16744,465	-25587,171	11384,161	19957,552	-3,091	-1,639
22,000	16301,019	-25200,052	11494,929	19968,553	-3,100	-1,617
22,000	16301,019	-25200,052	11494,929	19968,553	-3,100	-1,617
22,500	15148,909	-24188,031	11772,134	19995,688	-3,124	-1,563
22,500	15148,909	-24188,031	11772,134	19995,688	-3,124	-1,563
23,000	13934,661	-23112,798	12049,778	20022,377	-3,148	-1,508
23,000	13934,661	-23112,798	12049,778	20022,377	-3,148	-1,508
23,500	12658,277	-21974,308	12327,911	20048,727	-3,173	-1,452
23,500	12658,277	-21974,308	12327,911	20048,727	-3,173	-1,452
24,000	11319,755	-20772,516	12606,598	20074,867	-3,197	-1,395
24,000	11319,755	-20772,516	12606,598	20074,867	-3,197	-1,395
24,500	9919,096	-19507,368	12885,924	20100,937	-3,222	-1,338
24,500	9919,096	-19507,368	12885,924	20100,937	-3,222	-1,338
25,000	8456,300	-18178,788	13165,992	20127,098	-3,247	-1,280
25,000	8456,300	-18178,788	13165,992	20127,098	-3,247	-1,280
25,500	6931,367	-16786,676	13446,924	20153,530	-3,273	-1,221
25,500	6931,367	-16786,676	13446,924	20153,530	-3,273	-1,221
26,000	5344,296	-15330,890	13728,870	20180,433	-3,298	-1,160
26,000	5344,296	-15330,890	13728,870	20180,433	-3,298	-1,160
26,500	-4020,383	-13811,236	14012,001	20208,026	-2,186	-4,368
26,500	-4020,383	-13811,236	14012,001	20208,026	-2,186	-4,368
27,000	-5625,226	-12227,453	14296,512	20236,548	-2,229	-4,261
27,000	-5625,226	-12227,453	14296,512	20236,548	-2,229	-4,261
27,500	-7286,526	-10579,200	14582,630	20266,257	-2,273	-4,149

X [m]	$\mathbf{M_{Efreq}}$ [kNm]	$\mathbf{P_\infty \times e}$ [kNm]	$\mathbf{M_{PE,Hip}}$ [kNm]	$\mathbf{P_\infty}$ [kN]	$\boldsymbol{\sigma}_{\mathbf{sup}}$ [MPa]	$\boldsymbol{\sigma}_{\mathbf{inf}}$ [MPa]
27,500	-7286,526	-10579,200	14582,630	20266,257	-2,273	-4,149
28,000	-9004,282	-8866,038	14870,603	20297,430	-2,319	-4,033
28,000	-9004,282	-8866,038	14870,603	20297,430	-2,319	-4,033
28,500	-10778,496	-7087,414	15160,709	20330,359	-2,367	-3,913
28,500	-10778,496	-7087,414	15160,709	20330,359	-2,367	-3,913
29,000	-12609,168	-5242,644	15453,251	20365,350	-2,417	-3,788
29,000	-12609,168	-5242,644	15453,251	20365,350	-2,417	-3,788
29,346	-13909,044	-3927,719	15658,086	20390,919	-2,453	-3,698
29,346	-13909,044	-3927,719	15658,086	20390,919	-2,453	-3,698
29,500	-14496,296	-3326,517	15727,838	20375,895	-2,463	-3,660
29,500	-14496,296	-3326,517	15727,838	20375,895	-2,463	-3,660
30,000	-16439,881	-1343,665	15957,609	20329,018	-2,497	-3,540
30,000	-16439,881	-1343,665	15957,609	20329,018	-2,497	-3,540
30,500	-18439,924	690,806	16188,571	20285,154	-2,530	-3,422
30,500	-18439,924	690,806	16188,571	20285,154	-2,530	-3,422
30,700	-19285,118	1519,166	16281,363	20268,509	-2,539	-3,387
30,700	-19285,118	1519,166	16281,363	20268,509	-2,539	-3,387
31,000	-20632,305	2710,497	16393,821	20202,330	-2,524	-3,396
31,000	-20632,305	2710,497	16393,821	20202,330	-2,524	-3,396
31,500	-22929,896	4487,943	16580,478	20094,011	-2,460	-3,523
31,500	-22929,896	4487,943	16580,478	20094,011	-2,460	-3,523
32,000	-25292,835	6008,903	16765,525	19987,297	-2,348	-3,787
32,000	-25292,835	6008,903	16765,525	19987,297	-2,348	-3,787
32,140	-25966,168	6389,343	16816,957	19957,584	-2,308	-3,885
32,140	-25966,168	6389,343	16816,957	19957,584	-2,308	-3,885
32,500	-27722,719	7277,245	16948,297	19881,335	-2,189	-4,187
32,500	-27722,719	7277,245	16948,297	19881,335	-2,189	-4,187
33,000	-30223,871	8296,609	17128,224	19775,435	-1,983	-4,724
33,000	-30223,871	8296,609	17128,224	19775,435	-1,983	-4,724
33,500	-32796,533	9070,533	17304,835	19669,064	-1,729	-5,397
33,500	-32796,533	9070,533	17304,835	19669,064	-1,729	-5,397
33,570	-33162,412	9159,498	17329,274	19654,110	-1,689	-5,502

X [m]	**M_{Efreq}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
33,570	-33162,412	9159,498	17329,274	19654,110	-1,689	-5,502
34,000	-35443,107	9602,562	17477,759	19561,829	-1,427	-6,205
34,000	-35443,107	9602,562	17477,759	19561,829	-1,427	-6,205
34,500	-38167,626	9896,313	17646,725	19453,474	-1,079	-7,149
34,500	-38167,626	9896,313	17646,725	19453,474	-1,079	-7,149
35,000	-40970,152	9955,522	17811,561	19343,863	-0,683	-8,227
35,000	-40970,152	9955,522	17811,561	19343,863	-0,683	-8,227
35,500	-38140,926	9784,068	17664,631	19232,977	-1,039	-7,148
35,500	-38140,926	9784,068	17664,631	19232,977	-1,039	-7,148
36,000	-35389,709	9385,978	17517,120	19120,904	-1,349	-6,198
36,000	-35389,709	9385,978	17517,120	19120,904	-1,349	-6,198
36,430	-33129,483	8865,523	17389,940	19023,722	-1,574	-5,501
36,430	-33129,483	8865,523	17389,940	19023,722	-1,574	-5,501
36,500	-32768,652	8765,408	17369,220	19007,844	-1,607	-5,397
36,500	-32768,652	8765,408	17369,220	19007,844	-1,607	-5,397
37,000	-30232,050	7926,614	17221,219	18894,105	-1,821	-4,725
37,000	-30232,050	7926,614	17221,219	18894,105	-1,821	-4,725
37,500	-27766,958	6873,896	17073,505	18780,103	-1,992	-4,174
37,500	-27766,958	6873,896	17073,505	18780,103	-1,992	-4,174
37,860	-26036,371	5985,881	16967,598	18698,155	-2,089	-3,851
37,860	-26036,371	5985,881	16967,598	18698,155	-2,089	-3,851
38,000	-25373,134	5611,529	16926,565	18666,373	-2,122	-3,741
38,000	-25373,134	5611,529	16926,565	18666,373	-2,122	-3,741
38,500	-23046,255	4143,666	16780,987	18553,561	-2,212	-3,424
38,500	-23046,255	4143,666	16780,987	18553,561	-2,212	-3,424
39,000	-20784,724	2474,224	16637,459	18442,432	-2,263	-3,218
39,000	-20784,724	2474,224	16637,459	18442,432	-2,263	-3,218
39,300	-19459,173	1377,297	16552,647	18376,921	-2,275	-3,149
39,300	-19459,173	1377,297	16552,647	18376,921	-2,275	-3,149
39,500	-18588,284	625,207	16524,665	18360,111	-2,286	-3,108
39,500	-18588,284	625,207	16524,665	18360,111	-2,286	-3,108
40,000	-16454,559	-1210,800	16456,651	18320,115	-2,315	-3,005

X [m]	**M_{Efreq}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
40,000	-16454,559	-1210,800	16456,651	18320,115	-2,315	-3,005
40,500	-14382,972	-2984,587	16391,200	18282,803	-2,344	-2,902
40,500	-14382,972	-2984,587	16391,200	18282,803	-2,344	-2,902
41,000	-12529,743	-4697,203	16328,049	18247,899	-2,350	-2,864
41,000	-12529,743	-4697,203	16328,049	18247,899	-2,350	-2,864
41,500	-10756,798	-6349,550	16266,935	18215,125	-2,355	-2,834
41,500	-10756,798	-6349,550	16266,935	18215,125	-2,355	-2,834
42,000	-9040,311	-7942,386	16207,601	18184,206	-2,360	-2,803
42,000	-9040,311	-7942,386	16207,601	18184,206	-2,360	-2,803
42,500	-7380,281	-9476,342	16149,797	18154,873	-2,366	-2,770
42,500	-7380,281	-9476,342	16149,797	18154,873	-2,366	-2,770
43,000	-5776,708	-10951,931	16093,284	18126,870	-2,373	-2,736
43,000	-5776,708	-10951,931	16093,284	18126,870	-2,373	-2,736
43,500	-4229,592	-12369,568	16037,838	18099,953	-2,380	-2,701
43,500	-4229,592	-12369,568	16037,838	18099,953	-2,380	-2,701
43,600	-3926,944	-12646,171	16026,858	18094,679	-2,382	-2,694
43,600	-3926,944	-12646,171	16026,858	18094,679	-2,382	-2,694
44,000	3992,153	-13745,228	16001,469	18094,481	-3,385	0,185
44,000	3992,153	-13745,228	16001,469	18094,481	-3,385	0,185
44,500	5565,863	-15116,179	16018,304	18149,223	-3,424	0,271
44,500	5565,863	-15116,179	16018,304	18149,223	-3,424	0,271
45,000	7105,216	-16441,269	16035,457	18204,539	-3,466	0,361
45,000	7105,216	-16441,269	16035,457	18204,539	-3,466	0,361
45,500	8582,432	-17719,952	16052,770	18260,254	-3,506	0,445
45,500	8582,432	-17719,952	16052,770	18260,254	-3,506	0,445
46,000	9997,511	-18951,642	16070,101	18316,211	-3,543	0,523
46,000	9997,511	-18951,642	16070,101	18316,211	-3,543	0,523
46,500	11350,453	-20135,721	16087,320	18372,261	-3,578	0,594
46,500	11350,453	-20135,721	16087,320	18372,261	-3,578	0,594
47,000	12641,257	-21271,551	16104,310	18428,275	-3,611	0,659
47,000	12641,257	-21271,551	16104,310	18428,275	-3,611	0,659
47,500	13869,925	-22358,476	16120,968	18484,134	-3,642	0,719

X [m]	**M_{Efreq}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
47,500	13869,925	-22358,476	16120,968	18484,134	-3,642	0,719
48,000	15036,455	-23395,834	16137,201	18539,731	-3,671	0,773
48,000	15036,455	-23395,834	16137,201	18539,731	-3,671	0,773
48,500	16140,848	-24382,958	16152,929	18594,971	-3,698	0,822
48,500	16140,848	-24382,958	16152,929	18594,971	-3,698	0,822
49,000	17183,104	-25319,185	16168,079	18649,772	-3,723	0,865
49,000	17183,104	-25319,185	16168,079	18649,772	-3,723	0,865
49,500	18163,223	-26203,856	16182,591	18704,058	-3,747	0,905
49,500	18163,223	-26203,856	16182,591	18704,058	-3,747	0,905
50,000	19081,205	-27036,319	16196,408	18757,765	-3,769	0,939
50,000	19081,205	-27036,319	16196,408	18757,765	-3,769	0,939
50,500	19937,049	-27815,935	16209,485	18810,834	-3,789	0,970
50,500	19937,049	-27815,935	16209,485	18810,834	-3,789	0,970
51,000	20730,757	-28542,080	16221,781	18863,214	-3,808	0,997
51,000	20730,757	-28542,080	16221,781	18863,214	-3,808	0,997
51,500	21462,327	-29214,141	16233,261	18914,863	-3,826	1,020
51,500	21462,327	-29214,141	16233,261	18914,863	-3,826	1,020
52,000	22131,760	-29831,523	16243,897	18965,740	-3,842	1,039
52,000	22131,760	-29831,523	16243,897	18965,740	-3,842	1,039
52,200	22382,135	-30063,037	16247,908	18985,867	-3,848	1,046
52,200	22382,135	-30063,037	16247,908	18985,867	-3,848	1,046
52,500	22667,056	-30393,650	16253,662	19015,811	-3,846	1,025
52,500	22667,056	-30393,650	16253,662	19015,811	-3,846	1,025
53,000	23092,215	-30899,961	16262,535	19065,048	-3,842	0,988
53,000	23092,215	-30899,961	16262,535	19065,048	-3,842	0,988
53,500	23455,237	-31349,915	16270,500	19113,425	-3,837	0,948
53,500	23455,237	-31349,915	16270,500	19113,425	-3,837	0,948
54,000	23756,121	-31742,990	16277,542	19160,919	-3,831	0,905
54,000	23756,121	-31742,990	16277,542	19160,919	-3,831	0,905
54,500	24054,072	-32078,682	16283,648	19207,510	-3,833	0,886
54,500	24054,072	-32078,682	16283,648	19207,510	-3,833	0,886
55,000	24336,489	-32356,508	16288,809	19253,183	-3,840	0,884

X [m]	**M_{Efreq}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
55,000	24336,489	-32356,508	16288,809	19253,183	-3,840	0,884
55,500	24556,768	-32576,004	16293,018	19297,921	-3,847	0,880
55,500	24556,768	-32576,004	16293,018	19297,921	-3,847	0,880
56,000	24714,911	-32736,728	16296,268	19341,714	-3,853	0,874
56,000	24714,911	-32736,728	16296,268	19341,714	-3,853	0,874
56,500	24810,917	-32838,255	16298,558	19384,551	-3,859	0,867
56,500	24810,917	-32838,255	16298,558	19384,551	-3,859	0,867
57,000	24724,785	-32880,182	16299,884	19426,423	-3,846	0,807
57,000	24724,785	-32880,182	16299,884	19426,423	-3,846	0,807
57,500	24576,517	-32862,128	16300,246	19467,324	-3,832	0,747
57,500	24576,517	-32862,128	16300,246	19467,324	-3,832	0,747
58,000	24366,111	-32783,732	16299,647	19507,250	-3,818	0,685
58,000	24366,111	-32783,732	16299,647	19507,250	-3,818	0,685
58,500	24093,568	-32644,654	16298,089	19546,199	-3,803	0,623
58,500	24093,568	-32644,654	16298,089	19546,199	-3,803	0,623
59,000	23807,591	-32444,575	16295,577	19584,171	-3,795	0,580
59,000	23807,591	-32444,575	16295,577	19584,171	-3,795	0,580
59,500	23516,547	-32183,200	16292,120	19621,169	-3,796	0,561
59,500	23516,547	-32183,200	16292,120	19621,169	-3,796	0,561
60,000	23163,366	-31860,254	16287,727	19657,197	-3,795	0,541
60,000	23163,366	-31860,254	16287,727	19657,197	-3,795	0,541
60,500	22748,047	-31475,486	16282,410	19692,266	-3,795	0,521
60,500	22748,047	-31475,486	16282,410	19692,266	-3,795	0,521
60,800	22469,031	-31214,854	16278,783	19712,852	-3,794	0,509
60,800	22469,031	-31214,854	16278,783	19712,852	-3,794	0,509
61,000	22222,592	-31028,666	16276,185	19726,388	-3,787	0,481
61,000	22222,592	-31028,666	16276,185	19726,388	-3,787	0,481
61,500	21562,999	-30519,589	16269,072	19759,580	-3,768	0,410
61,500	21562,999	-30519,589	16269,072	19759,580	-3,768	0,410
62,000	20841,269	-29948,068	16261,093	19791,863	-3,749	0,338
62,000	20841,269	-29948,068	16261,093	19791,863	-3,749	0,338
62,500	20057,402	-29313,944	16252,276	19823,266	-3,730	0,267

X [m]	**M_{Efreq}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
62,500	20057,402	-29313,944	16252,276	19823,266	-3,730	0,267
63,000	19211,398	-28617,075	16242,654	19853,823	-3,711	0,195
63,000	19211,398	-28617,075	16242,654	19853,823	-3,711	0,195
63,500	18303,257	-27857,343	16232,266	19883,575	-3,691	0,124
63,500	18303,257	-27857,343	16232,266	19883,575	-3,691	0,124
64,000	17332,979	-27034,647	16221,156	19912,573	-3,672	0,053
64,000	17332,979	-27034,647	16221,156	19912,573	-3,672	0,053
64,500	16300,563	-26148,906	16209,379	19940,875	-3,652	-0,018
64,500	16300,563	-26148,906	16209,379	19940,875	-3,652	-0,018
65,000	15206,011	-25200,052	16196,994	19968,553	-3,633	-0,089
65,000	15206,011	-25200,052	16196,994	19968,553	-3,633	-0,089
65,500	14049,321	-24188,031	16184,072	19995,688	-3,613	-0,159
65,500	14049,321	-24188,031	16184,072	19995,688	-3,613	-0,159
66,000	12830,494	-23112,798	16170,693	20022,377	-3,594	-0,230
66,000	12830,494	-23112,798	16170,693	20022,377	-3,594	-0,230
66,500	11549,530	-21974,308	16156,949	20048,727	-3,574	-0,299
66,500	11549,530	-21974,308	16156,949	20048,727	-3,574	-0,299
67,000	10206,429	-20772,516	16142,943	20074,867	-3,555	-0,369
67,000	10206,429	-20772,516	16142,943	20074,867	-3,555	-0,369
67,500	8801,191	-19507,368	16128,792	20100,937	-3,536	-0,438
67,500	8801,191	-19507,368	16128,792	20100,937	-3,536	-0,438
68,000	7333,815	-18178,788	16114,624	20127,098	-3,517	-0,506
68,000	7333,815	-18178,788	16114,624	20127,098	-3,517	-0,506
68,500	5804,302	-16786,676	16100,585	20153,530	-3,498	-0,574
68,500	5804,302	-16786,676	16100,585	20153,530	-3,498	-0,574
69,000	4216,690	-15330,890	16086,833	20180,433	-3,480	-0,639
69,000	4216,690	-15330,890	16086,833	20180,433	-3,480	-0,639
69,500	-4653,891	-13811,236	16073,540	20208,026	-2,397	-3,763
69,500	-4653,891	-13811,236	16073,540	20208,026	-2,397	-3,763
70,000	-6196,722	-12227,453	16060,893	20236,548	-2,405	-3,755
70,000	-6196,722	-12227,453	16060,893	20236,548	-2,405	-3,755
70,500	-7796,009	-10579,200	16049,095	20266,257	-2,414	-3,743

X [m]	**M_{Efreq}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
70,500	-7796,009	-10579,200	16049,095	20266,257	-2,414	-3,743
71,000	-9451,753	-8866,038	16038,358	20297,430	-2,426	-3,728
71,000	-9451,753	-8866,038	16038,358	20297,430	-2,426	-3,728
71,500	-11163,955	-7087,414	16028,907	20330,359	-2,438	-3,708
71,500	-11163,955	-7087,414	16028,907	20330,359	-2,438	-3,708
72,000	-12932,613	-5242,644	16020,973	20365,350	-2,453	-3,684
72,000	-12932,613	-5242,644	16020,973	20365,350	-2,453	-3,684
72,346	-14189,577	-3927,719	16017,296	20390,919	-2,465	-3,665
72,346	-14189,577	-3927,719	16017,296	20390,919	-2,465	-3,665
72,500	-14757,729	-3326,517	15993,729	20375,895	-2,464	-3,658
72,500	-14757,729	-3326,517	15993,729	20375,895	-2,464	-3,658
73,000	-16774,341	-1343,665	15921,459	20329,018	-2,442	-3,697
73,000	-16774,341	-1343,665	15921,459	20329,018	-2,442	-3,697
73,500	-18901,522	690,806	15851,721	20285,154	-2,412	-3,760
73,500	-18901,522	690,806	15851,721	20285,154	-2,412	-3,760
73,700	-19769,793	1519,166	15824,577	20268,509	-2,400	-3,786
73,700	-19769,793	1519,166	15824,577	20268,509	-2,400	-3,786
74,000	-21091,418	2710,497	15758,797	20202,330	-2,362	-3,860
74,000	-21091,418	2710,497	15758,797	20202,330	-2,362	-3,860
74,500	-23346,405	4487,943	15650,918	20094,011	-2,261	-4,093
74,500	-23346,405	4487,943	15650,918	20094,011	-2,261	-4,093
75,000	-25666,741	6008,903	15544,543	19987,297	-2,113	-4,463
75,000	-25666,741	6008,903	15544,543	19987,297	-2,113	-4,463
75,140	-26328,145	6389,343	15514,934	19957,584	-2,063	-4,590
75,140	-26328,145	6389,343	15514,934	19957,584	-2,063	-4,590
75,500	-28054,021	7277,245	15439,002	19881,335	-1,917	-4,967
75,500	-28054,021	7277,245	15439,002	19881,335	-1,917	-4,967
76,000	-30512,569	8296,609	15333,754	19775,435	-1,675	-5,607
76,000	-30512,569	8296,609	15333,754	19775,435	-1,675	-5,607
76,500	-33042,627	9070,533	15228,381	19669,064	-1,386	-6,381
76,500	-33042,627	9070,533	15228,381	19669,064	-1,386	-6,381
76,570	-33402,541	9159,498	15213,600	19654,110	-1,342	-6,500

X [m]	**M_{Efreq}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
76,570	-33402,541	9159,498	15213,600	19654,110	-1,342	-6,500
77,000	-35646,597	9602,562	15122,582	19561,829	-1,050	-7,289
77,000	-35646,597	9602,562	15122,582	19561,829	-1,050	-7,289
77,500	-38328,512	9896,313	15016,158	19453,474	-0,667	-8,332
77,500	-38328,512	9896,313	15016,158	19453,474	-0,667	-8,332
78,000	-41088,435	9955,522	14909,010	19343,863	-0,237	-9,506
78,000	-41088,435	9955,522	14909,010	19343,863	-0,237	-9,506
78,500	-38309,623	9784,068	14820,366	19232,977	-0,594	-8,424
78,500	-38309,623	9784,068	14820,366	19232,977	-0,594	-8,424
79,000	-35617,428	9385,978	14730,837	19120,904	-0,904	-7,475
79,000	-35617,428	9385,978	14730,837	19120,904	-0,904	-7,475
79,430	-33364,530	8865,523	14653,247	19023,722	-1,135	-6,760
79,430	-33364,530	8865,523	14653,247	19023,722	-1,135	-6,760
79,500	-33003,177	8765,408	14640,575	19007,844	-1,170	-6,653
79,500	-33003,177	8765,408	14640,575	19007,844	-1,170	-6,653
80,000	-30462,838	7926,614	14549,819	18894,105	-1,392	-5,955
80,000	-30462,838	7926,614	14549,819	18894,105	-1,392	-5,955
80,500	-27994,009	6873,896	14458,894	18780,103	-1,572	-5,378
80,500	-27994,009	6873,896	14458,894	18780,103	-1,572	-5,378
80,860	-26260,731	5985,881	14393,551	18698,155	-1,676	-5,036
80,860	-26260,731	5985,881	14393,551	18698,155	-1,676	-5,036
81,000	-25596,448	5611,529	14368,212	18666,373	-1,711	-4,920
81,000	-25596,448	5611,529	14368,212	18666,373	-1,711	-4,920
81,500	-23265,833	4143,666	14278,276	18553,561	-1,810	-4,577
81,500	-23265,833	4143,666	14278,276	18553,561	-1,810	-4,577
82,000	-21000,565	2474,224	14189,675	18442,432	-1,869	-4,347
82,000	-21000,565	2474,224	14189,675	18442,432	-1,869	-4,347
82,300	-19672,771	1377,297	14137,435	18376,921	-1,887	-4,262
82,300	-19672,771	1377,297	14137,435	18376,921	-1,887	-4,262
82,500	-18800,388	625,207	14127,563	18360,111	-1,901	-4,213
82,500	-18800,388	625,207	14127,563	18360,111	-1,901	-4,213
83,000	-16662,926	-1210,800	14104,432	18320,115	-1,937	-4,090

X [m]	**M_{Efreq}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
83,000	-16662,926	-1210,800	14104,432	18320,115	-1,937	-4,090
83,500	-14623,360	-2984,587	14083,351	18282,803	-1,968	-3,981
83,500	-14623,360	-2984,587	14083,351	18282,803	-1,968	-3,981
84,000	-12789,173	-4697,203	14064,107	18247,899	-1,978	-3,933
84,000	-12789,173	-4697,203	14064,107	18247,899	-1,978	-3,933
84,500	-11011,444	-6349,550	14046,488	18215,125	-1,989	-3,883
84,500	-11011,444	-6349,550	14046,488	18215,125	-1,989	-3,883
85,000	-9290,171	-7942,386	14030,283	18184,206	-2,002	-3,831
85,000	-9290,171	-7942,386	14030,283	18184,206	-2,002	-3,831
85,500	-7625,355	-9476,342	14015,286	18154,873	-2,015	-3,778
85,500	-7625,355	-9476,342	14015,286	18154,873	-2,015	-3,778
86,000	-6016,997	-10951,931	14001,300	18126,870	-2,029	-3,724
86,000	-6016,997	-10951,931	14001,300	18126,870	-2,029	-3,724
86,500	-4465,095	-12369,568	13988,136	18099,953	-2,043	-3,669
86,500	-4465,095	-12369,568	13988,136	18099,953	-2,043	-3,669
86,600	-4161,490	-12646,171	13985,586	18094,679	-2,046	-3,658
86,600	-4161,490	-12646,171	13985,586	18094,679	-2,046	-3,658
87,000	3987,740	-13745,228	13991,548	18094,481	-3,087	-0,668
87,000	3987,740	-13745,228	13991,548	18094,481	-3,087	-0,668
87,500	5580,171	-15116,179	14041,578	18149,223	-3,135	-0,561
87,500	5580,171	-15116,179	14041,578	18149,223	-3,135	-0,561
88,000	7119,140	-16441,269	14092,101	18204,539	-3,181	-0,456
88,000	7119,140	-16441,269	14092,101	18204,539	-3,181	-0,456
88,500	8595,972	-17719,952	14142,983	18260,254	-3,226	-0,358
88,500	8595,972	-17719,952	14142,983	18260,254	-3,226	-0,358
89,000	10010,667	-18951,642	14194,099	18316,211	-3,268	-0,267
89,000	10010,667	-18951,642	14194,099	18316,211	-3,268	-0,267
89,500	11363,224	-20135,721	14245,337	18372,261	-3,308	-0,181
89,500	11363,224	-20135,721	14245,337	18372,261	-3,308	-0,181
90,000	12653,645	-21271,551	14296,593	18428,275	-3,346	-0,102
90,000	12653,645	-21271,551	14296,593	18428,275	-3,346	-0,102
90,500	13881,928	-22358,476	14347,775	18484,134	-3,382	-0,028

X [m]	**M_{Efreq}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
90,500	13881,928	-22358,476	14347,775	18484,134	-3,382	-0,028
91,000	15048,075	-23395,834	14398,800	18539,731	-3,416	0,041
91,000	15048,075	-23395,834	14398,800	18539,731	-3,416	0,041
91,500	16152,084	-24382,958	14449,593	18594,971	-3,448	0,105
91,500	16152,084	-24382,958	14449,593	18594,971	-3,448	0,105
92,000	17193,956	-25319,185	14500,089	18649,772	-3,479	0,163
92,000	17193,956	-25319,185	14500,089	18649,772	-3,479	0,163
92,500	18173,691	-26203,856	14550,228	18704,058	-3,508	0,217
92,500	18173,691	-26203,856	14550,228	18704,058	-3,508	0,217
93,000	19091,288	-27036,319	14599,959	18757,765	-3,535	0,267
93,000	19091,288	-27036,319	14599,959	18757,765	-3,535	0,267
93,500	19946,749	-27815,935	14649,236	18810,834	-3,561	0,313
93,500	19946,749	-27815,935	14649,236	18810,834	-3,561	0,313
94,000	20740,072	-28542,080	14698,018	18863,214	-3,585	0,355
94,000	20740,072	-28542,080	14698,018	18863,214	-3,585	0,355
94,500	21471,259	-29214,141	14746,269	18914,863	-3,608	0,394
94,500	21471,259	-29214,141	14746,269	18914,863	-3,608	0,394
95,000	22140,308	-29831,523	14793,959	18965,740	-3,629	0,429
95,000	22140,308	-29831,523	14793,959	18965,740	-3,629	0,429
95,200	22390,529	-30063,037	14812,871	18985,867	-3,638	0,442
95,200	22390,529	-30063,037	14812,871	18985,867	-3,638	0,442
95,500	22675,220	-30393,650	14841,059	19015,811	-3,639	0,430
95,500	22675,220	-30393,650	14841,059	19015,811	-3,639	0,430
96,000	23099,995	-30899,961	14887,546	19065,048	-3,640	0,409
96,000	23099,995	-30899,961	14887,546	19065,048	-3,640	0,409
96,500	23462,633	-31349,915	14933,399	19113,425	-3,641	0,385
96,500	23462,633	-31349,915	14933,399	19113,425	-3,641	0,385
97,000	23763,133	-31742,990	14978,598	19160,919	-3,640	0,358
97,000	23763,133	-31742,990	14978,598	19160,919	-3,640	0,358
97,500	24059,927	-32078,682	15023,127	19207,510	-3,648	0,354
97,500	24059,927	-32078,682	15023,127	19207,510	-3,648	0,354
98,000	24341,987	-32356,508	15066,971	19253,183	-3,661	0,368

X [m]	**M_{Efreq}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
98,000	24341,987	-32356,508	15066,971	19253,183	-3,661	0,368
98,500	24561,909	-32576,004	15110,119	19297,921	-3,673	0,381
98,500	24561,909	-32576,004	15110,119	19297,921	-3,673	0,381
99,000	24719,695	-32736,728	15152,560	19341,714	-3,685	0,391
99,000	24719,695	-32736,728	15152,560	19341,714	-3,685	0,391
99,500	24815,343	-32838,255	15194,283	19384,551	-3,696	0,401
99,500	24815,343	-32838,255	15194,283	19384,551	-3,696	0,401
100,000	24728,855	-32880,182	15235,282	19426,423	-3,689	0,358
100,000	24728,855	-32880,182	15235,282	19426,423	-3,689	0,358
100,500	24580,229	-32862,128	15275,551	19467,324	-3,681	0,314
100,500	24580,229	-32862,128	15275,551	19467,324	-3,681	0,314
101,000	24369,466	-32783,732	15315,084	19507,250	-3,673	0,269
101,000	24369,466	-32783,732	15315,084	19507,250	-3,673	0,269
101,500	24096,566	-32644,654	15353,879	19546,199	-3,664	0,224
101,500	24096,566	-32644,654	15353,879	19546,199	-3,664	0,224
102,000	23809,081	-32444,575	15391,934	19584,171	-3,662	0,198
102,000	23809,081	-32444,575	15391,934	19584,171	-3,662	0,198
102,500	23517,737	-32183,200	15429,251	19621,169	-3,668	0,196
102,500	23517,737	-32183,200	15429,251	19621,169	-3,668	0,196
103,000	23164,257	-31860,254	15465,833	19657,197	-3,674	0,194
103,000	23164,257	-31860,254	15465,833	19657,197	-3,674	0,194
103,500	22748,639	-31475,486	15501,686	19692,266	-3,680	0,191
103,500	22748,639	-31475,486	15501,686	19692,266	-3,680	0,191
103,800	22469,443	-31214,854	15522,852	19712,852	-3,683	0,189
103,800	22469,443	-31214,854	15522,852	19712,852	-3,683	0,189
104,000	22222,884	-31028,666	15536,819	19726,388	-3,678	0,168
104,000	22222,884	-31028,666	15536,819	19726,388	-3,678	0,168
104,500	21562,993	-30519,589	15571,243	19759,580	-3,665	0,114
104,500	21562,993	-30519,589	15571,243	19759,580	-3,665	0,114
105,000	20840,963	-29948,068	15604,976	19791,863	-3,652	0,060
105,000	20840,963	-29948,068	15604,976	19791,863	-3,652	0,060
105,500	20056,797	-29313,944	15638,038	19823,266	-3,639	0,006

X [m]	**M_{Efreq}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
105,500	20056,797	-29313,944	15638,038	19823,266	-3,639	0,006
106,000	19210,494	-28617,075	15670,455	19853,823	-3,626	-0,048
106,000	19210,494	-28617,075	15670,455	19853,823	-3,626	-0,048
106,500	18302,053	-27857,343	15702,260	19883,575	-3,613	-0,101
106,500	18302,053	-27857,343	15702,260	19883,575	-3,613	-0,101
107,000	17331,476	-27034,647	15733,490	19912,573	-3,600	-0,155
107,000	17331,476	-27034,647	15733,490	19912,573	-3,600	-0,155
107,500	16298,761	-26148,906	15764,193	19940,875	-3,586	-0,208
107,500	16298,761	-26148,906	15764,193	19940,875	-3,586	-0,208
108,000	15203,909	-25200,052	15794,424	19968,553	-3,573	-0,260
108,000	15203,909	-25200,052	15794,424	19968,553	-3,573	-0,260
108,500	14046,920	-24188,031	15824,247	19995,688	-3,560	-0,313
108,500	14046,920	-24188,031	15824,247	19995,688	-3,560	-0,313
109,000	12827,794	-23112,798	15853,738	20022,377	-3,547	-0,365
109,000	12827,794	-23112,798	15853,738	20022,377	-3,547	-0,365
109,500	11546,531	-21974,308	15882,983	20048,727	-3,533	-0,417
109,500	11546,531	-21974,308	15882,983	20048,727	-3,533	-0,417
110,000	10203,130	-20772,516	15912,083	20074,867	-3,520	-0,468
110,000	10203,130	-20772,516	15912,083	20074,867	-3,520	-0,468
110,500	8797,593	-19507,368	15941,150	20100,937	-3,507	-0,519
110,500	8797,593	-19507,368	15941,150	20100,937	-3,507	-0,519
111,000	7329,918	-18178,788	15970,314	20127,098	-3,495	-0,569
111,000	7329,918	-18178,788	15970,314	20127,098	-3,495	-0,569
111,500	5800,106	-16786,676	15999,717	20153,530	-3,482	-0,618
111,500	5800,106	-16786,676	15999,717	20153,530	-3,482	-0,618
112,000	4214,530	-15330,890	16029,520	20180,433	-3,471	-0,664
112,000	4214,530	-15330,890	16029,520	20180,433	-3,471	-0,664
112,500	-4642,997	-13811,236	16059,898	20208,026	-2,396	-3,764
112,500	-4642,997	-13811,236	16059,898	20208,026	-2,396	-3,764
113,000	-6196,523	-12227,453	16091,043	20236,548	-2,409	-3,742
113,000	-6196,523	-12227,453	16091,043	20236,548	-2,409	-3,742
113,500	-7806,506	-10579,200	16123,164	20266,257	-2,424	-3,716

X [m]	$\mathbf{M_{Efreq}}$ [kNm]	$\mathbf{P_\infty \times e}$ [kNm]	$\mathbf{M_{PE,Hip}}$ [kNm]	$\mathbf{P_\infty}$ [kN]	$\boldsymbol{\sigma}_{\mathbf{sup}}$ [MPa]	$\boldsymbol{\sigma}_{\mathbf{inf}}$ [MPa]
113,500	-7806,506	-10579,200	16123,164	20266,257	-2,424	-3,716
114,000	-9472,946	-8866,038	16156,483	20297,430	-2,440	-3,687
114,000	-9472,946	-8866,038	16156,483	20297,430	-2,440	-3,687
114,500	-11195,844	-7087,414	16191,237	20330,359	-2,458	-3,653
114,500	-11195,844	-7087,414	16191,237	20330,359	-2,458	-3,653
115,000	-12975,198	-5242,644	16227,671	20365,350	-2,477	-3,615
115,000	-12975,198	-5242,644	16227,671	20365,350	-2,477	-3,615
115,346	-14239,563	-3927,719	16254,801	20390,919	-2,492	-3,585
115,346	-14239,563	-3927,719	16254,801	20390,919	-2,492	-3,585
115,500	-14811,010	-3326,517	16244,645	20375,895	-2,493	-3,575
115,500	-14811,010	-3326,517	16244,645	20375,895	-2,493	-3,575
116,000	-16846,890	-1343,665	16215,808	20329,018	-2,475	-3,603
116,000	-16846,890	-1343,665	16215,808	20329,018	-2,475	-3,603
116,500	-18985,815	690,806	16189,350	20285,154	-2,450	-3,653
116,500	-18985,815	690,806	16189,350	20285,154	-2,450	-3,653
116,700	-19858,784	1519,166	16179,481	20268,509	-2,439	-3,673
116,700	-19858,784	1519,166	16179,481	20268,509	-2,439	-3,673
117,000	-21187,456	2710,497	16138,783	20202,330	-2,404	-3,740
117,000	-21187,456	2710,497	16138,783	20202,330	-2,404	-3,740
117,500	-23454,187	4487,943	16072,367	20094,011	-2,307	-3,960
117,500	-23454,187	4487,943	16072,367	20094,011	-2,307	-3,960
118,000	-25786,267	6008,903	16007,024	19987,297	-2,163	-4,317
118,000	-25786,267	6008,903	16007,024	19987,297	-2,163	-4,317
118,140	-26450,959	6389,343	15988,824	19957,584	-2,115	-4,441
118,140	-26450,959	6389,343	15988,824	19957,584	-2,115	-4,441
118,500	-28185,291	7277,245	15942,071	19881,335	-1,972	-4,810
118,500	-28185,291	7277,245	15942,071	19881,335	-1,972	-4,810
119,000	-30655,584	8296,609	15876,953	19775,435	-1,734	-5,437
119,000	-30655,584	8296,609	15876,953	19775,435	-1,734	-5,437
119,500	-33197,386	9070,533	15811,239	19669,064	-1,449	-6,200
119,500	-33197,386	9070,533	15811,239	19669,064	-1,449	-6,200
119,570	-33558,944	9159,498	15801,972	19654,110	-1,405	-6,317

X [m]	**M_{Efreq}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
119,570	-33558,944	9159,498	15801,972	19654,110	-1,405	-6,317
120,000	-35813,101	9602,562	15744,609	19561,829	-1,117	-7,096
120,000	-35813,101	9602,562	15744,609	19561,829	-1,117	-7,096
120,500	-38506,760	9896,313	15676,853	19453,474	-0,738	-8,127
120,500	-38506,760	9896,313	15676,853	19453,474	-0,738	-8,127
121,000	-41278,427	9955,522	15607,856	19343,863	-0,313	-9,291
121,000	-41278,427	9955,522	15607,856	19343,863	-0,313	-9,291
121,500	-38504,539	9784,068	15507,263	19232,977	-0,667	-8,216
121,500	-38504,539	9784,068	15507,263	19232,977	-0,667	-8,216
122,000	-35809,232	9385,978	15405,832	19120,904	-0,976	-7,270
122,000	-35809,232	9385,978	15405,832	19120,904	-0,976	-7,270
122,430	-33553,658	8865,523	15318,055	19023,722	-1,206	-6,559
122,430	-33553,658	8865,523	15318,055	19023,722	-1,206	-6,559
122,500	-33191,869	8765,408	15303,728	19007,844	-1,240	-6,452
122,500	-33191,869	8765,408	15303,728	19007,844	-1,240	-6,452
123,000	-30648,419	7926,614	15201,200	18894,105	-1,461	-5,758
123,000	-30648,419	7926,614	15201,200	18894,105	-1,461	-5,758
123,500	-28176,478	6873,896	15098,587	18780,103	-1,640	-5,184
123,500	-28176,478	6873,896	15098,587	18780,103	-1,640	-5,184
123,860	-26440,960	5985,881	15024,891	18698,155	-1,743	-4,845
123,860	-26440,960	5985,881	15024,891	18698,155	-1,743	-4,845
124,000	-25775,805	5611,529	14996,320	18666,373	-1,777	-4,730
124,000	-25775,805	5611,529	14996,320	18666,373	-1,777	-4,730
124,500	-23442,078	4143,666	14894,924	18553,561	-1,875	-4,391
124,500	-23442,078	4143,666	14894,924	18553,561	-1,875	-4,391
125,000	-21173,698	2474,224	14795,012	18442,432	-1,933	-4,164
125,000	-21173,698	2474,224	14795,012	18442,432	-1,933	-4,164
125,300	-19844,037	1377,297	14736,067	18376,921	-1,950	-4,081
125,300	-19844,037	1377,297	14736,067	18376,921	-1,950	-4,081
125,500	-18970,410	625,207	14722,615	18360,111	-1,964	-4,033
125,500	-18970,410	625,207	14722,615	18360,111	-1,964	-4,033
126,000	-16829,836	-1210,800	14690,624	18320,115	-1,998	-3,912

X [m]	**M_{Efreq}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
126,000	-16829,836	-1210,800	14690,624	18320,115	-1,998	-3,912
126,500	-14791,465	-2984,587	14660,800	18282,803	-2,028	-3,808
126,500	-14791,465	-2984,587	14660,800	18282,803	-2,028	-3,808
127,000	-12954,086	-4697,203	14632,920	18247,899	-2,038	-3,762
127,000	-12954,086	-4697,203	14632,920	18247,899	-2,038	-3,762
127,500	-11173,164	-6349,550	14606,760	18215,125	-2,048	-3,714
127,500	-11173,164	-6349,550	14606,760	18215,125	-2,048	-3,714
128,000	-9448,699	-7942,386	14582,097	18184,206	-2,060	-3,665
128,000	-9448,699	-7942,386	14582,097	18184,206	-2,060	-3,665
128,500	-7780,691	-9476,342	14558,716	18154,873	-2,072	-3,614
128,500	-7780,691	-9476,342	14558,716	18154,873	-2,072	-3,614
129,000	-6169,140	-10951,931	14536,409	18126,870	-2,085	-3,562
129,000	-6169,140	-10951,931	14536,409	18126,870	-2,085	-3,562
129,500	-4614,047	-12369,568	14514,980	18099,953	-2,099	-3,509
129,500	-4614,047	-12369,568	14514,980	18099,953	-2,099	-3,509
129,600	-4309,803	-12646,171	14510,783	18094,679	-2,101	-3,498
129,600	-4309,803	-12646,171	14510,783	18094,679	-2,101	-3,498
130,000	4232,691	-13745,228	14510,765	18094,481	-3,200	-0,344
130,000	4232,691	-13745,228	14510,765	18094,481	-3,200	-0,344
130,500	5822,891	-15116,179	14554,875	18149,223	-3,246	-0,240
130,500	5822,891	-15116,179	14554,875	18149,223	-3,246	-0,240
131,000	7358,088	-16441,269	14599,451	18204,539	-3,291	-0,140
131,000	7358,088	-16441,269	14599,451	18204,539	-3,291	-0,140
131,500	8831,149	-17719,952	14644,350	18260,254	-3,334	-0,046
131,500	8831,149	-17719,952	14644,350	18260,254	-3,334	-0,046
132,000	10242,073	-18951,642	14689,444	18316,211	-3,375	0,041
132,000	10242,073	-18951,642	14689,444	18316,211	-3,375	0,041
132,500	11590,859	-20135,721	14734,615	18372,261	-3,414	0,123
132,500	11590,859	-20135,721	14734,615	18372,261	-3,414	0,123
133,000	12877,508	-21271,551	14779,758	18428,275	-3,450	0,198
133,000	12877,508	-21271,551	14779,758	18428,275	-3,450	0,198
133,500	14102,020	-22358,476	14824,776	18484,134	-3,485	0,268

X [m]	**M_{Efreq}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
133,500	14102,020	-22358,476	14824,776	18484,134	-3,485	0,268
134,000	15264,395	-23395,834	14869,584	18539,731	-3,517	0,332
134,000	15264,395	-23395,834	14869,584	18539,731	-3,517	0,332
134,500	16364,633	-24382,958	14914,105	18594,971	-3,548	0,391
134,500	16364,633	-24382,958	14914,105	18594,971	-3,548	0,391
135,000	17402,734	-25319,185	14958,272	18649,772	-3,577	0,446
135,000	17402,734	-25319,185	14958,272	18649,772	-3,577	0,446
135,500	18378,697	-26203,856	15002,025	18704,058	-3,605	0,496
135,500	18378,697	-26203,856	15002,025	18704,058	-3,605	0,496
136,000	19292,524	-27036,319	15045,311	18757,765	-3,630	0,541
136,000	19292,524	-27036,319	15045,311	18757,765	-3,630	0,541
136,500	20144,213	-27815,935	15088,083	18810,834	-3,654	0,583
136,500	20144,213	-27815,935	15088,083	18810,834	-3,654	0,583
137,000	20933,765	-28542,080	15130,300	18863,214	-3,677	0,620
137,000	20933,765	-28542,080	15130,300	18863,214	-3,677	0,620
137,500	21661,180	-29214,141	15171,927	18914,863	-3,698	0,654
137,500	21661,180	-29214,141	15171,927	18914,863	-3,698	0,654
138,000	22326,458	-29831,523	15212,933	18965,740	-3,719	0,685
138,000	22326,458	-29831,523	15212,933	18965,740	-3,719	0,685
138,200	22575,171	-30063,037	15229,154	18985,867	-3,726	0,697
138,200	22575,171	-30063,037	15229,154	18985,867	-3,726	0,697
138,500	22857,599	-30393,650	15253,289	19015,811	-3,727	0,682
138,500	22857,599	-30393,650	15253,289	19015,811	-3,727	0,682
139,000	23278,602	-30899,961	15292,973	19065,048	-3,727	0,656
139,000	23278,602	-30899,961	15292,973	19065,048	-3,727	0,656
139,500	23637,469	-31349,915	15331,963	19113,425	-3,726	0,628
139,500	23637,469	-31349,915	15331,963	19113,425	-3,726	0,628
140,000	23934,198	-31742,990	15370,242	19160,919	-3,723	0,597
140,000	23934,198	-31742,990	15370,242	19160,919	-3,723	0,597
140,500	24227,159	-32078,682	15407,793	19207,510	-3,729	0,588
140,500	24227,159	-32078,682	15407,793	19207,510	-3,729	0,588
141,000	24505,449	-32356,508	15444,603	19253,183	-3,741	0,598

X [m]	**M_{Efreq}** [kNm]	**$P_\infty \times e$** [kNm]	**$M_{PE,Hip}$** [kNm]	**P_∞** [kN]	**σ_{sup}** [MPa]	**σ_{inf}** [MPa]
141,000	24505,449	-32356,508	15444,603	19253,183	-3,741	0,598
141,500	24721,602	-32576,004	15480,661	19297,921	-3,752	0,605
141,500	24721,602	-32576,004	15480,661	19297,921	-3,752	0,605
142,000	24875,618	-32736,728	15515,957	19341,714	-3,762	0,611
142,000	24875,618	-32736,728	15515,957	19341,714	-3,762	0,611
142,500	24967,497	-32838,255	15550,481	19384,551	-3,771	0,616
142,500	24967,497	-32838,255	15550,481	19384,551	-3,771	0,616
143,000	24877,238	-32880,182	15584,229	19426,423	-3,763	0,569
143,000	24877,238	-32880,182	15584,229	19426,423	-3,763	0,569

Anexo H – Estado limite de deformação

Vão	x [m]	δ_{PP} [mm]	δ_{PE} [mm]	δ_{RCP} [mm]	$\delta_{SC,min}$ [mm]	$\delta_{SC,max}$ [mm]	$\delta_{VDT,min}$ [mm]	$\delta_{VDT,max}$ [mm]	δ_{max} [mm]
1	13,50	-10,815	16,583	-2,455	-8,571	3,630	-1,088	2,177	13,528
2	56,50	-11,935	11,542	-2,739	-12,768	6,692	-1,156	0,578	-16,253
3	99,50	-11,901	13,459	-2,722	-13,501	7,422	-0,122	0,061	-9,450
4	142,50	-11,912	12,821	-2,728	-13,649	7,560	-0,466	0,233	-11,871
5	185,50	-11,901	13,459	-2,722	-13,501	7,422	-0,122	0,061	-9,450
6	228,50	-11,935	11,542	-2,739	-12,768	6,692	-1,156	0,578	-16,253
7	271,50	-10,815	16,583	-2,455	-8,571	3,630	-1,088	2,177	13,528

Vão	$L_{Vão}$ [m]	δ_{adm} [mm]
1	35,000	87,500
2	43,000	107,500
3	43,000	107,500
4	43,000	107,500
5	43,000	107,500
6	43,000	107,500
7	35,000	87,500

Anexo I – Estado limite de flexão do tabuleiro

A_P [cm^2] =	186
f_{pyd} [MPa] =	1400
E_p [Gpa] =	195

f_{cd} [MPa] =	23,3
f_{syd} [Mpa] =	434,8
d [m] =	2,638

	M^-	M^+
A_s [cm^2] =	58,9	108
b_t [m] =	0,6	1,2

Tramo	**Secção**	**x [m]**	**M_{Ed} [kNm]**	**F_s [kN]**	**F_P [kN]**	**z_s [m]**	**z_P [m]**	**M_{Rd} [kNm]**
1º	Apoio	0,00	0,000	4695,652	26040,000	2,364	2,236	69310,594
	Vão	13,50	52472,063	2560,870	26040,000	2,595	2,347	67761,337
	Apoio	35,00	-49510,003	4695,652	26040,000	2,364	2,236	69310,594
2º	Vão	56,50	62470,122	2560,870	26040,000	2,595	2,347	67761,337
	Apoio	78,00	-54003,666	4695,652	26040,000	2,364	2,236	69310,594
3º	Vão	99,50	61931,739	2560,870	26040,000	2,595	2,347	67761,337
	Apoio	121,00	-53764,815	4695,652	26040,000	2,364	2,236	69310,594
4º	Vão	142,50	62567,042	2560,870	26040,000	2,595	2,347	67761,337
	Apoio	164,00	-53658,764	4695,652	26040,000	2,364	2,236	69310,594
5º	Vão	185,50	61825,184	2560,870	26040,000	2,595	2,347	67761,337
	Apoio	207,00	-54316,614	4695,652	26040,000	2,364	2,236	69310,594
6º	Vão	228,50	62931,097	2560,870	26040,000	2,595	2,347	67761,337
	Apoio	250,00	-48278,482	4695,652	26040,000	2,364	2,236	69310,594
7º	Vão	271,50	53945,975	2473,913	26040,000	2,595	2,347	67535,684
	Apoio	285,00	0,000	4695,652	26040,000	2,364	2,236	69310,594

Anexo J – Estado limite de esforço transverso do tabuleiro

d [m]	z [m]	θ [°]	$A_{sw/s}$ [cm²/m]	b_w [m]	$b_{w,nom}$ [m]	α [°]	α_c	υ
2,642	2,378	30,000	40,200	2,400	2,400	90,000	1,000	0,516

Secção		x [m]	V_{Ed} [kN]	$V_{Rd,max}$ [kN]	$V_{Rd,s}$ [kN]	V_{Rd} [kN]
E1	Direita	2,642	-1702,052	29751,830	7198,370	7198,370
P1	Esquerda	32,358	5515,484	29751,830	7198,370	7198,370
	Direita	37,642	-5992,054	29751,830	7198,370	7198,370
P2	Esquerda	75,358	5967,091	29751,830	7198,370	7198,370
	Direita	80,642	-6030,861	29751,830	7198,370	7198,370
P3	Esquerda	118,358	6033,608	29751,830	7198,370	7198,370
	Direita	123,642	-6054,124	29751,830	7198,370	7198,370
P4	Esquerda	161,358	6033,293	29751,830	7198,370	7198,370
	Direita	166,642	-5992,490	29751,830	7198,370	7198,370
P5	Esquerda	204,358	6071,980	29751,830	7198,370	7198,370
	Direita	209,642	-6119,041	29751,830	7198,370	7198,370
P6	Esquerda	247,358	5840,105	29751,830	7198,370	7198,370
	Direita	252,642	-5366,525	29751,830	7198,370	7198,370
E2	Esquerda	282,358	1851,011	29751,830	7198,370	7198,370

Anexo K – Esforços característico na base dos pilares

Cargas permanentes (PP+PE+RCP)

Pilar	N_k [kN]	$V_{k,x}$ [kN]	$M_{0k,y}$ [kNm]
P1	-6621,370	-48,126	1155,025
P2	-7952,482	-33,277	614,165
P3	-8052,393	-10,880	217,767
P4	-7247,939	8,036	-133,915
P5	-6928,081	84,248	-1035,495
P6	-5714,039	0,000	0,000

Sobrecargas

Pilar	N_k [kN]	$V_{k,x}$ [kN]	$M_{0k,y}$ [kNm]
P1	-1622,957	-14,965	359,157
P2	-1687,962	-65,762	814,180
P3	-1685,895	-63,877	878,887
P4	-1693,925	115,659	-1193,447
P5	-1688,834	117,720	-832,279
P6	-1618,050	0,000	0,000

Variação diferencial da temperatura

Pilar	N_k [kN]	$V_{k,x}$ [kN]	$M_{0k,y}$ [kNm]
P1	-67,149	-0,333	7,985
P2	-27,958	-3,169	41,218
P3	-2,484	-0,178	1,278
P4	-2,257	0,927	-10,731
P5	-28,454	4,998	-33,996
P6	-67,396	0,000	0,000

Variação uniforme da temperatura

Pilar	N_k [kN]	$V_{k,x}$ [kN]	$M_{0k,y}$ [kNm]
P1	-24,811	-98,830	2371,929
P2	-1,888	-56,874	1116,683
P3	-6,887	-23,967	461,676
P4	-47,114	24,216	-366,470
P5	-13,743	155,455	-2022,217
P6	-28,861	0,000	0,000

Ação sísmica

Pilar	N_k [kN]	$V_{k,x}$ [kN]	$V_{k,y}$ [kN]	$M_{0k,x}$ [kNm]	$M_{0k,y}$ [kNm]
P1	-77,569	-321,771	195,046	4393,649	7438,793
P2	-1622,479	-320,773	379,395	6736,375	5924,020
P3	-1545,150	-297,096	359,508	6631,307	5585,786
P4	-2314,358	668,842	-617,111	-8778,072	-9732,833
P5	-1808,892	1028,454	-554,854	-6704,044	-13008,019
P6	-174,111	0,000	-377,851	-4680,557	-0,001

Anexo L – Efeitos de segunda ordem nos pilares

Imperfeições geométricas

Pilar	Tipo de ligação	L [m]	$L_{0,x}$ [m]	$L_{0,y}$ [m]	$e_{i,x}$ [m]	$e_{i,y}$ [m]
P1	Rotulado	24,000	48,000	48,000	0,080	0,080
P2	Monolítico	37,000	37,000	37,000	0,062	0,062
P3	Monolítico	39,000	39,000	39,000	0,065	0,065
P4	Monolítico	28,500	28,500	28,500	0,048	0,048
P5	Monolítico	22,000	22,000	22,000	0,037	0,037
P6	Deslizante c/rótula	12,500	25,000	25,000	0,042	0,042

1. Sismo como ação variável base

i. Direção X

Momentos de primeira ordem afetados das imperfeições geométricas

Pilar	$M_{0Ed,yy}$ [kNm]	N_{Ed} [kN]	$M_{0Eqp,yy}$ [kNm]	N_{Eqp} [kN]	$M_{0Ed,i,y}$ [kNm]	$M_{0Eqp,i,y}$ [kNm]
P1	12313,214	-6737,724	1155,025	-6621,370	12852,232	1684,735
P2	9500,194	-10386,201	614,165	-7952,482	10140,677	1104,568
P3	8596,446	-10370,118	217,767	-8052,393	9270,504	741,173
P4	-14733,165	-10719,475	-133,915	-7247,939	15242,340	478,192
P5	-20547,524	-9641,419	-1035,495	-6928,081	20901,043	1289,525
P6	-0,002	-5975,206	0,000	-5714,039	248,968	238,085

Verificação da dispensa de efeitos de segunda ordem

Pilar	n	$\varphi_{ef,x}$	A_x	B	C_x	$\lambda_{lim,x}$	λ_x
P1	0,092	0,281	0,947	1,321	0,700	57,763	96,000
P2	0,142	0,233	0,955	1,321	0,700	46,946	74,000
P3	0,141	0,171	0,967	1,321	0,700	47,546	78,000
P4	0,146	0,067	0,987	1,321	0,700	47,725	57,000
P5	0,132	0,132	0,974	1,321	0,700	49,686	44,000
P6	0,082	2,048	0,709	1,321	0,700	45,956	50,000

Momento de cálculo total

Pilar	$k_{c,x}$	EI_y [kPa]	$N_{B,x}$ [kN]	$M_{Ed,y}$ [kNm]
P1	0,263	5854032,456	25076,816	17574,101
P2	0,269	5978455,518	43100,797	13360,130
P3	0,276	6149345,378	39902,437	12525,792
P4	0,290	6458867,847	78481,343	-17653,576
P5	0,281	6262106,060	127695,268	-22608,024
P6	0,148	3298080,802	52081,204	-281,234

ii. Direção Y

Momentos de primeira ordem afetados das imperfeições geométricas

Pilar	$M_{0Ed,xx}$ [kNm]	N_{Ed} [kN]	$M_{0Eqp,xx}$ [kNm]	N_{Eqp} [kN]	$M_{0Ed,i,x}$ [kNm]	$M_{0Eqp,i,x}$ [kNm]
P1	6590,473	-6737,724	0,000	-6621,370	7129,491	529,710
P2	10104,562	-10386,201	0,000	-7952,482	10745,044	490,403
P3	9946,960	-10370,118	0,000	-8052,393	10621,018	523,406
P4	-13167,108	-10719,475	0,000	-7247,939	13676,283	344,277
P5	-10056,066	-9641,419	0,000	-6928,081	10409,584	254,030
P6	-7020,836	-5975,206	0,000	-5714,039	7269,803	238,085

Verificação da dispensa de efeitos de segunda ordem

Pilar	n	$\varphi_{ef,y}$	A_y	B	C_y	$\lambda_{lim,y}$	λ_y
P1	0,092	0,159	0,969	1,321	0,700	59,124	96,000
P2	0,142	0,098	0,981	1,321	0,700	48,194	74,000
P3	0,141	0,106	0,979	1,321	0,700	48,158	78,000
P4	0,146	0,054	0,989	1,321	0,700	47,850	57,000
P5	0,132	0,052	0,990	1,321	0,700	50,471	44,000
P6	0,082	0,070	0,986	1,321	0,700	63,886	50,000

Momento de cálculo total

Pilar	$k_{c,y}$	EI_x [kPa]	$N_{B,y}$ [kN]	$M_{Ed,x}$ [kNm]
P1	0,278	6183820,298	26489,523	9561,499
P2	0,286	6364774,737	45885,909	13888,737
P3	0,285	6341204,625	41147,391	14199,671
P4	0,292	6500625,251	78988,734	-15823,701
P5	0,292	6505848,560	132665,602	-11225,385
P6	0,290	6449663,921	101849,010	-7722,884

2. Sobrecarga como ação variável base

i. Dimensionamento estrutural dos pilares e das fundações

Momentos de primeira ordem afetados das imperfeições geométricas

Pilar	$M_{0Ed,yy}$ [kNm]	N_{Ed} [kN]	$M_{0Eqp,yy}$ [kNm]	N_{Eqp} [kN]	$M_{0Ed,i,y}$ [kNm]	$M_{0Eqp,i,y}$ [kNm]
P1	2098,020	-11373,285	1940,831	-6973,549	3007,882	2498,715
P2	2050,392	-13267,794	1124,371	-8299,028	2868,573	1636,144
P3	1612,316	-13399,573	532,431	-8392,383	2483,288	1077,936
P4	-1970,955	-12325,605	-485,765	-7601,535	2556,422	846,838
P5	-2646,337	-11886,160	-1818,815	-7278,507	3082,163	2085,693
P6	0,000	-10141,028	0,000	-6066,526	422,543	252,772

Verificação da dispensa de efeitos de segunda ordem

Pilar	n	$\varphi_{ef,x}$	A_x	B	C_x	$\lambda_{lim,x}$	λ_x
P1	0,155	1,779	0,738	1,321	0,700	34,631	96,000
P2	0,181	1,222	0,804	1,321	0,700	34,938	74,000
P3	0,183	0,930	0,843	1,321	0,700	36,477	78,000
P4	0,168	0,710	0,876	1,321	0,700	39,500	57,000
P5	0,162	1,449	0,775	1,321	0,700	35,609	44,000
P6	0,138	1,281	0,796	1,321	0,700	39,583	50,000

Momento de cálculo total

Pilar	$k_{c,x}$	EI_y [kPa]	$N_{B,x}$ [kN]	$M_{Ed,y}$ [kNm]
P1	0,159	3532783,553	15133,323	12106,063
P2	0,186	4144299,915	29877,721	5159,951
P3	0,205	4557256,275	29571,543	4540,861
P4	0,221	4927669,863	59875,841	-3219,077
P5	0,174	3870668,171	78929,677	-3628,600
P6	0,183	4068965,183	64254,523	-501,729

ii. Dimensionamento geotécnico das fundações

1) Estado limite de equilíbrio (EQU)

Momentos de primeira ordem afetados das imperfeições geométricas

Pilar	$M_{0Ed,yy}$ [kNm]	N_{Ed} [kN]	$M_{0Eqp,yy}$ [kNm]	N_{Eqp} [kN]	$M_{0Ed,i,y}$ [kNm]	$M_{0Eqp,i,y}$ [kNm]
P1	3951,186	-9800,707	1940,831	-6973,549	4735,242	2498,715
P2	2938,961	-11306,535	1124,371	-8299,028	3636,198	1636,144
P3	1974,533	-11394,909	532,431	-8392,383	2715,202	1077,936
P4	-2276,957	-10558,054	-485,765	-7601,535	2778,464	846,838
P5	-4238,054	-10192,117	-1818,815	-7278,507	4611,765	2085,693
P6	0,000	-8799,149	0,000	-6066,526	366,631	252,772

Verificação da dispensa de efeitos de segunda ordem

Pilar	n	$\varphi_{ef,x}$	A_x	B	C_x	$\lambda_{lim,x}$	λ_x
P1	0,134	1,130	0,816	1,321	0,700	41,256	96,000
P2	0,154	0,964	0,838	1,321	0,700	39,483	74,000
P3	0,155	0,850	0,855	1,321	0,700	40,092	78,000
P4	0,144	0,653	0,885	1,321	0,700	43,106	57,000
P5	0,139	0,969	0,838	1,321	0,700	41,552	44,000
P6	0,120	1,477	0,772	1,321	0,700	41,212	50,000

Momento de cálculo total

Pilar	$k_{c,x}$	EI_y [kPa]	$N_{B,x}$ [kN]	$M_{Ed,y}$ [kNm]
P1	0,192	4265345,431	18271,385	10213,991
P2	0,202	4504940,271	32477,705	5578,121
P3	0,210	4684228,402	30395,451	4343,549
P4	0,226	5032998,038	61155,678	-3358,238
P5	0,202	4497481,532	91711,495	-5188,359
P6	0,173	3840271,986	60643,144	-428,857

2) Estado limite de capacidade de carga do terreno ou rotura do solo (GEO)

a) GEO – Combinação 1 da abordagem de cálculo tipo 1 do EC7

Momentos de primeira ordem afetados das imperfeições geométricas

Pilar	$M_{0Ed,yy}$ [kNm]	N_{Ed} [kN]	$M_{0Eqp,yy}$ [kNm]	N_{Eqp} [kN]	$M_{0Ed,i,y}$ [kNm]	$M_{0Eqp,i,y}$ [kNm]
P1	4239,942	-11456,049	1940,831	-6973,549	5156,426	2498,715
P2	3092,502	-13294,655	1124,371	-8299,028	3912,339	1636,144
P3	2028,975	-13408,007	532,431	-8392,383	2900,495	1077,936
P4	-2310,436	-12370,039	-485,765	-7601,535	2898,012	846,838
P5	-4496,927	-11924,138	-1818,815	-7278,507	4934,146	2085,693
P6	0,000	-10227,659	0,000	-6066,526	426,152	252,772

Verificação da dispensa de efeitos de segunda ordem

Pilar	n	$\varphi_{ef,x}$	A_x	B	C_x	$\lambda_{lim,x}$	λ_x
P1	0,156	1,038	0,828	1,321	0,700	38,743	96,000
P2	0,181	0,896	0,848	1,321	0,700	36,832	74,000
P3	0,183	0,796	0,863	1,321	0,700	37,307	78,000
P4	0,169	0,626	0,889	1,321	0,700	40,015	57,000
P5	0,163	0,905	0,847	1,321	0,700	38,827	44,000
P6	0,140	1,271	0,797	1,321	0,700	39,483	50,000

Momento de cálculo total

Pilar	$k_{c,x}$	EI_y [kPa]	$N_{B,x}$ [kN]	$M_{Ed,y}$ [kNm]
P1	0,198	4394968,980	18826,652	13171,004
P2	0,207	4610770,361	33240,672	6520,038
P3	0,215	4775238,152	30986,004	5112,912
P4	0,228	5084615,805	61782,883	-3623,502
P5	0,207	4595456,666	93709,379	-5653,535
P6	0,183	4082468,492	64467,758	-506,509

b) GEO – Combinação 2 da abordagem de cálculo tipo 1 do EC7

Momentos de primeira ordem afetados das imperfeições geométricas

Pilar	$M_{0Ed,yy}$ [kNm]	N_{Ed} [kN]	$M_{0Eqp,yy}$ [kNm]	N_{Eqp} [kN]	$M_{0Ed,i,y}$ [kNm]	$M_{0Eqp,i,y}$ [kNm]
P1	3478,262	-8802,943	1940,831	-6973,549	4182,498	2498,715
P2	2575,761	-10170,112	1124,371	-8299,028	3202,918	1636,144
P3	1721,424	-10251,366	532,431	-8392,383	2387,763	1077,936
P4	-1979,612	-9488,551	-485,765	-7601,535	2430,318	846,838
P5	-3721,303	-9156,479	-1818,815	-7278,507	4057,040	2085,693
P6	0,000	-7892,584	0,000	-6066,526	328,858	252,772

Verificação da dispensa de efeitos de segunda ordem

Pilar	n	$\varphi_{ef,x}$	A_x	B	C_x	$\lambda_{lim,x}$	λ_x
P1	0,120	1,280	0,796	1,321	0,700	42,496	96,000
P2	0,139	1,094	0,820	1,321	0,700	40,740	74,000
P3	0,140	0,967	0,838	1,321	0,700	41,443	78,000
P4	0,129	0,746	0,870	1,321	0,700	44,731	57,000
P5	0,125	1,101	0,820	1,321	0,700	42,887	44,000
P6	0,108	1,646	0,752	1,321	0,700	42,404	50,000

Momento de cálculo total

Pilar	$\mathbf{k_{c,x}}$	$\mathbf{EI_y}$ **[kPa]**	$\mathbf{N_{B,x}}$ **[kN]**	$\mathbf{M_{Ed,y}}$ **[kNm]**
P1	0,183	4071076,442	17439,199	8445,721
P2	0,194	4315114,627	31109,185	4758,576
P3	0,202	4500122,040	29200,805	3679,508
P4	0,218	4861611,161	59073,166	-2895,386
P5	0,193	4305389,420	87794,402	-4529,436
P6	0,165	3661626,641	57822,090	-380,842

Anexo M – Esforços de cálculo na base dos pilares

1. Sismo como ação variável base

Pilar	N_{Ed} [kN]	$V_{Ed,x}$ [kN]	$V_{Ed,y}$ [kN]	$M_{Ed,x}$ [kNm]	$M_{Ed,y}$ [kNm]
P1	-6737,724	-530,783	292,569	9561,499	17574,101
P2	-10386,201	-514,437	569,092	13888,737	13360,130
P3	-10370,118	-456,524	539,262	14199,671	12525,792
P4	-10719,475	1011,298	-925,666	-15823,701	-17653,576
P5	-9641,419	1626,929	-832,281	-11225,385	-22608,024
P6	-5975,206	0,000	-566,776	-7722,884	-281,234

2. Sobrecarga como ação variável base

i. Dimensionamento estrutural dos pilares e das fundações

Pilar	N_{Ed} [kN]	$V_{Ed,x}$ [kN]	$M_{Ed,y}$ [kNm]
P1	-11373,285	-87,418	12106,063
P2	-13267,794	-143,567	5159,951
P3	-13399,573	-110,504	4540,861
P4	-12325,605	184,337	-3219,077
P5	-11886,160	290,315	-3628,600
P6	-10141,028	0,000	-501,729

ii. Dimensionamento geotécnico das fundações

1) Estado limite de equilíbrio (EQU)

Pilar	N_{Ed} [kN]	$V_{Ed,x}$ [kN]	$M_{Ed,y}$ [kNm]
P1	-9800,707	-164,633	10213,991
P2	-11306,535	-189,286	5578,121
P3	-11394,909	-129,514	4343,549
P4	-10558,054	204,957	-3358,238
P5	-10192,117	413,661	-5188,359
P6	-8799,149	0,000	-428,857

2) Estado limite de capacidade de carga do terreno ou rotura do solo (GEO)

GEO - Combinação 1 da AC1 do EC7

Pilar	N_{Ed} [kN]	$V_{Ed,x}$ [kN]	$M_{Ed,y}$ [kNm]
P1	-11456,049	-176,664	13171,004
P2	-13294,655	-197,606	6520,038
P3	-13408,007	-132,234	5112,912
P4	-12370,039	206,966	-3623,502
P5	-11924,138	434,723	-5653,535
P6	-10227,659	0,000	-506,509

GEO - Combinação 2 da AC1 do EC7

Pilar	N_{Ed} [kN]	$V_{Ed,x}$ [kN]	$M_{Ed,y}$ [kNm]
P1	-8802,943	-144,928	8445,721
P2	-10170,112	-165,601	4758,576
P3	-10251,366	-112,753	3679,508
P4	-9488,551	178,004	-2895,386
P5	-9156,479	362,437	-4529,436
P6	-7892,584	0,000	-380,842

Anexo N – Estado limite de derrubamento dos encontros

Encontro	θ [°]	Φ'_d [°]	δ'_d [°]	Ψ [°]	i [°]
E1	9,593	24,791	16,528	21,919	-2,291
E2	9,593	24,791	16,528	21,919	2,291

Encontro	k_a	k_s	k_s-k_a
E1	0,544	0,705	0,160
E2	0,589	0,789	0,201

1. Encontro E1

Designação	γ	Impulso ou Força [kN]		Braço	Momento [kNm]	
		E_k	E_d	[m]	Derrubante	Estabilizante
$I_{aH1,CP}$	1,000	455,562	455,562	9,537	4344,544	--
$I_{aV1,CP}$	1,000	361,677	361,677	8,800	--	3182,755
$I_{aH2,CP}$	1,000	380,726	380,726	5,750	2189,174	--
$I_{aV2,CP}$	1,000	302,263	302,263	8,800	--	2659,917
$I_{aH3,CP}$	1,000	235,323	235,323	4,930	1160,143	--
$I_{aV3,CP}$	1,000	186,826	186,826	8,800	--	1644,069
$I_{aH4,SC}$	0,000	120,487	0,000	10,200	0,000	--
$I_{aV4,SC}$	0,000	95,656	0,000	8,800	--	0,000
$I_{aH5,SC}$	0,000	50,347	0,000	5,750	0,000	--
$I_{aV5,SC}$	0,000	39,971	0,000	8,800	--	0,000
$I_{aH6,E}$	1,500	331,897	497,846	10,200	5078,029	--
$I_{aV6,E}$	0,000	263,498	0,000	8,800	--	0,000
$I_{aH7,E}$	1,500	134,243	201,365	10,863	2187,490	--
$I_{aV7,E}$	0,000	106,577	0,000	8,800	--	0,000
$I_{aH8,E}$	1,500	69,344	104,016	6,570	683,385	--
$I_{aV8,E}$	0,000	55,053	0,000	8,800	--	0,000

Designação	γ	Impulso ou Força [kN]		Braço [m]	Momento [kNm]	
		E_k	E_d		Derrubante	Estabilizante
$F_{H,estribo}$	1,000	153,414	153,414	9,387	1440,097	--
$F_{V,estribo}$	1,000	958,837	958,837	3,273	--	3138,274
$F_{H,gigante}$	1,000	159,430	159,430	4,550	725,405	--
$F_{V,gigante}$	1,000	996,435	996,435	3,536	--	3523,394
$F_{H,sapata}$	1,000	0,000	0,000	0,750	0,000	--
$F_{V,sapata}$	1,000	1320,000	1320,000	4,400	--	5808,000
$F_{H,terras}$	1,000	769,843	769,843	7,606	5855,426	--
$F_{V,terras}$	1,000	4811,519	4811,519	6,986	--	33613,270
$F_{Ed,H,tab}$	--	--	89,470	9,210	824,018	--
$F_{Ed,V,tab}$	--	--	1789,399	1,990	--	3560,903
Somatório					24487,710	57130,583

2. Encontro E2

Designação	γ	Impulso ou Força [kN]		Braço [m]	Momento [kNm]	
		E_k	E_d		Derrubante	Estabilizante
$I_{aH1,CP}$	1,000	540,924	540,924	9,600	5192,872	--
$I_{aV1,CP}$	1,000	429,447	429,447	8,800	--	3779,132
$I_{aH2,CP}$	1,000	342,894	342,894	6,255	2144,802	--
$I_{aV2,CP}$	1,000	272,228	272,228	8,800	--	2395,607
$I_{aH3,CP}$	1,000	160,757	160,757	5,603	900,777	--
$I_{aV3,CP}$	1,000	127,627	127,627	8,800	--	1123,120
$I_{aH4,SC}$	0,000	136,545	0,000	10,295	0,000	--
$I_{aV4,SC}$	0,000	108,405	0,000	8,800	--	0,000
$I_{aH5,SC}$	0,000	43,278	0,000	6,255	0,000	--
$I_{aV5,SC}$	0,000	34,359	0,000	8,800	--	0,000
$I_{aH6,E}$	1,500	345,437	518,156	10,295	5334,418	--
$I_{aV6,E}$	0,000	274,247	0,000	8,800	--	0,000
$I_{aH7,E}$	1,500	184,204	276,306	10,990	3036,601	--
$I_{aV7,E}$	0,000	146,242	0,000	8,800	--	0,000

Designação	γ	Impulso ou Força [kN]		Braço [m]	Momento [kNm]	
		E_k	E_d		Derrubante	Estabilizante
$I_{aH8,E}$	1,500	54,744	82,115	6,907	567,143	--
$I_{aV8,E}$	0,000	43,462	0,000	8,800	--	0,000
$F_{H,estribo}$	1,000	156,345	156,345	9,440	1475,895	--
$F_{V,estribo}$	1,000	977,155	977,155	3,292	--	3216,795
$F_{H,gigante}$	1,000	159,430	159,430	4,550	725,405	--
$F_{V,gigante}$	1,000	996,435	996,435	3,536	--	3523,394
$F_{H,sapata}$	1,000	0,000	0,000	0,750	0,000	--
$F_{V,sapata}$	1,000	1320,000	1320,000	4,400	--	5808,000
$F_{H,terras}$	1,000	803,102	803,102	7,801	6264,997	--
$F_{V,terras}$	1,000	5019,386	5019,386	6,987	--	35070,451
$F_{Ed,H,tab}$	--	--	87,956	9,210	810,074	--
$F_{Ed,V,tab}$	--	--	1759,118	1,990	--	3500,645
Somatório					26452,985	58417,145

Anexo O – Estado limite de deslizamento dos encontros

Encontro	θ [°]	Φ'_d [°]	δ'_d [°]	Ψ [°]	i [°]
E1	9,593	24,791	16,528	21,919	-2,291
E2	9,593	24,791	16,528	21,919	2,291

Encontro	k_a	k_s	k_s-k_a
E1	0,544	0,705	0,160
E2	0,589	0,789	0,201

1. Encontro E1

Designação	γ	Impulso ou Força [kN]		Forças [kN]	
		E_k	E_d	Deslizante	Estabilizante
$I_{aH1,CP}$	1,000	455,562	455,562	455,562	--
$I_{aV1,CP}$	1,000	361,677	361,677	--	107,323
$I_{aH2,CP}$	1,000	380,726	380,726	380,726	--
$I_{aV2,CP}$	1,000	302,263	302,263	--	89,692
$I_{aH3,CP}$	1,000	235,323	235,323	235,323	--
$I_{aV3,CP}$	1,000	186,826	186,826	--	55,438
$I_{aH4,SC}$	0,000	120,487	0,000	0,000	--
$I_{aV4,SC}$	0,000	95,656	0,000	--	0,000
$I_{aH5,SC}$	0,000	50,347	0,000	0,000	--
$I_{aV5,SC}$	0,000	39,971	0,000	--	0,000
$I_{aH6,E}$	1,500	331,897	497,846	497,846	--
$I_{aV6,E}$	0,000	263,498	0,000	--	0,000
$I_{aH7,E}$	1,500	134,243	201,365	201,365	--
$I_{aV7,E}$	0,000	106,577	0,000	--	0,000
$I_{aH8,E}$	1,500	69,344	104,016	104,016	--
$I_{aV8,E}$	0,000	55,053	0,000	--	0,000
$F_{H,estribo}$	1,000	153,414	153,414	153,414	--

Designação	γ	Impulso ou Força [kN]		Forças [kN]	
		E_k	E_d	Deslizante	Estabilizante
$F_{V,estribo}$	1,000	958,837	958,837	--	284,522
$F_{H,gigante}$	1,000	159,430	159,430	159,430	--
$F_{V,gigante}$	1,000	996,435	996,435	--	295,678
$F_{H,sapata}$	1,000	0,000	0,000	0,000	--
$F_{V,sapata}$	1,000	1320,000	1320,000	--	391,692
$F_{H,terras}$	1,000	769,843	769,843	769,843	--
$F_{V,terras}$	1,000	4811,519	4811,519	--	1427,751
$F_{Ed,H,tab}$	--	--	83,165	83,165	--
$F_{Ed,V,tab}$	--	--	1789,399	--	530,979
Somatório				3040,689	3183,074

2. Encontro E2

Designação	γ	Impulso ou Força [kN]		Forças [kN]	
		E_k	E_d	Deslizante	Estabilizante
$I_{aH1,CP}$	1,000	540,924	540,924	540,924	--
$I_{aV1,CP}$	1,000	429,447	429,447	--	127,432
$I_{aH2,CP}$	1,000	342,894	342,894	342,894	--
$I_{aV2,CP}$	1,000	272,228	272,228	--	80,780
$I_{aH3,CP}$	1,000	160,757	160,757	160,757	--
$I_{aV3,CP}$	1,000	127,627	127,627	--	37,872
$I_{aH4,SC}$	1,000	136,545	0,000	0,000	--
$I_{aV4,SC}$	0,000	108,405	0,000	--	0,000
$I_{aH5,SC}$	1,000	43,278	0,000	0,000	--
$I_{aV5,SC}$	0,000	34,359	0,000	--	0,000
$I_{aH6,E}$	1,500	345,437	518,156	518,156	--
$I_{aV6,E}$	0,000	274,247	0,000	--	0,000
$I_{aH7,E}$	1,500	184,204	276,306	276,306	--
$I_{aV7,E}$	0,000	146,242	0,000	--	0,000
$I_{aH8,E}$	1,500	54,744	82,115	82,115	--
$I_{aV8,E}$	0,000	43,462	0,000	--	0,000

Designação	γ	Impulso ou Força [kN]		Forças [kN]	
		E_k	E_d	Deslizante	Estabilizante
$F_{H,estribo}$	1,000	156,345	156,345	156,345	--
$F_{V,estribo}$	1,000	977,155	977,155	--	289,957
$F_{H,gigante}$	1,000	159,430	159,430	159,430	--
$F_{V,gigante}$	1,000	996,435	996,435	--	295,678
$F_{H,sapata}$	1,000	0,000	0,000	0,000	--
$F_{V,sapata}$	1,000	1320,000	1320,000	--	391,692
$F_{H,terras}$	1,000	803,102	803,102	803,102	--
$F_{V,terras}$	1,000	5019,386	5019,386	--	1489,433
$F_{Ed,H,tab}$	--	--	87,956	87,956	--
$F_{Ed,V,tab}$	--	--	1759,118	--	521,994
Somatório				3127,985	3234,837

Anexo P – Estado limite de rotura do terreno de fundação dos encontros

Encontro	Φ'_d [°]	δ'_d [°]	Ψ [°]	I [°]
E1	24,791	16,528	21,919	-2,291
E2	24,791	16,528	21,919	2,291

Encontro	k_a
E1	0,544
E2	0,589

1. Encontro E1

Designação	γ	Impulso ou Força [kN]		Braço [m]	Horizontal		Vertical	
		E_k	E_d		$F_{Ed,Hi}$ [kN]	$F_{Ed,Hi}\times b_{Hi}$ [kNm]	$F_{Ed,Vi}$ [kN/m]	$F_{Ed,Vi}\times b_{Vi}$ [kNm]
$I_{aH1,CP}$	1,000	455,562	455,562	9,537	455,562	4344,544	--	--
$I_{aV1,CP}$	1,000	361,677	361,677	4,400	--	--	361,677	1591,377
$I_{aH2,CP}$	1,000	380,726	380,726	5,750	380,726	2189,174	--	--
$I_{aV2,CP}$	1,000	302,263	302,263	4,400	--	--	302,263	1329,959
$I_{aH3,CP}$	1,000	235,323	235,323	4,930	235,323	1160,143	--	--
$I_{aV3,CP}$	1,000	186,826	186,826	4,400	--	--	186,826	822,035
$I_{aH4,SC}$	0,000	120,487	0,000	10,200	0,000	0,000	--	--
$I_{aV4,SC}$	1,300	95,656	124,353	4,400	--	--	124,353	547,154
$I_{aH5,SC}$	0,000	50,347	0,000	5,750	0,000	0,000	--	--
$I_{aV5,SC}$	1,300	39,971	51,963	4,400	--	--	51,963	228,636
$I_{aH6,E}$	0,000	331,897	0,000	10,200	0,000	0,000	--	--
$I_{aV6,E}$	0,000	263,498	0,000	4,400	--	--	0,000	0,000
$I_{aH7,E}$	0,000	134,243	0,000	10,863	0,000	0,000	--	--
$I_{aV7,E}$	0,000	106,577	0,000	4,400	--	--	0,000	0,000

Designação	γ	Impulso ou Força [kN]		Braço [m]	Horizontal		Vertical	
		E_k	E_d		$F_{Ed,Hi}$ [kN]	$F_{Ed,Hi} \times b_{Hi}$ [kNm]	$F_{Ed,Vi}$ [kN/m]	$F_{Ed,Vi} \times b_{Vi}$ [kNm]
$I_{aH8,E}$	0,000	69,344	0,000	6,570	0,000	0,000	--	--
$I_{aV8,E}$	0,000	55,053	0,000	4,400	--	--	0,000	0,000
$F_{H,estribo}$	1,000	0,000	0,000	9,387	0,000	0,000	--	--
$F_{V,estribo}$	1,000	958,837	958,837	-1,127	--	--	958,837	-1080,610
$F_{H,gigante}$	1,000	0,000	0,000	4,550	0,000	0,000	--	--
$F_{V,gigante}$	1,000	996,435	996,435	-0,864	--	--	996,435	-860,920
$F_{H,sapata}$	1,000	0,000	0,000	0,750	0,000	0,000	--	--
$F_{V,sapata}$	1,000	1320,000	1320,000	0,000	--	--	1320,000	0,000
$F_{H,terras}$	1,000	0,000	0,000	7,606	0,000	0,000	--	--
$F_{V,terras}$	1,000	4811,519	4811,519	2,586	--	--	4811,519	12442,588
$F_{Ed,H,tab}$	--	--	90,688	9,210	90,688	835,240	--	--
$F_{Ed,V,tab}$	--	--	3096,948	-2,410	--	--	3096,948	-7463,646
Somatório					1162,300	8529,101	12210,822	7556,574
					br_H [m] =	7,338	br_V [m] =	0,619

2. Encontro E2

Designação	γ	Impulso ou Força [kN]		Braço [m]	Horizontal		Vertical	
		E_k	E_d		$F_{Ed,Hi}$ [kN]	$F_{Ed,Hi} \times b_{Hi}$ [kNm]	$F_{Ed,Vi}$ [kN/m]	$F_{Ed,Vi} \times b_{Vi}$ [kNm]
$I_{aH1,CP}$	1,000	540,924	540,924	9,600	540,924	5192,872	--	--
$I_{aV1,CP}$	1,000	429,447	429,447	4,400	--	--	429,447	1889,566
$I_{aH2,CP}$	1,000	342,894	342,894	6,255	342,894	2144,802	--	--
$I_{aV2,CP}$	1,000	272,228	272,228	4,400	--	--	272,228	1197,804
$I_{aH3,CP}$	1,000	160,757	160,757	5,603	160,757	900,777	--	--
$I_{aV3,CP}$	1,000	127,627	127,627	4,400	--	--	127,627	561,560
$I_{aH4,SC}$	0,000	136,545	0,000	10,295	0,000	0,000	--	--
$I_{aV4,SC}$	1,300	108,405	140,927	4,400	--	--	140,927	620,077

Designação	γ	Impulso ou Força [kN]		Braço [m]	Horizontal		Vertical	
		E_k	E_d		$F_{Ed,Hi}$ [kN]	$F_{Ed,Hi} \times b_{Hi}$ [kNm]	$F_{Ed,Vi}$ [kN/m]	$F_{Ed,Vi} \times b_{Vi}$ [kNm]
$I_{aH5,SC}$	0,000	43,278	0,000	6,255	0,000	0,000	--	--
$I_{aV5,SC}$	1,300	34,359	44,667	4,400	--	--	44,667	196,535
$I_{aH6,E}$	0,000	345,437	0,000	10,295	0,000	0,000	--	--
$I_{aV6,E}$	1,500	274,247	0,000	4,400	--	--	0,000	0,000
$I_{aH7,E}$	0,000	184,204	0,000	10,990	0,000	0,000	--	--
$I_{aV7,E}$	1,500	146,242	0,000	4,400	--	--	0,000	0,000
$I_{aH8,E}$	0,000	54,744	0,000	6,907	0,000	0,000	--	--
$I_{aV8,E}$	1,500	43,462	0,000	4,400	--	--	0,000	0,000
$F_{H,estribo}$	1,000	0,000	0,000	9,440	0,000	0,000	--	--
$F_{V,estribo}$	1,000	977,155	977,155	-1,108	--	--	977,155	-1082,688
$F_{H,gigante}$	1,000	0,000	0,000	4,550	0,000	0,000	--	--
$F_{V,gigante}$	1,000	996,435	996,435	-0,864	--	--	996,435	-860,920
$F_{H,sapata}$	1,000	0,000	0,000	0,750	0,000	0,000	--	--
$F_{V,sapata}$	1,000	1320,000	1320,000	0,000	--	--	1320,000	0,000
$F_{H,terras}$	1,000	0,000	0,000	7,801	0,000	0,000	--	--
$F_{V,terras}$	1,000	5019,386	5019,386	2,587	--	--	5019,386	12985,152
$F_{Ed,H,tab}$	--	--	90,696	9,210	90,696	835,312	--	--
$F_{Ed,V,tab}$	--	--	3093,475	-2,410	--	--	3093,475	-7455,275
Somatório					1135,272	9073,764	12421,347	8051,811
					br_H [m] =	7,993	br_V [m] =	0,648

Anexo Q – Esforços para o dimensionamento estrutural dos gigantes e das sapatas dos encontros

Encontro	θ [°]	Φ'_d [°]	δ'_d [°]	Ψ [°]	I [°]
E1	9,593	30,000	20,000	21,919	-2,291
E2	9,593	30,000	20,000	21,919	2,291

Encontro	k_a	k_s	k_s-k_a
E1	0,485	0,638	0,153
E2	0,522	0,706	0,184

1. Encontro E1

i. Esforços devido aos impulsos e às forças horizontais longitudinais

Designação	γ	Impulso ou Força [kN]		Braço [m]	Momento [kNm]
		E_k	E_d		
$F_{HL,CP}$	1,000	90,688	90,688	7,710	699,207
$I_{a1,CP}$	1,000	518,179	518,179	8,037	4164,428
$I_{a2,CP}$	1,000	433,056	433,056	4,250	1840,489
$I_{a3,CP}$	1,000	267,668	267,668	3,430	918,101
$I_{a4,SC}$	0,000	137,048	0,000	8,700	0,000
$I_{a5,SC}$	0,000	57,267	0,000	4,250	0,000
$I_{a6,E}$	1,500	405,157	607,736	8,700	5287,301
$I_{a7,E}$	1,500	163,875	245,812	9,363	2301,618
$I_{a8,E}$	1,500	84,650	126,975	5,070	643,766
$F_{HL,estribo}$	1,000	153,414	153,414	7,887	1209,976
$F_{HL,gigante}$	1,000	159,430	159,430	3,050	486,260
$F_{HL,terras}$	1,000	769,843	769,843	6,106	4700,661
		$F_{Ed,HL}$ [kN] =	3372,801	$M_{Ed,HL}$ [kNm] =	22251,808

ii. Esforços devido às forças verticais

Designação	γ	Força [kN]		Braço [m]	Momento [kNm]
		E_k	E_d		
$F_{V,CP}$	1,000	1813,768	1813,768	2,410	4371,180
$F_{V,SC}$	0,000	915,371	0,000	2,410	0,000
$F_{V,E}$	1,500	16,246	24,369	2,410	58,729
$F_{V,estribo}$	1,000	958,837	958,837	1,127	1080,610
$F_{V,gigante}$	1,000	996,435	996,435	0,864	860,920
$F_{V,terras}$	1,000	4811,519	4811,519	-2,586	-12442,588
			$F_{Ed,V}$ [kN]	**br_V [m]**	**$M_{Ed,V,y}$ [kNm]**
			8604,928	-0,706	-6071,149

2. Encontro E2

i. Esforços devido aos impulsos e às forças horizontais longitudinais

Designação	γ	Impulso ou Força [kN]		Braço [m]	Momento [kNm]
		E_k	E_d		
$F_{HL,CP}$	1,000	90,696	90,696	7,710	699,268
$I_{a1,CP}$	1,000	611,878	611,878	8,100	4956,213
$I_{a2,CP}$	1,000	387,872	387,872	4,755	1844,332
$I_{a3,CP}$	1,000	181,844	181,844	4,103	746,167
$I_{a4,SC}$	0,000	154,456	0,000	8,795	0,000
$I_{a5,SC}$	0,000	48,955	0,000	4,755	0,000
$I_{a6,E}$	1,500	404,705	607,058	8,795	5339,075
$I_{a7,E}$	1,500	215,808	323,713	9,490	3072,032
$I_{a8,E}$	1,500	64,136	96,204	5,133	493,848
$F_{HL,estribo}$	1,000	156,345	156,345	7,940	1241,378
$F_{HL,gigante}$	1,000	159,430	159,430	3,050	486,260
$F_{HL,terras}$	1,000	803,102	803,102	6,301	5060,344
		$F_{Ed,HL}$ [kN] =	-3418,141	**$M_{Ed,HL}$ [kNm] =**	-23938,917

ii. Esforços devido às forças verticais

Designação	γ	Força [kN]		Braço [m]	Momento [kNm]
		E_k	E_d		
$F_{V,CP}$	1,000	1813,925	1813,925	-2,410	-4371,558
$F_{V,SC}$	0,000	913,484	0,000	-2,410	0,000
$F_{V,E}$	1,500	36,538	54,806	-2,410	-132,083
$F_{V,estribo}$	1,000	977,155	977,155	-1,108	-1082,688
$F_{V,gigante}$	1,000	996,435	996,435	-0,864	-860,920
$F_{V,terras}$	1,000	5019,386	5019,386	2,587	12985,152
			$F_{Ed,V}$ [kN]	br_V [m]	$M_{Ed,V,y}$ [kNm]
			8861,707	0,738	6537,903

Anexo R – Deslocamento longitudinal devido aos efeitos diferidos de fluência e retração do betão

O deslocamento longitudinal devido aos efeitos de fluência e retração, δ_{c+s}, é calculado com a seguinte expressão:

$$\delta_{c+s} = \alpha \cdot \Delta T \cdot L$$

Em que:

$$\Delta T = \frac{\varepsilon_{cc}(t) + \varepsilon_{cs}(t, t_0)}{\alpha}$$

$$\varepsilon_{cc} = \varphi(t, t_0) \cdot \frac{\sigma_c}{E_c}$$

$$E_c = 1{,}05 \cdot E_{cm}$$

$$L = \left| x_{CR} - x_i \right|$$

$$x_{CR} = \frac{\sum_{j=1}^{n} \left(x_j \cdot k_j \right)}{\sum_{j=1}^{n} k_j}$$

i. Centro de rigidez do viaduto

Pilar	x [m]	L [m]	E_{cm} [GPa]	I_c [m^4]	K [kN/m]	$x_j \times K_j$ [kN]	x_{CR} [m]
P1	35,000	24,000	34,000	0,785	5795,039	202826,349	
P2	78,000	37,000	34,000	0,785	6326,228	493445,821	
P3	121,000	39,000	34,000	0,785	5402,020	653644,474	
P4	164,000	28,500	34,000	0,785	13842,530	2270174,873	160,260
P5	207,000	22,000	34,000	0,785	30094,145	6229487,912	
P6	250,000	12,500	34,000	0,785	0,000	0,000	
Somatório					61459,962	9849579,428	

ii. Variação de temperatura equivalente

Aparelho de Apoio	$\varepsilon_{cs}(t)$	$\varphi(t,t0)$	σ_c [MPa]	$\varepsilon_{cc}(t)$	α [°C^{-1}]	ΔT_i [°C]	ΔT [°C]
E1	$-3{,}07\times10^{-4}$	2,448	-2,679	$-1{,}84\times10^{-4}$	10^{-5}	-49,075	-50,576
P1	$-3{,}07\times10^{-4}$	2,448	-2,935	$-2{,}01\times10^{-4}$	10^{-5}	-50,832	
P6	$-3{,}07\times10^{-4}$	2,448	-2,935	$-2{,}01\times10^{-4}$	10^{-5}	-50,832	
E2	$-3{,}07\times10^{-4}$	2,448	-3,042	$-2{,}09\times10^{-4}$	10^{-5}	-51,566	

iii. Deslocamento devido aos efeitos diferidos de fluência e retração do betão

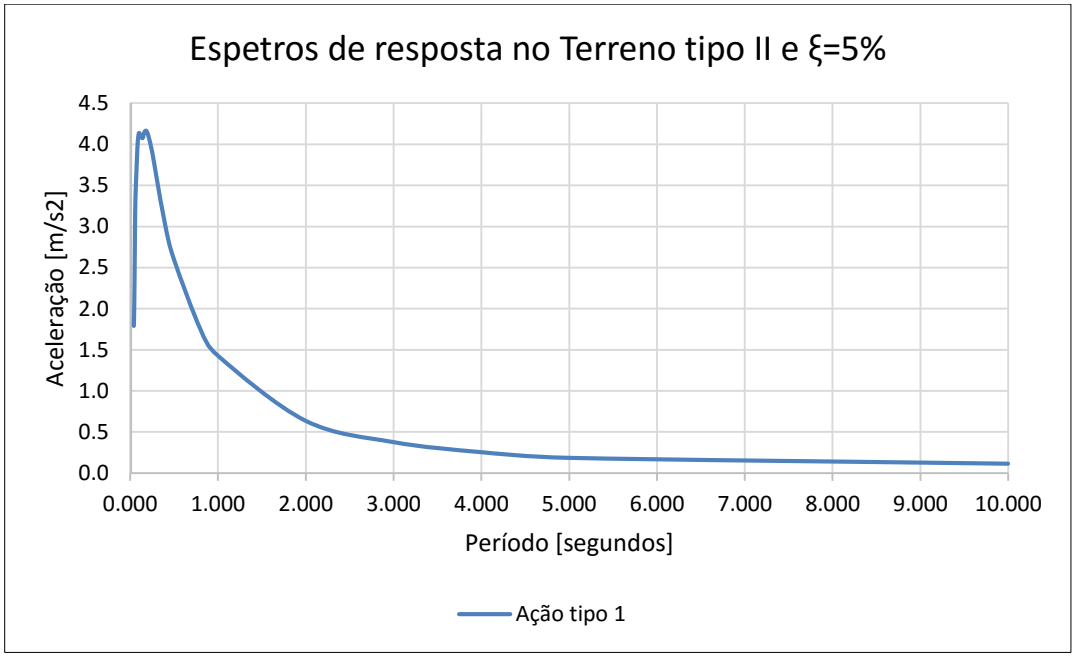
Aparelho de Apoio	α [°C^{-1}]	ΔT [°C]	L [m]	δ_{c+s} [m]
E1	10^{-5}	-50,576	160,260	0,081
P1	10^{-5}	-50,576	125,260	0,063
P6	10^{-5}	-50,576	89,740	-0,045
E2	10^{-5}	-50,576	124,740	-0,063

Anexo S – Espetros de resposta do RSA

Zona sísmica A

Terreno tipo II

Coeficiente de amortecimento: $\xi = 5\,\%$



Ação tipo 1

T [Seg.]	**Aceleração [m/s²]**
0,040	1,791
0,045	2,056
0,050	2,609
0,055	3,146
0,060	3,404
0,070	3,683
0,080	3,948
0,090	4,091
0,100	4,138
0,120	4,101
0,140	4,075
0,160	4,146
0,180	4,165
0,200	4,124
0,250	3,900
0,300	3,589
0,400	3,002
0,500	2,590
0,800	1,746
1,000	1,426
2,000	0,635
3,000	0,377
4,000	0,255
5,000	0,186
10,000	0,115

Ação tipo 2

T [Seg.]	**Aceleração [m/s²]**
0,040	1,185
0,045	1,275
0,050	1,471
0,055	1,729
0,060	1,944
0,070	2,182
0,080	2,267
0,090	2,291
0,100	2,287
0,120	2,270
0,140	2,339
0,160	2,391
0,180	2,397
0,200	2,377
0,250	2,346
0,300	2,417
0,400	2,394
0,500	2,351
0,600	2,416
0,700	2,419
0,800	2,363
1,000	2,156
2,000	1,060
3,000	0,655
4,000	0,459
5,000	0,345
10,000	0,103

Anexo T – Coeficiente de fluência dos pilares

Dados para o cálculo do coeficiente de fluência dos pilares

HR =	70	%
T =	20	°C
Betão C35/45	(cimento da classe CEM 42.5 N)	
t_0 =	3	d
$t_{\infty,d}$ =	20000	d
A_c =	3,142	m^2
u =	6,283	m
h_0 =	2339,196	mm

Cálculo do coeficiente de fluência dos pilares, de acordo com o Eurocódigo 2

α_1 =	0,866
α_2 =	0,960
α_3 =	0,902
β_H =	1353,291
$\beta_c(t,t0)$ =	0,981
$\beta(fcm)$ =	2,562
$\beta(t0)$ =	0,743
φ_{RH} =	1,147
φ_0 =	2,184
$\varphi(t,t0)$ =	2,142