

**ANNEXE 24**

**RESULTATS DES CALCULS FOXTA**

**PIEUX FORES A LA TARIERE CREUSE**

**SONDAGE SP5**

- Pieux  $\Phi$  620 en compression
- Pieux  $\Phi$  720 en compression
- Pieux  $\Phi$  820 en compression
- Pieux  $\Phi$  920 en compression

# Données

Titre du projet : Eco-Village d'entreprises à Carrère (pieu n°1)  
Numéro d'affaire : 22-1222  
Commentaires : Sondage SP5  
Titre du calcul : Titre du calcul  
Cadre réglementaire : EC 7 - Norme NF P94-262/A1 (juillet 2018)  
Méthode de dimensionnement : A partir des résultats pressiométriques  
Traitement des données : Traitement par couches  
Pas du calcul (m) : 0,20  
Section de calcul : Section de calcul circulaire  
Diamètre de calcul (m) : 0,62  
Classe du pieu : 2 - Pieu tarière creuse  
Catégorie du pieu : 6 [FTC, FTCD] - Foré tarière creuse simple rotation, ou double rotation  
Mode de chargement : Travail en compression

## Combinaisons

|                                 | ELS-QP | ELS-CARAC | ELU-FOND | ELU-ACC |
|---------------------------------|--------|-----------|----------|---------|
| Pondérations combinées sur Qs.k | 0,636  | 0,778     | 0,909    | 1,000   |
| Pondérations combinées sur Qp.k | 0,455  | 0,556     | 0,909    | 1,000   |

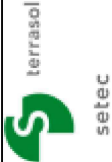
Cote de référence (m) : 7,90

## Définition des couches de sol

| No | Nom                                       | Couleur | Classe de sol               | Zbase  | pl*     | qsl    | kpmax | $\sqrt{R_s.d1 \times \gamma R_s.d2}$ |
|----|-------------------------------------------|---------|-----------------------------|--------|---------|--------|-------|--------------------------------------|
| 1  | Remblais                                  |         | Argile, limons              | 5,90   | 460,00  | 0,00   | 1,30  | 1,265                                |
| 2  | Argile d'altération                       |         | Argile, limons              | -0,60  | 600,00  | 55,00  | 1,30  | 1,265                                |
| 3  | Lave altérée argilisée raide à très raide |         | Argile, limons              | -15,60 | 1400,00 | 66,00  | 1,30  | 1,265                                |
| 4  | Lave altérée argilisée très raide         |         | Roche altérée et fragmentée | -16,60 | 2720,00 | 171,00 | 2,00  | 1,265                                |
| 5  | Lave +/- altérée aspect rocheux           |         | Roche altérée et fragmentée | -25,00 | 5000,00 | 200,00 | 2,00  | 1,265                                |

Critère de calcul : Longueur imposée

Longueur du pieu (m) : 30,00

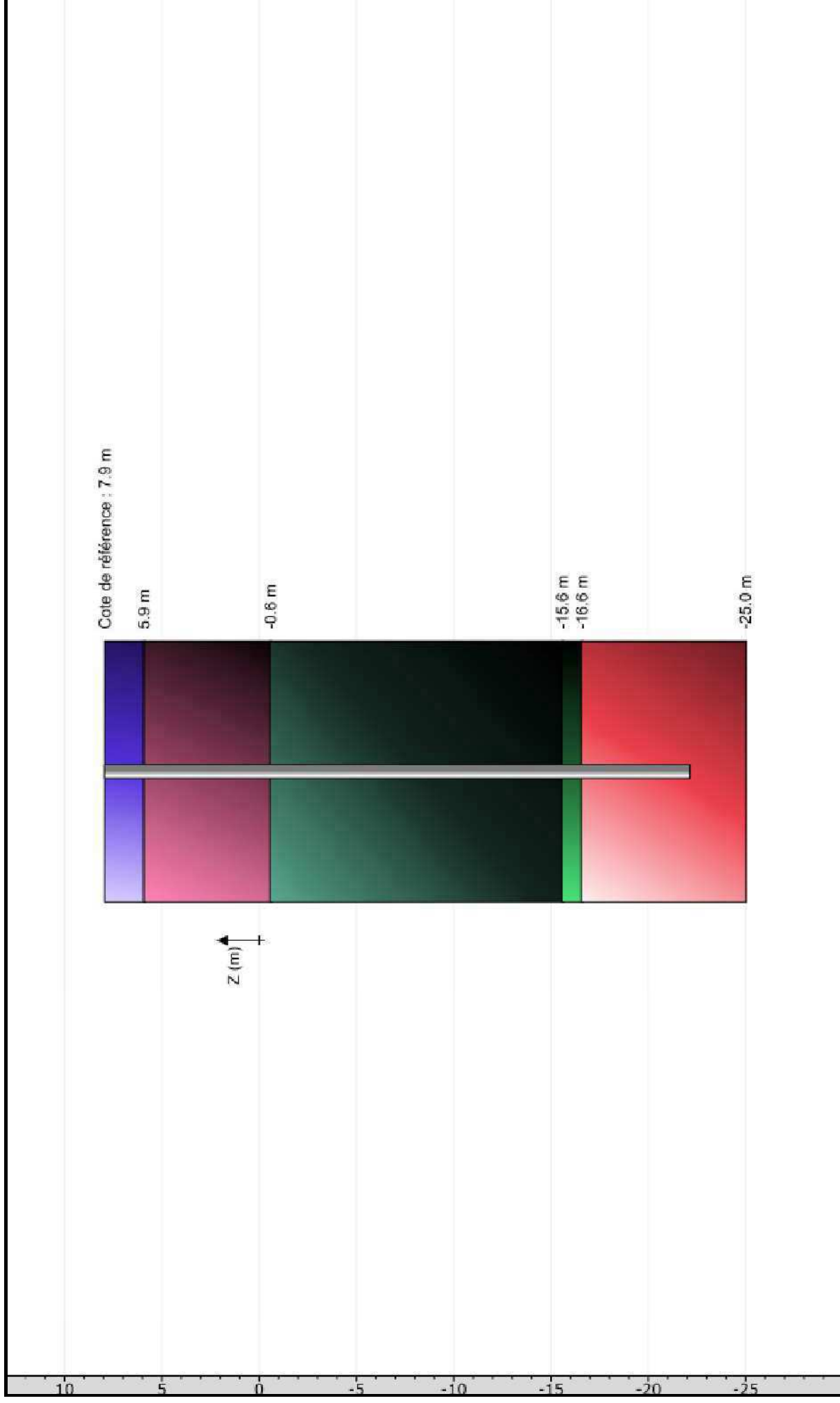


FoXta v3  
v3.3.6

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Calcul réalisé par : MAGMA CARAIBES

Projet : SP5\_compression  
Module : Fondprof (Pieu 1/1)

# Onglet "Paramètres généraux"



File : C:\Users\morel\AppData\Local\Temp\Terrasol\FoXta v3\3812\temp[FP]-1.resu

Calcul réalisé le : 06/09/2022 à 13h12  
par : MAGMA CARAIBES

## Options du calcul :

- calcul basé sur des paramètres issus du pressiomètre de Ménard
- calcul selon les règles de la norme NF P 94 262
- profil de pression limite pl\* défini par couche
- pour pieu de catégorie : 6
- pour pieu travaillant en compression

| Combinaisons | ELS-QP | ELS-CARA | ELU-FOND | ELU-ACC |
|--------------|--------|----------|----------|---------|
| Frottement   | 0.636  | 0.778    | 0.909    | 1.000   |
| Pointe       | 0.455  | 0.556    | 0.909    | 1.000   |

Cote de référence : 7.900

Section du pieu : 0.302  
Périmètre : 1.948

## Caractéristiques des couches (données utilisateur)

| couche | base   | pl*    | qsl    | kpmin | kpmax | gamrd |
|--------|--------|--------|--------|-------|-------|-------|
| 01     | 5.90   | 460.0  | 0.00   | 1.00  | 1.30  | 1.26  |
| 02     | -0.60  | 600.0  | 55.00  | 1.00  | 1.30  | 1.26  |
| 03     | -15.60 | 1400.0 | 66.00  | 1.00  | 1.30  | 1.26  |
| 04     | -16.60 | 2720.0 | 171.00 | 1.00  | 2.00  | 1.26  |
| 05     | -25.00 | 5000.0 | 200.00 | 1.00  | 2.00  | 1.26  |

Pas du calcul : 0.20

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 \*\*\*SOLUTION\*\*\*  
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Calcul à longueur imposée : L = 30.00

| couche | cote | qsl   | ple   | kp    | Qs    | Qp    | ELS-QP | ELS-CARA | ELU-FOND | ELU-ACC |
|--------|------|-------|-------|-------|-------|-------|--------|----------|----------|---------|
| 01     | 7.90 | 0.00  | 460.0 | 1.000 | 0.0   | 138.9 | 50.0   | 61.0     | 99.8     | 109.8   |
| 01     | 7.70 | 0.00  | 460.0 | 1.019 | 0.0   | 141.6 | 50.9   | 62.2     | 101.7    | 111.9   |
| 01     | 7.50 | 0.00  | 460.0 | 1.039 | 0.0   | 144.3 | 51.9   | 63.4     | 103.7    | 114.0   |
| 01     | 7.30 | 0.00  | 467.0 | 1.057 | 0.0   | 149.1 | 53.6   | 65.5     | 107.1    | 117.8   |
| 01     | 7.10 | 0.00  | 481.0 | 1.074 | 0.0   | 156.0 | 56.1   | 68.6     | 112.1    | 123.3   |
| 01     | 6.90 | 0.00  | 495.0 | 1.090 | 0.0   | 162.9 | 58.6   | 71.6     | 117.0    | 128.8   |
| 01     | 6.70 | 0.00  | 509.0 | 1.105 | 0.0   | 169.8 | 61.1   | 74.6     | 122.0    | 134.2   |
| 01     | 6.50 | 0.00  | 523.0 | 1.119 | 0.0   | 176.7 | 63.6   | 77.7     | 127.0    | 139.7   |
| 01     | 6.30 | 0.00  | 537.0 | 1.133 | 0.0   | 183.6 | 66.0   | 80.7     | 132.0    | 145.2   |
| 01     | 6.10 | 0.00  | 551.0 | 1.145 | 0.0   | 190.5 | 68.5   | 83.7     | 136.9    | 150.6   |
| 01     | 5.90 | 0.00  | 565.0 | 1.158 | 0.0   | 197.5 | 71.0   | 86.8     | 141.9    | 156.1   |
| 01     | 5.90 | 0.00  | 565.0 | 1.158 | 0.0   | 197.5 | 71.0   | 86.8     | 141.9    | 156.1   |
| 02     | 5.90 | 55.00 | 600.0 | 1.148 | 0.0   | 208.0 | 74.8   | 91.4     | 149.5    | 164.4   |
| 02     | 5.70 | 55.00 | 600.0 | 1.168 | 21.4  | 211.5 | 86.9   | 106.1    | 167.4    | 184.2   |
| 02     | 5.50 | 55.00 | 600.0 | 1.187 | 42.9  | 215.0 | 98.9   | 120.9    | 185.3    | 203.9   |
| 02     | 5.30 | 55.00 | 600.0 | 1.206 | 64.3  | 218.5 | 110.9  | 135.6    | 203.2    | 223.6   |
| 02     | 5.10 | 55.00 | 600.0 | 1.226 | 85.7  | 222.0 | 123.0  | 150.3    | 221.1    | 243.3   |
| 02     | 4.90 | 55.00 | 600.0 | 1.245 | 107.1 | 225.6 | 135.0  | 165.0    | 239.1    | 263.0   |
| 02     | 4.70 | 55.00 | 600.0 | 1.265 | 128.6 | 229.1 | 147.0  | 179.7    | 257.0    | 282.7   |
| 02     | 4.50 | 55.00 | 600.0 | 1.284 | 150.0 | 232.6 | 159.1  | 194.5    | 274.9    | 302.4   |



**FoXta v3**  
v3.3.6

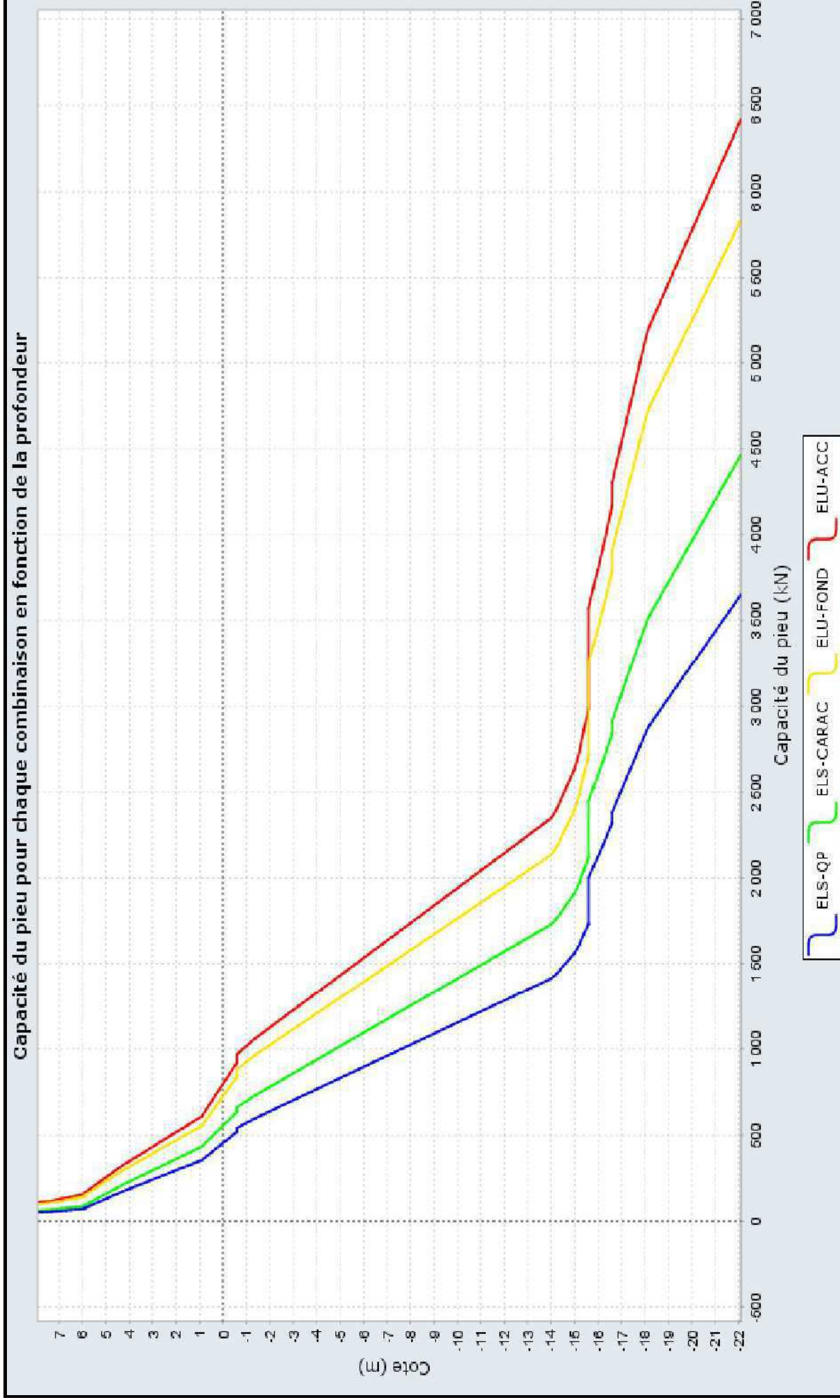
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 Projet : SP5\_compression  
 Module : Fondprof (Pieu 1/1)



|    |        |       |        |       |        |       |        |        |        |        |
|----|--------|-------|--------|-------|--------|-------|--------|--------|--------|--------|
| 02 | 4.30   | 55.00 | 600.0  | 1.300 | 171.4  | 235.5 | 170.9  | 208.9  | 292.4  | 321.7  |
| 02 | 4.10   | 55.00 | 600.0  | 1.300 | 192.8  | 235.5 | 181.7  | 222.1  | 307.8  | 338.6  |
| 02 | 3.90   | 55.00 | 600.0  | 1.300 | 214.3  | 235.5 | 192.4  | 235.3  | 323.2  | 355.5  |
| 02 | 3.70   | 55.00 | 600.0  | 1.300 | 235.7  | 235.5 | 203.2  | 248.5  | 338.6  | 372.5  |
| 02 | 3.50   | 55.00 | 600.0  | 1.300 | 257.1  | 235.5 | 214.0  | 261.6  | 354.0  | 389.4  |
| 02 | 3.30   | 55.00 | 600.0  | 1.300 | 278.5  | 235.5 | 224.7  | 274.8  | 369.4  | 406.3  |
| 02 | 3.10   | 55.00 | 600.0  | 1.300 | 300.0  | 235.5 | 235.5  | 288.0  | 384.8  | 423.3  |
| 02 | 2.90   | 55.00 | 600.0  | 1.300 | 321.4  | 235.5 | 246.3  | 301.2  | 400.2  | 440.2  |
| 02 | 2.70   | 55.00 | 600.0  | 1.300 | 342.8  | 235.5 | 257.1  | 314.3  | 415.6  | 457.2  |
| 02 | 2.50   | 55.00 | 600.0  | 1.300 | 364.2  | 235.5 | 267.8  | 327.5  | 430.9  | 474.1  |
| 02 | 2.30   | 55.00 | 600.0  | 1.300 | 385.7  | 235.5 | 278.6  | 340.7  | 446.3  | 491.0  |
| 02 | 2.10   | 55.00 | 600.0  | 1.300 | 407.1  | 235.5 | 289.4  | 353.9  | 461.7  | 508.0  |
| 02 | 1.90   | 55.00 | 600.0  | 1.300 | 428.5  | 235.5 | 300.1  | 367.0  | 477.1  | 524.9  |
| 02 | 1.70   | 55.00 | 600.0  | 1.300 | 449.9  | 235.5 | 310.9  | 380.2  | 492.5  | 541.8  |
| 02 | 1.50   | 55.00 | 600.0  | 1.300 | 471.4  | 235.5 | 321.7  | 393.4  | 507.9  | 558.8  |
| 02 | 1.30   | 55.00 | 600.0  | 1.300 | 492.8  | 235.5 | 332.5  | 406.6  | 523.3  | 575.7  |
| 02 | 1.10   | 55.00 | 600.0  | 1.300 | 514.2  | 235.5 | 343.2  | 419.8  | 538.7  | 592.7  |
| 02 | 0.90   | 55.00 | 600.0  | 1.300 | 535.6  | 235.5 | 354.0  | 432.9  | 554.1  | 609.6  |
| 02 | 0.70   | 55.00 | 680.0  | 1.300 | 557.1  | 266.9 | 376.1  | 459.9  | 592.1  | 651.3  |
| 02 | 0.50   | 55.00 | 760.0  | 1.300 | 578.5  | 298.3 | 398.1  | 486.9  | 630.0  | 693.1  |
| 02 | 0.30   | 55.00 | 840.0  | 1.300 | 599.9  | 329.7 | 420.2  | 513.9  | 668.0  | 734.9  |
| 02 | 0.10   | 55.00 | 920.0  | 1.300 | 621.3  | 361.1 | 442.3  | 540.8  | 705.9  | 776.6  |
| 02 | -0.10  | 55.00 | 1000.0 | 1.300 | 642.8  | 392.5 | 464.3  | 567.8  | 743.9  | 818.4  |
| 02 | -0.30  | 55.00 | 1080.0 | 1.300 | 664.2  | 423.9 | 486.4  | 594.8  | 781.9  | 860.1  |
| 02 | -0.50  | 55.00 | 1160.0 | 1.300 | 685.6  | 455.3 | 508.5  | 621.8  | 819.8  | 901.9  |
| 02 | -0.60  | 55.00 | 1200.0 | 1.300 | 696.3  | 471.0 | 519.5  | 635.3  | 838.8  | 922.8  |
| 03 | -0.60  | 66.00 | 1400.0 | 1.257 | 696.3  | 531.4 | 541.2  | 661.8  | 882.2  | 970.5  |
| 03 | -0.80  | 66.00 | 1400.0 | 1.268 | 722.0  | 536.0 | 555.8  | 679.7  | 904.0  | 994.5  |
| 03 | -1.00  | 66.00 | 1400.0 | 1.279 | 747.8  | 540.7 | 570.4  | 697.5  | 925.9  | 1018.5 |
| 03 | -1.20  | 66.00 | 1400.0 | 1.290 | 773.5  | 545.4 | 585.0  | 715.4  | 947.7  | 1042.6 |
| 03 | -1.40  | 66.00 | 1400.0 | 1.300 | 799.2  | 549.5 | 599.4  | 733.0  | 969.1  | 1066.1 |
| 03 | -1.60  | 66.00 | 1400.0 | 1.300 | 824.9  | 549.5 | 612.4  | 748.8  | 987.6  | 1086.4 |
| 03 | -1.80  | 66.00 | 1400.0 | 1.300 | 850.6  | 549.5 | 625.3  | 764.6  | 1006.1 | 1106.8 |
| 03 | -2.00  | 66.00 | 1400.0 | 1.300 | 876.3  | 549.5 | 638.2  | 780.5  | 1024.5 | 1127.1 |
| 03 | -2.20  | 66.00 | 1400.0 | 1.300 | 902.0  | 549.5 | 651.1  | 796.3  | 1043.0 | 1147.4 |
| 03 | -2.40  | 66.00 | 1400.0 | 1.300 | 927.7  | 549.5 | 664.1  | 812.1  | 1061.5 | 1167.7 |
| 03 | -2.60  | 66.00 | 1400.0 | 1.300 | 953.4  | 549.5 | 677.0  | 827.9  | 1080.0 | 1188.1 |
| 03 | -2.80  | 66.00 | 1400.0 | 1.300 | 979.2  | 549.5 | 689.9  | 843.7  | 1098.4 | 1208.4 |
| 03 | -3.00  | 66.00 | 1400.0 | 1.300 | 1004.9 | 549.5 | 702.8  | 859.5  | 1116.9 | 1228.7 |
| 03 | -3.20  | 66.00 | 1400.0 | 1.300 | 1030.6 | 549.5 | 715.8  | 875.3  | 1135.4 | 1249.0 |
| 03 | -3.40  | 66.00 | 1400.0 | 1.300 | 1056.3 | 549.5 | 728.7  | 891.1  | 1153.9 | 1269.4 |
| 03 | -3.60  | 66.00 | 1400.0 | 1.300 | 1082.0 | 549.5 | 741.6  | 907.0  | 1172.3 | 1289.7 |
| 03 | -3.80  | 66.00 | 1400.0 | 1.300 | 1107.7 | 549.5 | 754.6  | 922.8  | 1190.8 | 1310.0 |
| 03 | -4.00  | 66.00 | 1400.0 | 1.300 | 1133.4 | 549.5 | 767.5  | 938.6  | 1209.3 | 1330.3 |
| 03 | -4.20  | 66.00 | 1400.0 | 1.300 | 1159.1 | 549.5 | 780.4  | 954.4  | 1227.8 | 1350.7 |
| 03 | -4.40  | 66.00 | 1400.0 | 1.300 | 1184.8 | 549.5 | 793.3  | 970.2  | 1246.2 | 1371.0 |
| 03 | -4.60  | 66.00 | 1400.0 | 1.300 | 1210.5 | 549.5 | 806.3  | 986.0  | 1264.7 | 1391.3 |
| 03 | -4.80  | 66.00 | 1400.0 | 1.300 | 1236.3 | 549.5 | 819.2  | 1001.8 | 1283.2 | 1411.6 |
| 03 | -5.00  | 66.00 | 1400.0 | 1.300 | 1262.0 | 549.5 | 832.1  | 1017.6 | 1301.7 | 1432.0 |
| 03 | -5.20  | 66.00 | 1400.0 | 1.300 | 1287.7 | 549.5 | 845.0  | 1033.5 | 1320.1 | 1452.3 |
| 03 | -5.40  | 66.00 | 1400.0 | 1.300 | 1313.4 | 549.5 | 858.0  | 1049.3 | 1338.6 | 1472.6 |
| 03 | -5.60  | 66.00 | 1400.0 | 1.300 | 1339.1 | 549.5 | 870.9  | 1065.1 | 1357.1 | 1492.9 |
| 03 | -5.80  | 66.00 | 1400.0 | 1.300 | 1364.8 | 549.5 | 883.8  | 1080.9 | 1375.6 | 1513.3 |
| 03 | -6.00  | 66.00 | 1400.0 | 1.300 | 1390.5 | 549.5 | 896.7  | 1096.7 | 1394.0 | 1533.6 |
| 03 | -6.20  | 66.00 | 1400.0 | 1.300 | 1416.2 | 549.5 | 909.7  | 1112.5 | 1412.5 | 1553.9 |
| 03 | -6.40  | 66.00 | 1400.0 | 1.300 | 1441.9 | 549.5 | 922.6  | 1128.3 | 1431.0 | 1574.2 |
| 03 | -6.60  | 66.00 | 1400.0 | 1.300 | 1467.7 | 549.5 | 935.5  | 1144.1 | 1449.5 | 1594.6 |
| 03 | -6.80  | 66.00 | 1400.0 | 1.300 | 1493.4 | 549.5 | 948.5  | 1160.0 | 1467.9 | 1614.9 |
| 03 | -7.00  | 66.00 | 1400.0 | 1.300 | 1519.1 | 549.5 | 961.4  | 1175.8 | 1486.4 | 1635.2 |
| 03 | -7.20  | 66.00 | 1400.0 | 1.300 | 1544.8 | 549.5 | 974.3  | 1191.6 | 1504.9 | 1655.5 |
| 03 | -7.40  | 66.00 | 1400.0 | 1.300 | 1570.5 | 549.5 | 987.2  | 1207.4 | 1523.4 | 1675.9 |
| 03 | -7.60  | 66.00 | 1400.0 | 1.300 | 1596.2 | 549.5 | 1000.2 | 1223.2 | 1541.8 | 1696.2 |
| 03 | -7.80  | 66.00 | 1400.0 | 1.300 | 1621.9 | 549.5 | 1013.1 | 1239.0 | 1560.3 | 1716.5 |
| 03 | -8.00  | 66.00 | 1400.0 | 1.300 | 1647.6 | 549.5 | 1026.0 | 1254.8 | 1578.8 | 1736.8 |
| 03 | -8.20  | 66.00 | 1400.0 | 1.300 | 1673.3 | 549.5 | 1038.9 | 1270.6 | 1597.3 | 1757.2 |
| 03 | -8.40  | 66.00 | 1400.0 | 1.300 | 1699.1 | 549.5 | 1051.9 | 1286.5 | 1615.7 | 1777.5 |
| 03 | -8.60  | 66.00 | 1400.0 | 1.300 | 1724.8 | 549.5 | 1064.8 | 1302.3 | 1634.2 | 1797.8 |
| 03 | -8.80  | 66.00 | 1400.0 | 1.300 | 1750.5 | 549.5 | 1077.7 | 1318.1 | 1652.7 | 1818.1 |
| 03 | -9.00  | 66.00 | 1400.0 | 1.300 | 1776.2 | 549.5 | 1090.6 | 1333.9 | 1671.2 | 1838.5 |
| 03 | -9.20  | 66.00 | 1400.0 | 1.300 | 1801.9 | 549.5 | 1103.6 | 1349.7 | 1689.6 | 1858.8 |
| 03 | -9.40  | 66.00 | 1400.0 | 1.300 | 1827.6 | 549.5 | 1116.5 | 1365.5 | 1708.1 | 1879.1 |
| 03 | -9.60  | 66.00 | 1400.0 | 1.300 | 1853.3 | 549.5 | 1129.4 | 1381.3 | 1726.6 | 1899.4 |
| 03 | -9.80  | 66.00 | 1400.0 | 1.300 | 1879.0 | 549.5 | 1142.3 | 1397.1 | 1745.1 | 1919.8 |
| 03 | -10.00 | 66.00 | 1400.0 | 1.300 | 1904.7 | 549.5 | 1155.3 | 1413.0 | 1763.5 | 1940.1 |
| 03 | -10.20 | 66.00 | 1400.0 | 1.300 | 1930.5 | 549.5 | 1168.2 | 1428.8 | 1782.0 | 1960.4 |
| 03 | -10.40 | 66.00 | 1400.0 | 1.300 | 1956.2 | 549.5 | 1181.1 | 1444.6 | 1800.5 | 1980.7 |
| 03 | -10.60 | 66.00 | 1400.0 | 1.300 | 1981.9 | 549.5 | 1194.1 | 1460.4 | 1819.0 | 2001.1 |
| 03 | -10.80 | 66.00 | 1400.0 | 1.300 | 2007.6 | 549.5 | 1207.0 | 1476.2 | 1837.4 | 2021.4 |
| 03 | -11.00 | 66.00 | 1400.0 | 1.300 | 2033.3 | 549.5 | 1219.9 | 1492.0 | 1855.9 | 2041.7 |
| 03 | -11.20 | 66.00 | 1400.0 | 1.300 | 2059.0 | 549.5 | 1232.8 | 1507.8 | 1874.4 | 2062.0 |
| 03 | -11.40 | 66.00 | 1400.0 | 1.300 | 2084.7 | 549.5 | 1245.8 | 1523.6 | 1892.9 | 2082.4 |
| 03 | -11.60 | 66.00 | 1400.0 | 1.300 | 2110.4 | 549.5 | 1258.7 | 1539.5 | 1911.3 | 2102.7 |
| 03 | -11.80 | 66.00 | 1400.0 | 1.300 | 2136.1 | 549.5 | 1271.6 | 1555.3 | 1929.8 | 2123.0 |
| 03 | -12.00 | 66.00 | 1400.0 | 1.300 | 2161.8 | 549.5 | 1284.5 | 1571.1 | 1948.3 | 2143.3 |
| 03 | -12.20 | 66.00 | 1400.0 | 1.300 | 2187.6 | 549.5 | 1297.5 | 1586.9 | 1966.8 | 2163.7 |
| 03 | -12.40 | 66.00 | 1400.0 | 1.300 | 2213.3 | 549.5 | 1310.4 | 1602.7 | 1985.2 | 2184.0 |

|    |        |        |        |       |        |        |        |        |        |        |
|----|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|
| 03 | -12.60 | 66.00  | 1400.0 | 1.300 | 2239.0 | 549.5  | 1323.3 | 1618.5 | 2003.7 | 2204.3 |
| 03 | -12.80 | 66.00  | 1400.0 | 1.300 | 2264.7 | 549.5  | 1336.2 | 1634.3 | 2022.2 | 2224.6 |
| 03 | -13.00 | 66.00  | 1400.0 | 1.300 | 2290.4 | 549.5  | 1349.2 | 1650.1 | 2040.7 | 2245.0 |
| 03 | -13.20 | 66.00  | 1400.0 | 1.300 | 2316.1 | 549.5  | 1362.1 | 1666.0 | 2059.1 | 2265.3 |
| 03 | -13.40 | 66.00  | 1400.0 | 1.300 | 2341.8 | 549.5  | 1375.0 | 1681.8 | 2077.6 | 2285.6 |
| 03 | -13.60 | 66.00  | 1400.0 | 1.300 | 2367.5 | 549.5  | 1388.0 | 1697.6 | 2096.1 | 2305.9 |
| 03 | -13.80 | 66.00  | 1400.0 | 1.300 | 2393.2 | 549.5  | 1400.9 | 1713.4 | 2114.6 | 2326.3 |
| 03 | -14.00 | 66.00  | 1400.0 | 1.300 | 2419.0 | 549.5  | 1413.8 | 1729.2 | 2133.0 | 2346.6 |
| 03 | -14.20 | 66.00  | 1466.0 | 1.300 | 2444.7 | 575.4  | 1436.1 | 1756.4 | 2170.1 | 2387.4 |
| 03 | -14.40 | 66.00  | 1598.0 | 1.300 | 2470.4 | 627.2  | 1467.6 | 1795.0 | 2225.8 | 2448.7 |
| 03 | -14.60 | 66.00  | 1730.0 | 1.300 | 2496.1 | 679.0  | 1499.2 | 1833.6 | 2281.5 | 2509.9 |
| 03 | -14.80 | 66.00  | 1862.0 | 1.300 | 2521.8 | 730.8  | 1530.7 | 1872.2 | 2337.2 | 2571.2 |
| 03 | -15.00 | 66.00  | 1994.0 | 1.300 | 2547.5 | 782.6  | 1562.3 | 1910.7 | 2392.9 | 2632.5 |
| 03 | -15.20 | 66.00  | 2240.0 | 1.300 | 2573.2 | 879.2  | 1609.9 | 1969.0 | 2480.8 | 2729.2 |
| 03 | -15.40 | 66.00  | 2600.0 | 1.300 | 2598.9 | 1020.4 | 1673.7 | 2046.9 | 2600.8 | 2861.2 |
| 03 | -15.60 | 66.00  | 2960.0 | 1.284 | 2624.6 | 1147.2 | 1732.2 | 2118.5 | 2710.4 | 2981.7 |
| 03 | -15.60 | 66.00  | 2960.0 | 1.284 | 2624.6 | 1147.2 | 1732.2 | 2118.5 | 2710.4 | 2981.7 |
| 04 | -15.60 | 171.00 | 3480.0 | 1.805 | 2624.6 | 1896.0 | 2001.5 | 2447.5 | 3248.4 | 3573.6 |
| 04 | -15.80 | 171.00 | 3658.8 | 1.789 | 2691.3 | 1975.7 | 2063.7 | 2523.5 | 3353.6 | 3689.3 |
| 04 | -16.00 | 171.00 | 3800.0 | 1.782 | 2757.9 | 2044.0 | 2121.8 | 2594.5 | 3450.5 | 3796.0 |
| 04 | -16.20 | 171.00 | 3974.0 | 1.769 | 2824.5 | 2122.3 | 2183.4 | 2669.9 | 3554.6 | 3910.5 |
| 04 | -16.40 | 171.00 | 4202.0 | 1.747 | 2891.1 | 2216.8 | 2250.9 | 2752.4 | 3670.4 | 4037.9 |
| 04 | -16.60 | 171.00 | 4430.0 | 1.728 | 2957.7 | 2311.3 | 2318.4 | 2834.9 | 3786.2 | 4165.3 |
| 04 | -16.60 | 171.00 | 4430.0 | 1.728 | 2957.7 | 2311.3 | 2318.4 | 2834.9 | 3786.2 | 4165.3 |
| 05 | -16.60 | 200.00 | 5000.0 | 1.645 | 2957.7 | 2483.4 | 2380.3 | 2910.6 | 3909.9 | 4301.3 |
| 05 | -16.80 | 200.00 | 5000.0 | 1.692 | 3035.6 | 2553.5 | 2444.7 | 2989.3 | 4016.3 | 4418.3 |
| 05 | -17.00 | 200.00 | 5000.0 | 1.738 | 3113.5 | 2623.7 | 2509.1 | 3068.1 | 4122.6 | 4535.3 |
| 05 | -17.20 | 200.00 | 5000.0 | 1.785 | 3191.4 | 2693.8 | 2573.5 | 3146.8 | 4229.0 | 4652.4 |
| 05 | -17.40 | 200.00 | 5000.0 | 1.831 | 3269.4 | 2763.9 | 2637.9 | 3225.5 | 4335.4 | 4769.4 |
| 05 | -17.60 | 200.00 | 5000.0 | 1.877 | 3347.3 | 2834.0 | 2702.3 | 3304.3 | 4441.7 | 4886.4 |
| 05 | -17.80 | 200.00 | 5000.0 | 1.924 | 3425.2 | 2904.2 | 2766.6 | 3383.0 | 4548.1 | 5003.4 |
| 05 | -18.00 | 200.00 | 5000.0 | 1.970 | 3503.1 | 2974.3 | 2831.0 | 3461.7 | 4654.5 | 5120.4 |
| 05 | -18.20 | 200.00 | 5000.0 | 2.000 | 3581.0 | 3019.1 | 2886.3 | 3529.3 | 4742.7 | 5217.5 |
| 05 | -18.40 | 200.00 | 5000.0 | 2.000 | 3658.9 | 3019.1 | 2925.5 | 3577.3 | 4798.7 | 5279.0 |
| 05 | -18.60 | 200.00 | 5000.0 | 2.000 | 3736.8 | 3019.1 | 2964.7 | 3625.2 | 4854.6 | 5340.6 |
| 05 | -18.80 | 200.00 | 5000.0 | 2.000 | 3814.7 | 3019.1 | 3003.8 | 3673.1 | 4910.6 | 5402.2 |
| 05 | -19.00 | 200.00 | 5000.0 | 2.000 | 3892.7 | 3019.1 | 3043.0 | 3721.0 | 4966.6 | 5463.8 |
| 05 | -19.20 | 200.00 | 5000.0 | 2.000 | 3970.6 | 3019.1 | 3082.2 | 3768.9 | 5022.6 | 5525.4 |
| 05 | -19.40 | 200.00 | 5000.0 | 2.000 | 4048.5 | 3019.1 | 3121.4 | 3816.9 | 5078.6 | 5587.0 |
| 05 | -19.60 | 200.00 | 5000.0 | 2.000 | 4126.4 | 3019.1 | 3160.5 | 3864.8 | 5134.6 | 5648.6 |
| 05 | -19.80 | 200.00 | 5000.0 | 2.000 | 4204.3 | 3019.1 | 3199.7 | 3912.7 | 5190.5 | 5710.2 |
| 05 | -20.00 | 200.00 | 5000.0 | 2.000 | 4282.2 | 3019.1 | 3238.9 | 3960.6 | 5246.5 | 5771.8 |
| 05 | -20.20 | 200.00 | 5000.0 | 2.000 | 4360.1 | 3019.1 | 3278.0 | 4008.5 | 5302.5 | 5833.4 |
| 05 | -20.40 | 200.00 | 5000.0 | 2.000 | 4438.0 | 3019.1 | 3317.2 | 4056.4 | 5358.5 | 5894.9 |
| 05 | -20.60 | 200.00 | 5000.0 | 2.000 | 4515.9 | 3019.1 | 3356.4 | 4104.4 | 5414.5 | 5956.5 |
| 05 | -20.80 | 200.00 | 5000.0 | 2.000 | 4593.9 | 3019.1 | 3395.5 | 4152.3 | 5470.5 | 6018.1 |
| 05 | -21.00 | 200.00 | 5000.0 | 2.000 | 4671.8 | 3019.1 | 3434.7 | 4200.2 | 5526.5 | 6079.7 |
| 05 | -21.20 | 200.00 | 5000.0 | 2.000 | 4749.7 | 3019.1 | 3473.9 | 4248.1 | 5582.4 | 6141.3 |
| 05 | -21.40 | 200.00 | 5000.0 | 2.000 | 4827.6 | 3019.1 | 3513.1 | 4296.0 | 5638.4 | 6202.9 |
| 05 | -21.60 | 200.00 | 5000.0 | 2.000 | 4905.5 | 3019.1 | 3552.2 | 4343.9 | 5694.4 | 6264.5 |
| 05 | -21.80 | 200.00 | 5000.0 | 2.000 | 4983.4 | 3019.1 | 3591.4 | 4391.9 | 5750.4 | 6326.1 |
| 05 | -22.00 | 200.00 | 5000.0 | 2.000 | 5061.3 | 3019.1 | 3630.6 | 4439.8 | 5806.4 | 6387.7 |
| 05 | -22.10 | 200.00 | 5000.0 | 2.000 | 5100.3 | 3019.1 | 3650.2 | 4463.7 | 5834.4 | 6418.5 |

# Capacité du pieu pour chaque combinaison en fonction de la profondeur



# Données

Titre du projet : Eco-Village d'entreprises à Carrère (pieu n°1)  
Numéro d'affaire : 22-1222  
Commentaires : Sondage SP5  
Titre du calcul : Titre du calcul  
Cadre réglementaire : EC 7 - Norme NF P94-262/A1 (juillet 2018)  
Méthode de dimensionnement : A partir des résultats pressiométriques  
Traitement des données : Traitement par couches  
Pas du calcul (m) : 0,20  
Section de calcul : Section de calcul circulaire  
Diamètre de calcul (m) : 0,72  
Classe du pieu : 2 - Pieu tarière creuse  
Catégorie du pieu : 6 [FTC, FTCD] - Foré tarière creuse simple rotation, ou double rotation  
Mode de chargement : Travail en compression

## Combinaisons

|                                 | ELS-QP | ELS-CARAC | ELU-FOND | ELU-ACC |
|---------------------------------|--------|-----------|----------|---------|
| Pondérations combinées sur Qs.k | 0,636  | 0,778     | 0,909    | 1,000   |
| Pondérations combinées sur Qp.k | 0,455  | 0,556     | 0,909    | 1,000   |

Cote de référence (m) : 7,90

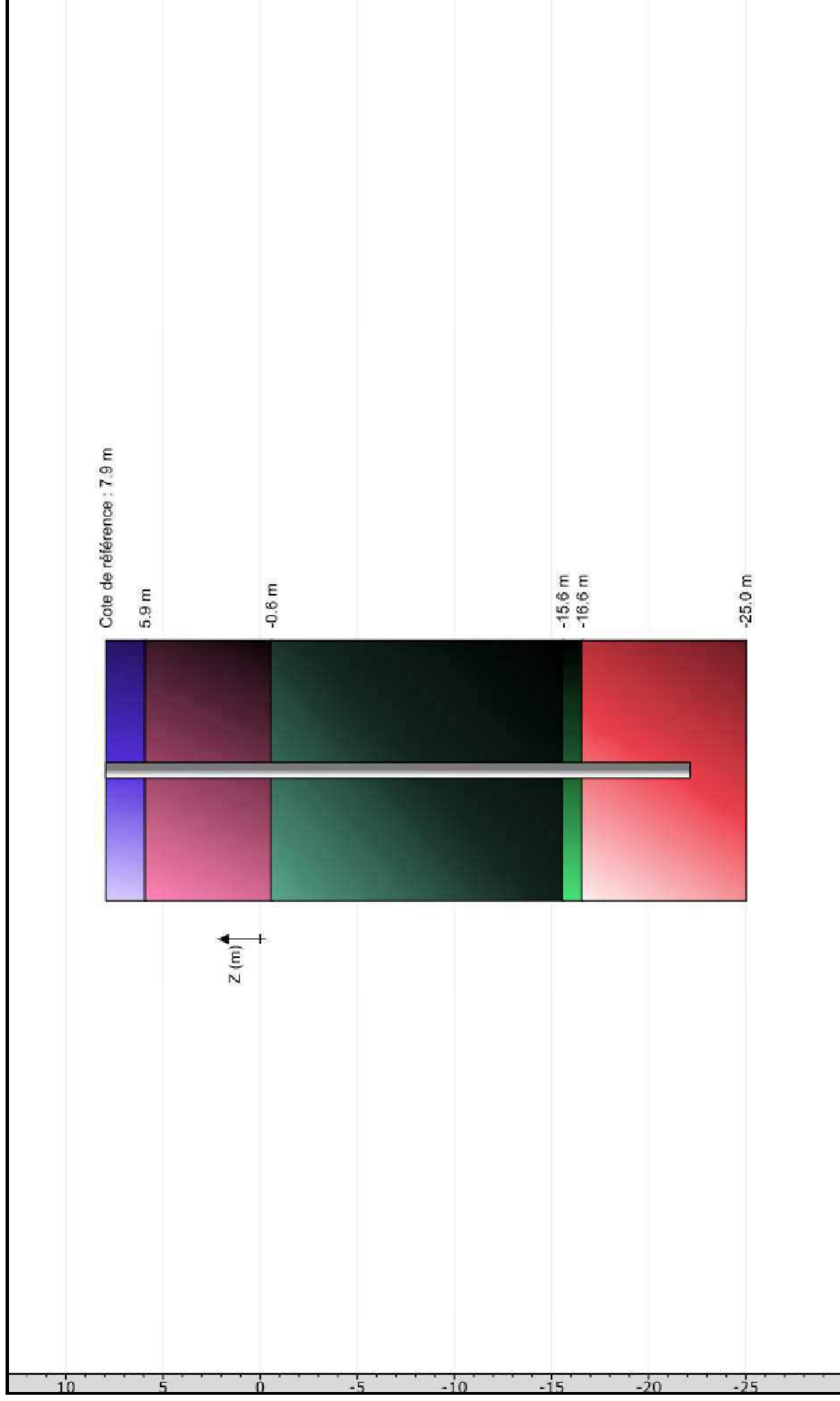
## Définition des couches de sol

| No | Nom                                       | Couleur | Classe de sol               | Zbase  | pl*     | qsl    | kpmax | $\sqrt{R_s.d1 \times \gamma R_s.d2}$ |
|----|-------------------------------------------|---------|-----------------------------|--------|---------|--------|-------|--------------------------------------|
| 1  | Remblais                                  |         | Argile, limons              | 5,90   | 460,00  | 0,00   | 1,30  | 1,265                                |
| 2  | Argile d'altération                       |         | Argile, limons              | -0,60  | 600,00  | 55,00  | 1,30  | 1,265                                |
| 3  | Lave altérée argilisée raide à très raide |         | Argile, limons              | -15,60 | 1400,00 | 66,00  | 1,30  | 1,265                                |
| 4  | Lave altérée argilisée très raide         |         | Roche altérée et fragmentée | -16,60 | 2720,00 | 171,00 | 2,00  | 1,265                                |
| 5  | Lave +/- altérée aspect rocheux           |         | Roche altérée et fragmentée | -25,00 | 5000,00 | 200,00 | 2,00  | 1,265                                |

Critère de calcul : Longueur imposée

Longueur du pieu (m) : 30,00

# Onglet "Paramètres généraux"



File : C:\Users\morel\AppData\Local\Temp\Terrasol\FoXta v3\3812\temp[FP]-1.resu

Calcul réalisé le : 06/09/2022 à 13h13  
par : MAGMA CARAIBES

## Options du calcul :

- calcul basé sur des paramètres issus du pressiomètre de Ménard
- calcul selon les règles de la norme NF P 94 262
- profil de pression limite pl\* défini par couche
- pour pieu de catégorie : 6
- pour pieu travaillant en compression

| Combinaisons | ELS-QP | ELS-CARA | ELU-FOND | ELU-ACC |
|--------------|--------|----------|----------|---------|
| Frottement   | 0.636  | 0.778    | 0.909    | 1.000   |
| Pointe       | 0.455  | 0.556    | 0.909    | 1.000   |

Cote de référence : 7.900

Section du pieu : 0.407

Périmètre : 2.262

## Caractéristiques des couches (données utilisateur)

| couche | base   | pl*    | qsl    | kpmin | kpmax | gamrd |
|--------|--------|--------|--------|-------|-------|-------|
| 01     | 5.90   | 460.0  | 0.00   | 1.00  | 1.30  | 1.26  |
| 02     | -0.60  | 600.0  | 55.00  | 1.00  | 1.30  | 1.26  |
| 03     | -15.60 | 1400.0 | 66.00  | 1.00  | 1.30  | 1.26  |
| 04     | -16.60 | 2720.0 | 171.00 | 1.00  | 2.00  | 1.26  |
| 05     | -25.00 | 5000.0 | 200.00 | 1.00  | 2.00  | 1.26  |

Pas du calcul : 0.20

\*\*\*\*\*  
 \*\*\*SOLUTION\*\*\*  
 \*\*\*\*\*

Calcul à longueur imposée : L = 30.00

| couche | cote | qsl   | ple   | kp    | Qs    | Qp    | ELS-QP | ELS-CARA | ELU-FOND | ELU-ACC |
|--------|------|-------|-------|-------|-------|-------|--------|----------|----------|---------|
| 01     | 7.90 | 0.00  | 460.0 | 1.000 | 0.0   | 187.3 | 67.4   | 82.3     | 134.6    | 148.1   |
| 01     | 7.70 | 0.00  | 460.0 | 1.017 | 0.0   | 190.4 | 68.5   | 83.7     | 136.8    | 150.5   |
| 01     | 7.50 | 0.00  | 460.0 | 1.033 | 0.0   | 193.5 | 69.6   | 85.1     | 139.1    | 153.0   |
| 01     | 7.30 | 0.00  | 467.0 | 1.049 | 0.0   | 199.5 | 71.8   | 87.7     | 143.4    | 157.7   |
| 01     | 7.10 | 0.00  | 481.0 | 1.064 | 0.0   | 208.3 | 74.9   | 91.6     | 149.7    | 164.7   |
| 01     | 6.90 | 0.00  | 495.0 | 1.077 | 0.0   | 217.1 | 78.1   | 95.4     | 156.0    | 171.7   |
| 01     | 6.70 | 0.00  | 509.0 | 1.090 | 0.0   | 226.0 | 81.3   | 99.3     | 162.4    | 178.6   |
| 01     | 6.50 | 0.00  | 523.0 | 1.103 | 0.0   | 234.8 | 84.5   | 103.2    | 168.7    | 185.6   |
| 01     | 6.30 | 0.00  | 537.0 | 1.114 | 0.0   | 243.6 | 87.6   | 107.1    | 175.1    | 192.6   |
| 01     | 6.10 | 0.00  | 551.0 | 1.125 | 0.0   | 252.4 | 90.8   | 111.0    | 181.4    | 199.6   |
| 01     | 5.90 | 0.00  | 565.0 | 1.136 | 0.0   | 261.3 | 94.0   | 114.8    | 187.7    | 206.5   |
| 01     | 5.90 | 0.00  | 565.0 | 1.136 | 0.0   | 261.3 | 94.0   | 114.8    | 187.7    | 206.5   |
| 02     | 5.90 | 55.00 | 600.0 | 1.128 | 0.0   | 275.5 | 99.1   | 121.1    | 198.0    | 217.8   |
| 02     | 5.70 | 55.00 | 600.0 | 1.144 | 24.9  | 279.6 | 113.1  | 138.2    | 218.8    | 240.7   |
| 02     | 5.50 | 55.00 | 600.0 | 1.161 | 49.8  | 283.6 | 127.0  | 155.3    | 239.6    | 263.6   |
| 02     | 5.30 | 55.00 | 600.0 | 1.178 | 74.6  | 287.7 | 141.0  | 172.4    | 260.4    | 286.5   |
| 02     | 5.10 | 55.00 | 600.0 | 1.194 | 99.5  | 291.8 | 155.0  | 189.5    | 281.2    | 309.3   |
| 02     | 4.90 | 55.00 | 600.0 | 1.211 | 124.4 | 295.9 | 169.0  | 206.6    | 302.0    | 332.2   |
| 02     | 4.70 | 55.00 | 600.0 | 1.228 | 149.3 | 299.9 | 182.9  | 223.6    | 322.8    | 355.1   |
| 02     | 4.50 | 55.00 | 600.0 | 1.244 | 174.2 | 304.0 | 196.9  | 240.7    | 343.6    | 378.0   |



**FoXta v3**  
v3.3.6

Imprimé le : 06/09/2022 - 13:13:31  
 Calcul réalisé par : MAGMA CARAIBES  
 Projet : SP5\_compression  
 Module : Fondprof (Pieu 1/1)

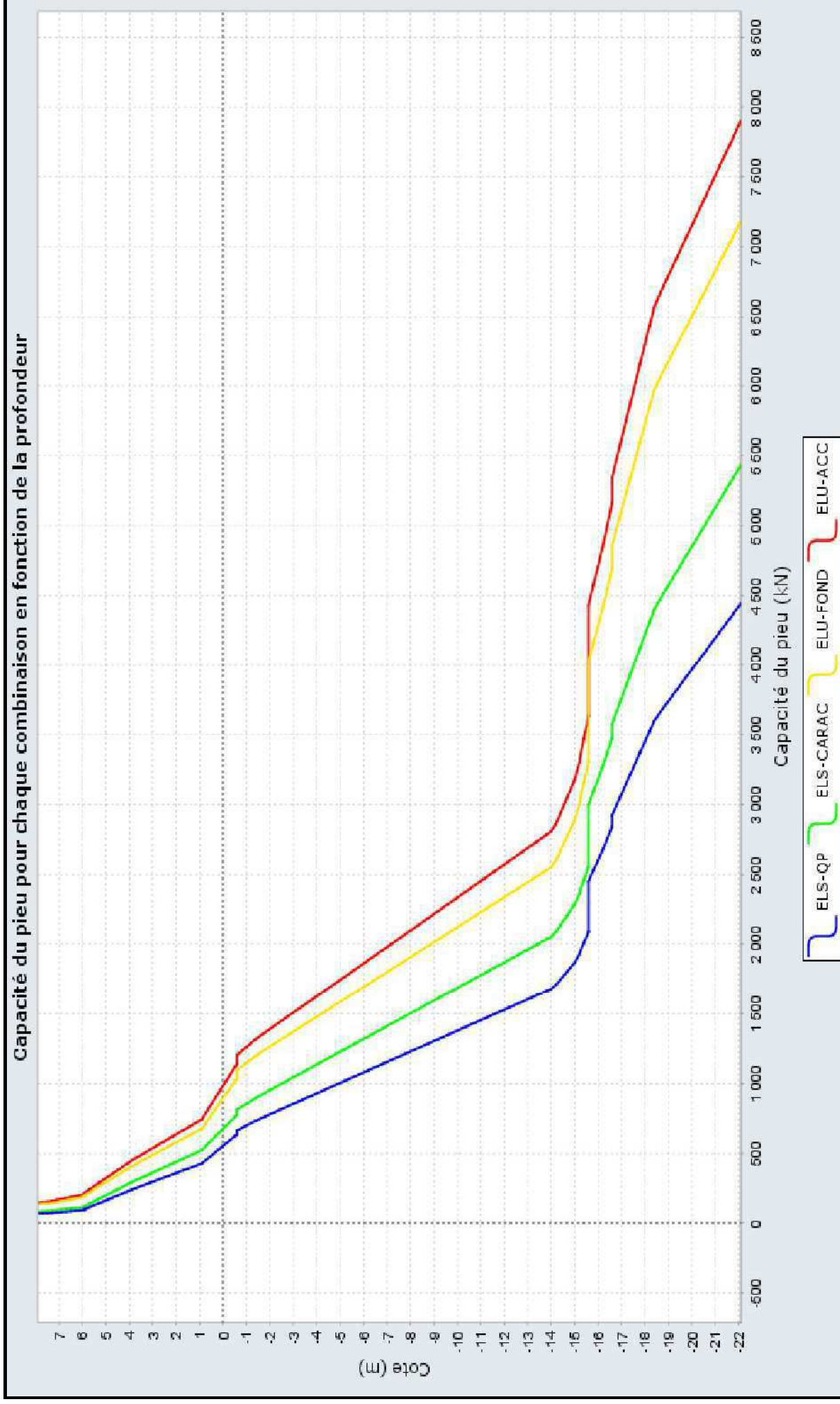


|    |        |       |        |       |        |       |        |        |        |        |
|----|--------|-------|--------|-------|--------|-------|--------|--------|--------|--------|
| 02 | 4.30   | 55.00 | 600.0  | 1.261 | 199.1  | 308.1 | 210.9  | 257.8  | 364.4  | 400.9  |
| 02 | 4.10   | 55.00 | 600.0  | 1.278 | 223.9  | 312.1 | 224.9  | 274.9  | 385.2  | 423.8  |
| 02 | 3.90   | 55.00 | 600.0  | 1.294 | 248.8  | 316.2 | 238.8  | 292.0  | 406.0  | 446.7  |
| 02 | 3.70   | 55.00 | 600.0  | 1.300 | 273.7  | 317.6 | 251.8  | 307.9  | 424.9  | 467.4  |
| 02 | 3.50   | 55.00 | 600.0  | 1.300 | 298.6  | 317.6 | 264.3  | 323.2  | 442.8  | 487.1  |
| 02 | 3.30   | 55.00 | 600.0  | 1.300 | 323.5  | 317.6 | 276.9  | 338.5  | 460.6  | 506.7  |
| 02 | 3.10   | 55.00 | 600.0  | 1.300 | 348.3  | 317.6 | 289.4  | 353.8  | 478.5  | 526.4  |
| 02 | 2.90   | 55.00 | 600.0  | 1.300 | 373.2  | 317.6 | 301.9  | 369.1  | 496.4  | 546.1  |
| 02 | 2.70   | 55.00 | 600.0  | 1.300 | 398.1  | 317.6 | 314.4  | 384.4  | 514.3  | 565.8  |
| 02 | 2.50   | 55.00 | 600.0  | 1.300 | 423.0  | 317.6 | 326.9  | 399.7  | 532.2  | 585.4  |
| 02 | 2.30   | 55.00 | 600.0  | 1.300 | 447.9  | 317.6 | 339.4  | 415.0  | 550.0  | 605.1  |
| 02 | 2.10   | 55.00 | 600.0  | 1.300 | 472.7  | 317.6 | 351.9  | 430.3  | 567.9  | 624.8  |
| 02 | 1.90   | 55.00 | 600.0  | 1.300 | 497.6  | 317.6 | 364.4  | 445.6  | 585.8  | 644.4  |
| 02 | 1.70   | 55.00 | 600.0  | 1.300 | 522.5  | 317.6 | 376.9  | 460.9  | 603.7  | 664.1  |
| 02 | 1.50   | 55.00 | 600.0  | 1.300 | 547.4  | 317.6 | 389.4  | 476.2  | 621.5  | 683.8  |
| 02 | 1.30   | 55.00 | 600.0  | 1.300 | 572.3  | 317.6 | 401.9  | 491.5  | 639.4  | 703.4  |
| 02 | 1.10   | 55.00 | 600.0  | 1.300 | 597.2  | 317.6 | 414.5  | 506.8  | 657.3  | 723.1  |
| 02 | 0.90   | 55.00 | 600.0  | 1.300 | 622.0  | 317.6 | 427.0  | 522.1  | 675.2  | 742.8  |
| 02 | 0.70   | 55.00 | 680.0  | 1.300 | 646.9  | 359.9 | 454.7  | 556.1  | 723.5  | 795.9  |
| 02 | 0.50   | 55.00 | 760.0  | 1.300 | 671.8  | 402.3 | 482.4  | 590.0  | 771.8  | 849.1  |
| 02 | 0.30   | 55.00 | 840.0  | 1.300 | 696.7  | 444.6 | 510.2  | 623.9  | 820.1  | 902.2  |
| 02 | 0.10   | 55.00 | 920.0  | 1.300 | 721.6  | 487.0 | 537.9  | 657.8  | 868.4  | 955.3  |
| 02 | -0.10  | 55.00 | 1000.0 | 1.300 | 746.4  | 529.3 | 565.7  | 691.7  | 916.7  | 1008.5 |
| 02 | -0.30  | 55.00 | 1080.0 | 1.300 | 771.3  | 571.6 | 593.4  | 725.6  | 965.0  | 1061.6 |
| 02 | -0.50  | 55.00 | 1160.0 | 1.300 | 796.2  | 614.0 | 621.1  | 759.5  | 1013.3 | 1114.8 |
| 02 | -0.60  | 55.00 | 1200.0 | 1.293 | 808.6  | 631.8 | 633.8  | 775.0  | 1035.1 | 1138.7 |
| 03 | -0.60  | 66.00 | 1400.0 | 1.251 | 808.6  | 713.3 | 663.1  | 810.8  | 1093.6 | 1203.1 |
| 03 | -0.80  | 66.00 | 1400.0 | 1.263 | 838.5  | 719.6 | 680.4  | 832.0  | 1119.6 | 1231.7 |
| 03 | -1.00  | 66.00 | 1400.0 | 1.274 | 868.4  | 726.0 | 697.7  | 853.2  | 1145.7 | 1260.4 |
| 03 | -1.20  | 66.00 | 1400.0 | 1.285 | 898.2  | 732.4 | 715.0  | 874.3  | 1171.7 | 1289.0 |
| 03 | -1.40  | 66.00 | 1400.0 | 1.295 | 928.1  | 738.3 | 732.2  | 895.3  | 1197.4 | 1317.3 |
| 03 | -1.60  | 66.00 | 1400.0 | 1.300 | 957.9  | 741.0 | 748.1  | 914.8  | 1220.8 | 1343.0 |
| 03 | -1.80  | 66.00 | 1400.0 | 1.300 | 987.8  | 741.0 | 763.2  | 933.2  | 1242.3 | 1366.6 |
| 03 | -2.00  | 66.00 | 1400.0 | 1.300 | 1017.6 | 741.0 | 778.2  | 951.6  | 1263.7 | 1390.2 |
| 03 | -2.20  | 66.00 | 1400.0 | 1.300 | 1047.5 | 741.0 | 793.2  | 969.9  | 1285.2 | 1413.9 |
| 03 | -2.40  | 66.00 | 1400.0 | 1.300 | 1077.4 | 741.0 | 808.2  | 988.3  | 1306.6 | 1437.5 |
| 03 | -2.60  | 66.00 | 1400.0 | 1.300 | 1107.2 | 741.0 | 823.2  | 1006.7 | 1328.1 | 1461.1 |
| 03 | -2.80  | 66.00 | 1400.0 | 1.300 | 1137.1 | 741.0 | 838.2  | 1025.0 | 1349.6 | 1484.7 |
| 03 | -3.00  | 66.00 | 1400.0 | 1.300 | 1166.9 | 741.0 | 853.2  | 1043.4 | 1371.0 | 1508.3 |
| 03 | -3.20  | 66.00 | 1400.0 | 1.300 | 1196.8 | 741.0 | 868.2  | 1061.7 | 1392.5 | 1531.9 |
| 03 | -3.40  | 66.00 | 1400.0 | 1.300 | 1226.7 | 741.0 | 883.3  | 1080.1 | 1413.9 | 1555.5 |
| 03 | -3.60  | 66.00 | 1400.0 | 1.300 | 1256.5 | 741.0 | 898.3  | 1098.5 | 1435.4 | 1579.1 |
| 03 | -3.80  | 66.00 | 1400.0 | 1.300 | 1286.4 | 741.0 | 913.3  | 1116.8 | 1456.8 | 1602.7 |
| 03 | -4.00  | 66.00 | 1400.0 | 1.300 | 1316.2 | 741.0 | 928.3  | 1135.2 | 1478.3 | 1626.3 |
| 03 | -4.20  | 66.00 | 1400.0 | 1.300 | 1346.1 | 741.0 | 943.3  | 1153.6 | 1499.7 | 1649.9 |
| 03 | -4.40  | 66.00 | 1400.0 | 1.300 | 1375.9 | 741.0 | 958.3  | 1171.9 | 1521.2 | 1673.5 |
| 03 | -4.60  | 66.00 | 1400.0 | 1.300 | 1405.8 | 741.0 | 973.3  | 1190.3 | 1542.7 | 1697.1 |
| 03 | -4.80  | 66.00 | 1400.0 | 1.300 | 1435.7 | 741.0 | 988.3  | 1208.7 | 1564.1 | 1720.7 |
| 03 | -5.00  | 66.00 | 1400.0 | 1.300 | 1465.5 | 741.0 | 1003.3 | 1227.0 | 1585.6 | 1744.3 |
| 03 | -5.20  | 66.00 | 1400.0 | 1.300 | 1495.4 | 741.0 | 1018.4 | 1245.4 | 1607.0 | 1767.9 |
| 03 | -5.40  | 66.00 | 1400.0 | 1.300 | 1525.2 | 741.0 | 1033.4 | 1263.7 | 1628.5 | 1791.5 |
| 03 | -5.60  | 66.00 | 1400.0 | 1.300 | 1555.1 | 741.0 | 1048.4 | 1282.1 | 1649.9 | 1815.1 |
| 03 | -5.80  | 66.00 | 1400.0 | 1.300 | 1584.9 | 741.0 | 1063.4 | 1300.5 | 1671.4 | 1838.7 |
| 03 | -6.00  | 66.00 | 1400.0 | 1.300 | 1614.8 | 741.0 | 1078.4 | 1318.8 | 1692.8 | 1862.3 |
| 03 | -6.20  | 66.00 | 1400.0 | 1.300 | 1644.7 | 741.0 | 1093.4 | 1337.2 | 1714.3 | 1885.9 |
| 03 | -6.40  | 66.00 | 1400.0 | 1.300 | 1674.5 | 741.0 | 1108.4 | 1355.6 | 1735.7 | 1909.5 |
| 03 | -6.60  | 66.00 | 1400.0 | 1.300 | 1704.4 | 741.0 | 1123.4 | 1373.9 | 1757.2 | 1933.1 |
| 03 | -6.80  | 66.00 | 1400.0 | 1.300 | 1734.2 | 741.0 | 1138.4 | 1392.3 | 1778.7 | 1956.7 |
| 03 | -7.00  | 66.00 | 1400.0 | 1.300 | 1764.1 | 741.0 | 1153.5 | 1410.6 | 1800.1 | 1980.3 |
| 03 | -7.20  | 66.00 | 1400.0 | 1.300 | 1794.0 | 741.0 | 1168.5 | 1429.0 | 1821.6 | 2003.9 |
| 03 | -7.40  | 66.00 | 1400.0 | 1.300 | 1823.8 | 741.0 | 1183.5 | 1447.4 | 1843.0 | 2027.5 |
| 03 | -7.60  | 66.00 | 1400.0 | 1.300 | 1853.7 | 741.0 | 1198.5 | 1465.7 | 1864.5 | 2051.1 |
| 03 | -7.80  | 66.00 | 1400.0 | 1.300 | 1883.5 | 741.0 | 1213.5 | 1484.1 | 1885.9 | 2074.7 |
| 03 | -8.00  | 66.00 | 1400.0 | 1.300 | 1913.4 | 741.0 | 1228.5 | 1502.5 | 1907.4 | 2098.3 |
| 03 | -8.20  | 66.00 | 1400.0 | 1.300 | 1943.2 | 741.0 | 1243.5 | 1520.8 | 1928.8 | 2121.9 |
| 03 | -8.40  | 66.00 | 1400.0 | 1.300 | 1973.1 | 741.0 | 1258.5 | 1539.2 | 1950.3 | 2145.5 |
| 03 | -8.60  | 66.00 | 1400.0 | 1.300 | 2003.0 | 741.0 | 1273.5 | 1557.6 | 1971.8 | 2169.1 |
| 03 | -8.80  | 66.00 | 1400.0 | 1.300 | 2032.8 | 741.0 | 1288.6 | 1575.9 | 1993.2 | 2192.7 |
| 03 | -9.00  | 66.00 | 1400.0 | 1.300 | 2062.7 | 741.0 | 1303.6 | 1594.3 | 2014.7 | 2216.4 |
| 03 | -9.20  | 66.00 | 1400.0 | 1.300 | 2092.5 | 741.0 | 1318.6 | 1612.6 | 2036.1 | 2240.0 |
| 03 | -9.40  | 66.00 | 1400.0 | 1.300 | 2122.4 | 741.0 | 1333.6 | 1631.0 | 2057.6 | 2263.6 |
| 03 | -9.60  | 66.00 | 1400.0 | 1.300 | 2152.2 | 741.0 | 1348.6 | 1649.4 | 2079.0 | 2287.2 |
| 03 | -9.80  | 66.00 | 1400.0 | 1.300 | 2182.1 | 741.0 | 1363.6 | 1667.7 | 2100.5 | 2310.8 |
| 03 | -10.00 | 66.00 | 1400.0 | 1.300 | 2212.0 | 741.0 | 1378.6 | 1686.1 | 2121.9 | 2334.4 |
| 03 | -10.20 | 66.00 | 1400.0 | 1.300 | 2241.8 | 741.0 | 1393.6 | 1704.5 | 2143.4 | 2358.0 |
| 03 | -10.40 | 66.00 | 1400.0 | 1.300 | 2271.7 | 741.0 | 1408.7 | 1722.8 | 2164.8 | 2381.6 |
| 03 | -10.60 | 66.00 | 1400.0 | 1.300 | 2301.5 | 741.0 | 1423.7 | 1741.2 | 2186.3 | 2405.2 |
| 03 | -10.80 | 66.00 | 1400.0 | 1.300 | 2331.4 | 741.0 | 1438.7 | 1759.5 | 2207.8 | 2428.8 |
| 03 | -11.00 | 66.00 | 1400.0 | 1.300 | 2361.2 | 741.0 | 1453.7 | 1777.9 | 2229.2 | 2452.4 |
| 03 | -11.20 | 66.00 | 1400.0 | 1.300 | 2391.1 | 741.0 | 1468.7 | 1796.3 | 2250.7 | 2476.0 |
| 03 | -11.40 | 66.00 | 1400.0 | 1.300 | 2421.0 | 741.0 | 1483.7 | 1814.6 | 2272.1 | 2499.6 |
| 03 | -11.60 | 66.00 | 1400.0 | 1.300 | 2450.8 | 741.0 | 1498.7 | 1833.0 | 2293.6 | 2523.2 |
| 03 | -11.80 | 66.00 | 1400.0 | 1.300 | 2480.7 | 741.0 | 1513.7 | 1851.4 | 2315.0 | 2546.8 |
| 03 | -12.00 | 66.00 | 1400.0 | 1.300 | 2510.5 | 741.0 | 1528.7 | 1869.7 | 2336.5 | 2570.4 |
| 03 | -12.20 | 66.00 | 1400.0 | 1.300 | 2540.4 | 741.0 | 1543.8 | 1888.1 | 2357.9 | 2594.0 |
| 03 | -12.40 | 66.00 | 1400.0 | 1.300 | 2570.3 | 741.0 | 1558.8 | 1906.4 | 2379.4 | 2617.6 |

|    |        |        |        |       |        |        |        |        |        |        |
|----|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|
| 03 | -12.60 | 66.00  | 1400.0 | 1.300 | 2600.1 | 741.0  | 1573.8 | 1924.8 | 2400.9 | 2641.2 |
| 03 | -12.80 | 66.00  | 1400.0 | 1.300 | 2630.0 | 741.0  | 1588.8 | 1943.2 | 2422.3 | 2664.8 |
| 03 | -13.00 | 66.00  | 1400.0 | 1.300 | 2659.8 | 741.0  | 1603.8 | 1961.5 | 2443.8 | 2688.4 |
| 03 | -13.20 | 66.00  | 1400.0 | 1.300 | 2689.7 | 741.0  | 1618.8 | 1979.9 | 2465.2 | 2712.0 |
| 03 | -13.40 | 66.00  | 1400.0 | 1.300 | 2719.5 | 741.0  | 1633.8 | 1998.3 | 2486.7 | 2735.6 |
| 03 | -13.60 | 66.00  | 1400.0 | 1.300 | 2749.4 | 741.0  | 1648.8 | 2016.6 | 2508.1 | 2759.2 |
| 03 | -13.80 | 66.00  | 1400.0 | 1.300 | 2779.3 | 741.0  | 1663.8 | 2035.0 | 2529.6 | 2782.8 |
| 03 | -14.00 | 66.00  | 1400.0 | 1.300 | 2809.1 | 741.0  | 1678.9 | 2053.4 | 2551.0 | 2806.4 |
| 03 | -14.20 | 66.00  | 1466.0 | 1.300 | 2839.0 | 775.9  | 1706.4 | 2087.1 | 2597.6 | 2857.6 |
| 03 | -14.40 | 66.00  | 1598.0 | 1.300 | 2868.8 | 845.8  | 1746.6 | 2136.1 | 2669.3 | 2936.5 |
| 03 | -14.60 | 66.00  | 1730.0 | 1.300 | 2898.7 | 915.7  | 1786.7 | 2185.2 | 2740.9 | 3015.3 |
| 03 | -14.80 | 66.00  | 1862.0 | 1.300 | 2928.5 | 985.5  | 1826.9 | 2234.3 | 2812.6 | 3094.1 |
| 03 | -15.00 | 66.00  | 1994.0 | 1.300 | 2958.4 | 1055.4 | 1867.0 | 2283.4 | 2884.2 | 3173.0 |
| 03 | -15.20 | 66.00  | 2240.0 | 1.300 | 2988.3 | 1185.6 | 1928.8 | 2358.9 | 2999.3 | 3299.5 |
| 03 | -15.40 | 66.00  | 2600.0 | 1.300 | 3018.1 | 1376.2 | 2012.4 | 2461.1 | 3157.6 | 3473.7 |
| 03 | -15.60 | 66.00  | 2960.0 | 1.284 | 3048.0 | 1547.2 | 2088.9 | 2554.6 | 3302.0 | 3632.5 |
| 03 | -15.60 | 66.00  | 2960.0 | 1.284 | 3048.0 | 1547.2 | 2088.9 | 2554.6 | 3302.0 | 3632.5 |
| 04 | -15.60 | 171.00 | 3480.0 | 1.805 | 3048.0 | 2556.9 | 2452.1 | 2998.4 | 4027.5 | 4430.7 |
| 04 | -15.80 | 171.00 | 3658.8 | 1.785 | 3125.3 | 2659.6 | 2527.9 | 3091.1 | 4156.9 | 4573.0 |
| 04 | -16.00 | 171.00 | 3800.0 | 1.775 | 3202.7 | 2746.9 | 2598.2 | 3177.1 | 4275.2 | 4703.2 |
| 04 | -16.20 | 171.00 | 3974.0 | 1.760 | 3280.0 | 2847.6 | 2673.3 | 3268.9 | 4403.2 | 4844.0 |
| 04 | -16.40 | 171.00 | 4202.0 | 1.736 | 3357.4 | 2970.3 | 2756.4 | 3370.4 | 4546.9 | 5002.1 |
| 04 | -16.60 | 171.00 | 4430.0 | 1.715 | 3434.8 | 3093.0 | 2839.4 | 3471.9 | 4690.7 | 5160.3 |
| 04 | -16.60 | 171.00 | 4430.0 | 1.715 | 3434.8 | 3093.0 | 2839.4 | 3471.9 | 4690.7 | 5160.3 |
| 05 | -16.60 | 200.00 | 5000.0 | 1.633 | 3434.8 | 3325.1 | 2922.9 | 3573.9 | 4857.5 | 5343.7 |
| 05 | -16.80 | 200.00 | 5000.0 | 1.673 | 3525.2 | 3406.5 | 2997.6 | 3665.3 | 4981.0 | 5479.6 |
| 05 | -17.00 | 200.00 | 5000.0 | 1.713 | 3615.7 | 3487.9 | 3072.4 | 3756.8 | 5104.5 | 5615.5 |
| 05 | -17.20 | 200.00 | 5000.0 | 1.753 | 3706.2 | 3569.4 | 3147.2 | 3848.2 | 5228.0 | 5751.4 |
| 05 | -17.40 | 200.00 | 5000.0 | 1.793 | 3796.7 | 3650.8 | 3222.0 | 3939.6 | 5351.6 | 5887.3 |
| 05 | -17.60 | 200.00 | 5000.0 | 1.833 | 3887.2 | 3732.2 | 3296.7 | 4031.1 | 5475.1 | 6023.2 |
| 05 | -17.80 | 200.00 | 5000.0 | 1.873 | 3977.6 | 3813.6 | 3371.5 | 4122.5 | 5598.6 | 6159.1 |
| 05 | -18.00 | 200.00 | 5000.0 | 1.913 | 4068.1 | 3895.1 | 3446.3 | 4214.0 | 5722.2 | 6295.0 |
| 05 | -18.20 | 200.00 | 5000.0 | 1.953 | 4158.6 | 3976.5 | 3521.1 | 4305.4 | 5845.7 | 6430.9 |
| 05 | -18.40 | 200.00 | 5000.0 | 1.993 | 4249.1 | 4057.9 | 3595.9 | 4396.8 | 5969.2 | 6566.8 |
| 05 | -18.60 | 200.00 | 5000.0 | 2.000 | 4339.5 | 4071.5 | 3646.2 | 4458.4 | 6044.0 | 6649.1 |
| 05 | -18.80 | 200.00 | 5000.0 | 2.000 | 4430.0 | 4071.5 | 3691.7 | 4514.1 | 6109.0 | 6720.6 |
| 05 | -19.00 | 200.00 | 5000.0 | 2.000 | 4520.5 | 4071.5 | 3737.2 | 4569.7 | 6174.0 | 6792.1 |
| 05 | -19.20 | 200.00 | 5000.0 | 2.000 | 4611.0 | 4071.5 | 3782.7 | 4625.4 | 6239.0 | 6863.6 |
| 05 | -19.40 | 200.00 | 5000.0 | 2.000 | 4701.5 | 4071.5 | 3828.2 | 4681.0 | 6304.0 | 6935.1 |
| 05 | -19.60 | 200.00 | 5000.0 | 2.000 | 4791.9 | 4071.5 | 3873.7 | 4736.7 | 6369.1 | 7006.7 |
| 05 | -19.80 | 200.00 | 5000.0 | 2.000 | 4882.4 | 4071.5 | 3919.2 | 4792.3 | 6434.1 | 7078.2 |
| 05 | -20.00 | 200.00 | 5000.0 | 2.000 | 4972.9 | 4071.5 | 3964.7 | 4848.0 | 6499.1 | 7149.7 |
| 05 | -20.20 | 200.00 | 5000.0 | 2.000 | 5063.4 | 4071.5 | 4010.1 | 4903.6 | 6564.1 | 7221.2 |
| 05 | -20.40 | 200.00 | 5000.0 | 2.000 | 5153.8 | 4071.5 | 4055.6 | 4959.2 | 6629.1 | 7292.8 |
| 05 | -20.60 | 200.00 | 5000.0 | 2.000 | 5244.3 | 4071.5 | 4101.1 | 5014.9 | 6694.1 | 7364.3 |
| 05 | -20.80 | 200.00 | 5000.0 | 2.000 | 5334.8 | 4071.5 | 4146.6 | 5070.5 | 6759.2 | 7435.8 |
| 05 | -21.00 | 200.00 | 5000.0 | 2.000 | 5425.3 | 4071.5 | 4192.1 | 5126.2 | 6824.2 | 7507.3 |
| 05 | -21.20 | 200.00 | 5000.0 | 2.000 | 5515.8 | 4071.5 | 4237.6 | 5181.8 | 6889.2 | 7578.9 |
| 05 | -21.40 | 200.00 | 5000.0 | 2.000 | 5606.2 | 4071.5 | 4283.1 | 5237.5 | 6954.2 | 7650.4 |
| 05 | -21.60 | 200.00 | 5000.0 | 2.000 | 5696.7 | 4071.5 | 4328.6 | 5293.1 | 7019.2 | 7721.9 |
| 05 | -21.80 | 200.00 | 5000.0 | 2.000 | 5787.2 | 4071.5 | 4374.1 | 5348.8 | 7084.2 | 7793.4 |
| 05 | -22.00 | 200.00 | 5000.0 | 2.000 | 5877.7 | 4071.5 | 4419.6 | 5404.4 | 7149.2 | 7865.0 |
| 05 | -22.10 | 200.00 | 5000.0 | 2.000 | 5922.9 | 4071.5 | 4442.3 | 5432.2 | 7181.8 | 7900.7 |



# Capacité du pieu pour chaque combinaison en fonction de la profondeur



# Données

Titre du projet : Eco-Village d'entreprises à Carrère (pieu n°1)  
Numéro d'affaire : 22-1222  
Commentaires : Sondage SP5  
Titre du calcul : Titre du calcul  
Cadre réglementaire : EC 7 - Norme NF P94-262/A1 (juillet 2018)  
Méthode de dimensionnement : A partir des résultats pressiométriques  
Traitement des données : Traitement par couches  
Pas du calcul (m) : 0,20  
Section de calcul : Section de calcul circulaire  
Diamètre de calcul (m) : 0,82  
Classe du pieu : 2 - Pieu tarière creuse  
Catégorie du pieu : 6 [FTC, FTCD] - Foré tarière creuse simple rotation, ou double rotation  
Mode de chargement : Travail en compression

## Combinaisons

|                                 | ELS-QP | ELS-CARAC | ELU-FOND | ELU-ACC |
|---------------------------------|--------|-----------|----------|---------|
| Pondérations combinées sur Qs.k | 0,636  | 0,778     | 0,909    | 1,000   |
| Pondérations combinées sur Qp.k | 0,455  | 0,556     | 0,909    | 1,000   |

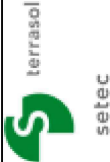
Cote de référence (m) : 7,90

## Définition des couches de sol

| No | Nom                                       | Couleur | Classe de sol               | Zbase  | pl*     | qsl    | kpmax | $\sqrt{R_s.d1 \times \gamma R_s.d2}$ |
|----|-------------------------------------------|---------|-----------------------------|--------|---------|--------|-------|--------------------------------------|
| 1  | Remblais                                  |         | Argile, limons              | 5,90   | 460,00  | 0,00   | 1,30  | 1,265                                |
| 2  | Argile d'altération                       |         | Argile, limons              | -0,60  | 600,00  | 55,00  | 1,30  | 1,265                                |
| 3  | Lave altérée argilisée raide à très raide |         | Argile, limons              | -15,60 | 1400,00 | 66,00  | 1,30  | 1,265                                |
| 4  | Lave altérée argilisée très raide         |         | Roche altérée et fragmentée | -16,60 | 2720,00 | 171,00 | 2,00  | 1,265                                |
| 5  | Lave +/- altérée aspect rocheux           |         | Roche altérée et fragmentée | -25,00 | 5000,00 | 200,00 | 2,00  | 1,265                                |

Critère de calcul : Longueur imposée

Longueur du pieu (m) : 30,00

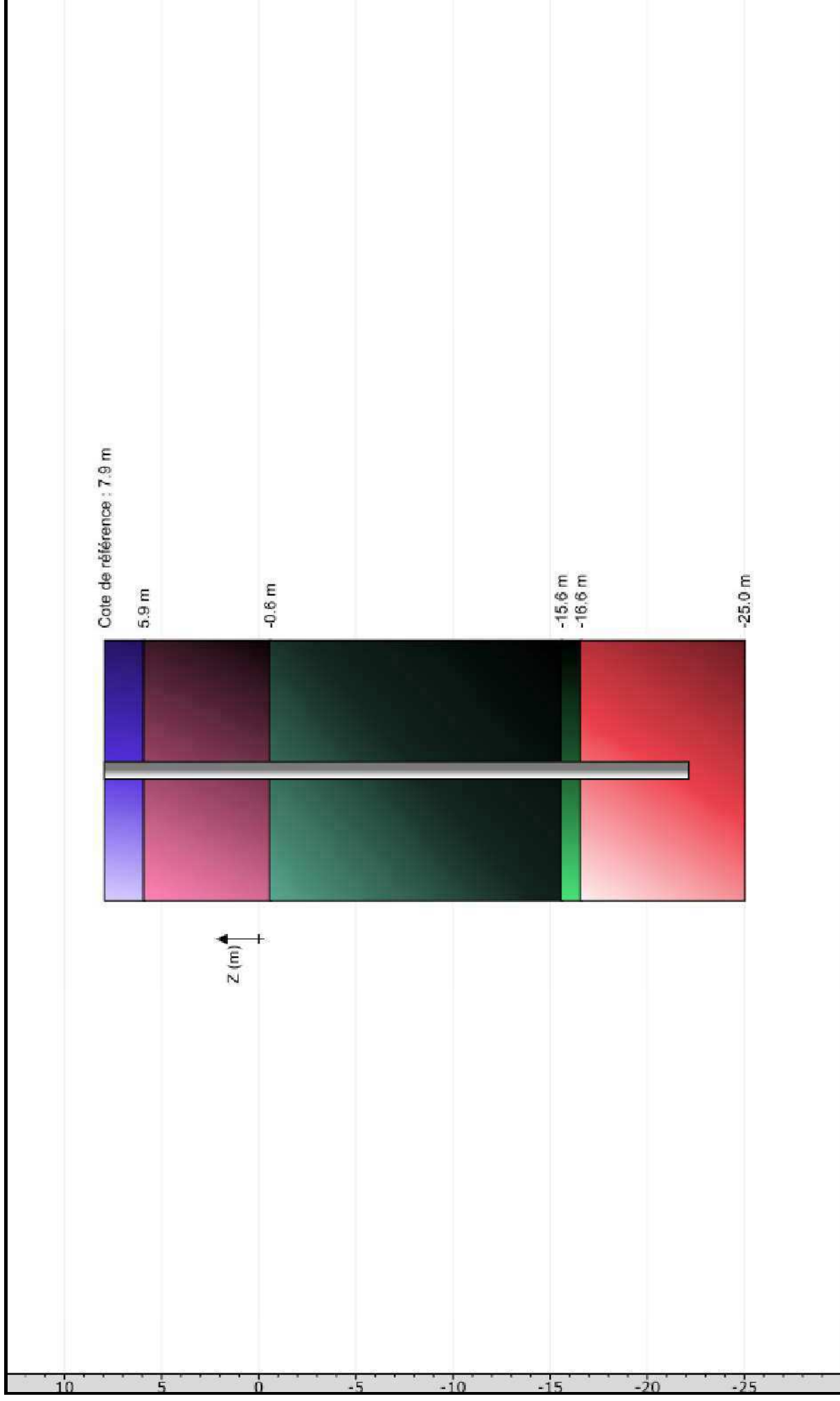


FoXta v3  
v3.3.6

Imprimé le : 06/09/2022 - 13:13:57  
Calcul réalisé par : MAGMA CARAIBES

Projet : SP5\_compression  
Module : Fondprof (Pieu 1/1)

# Onglet "Paramètres généraux"



File : C:\Users\morel\AppData\Local\Temp\Terrasol\FoXta v3\3812\temp[FP]-1.resu

Calcul réalisé le : 06/09/2022 à 13h13  
par : MAGMA CARAIBES

## Options du calcul :

- calcul basé sur des paramètres issus du pressiomètre de Ménard
- calcul selon les règles de la norme NF P 94 262
- profil de pression limite pl\* défini par couche
- pour pieu de catégorie : 6
- pour pieu travaillant en compression

| Combinaisons | ELS-QP | ELS-CARA | ELU-FOND | ELU-ACC |
|--------------|--------|----------|----------|---------|
| Frottement   | 0.636  | 0.778    | 0.909    | 1.000   |
| Pointe       | 0.455  | 0.556    | 0.909    | 1.000   |

Cote de référence : 7.900

Section du pieu : 0.528  
Périmètre : 2.576

## Caractéristiques des couches (données utilisateur)

| couche | base   | pl*    | qsl    | kpmin | kpmax | gamrd |
|--------|--------|--------|--------|-------|-------|-------|
| 01     | 5.90   | 460.0  | 0.00   | 1.00  | 1.30  | 1.26  |
| 02     | -0.60  | 600.0  | 55.00  | 1.00  | 1.30  | 1.26  |
| 03     | -15.60 | 1400.0 | 66.00  | 1.00  | 1.30  | 1.26  |
| 04     | -16.60 | 2720.0 | 171.00 | 1.00  | 2.00  | 1.26  |
| 05     | -25.00 | 5000.0 | 200.00 | 1.00  | 2.00  | 1.26  |

Pas du calcul : 0.20

\*\*\*\*\*  
\*\*\*SOLUTION\*\*\*  
\*\*\*\*\*

Calcul à longueur imposée : L = 30.00

| couche | cote | qsl   | ple   | kp    | Qs    | Qp    | ELS-QP | ELS-CARA | ELU-FOND | ELU-ACC |
|--------|------|-------|-------|-------|-------|-------|--------|----------|----------|---------|
| 01     | 7.90 | 0.00  | 460.0 | 1.000 | 0.0   | 242.9 | 87.4   | 106.8    | 174.6    | 192.0   |
| 01     | 7.70 | 0.00  | 460.0 | 1.015 | 0.0   | 246.5 | 88.7   | 108.3    | 177.1    | 194.8   |
| 01     | 7.50 | 0.00  | 460.0 | 1.029 | 0.0   | 250.0 | 89.9   | 109.9    | 179.7    | 197.7   |
| 01     | 7.30 | 0.00  | 467.0 | 1.043 | 0.0   | 257.3 | 92.5   | 113.1    | 184.9    | 203.4   |
| 01     | 7.10 | 0.00  | 481.0 | 1.056 | 0.0   | 268.2 | 96.5   | 117.9    | 192.7    | 212.0   |
| 01     | 6.90 | 0.00  | 495.0 | 1.068 | 0.0   | 279.2 | 100.4  | 122.7    | 200.6    | 220.7   |
| 01     | 6.70 | 0.00  | 509.0 | 1.079 | 0.0   | 290.1 | 104.4  | 127.5    | 208.5    | 229.4   |
| 01     | 6.50 | 0.00  | 523.0 | 1.090 | 0.0   | 301.1 | 108.3  | 132.3    | 216.4    | 238.0   |
| 01     | 6.30 | 0.00  | 537.0 | 1.100 | 0.0   | 312.0 | 112.2  | 137.1    | 224.2    | 246.7   |
| 01     | 6.10 | 0.00  | 551.0 | 1.110 | 0.0   | 323.0 | 116.2  | 142.0    | 232.1    | 255.3   |
| 01     | 5.90 | 0.00  | 565.0 | 1.119 | 0.0   | 333.9 | 120.1  | 146.8    | 240.0    | 264.0   |
| 01     | 5.90 | 0.00  | 565.0 | 1.119 | 0.0   | 333.9 | 120.1  | 146.8    | 240.0    | 264.0   |
| 02     | 5.90 | 55.00 | 600.0 | 1.112 | 0.0   | 352.4 | 126.8  | 154.9    | 253.2    | 278.6   |
| 02     | 5.70 | 55.00 | 600.0 | 1.127 | 28.3  | 357.0 | 142.7  | 174.4    | 276.9    | 304.7   |
| 02     | 5.50 | 55.00 | 600.0 | 1.141 | 56.7  | 361.7 | 158.6  | 193.8    | 300.6    | 330.7   |
| 02     | 5.30 | 55.00 | 600.0 | 1.156 | 85.0  | 366.3 | 174.5  | 213.3    | 324.3    | 356.8   |
| 02     | 5.10 | 55.00 | 600.0 | 1.171 | 113.3 | 371.0 | 190.4  | 232.8    | 348.0    | 382.9   |
| 02     | 4.90 | 55.00 | 600.0 | 1.185 | 141.7 | 375.6 | 206.3  | 252.2    | 371.7    | 408.9   |
| 02     | 4.70 | 55.00 | 600.0 | 1.200 | 170.0 | 380.2 | 222.2  | 271.7    | 395.4    | 435.0   |
| 02     | 4.50 | 55.00 | 600.0 | 1.215 | 198.4 | 384.9 | 238.2  | 291.2    | 419.1    | 461.1   |



**FoXta v3**  
v3.3.6

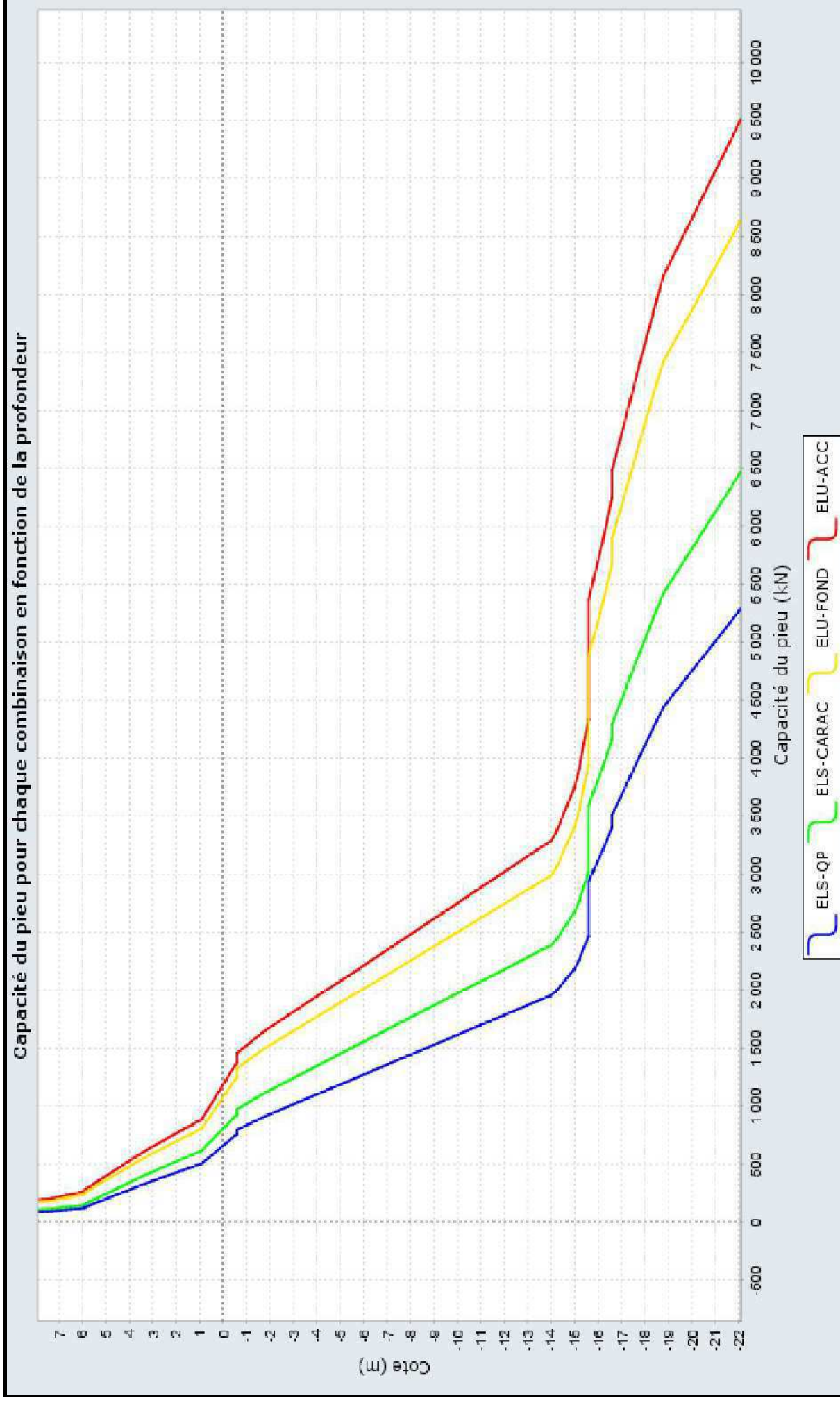
Imprimé le : 06/09/2022 - 13:13:57  
Calcul réalisé par : MAGMA CARAIBES  
Projet : SP5\_compression  
Module : Fondprof (Pieu 1/1)

|    |        |       |        |       |        |       |        |        |        |        |
|----|--------|-------|--------|-------|--------|-------|--------|--------|--------|--------|
| 02 | 4.30   | 55.00 | 600.0  | 1.229 | 226.7  | 389.5 | 254.1  | 310.6  | 442.8  | 487.1  |
| 02 | 4.10   | 55.00 | 600.0  | 1.244 | 255.0  | 394.1 | 270.0  | 330.1  | 466.5  | 513.2  |
| 02 | 3.90   | 55.00 | 600.0  | 1.259 | 283.4  | 398.8 | 285.9  | 349.6  | 490.2  | 539.3  |
| 02 | 3.70   | 55.00 | 600.0  | 1.273 | 311.7  | 403.4 | 301.8  | 369.0  | 513.9  | 565.3  |
| 02 | 3.50   | 55.00 | 600.0  | 1.288 | 340.0  | 408.1 | 317.7  | 388.5  | 537.6  | 591.4  |
| 02 | 3.30   | 55.00 | 600.0  | 1.300 | 368.4  | 411.9 | 333.4  | 407.6  | 560.7  | 616.8  |
| 02 | 3.10   | 55.00 | 600.0  | 1.300 | 396.7  | 411.9 | 347.6  | 425.0  | 581.1  | 639.2  |
| 02 | 2.90   | 55.00 | 600.0  | 1.300 | 425.1  | 411.9 | 361.9  | 442.5  | 601.4  | 661.6  |
| 02 | 2.70   | 55.00 | 600.0  | 1.300 | 453.4  | 411.9 | 376.1  | 459.9  | 621.8  | 684.0  |
| 02 | 2.50   | 55.00 | 600.0  | 1.300 | 481.7  | 411.9 | 390.4  | 477.3  | 642.2  | 706.4  |
| 02 | 2.30   | 55.00 | 600.0  | 1.300 | 510.1  | 411.9 | 404.6  | 494.8  | 662.5  | 728.8  |
| 02 | 2.10   | 55.00 | 600.0  | 1.300 | 538.4  | 411.9 | 418.9  | 512.2  | 682.9  | 751.2  |
| 02 | 1.90   | 55.00 | 600.0  | 1.300 | 566.7  | 411.9 | 433.1  | 529.6  | 703.2  | 773.6  |
| 02 | 1.70   | 55.00 | 600.0  | 1.300 | 595.1  | 411.9 | 447.3  | 547.0  | 723.6  | 796.0  |
| 02 | 1.50   | 55.00 | 600.0  | 1.300 | 623.4  | 411.9 | 461.6  | 564.5  | 744.0  | 818.4  |
| 02 | 1.30   | 55.00 | 600.0  | 1.300 | 651.8  | 411.9 | 475.8  | 581.9  | 764.3  | 840.8  |
| 02 | 1.10   | 55.00 | 600.0  | 1.300 | 680.1  | 411.9 | 490.1  | 599.3  | 784.7  | 863.3  |
| 02 | 0.90   | 55.00 | 600.0  | 1.300 | 708.4  | 411.9 | 504.3  | 616.7  | 805.1  | 885.7  |
| 02 | 0.70   | 55.00 | 680.0  | 1.300 | 736.8  | 466.8 | 538.3  | 658.3  | 864.9  | 951.5  |
| 02 | 0.50   | 55.00 | 760.0  | 1.300 | 765.1  | 521.8 | 572.3  | 699.9  | 924.7  | 1017.3 |
| 02 | 0.30   | 55.00 | 840.0  | 1.300 | 793.4  | 576.7 | 606.3  | 741.5  | 984.5  | 1083.1 |
| 02 | 0.10   | 55.00 | 920.0  | 1.300 | 821.8  | 631.6 | 640.3  | 783.0  | 1044.4 | 1148.9 |
| 02 | -0.10  | 55.00 | 1000.0 | 1.300 | 850.1  | 686.5 | 674.3  | 824.6  | 1104.2 | 1214.7 |
| 02 | -0.30  | 55.00 | 1080.0 | 1.300 | 878.5  | 741.5 | 708.3  | 866.2  | 1164.0 | 1280.6 |
| 02 | -0.50  | 55.00 | 1160.0 | 1.294 | 906.8  | 793.0 | 741.1  | 906.2  | 1221.4 | 1343.7 |
| 02 | -0.60  | 55.00 | 1200.0 | 1.285 | 921.0  | 814.6 | 756.0  | 924.5  | 1247.2 | 1372.0 |
| 03 | -0.60  | 66.00 | 1400.0 | 1.245 | 921.0  | 920.3 | 794.0  | 970.9  | 1323.1 | 1455.5 |
| 03 | -0.80  | 66.00 | 1400.0 | 1.255 | 955.0  | 927.5 | 813.7  | 995.0  | 1352.7 | 1488.1 |
| 03 | -1.00  | 66.00 | 1400.0 | 1.264 | 989.0  | 934.8 | 833.4  | 1019.1 | 1382.4 | 1520.8 |
| 03 | -1.20  | 66.00 | 1400.0 | 1.274 | 1023.0 | 942.1 | 853.2  | 1043.2 | 1412.0 | 1553.4 |
| 03 | -1.40  | 66.00 | 1400.0 | 1.284 | 1057.0 | 949.3 | 872.9  | 1067.3 | 1441.7 | 1586.0 |
| 03 | -1.60  | 66.00 | 1400.0 | 1.294 | 1091.0 | 956.6 | 892.6  | 1091.4 | 1471.3 | 1618.6 |
| 03 | -1.80  | 66.00 | 1400.0 | 1.300 | 1125.0 | 961.1 | 911.3  | 1114.3 | 1499.0 | 1649.1 |
| 03 | -2.00  | 66.00 | 1400.0 | 1.300 | 1159.0 | 961.1 | 928.4  | 1135.2 | 1523.5 | 1676.0 |
| 03 | -2.20  | 66.00 | 1400.0 | 1.300 | 1193.0 | 961.1 | 945.5  | 1156.2 | 1547.9 | 1702.9 |
| 03 | -2.40  | 66.00 | 1400.0 | 1.300 | 1227.0 | 961.1 | 962.6  | 1177.1 | 1572.4 | 1729.8 |
| 03 | -2.60  | 66.00 | 1400.0 | 1.300 | 1261.0 | 961.1 | 979.7  | 1198.0 | 1596.8 | 1756.6 |
| 03 | -2.80  | 66.00 | 1400.0 | 1.300 | 1295.0 | 961.1 | 996.8  | 1218.9 | 1621.2 | 1783.5 |
| 03 | -3.00  | 66.00 | 1400.0 | 1.300 | 1329.0 | 961.1 | 1013.9 | 1239.8 | 1645.7 | 1810.4 |
| 03 | -3.20  | 66.00 | 1400.0 | 1.300 | 1363.0 | 961.1 | 1031.0 | 1260.7 | 1670.1 | 1837.3 |
| 03 | -3.40  | 66.00 | 1400.0 | 1.300 | 1397.0 | 961.1 | 1048.1 | 1281.6 | 1694.5 | 1864.2 |
| 03 | -3.60  | 66.00 | 1400.0 | 1.300 | 1431.0 | 961.1 | 1065.2 | 1302.6 | 1719.0 | 1891.0 |
| 03 | -3.80  | 66.00 | 1400.0 | 1.300 | 1465.0 | 961.1 | 1082.3 | 1323.5 | 1743.4 | 1917.9 |
| 03 | -4.00  | 66.00 | 1400.0 | 1.300 | 1499.0 | 961.1 | 1099.4 | 1344.4 | 1767.8 | 1944.8 |
| 03 | -4.20  | 66.00 | 1400.0 | 1.300 | 1533.0 | 961.1 | 1116.5 | 1365.3 | 1792.3 | 1971.7 |
| 03 | -4.40  | 66.00 | 1400.0 | 1.300 | 1567.0 | 961.1 | 1133.6 | 1386.2 | 1816.7 | 1998.6 |
| 03 | -4.60  | 66.00 | 1400.0 | 1.300 | 1601.0 | 961.1 | 1150.7 | 1407.1 | 1841.1 | 2025.5 |
| 03 | -4.80  | 66.00 | 1400.0 | 1.300 | 1635.1 | 961.1 | 1167.8 | 1428.0 | 1865.6 | 2052.3 |
| 03 | -5.00  | 66.00 | 1400.0 | 1.300 | 1669.1 | 961.1 | 1184.9 | 1449.0 | 1890.0 | 2079.2 |
| 03 | -5.20  | 66.00 | 1400.0 | 1.300 | 1703.1 | 961.1 | 1202.0 | 1469.9 | 1914.4 | 2106.1 |
| 03 | -5.40  | 66.00 | 1400.0 | 1.300 | 1737.1 | 961.1 | 1219.0 | 1490.8 | 1938.9 | 2133.0 |
| 03 | -5.60  | 66.00 | 1400.0 | 1.300 | 1771.1 | 961.1 | 1236.1 | 1511.7 | 1963.3 | 2159.9 |
| 03 | -5.80  | 66.00 | 1400.0 | 1.300 | 1805.1 | 961.1 | 1253.2 | 1532.6 | 1987.7 | 2186.7 |
| 03 | -6.00  | 66.00 | 1400.0 | 1.300 | 1839.1 | 961.1 | 1270.3 | 1553.5 | 2012.2 | 2213.6 |
| 03 | -6.20  | 66.00 | 1400.0 | 1.300 | 1873.1 | 961.1 | 1287.4 | 1574.4 | 2036.6 | 2240.5 |
| 03 | -6.40  | 66.00 | 1400.0 | 1.300 | 1907.1 | 961.1 | 1304.5 | 1595.3 | 2061.0 | 2267.4 |
| 03 | -6.60  | 66.00 | 1400.0 | 1.300 | 1941.1 | 961.1 | 1321.6 | 1616.3 | 2085.5 | 2294.3 |
| 03 | -6.80  | 66.00 | 1400.0 | 1.300 | 1975.1 | 961.1 | 1338.7 | 1637.2 | 2109.9 | 2321.1 |
| 03 | -7.00  | 66.00 | 1400.0 | 1.300 | 2009.1 | 961.1 | 1355.8 | 1658.1 | 2134.4 | 2348.0 |
| 03 | -7.20  | 66.00 | 1400.0 | 1.300 | 2043.1 | 961.1 | 1372.9 | 1679.0 | 2158.8 | 2374.9 |
| 03 | -7.40  | 66.00 | 1400.0 | 1.300 | 2077.1 | 961.1 | 1390.0 | 1699.9 | 2183.2 | 2401.8 |
| 03 | -7.60  | 66.00 | 1400.0 | 1.300 | 2111.1 | 961.1 | 1407.1 | 1720.8 | 2207.7 | 2428.7 |
| 03 | -7.80  | 66.00 | 1400.0 | 1.300 | 2145.1 | 961.1 | 1424.2 | 1741.7 | 2232.1 | 2455.5 |
| 03 | -8.00  | 66.00 | 1400.0 | 1.300 | 2179.1 | 961.1 | 1441.3 | 1762.7 | 2256.5 | 2482.4 |
| 03 | -8.20  | 66.00 | 1400.0 | 1.300 | 2213.1 | 961.1 | 1458.4 | 1783.6 | 2281.0 | 2509.3 |
| 03 | -8.40  | 66.00 | 1400.0 | 1.300 | 2247.1 | 961.1 | 1475.5 | 1804.5 | 2305.4 | 2536.2 |
| 03 | -8.60  | 66.00 | 1400.0 | 1.300 | 2281.1 | 961.1 | 1492.6 | 1825.4 | 2329.8 | 2563.1 |
| 03 | -8.80  | 66.00 | 1400.0 | 1.300 | 2315.1 | 961.1 | 1509.7 | 1846.3 | 2354.3 | 2590.0 |
| 03 | -9.00  | 66.00 | 1400.0 | 1.300 | 2349.2 | 961.1 | 1526.8 | 1867.2 | 2378.7 | 2616.8 |
| 03 | -9.20  | 66.00 | 1400.0 | 1.300 | 2383.2 | 961.1 | 1543.9 | 1888.1 | 2403.1 | 2643.7 |
| 03 | -9.40  | 66.00 | 1400.0 | 1.300 | 2417.2 | 961.1 | 1561.0 | 1909.0 | 2427.6 | 2670.6 |
| 03 | -9.60  | 66.00 | 1400.0 | 1.300 | 2451.2 | 961.1 | 1578.1 | 1930.0 | 2452.0 | 2697.5 |
| 03 | -9.80  | 66.00 | 1400.0 | 1.300 | 2485.2 | 961.1 | 1595.2 | 1950.9 | 2476.4 | 2724.4 |
| 03 | -10.00 | 66.00 | 1400.0 | 1.300 | 2519.2 | 961.1 | 1612.3 | 1971.8 | 2500.9 | 2751.2 |
| 03 | -10.20 | 66.00 | 1400.0 | 1.300 | 2553.2 | 961.1 | 1629.4 | 1992.7 | 2525.3 | 2778.1 |
| 03 | -10.40 | 66.00 | 1400.0 | 1.300 | 2587.2 | 961.1 | 1646.5 | 2013.6 | 2549.7 | 2805.0 |
| 03 | -10.60 | 66.00 | 1400.0 | 1.300 | 2621.2 | 961.1 | 1663.6 | 2034.5 | 2574.2 | 2831.9 |
| 03 | -10.80 | 66.00 | 1400.0 | 1.300 | 2655.2 | 961.1 | 1680.7 | 2055.4 | 2598.6 | 2858.8 |
| 03 | -11.00 | 66.00 | 1400.0 | 1.300 | 2689.2 | 961.1 | 1697.7 | 2076.4 | 2623.1 | 2885.6 |
| 03 | -11.20 | 66.00 | 1400.0 | 1.300 | 2723.2 | 961.1 | 1714.8 | 2097.3 | 2647.5 | 2912.5 |
| 03 | -11.40 | 66.00 | 1400.0 | 1.300 | 2757.2 | 961.1 | 1731.9 | 2118.2 | 2671.9 | 2939.4 |
| 03 | -11.60 | 66.00 | 1400.0 | 1.300 | 2791.2 | 961.1 | 1749.0 | 2139.1 | 2696.4 | 2966.3 |
| 03 | -11.80 | 66.00 | 1400.0 | 1.300 | 2825.2 | 961.1 | 1766.1 | 2160.0 | 2720.8 | 2993.2 |
| 03 | -12.00 | 66.00 | 1400.0 | 1.300 | 2859.2 | 961.1 | 1783.2 | 2180.9 | 2745.2 | 3020.1 |
| 03 | -12.20 | 66.00 | 1400.0 | 1.300 | 2893.2 | 961.1 | 1800.3 | 2201.8 | 2769.7 | 3046.9 |
| 03 | -12.40 | 66.00 | 1400.0 | 1.300 | 2927.2 | 961.1 | 1817.4 | 2222.8 | 2794.1 | 3073.8 |

|    |        |        |        |       |        |        |        |        |        |        |
|----|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|
| 03 | -12.60 | 66.00  | 1400.0 | 1.300 | 2961.2 | 961.1  | 1834.5 | 2243.7 | 2818.5 | 3100.7 |
| 03 | -12.80 | 66.00  | 1400.0 | 1.300 | 2995.2 | 961.1  | 1851.6 | 2264.6 | 2843.0 | 3127.6 |
| 03 | -13.00 | 66.00  | 1400.0 | 1.300 | 3029.2 | 961.1  | 1868.7 | 2285.5 | 2867.4 | 3154.5 |
| 03 | -13.20 | 66.00  | 1400.0 | 1.300 | 3063.2 | 961.1  | 1885.8 | 2306.4 | 2891.8 | 3181.3 |
| 03 | -13.40 | 66.00  | 1400.0 | 1.300 | 3097.3 | 961.1  | 1902.9 | 2327.3 | 2916.3 | 3208.2 |
| 03 | -13.60 | 66.00  | 1400.0 | 1.300 | 3131.3 | 961.1  | 1920.0 | 2348.2 | 2940.7 | 3235.1 |
| 03 | -13.80 | 66.00  | 1400.0 | 1.300 | 3165.3 | 961.1  | 1937.1 | 2369.1 | 2965.1 | 3262.0 |
| 03 | -14.00 | 66.00  | 1400.0 | 1.300 | 3199.3 | 961.1  | 1954.2 | 2390.1 | 2989.6 | 3288.9 |
| 03 | -14.20 | 66.00  | 1466.0 | 1.300 | 3233.3 | 1006.5 | 1987.6 | 2430.9 | 3046.6 | 3351.6 |
| 03 | -14.40 | 66.00  | 1598.0 | 1.300 | 3267.3 | 1097.1 | 2037.3 | 2491.6 | 3136.1 | 3450.1 |
| 03 | -14.60 | 66.00  | 1730.0 | 1.300 | 3301.3 | 1187.7 | 2087.0 | 2552.4 | 3225.7 | 3548.6 |
| 03 | -14.80 | 66.00  | 1862.0 | 1.300 | 3335.3 | 1278.3 | 2136.7 | 2613.1 | 3315.2 | 3647.1 |
| 03 | -15.00 | 66.00  | 1994.0 | 1.300 | 3369.3 | 1368.9 | 2186.4 | 2673.9 | 3404.8 | 3745.6 |
| 03 | -15.20 | 66.00  | 2240.0 | 1.300 | 3403.3 | 1537.8 | 2264.2 | 2769.0 | 3550.6 | 3906.0 |
| 03 | -15.40 | 66.00  | 2600.0 | 1.300 | 3437.3 | 1785.0 | 2370.2 | 2898.6 | 3752.6 | 4128.3 |
| 03 | -15.60 | 66.00  | 2960.0 | 1.284 | 3471.3 | 2006.8 | 2467.1 | 3017.0 | 3936.4 | 4330.5 |
| 03 | -15.60 | 66.00  | 2960.0 | 1.284 | 3471.3 | 2006.8 | 2467.1 | 3017.0 | 3936.4 | 4330.5 |
| 04 | -15.60 | 171.00 | 3480.0 | 1.805 | 3471.3 | 3316.5 | 2938.1 | 3592.6 | 4877.5 | 5365.8 |
| 04 | -15.80 | 171.00 | 3658.8 | 1.783 | 3559.4 | 3444.9 | 3028.6 | 3703.2 | 5033.1 | 5537.0 |
| 04 | -16.00 | 171.00 | 3800.0 | 1.771 | 3647.5 | 3553.5 | 3112.0 | 3805.1 | 5174.5 | 5692.5 |
| 04 | -16.20 | 171.00 | 3974.0 | 1.753 | 3735.6 | 3679.4 | 3201.6 | 3914.7 | 5328.2 | 5861.6 |
| 04 | -16.40 | 171.00 | 4202.0 | 1.728 | 3823.7 | 3833.8 | 3301.4 | 4036.7 | 5502.5 | 6053.4 |
| 04 | -16.60 | 171.00 | 4430.0 | 1.705 | 3911.8 | 3988.2 | 3401.2 | 4158.8 | 5676.8 | 6245.1 |
| 04 | -16.60 | 171.00 | 4430.0 | 1.705 | 3911.8 | 3988.2 | 3401.2 | 4158.8 | 5676.8 | 6245.1 |
| 05 | -16.60 | 200.00 | 5000.0 | 1.624 | 3911.8 | 4289.2 | 3509.5 | 4291.1 | 5893.1 | 6483.0 |
| 05 | -16.80 | 200.00 | 5000.0 | 1.660 | 4014.9 | 4382.0 | 3594.7 | 4395.2 | 6033.8 | 6637.8 |
| 05 | -17.00 | 200.00 | 5000.0 | 1.695 | 4117.9 | 4474.7 | 3679.8 | 4499.3 | 6174.4 | 6792.6 |
| 05 | -17.20 | 200.00 | 5000.0 | 1.730 | 4220.9 | 4567.4 | 3765.0 | 4603.5 | 6315.1 | 6947.3 |
| 05 | -17.40 | 200.00 | 5000.0 | 1.765 | 4324.0 | 4660.2 | 3850.2 | 4707.6 | 6455.8 | 7102.1 |
| 05 | -17.60 | 200.00 | 5000.0 | 1.800 | 4427.0 | 4752.9 | 3935.3 | 4811.7 | 6596.5 | 7256.9 |
| 05 | -17.80 | 200.00 | 5000.0 | 1.835 | 4530.1 | 4845.7 | 4020.5 | 4915.9 | 6737.2 | 7411.7 |
| 05 | -18.00 | 200.00 | 5000.0 | 1.870 | 4633.1 | 4938.4 | 4105.6 | 5020.0 | 6877.9 | 7566.4 |
| 05 | -18.20 | 200.00 | 5000.0 | 1.905 | 4736.2 | 5031.1 | 4190.8 | 5124.2 | 7018.6 | 7721.2 |
| 05 | -18.40 | 200.00 | 5000.0 | 1.940 | 4839.2 | 5123.9 | 4276.0 | 5228.3 | 7159.2 | 7876.0 |
| 05 | -18.60 | 200.00 | 5000.0 | 1.976 | 4942.3 | 5216.6 | 4361.1 | 5332.4 | 7299.9 | 8030.7 |
| 05 | -18.80 | 200.00 | 5000.0 | 2.000 | 5045.3 | 5281.0 | 4436.1 | 5424.1 | 7420.3 | 8163.1 |
| 05 | -19.00 | 200.00 | 5000.0 | 2.000 | 5148.3 | 5281.0 | 4487.9 | 5487.5 | 7494.3 | 8244.6 |
| 05 | -19.20 | 200.00 | 5000.0 | 2.000 | 5251.4 | 5281.0 | 4539.7 | 5550.9 | 7568.3 | 8326.0 |
| 05 | -19.40 | 200.00 | 5000.0 | 2.000 | 5354.4 | 5281.0 | 4591.5 | 5614.2 | 7642.4 | 8407.5 |
| 05 | -19.60 | 200.00 | 5000.0 | 2.000 | 5457.5 | 5281.0 | 4643.3 | 5677.6 | 7716.4 | 8488.9 |
| 05 | -19.80 | 200.00 | 5000.0 | 2.000 | 5560.5 | 5281.0 | 4695.1 | 5741.0 | 7790.5 | 8570.4 |
| 05 | -20.00 | 200.00 | 5000.0 | 2.000 | 5663.6 | 5281.0 | 4747.0 | 5804.3 | 7864.5 | 8651.8 |
| 05 | -20.20 | 200.00 | 5000.0 | 2.000 | 5766.6 | 5281.0 | 4798.8 | 5867.7 | 7938.6 | 8733.3 |
| 05 | -20.40 | 200.00 | 5000.0 | 2.000 | 5869.7 | 5281.0 | 4850.6 | 5931.1 | 8012.6 | 8814.8 |
| 05 | -20.60 | 200.00 | 5000.0 | 2.000 | 5972.7 | 5281.0 | 4902.4 | 5994.5 | 8086.7 | 8896.2 |
| 05 | -20.80 | 200.00 | 5000.0 | 2.000 | 6075.7 | 5281.0 | 4954.2 | 6057.8 | 8160.7 | 8977.7 |
| 05 | -21.00 | 200.00 | 5000.0 | 2.000 | 6178.8 | 5281.0 | 5006.0 | 6121.2 | 8234.8 | 9059.1 |
| 05 | -21.20 | 200.00 | 5000.0 | 2.000 | 6281.8 | 5281.0 | 5057.8 | 6184.6 | 8308.8 | 9140.6 |
| 05 | -21.40 | 200.00 | 5000.0 | 2.000 | 6384.9 | 5281.0 | 5109.6 | 6248.0 | 8382.8 | 9222.1 |
| 05 | -21.60 | 200.00 | 5000.0 | 2.000 | 6487.9 | 5281.0 | 5161.4 | 6311.3 | 8456.9 | 9303.5 |
| 05 | -21.80 | 200.00 | 5000.0 | 2.000 | 6591.0 | 5281.0 | 5213.2 | 6374.7 | 8530.9 | 9385.0 |
| 05 | -22.00 | 200.00 | 5000.0 | 2.000 | 6694.0 | 5281.0 | 5265.0 | 6438.1 | 8605.0 | 9466.4 |
| 05 | -22.10 | 200.00 | 5000.0 | 2.000 | 6745.5 | 5281.0 | 5290.9 | 6469.8 | 8642.0 | 9507.2 |



# Capacité du pieu pour chaque combinaison en fonction de la profondeur





# Données

Titre du projet : Eco-Village d'entreprises à Carrère (pieu n°1)  
Numéro d'affaire : 22-1222  
Commentaires : Sondage SP5  
Titre du calcul : Titre du calcul  
Cadre réglementaire : EC 7 - Norme NF P94-262/A1 (juillet 2018)  
Méthode de dimensionnement : A partir des résultats pressiométriques  
Traitement des données : Traitement par couches  
Pas du calcul (m) : 0,20  
Section de calcul : Section de calcul circulaire  
Diamètre de calcul (m) : 0,92  
Classe du pieu : 2 - Pieu tarière creuse  
Catégorie du pieu : 6 [FTC, FTCD] - Foré tarière creuse simple rotation, ou double rotation  
Mode de chargement : Travail en compression  
Combinaisons

|                                 | ELS-QP | ELS-CARAC | ELU-FOND | ELU-ACC |
|---------------------------------|--------|-----------|----------|---------|
| Pondérations combinées sur Qs.k | 0,636  | 0,778     | 0,909    | 1,000   |
| Pondérations combinées sur Qp.k | 0,455  | 0,556     | 0,909    | 1,000   |

Cote de référence (m) : 7,90

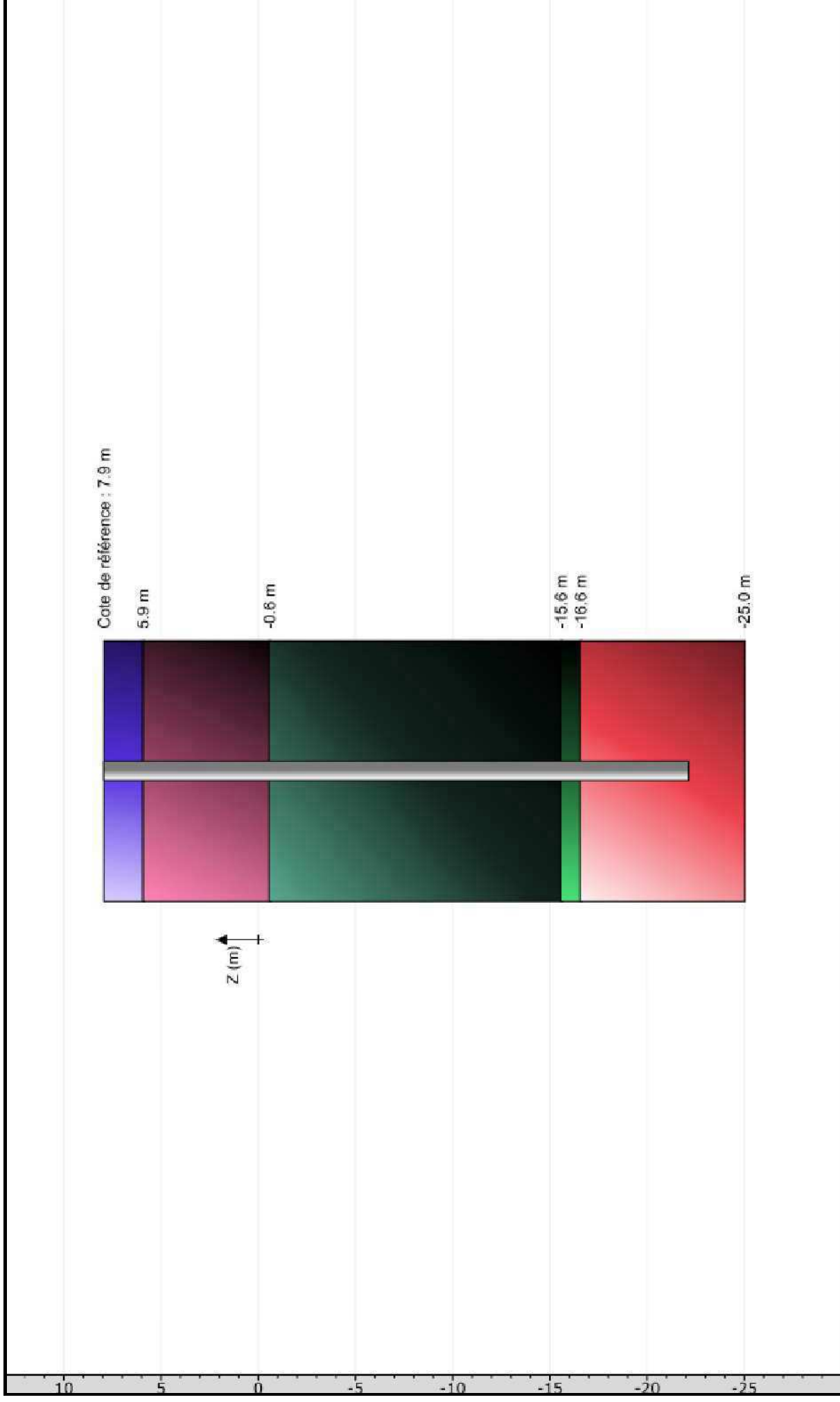
## Définition des couches de sol

| No | Nom                                       | Couleur | Classe de sol               | Zbase  | pl*     | qsl    | kpmax | $\sqrt{R_s.d1 \times \gamma R_s.d2}$ |
|----|-------------------------------------------|---------|-----------------------------|--------|---------|--------|-------|--------------------------------------|
| 1  | Remblais                                  |         | Argile, limons              | 5,90   | 460,00  | 0,00   | 1,30  | 1,265                                |
| 2  | Argile d'altération                       |         | Argile, limons              | -0,60  | 600,00  | 55,00  | 1,30  | 1,265                                |
| 3  | Lave altérée argilisée raide à très raide |         | Argile, limons              | -15,60 | 1400,00 | 66,00  | 1,30  | 1,265                                |
| 4  | Lave altérée argilisée très raide         |         | Roche altérée et fragmentée | -16,60 | 2720,00 | 171,00 | 2,00  | 1,265                                |
| 5  | Lave +/- altérée aspect rocheux           |         | Roche altérée et fragmentée | -25,00 | 5000,00 | 200,00 | 2,00  | 1,265                                |

Critère de calcul : Longueur imposée

Longueur du pieu (m) : 30,00

# Onglet "Paramètres généraux"



File : C:\Users\morel\AppData\Local\Temp\Terrasol\FoXta v3\3812\temp[FP]-1.resu

Calcul réalisé le : 06/09/2022 à 13h14  
par : MAGMA CARAIBES

## Options du calcul :

- calcul basé sur des paramètres issus du pressiomètre de Ménard
- calcul selon les règles de la norme NF P 94 262
- profil de pression limite pl\* défini par couche
- pour pieu de catégorie : 6
- pour pieu travaillant en compression

| Combinaisons | ELS-QP | ELS-CARA | ELU-FOND | ELU-ACC |
|--------------|--------|----------|----------|---------|
| Frottement   | 0.636  | 0.778    | 0.909    | 1.000   |
| Pointe       | 0.455  | 0.556    | 0.909    | 1.000   |

Cote de référence : 7.900

Section du pieu : 0.665

Périmètre : 2.890

## Caractéristiques des couches (données utilisateur)

| couche | base   | pl*    | qsl    | kpmin | kpmax | gamrd |
|--------|--------|--------|--------|-------|-------|-------|
| 01     | 5.90   | 460.0  | 0.00   | 1.00  | 1.30  | 1.26  |
| 02     | -0.60  | 600.0  | 55.00  | 1.00  | 1.30  | 1.26  |
| 03     | -15.60 | 1400.0 | 66.00  | 1.00  | 1.30  | 1.26  |
| 04     | -16.60 | 2720.0 | 171.00 | 1.00  | 2.00  | 1.26  |
| 05     | -25.00 | 5000.0 | 200.00 | 1.00  | 2.00  | 1.26  |

Pas du calcul : 0.20

\*\*\*\*\*  
 \*\*\*SOLUTION\*\*\*  
 \*\*\*\*\*

Calcul à longueur imposée : L = 30.00

| couche | cote | qsl   | ple   | kp    | Qs    | Qp    | ELS-QP | ELS-CARA | ELU-FOND | ELU-ACC |
|--------|------|-------|-------|-------|-------|-------|--------|----------|----------|---------|
| 01     | 7.90 | 0.00  | 460.0 | 1.000 | 0.0   | 305.8 | 110.0  | 134.4    | 219.7    | 241.7   |
| 01     | 7.70 | 0.00  | 460.0 | 1.013 | 0.0   | 309.8 | 111.4  | 136.2    | 222.6    | 244.9   |
| 01     | 7.50 | 0.00  | 460.0 | 1.026 | 0.0   | 313.8 | 112.9  | 137.9    | 225.5    | 248.0   |
| 01     | 7.30 | 0.00  | 467.0 | 1.039 | 0.0   | 322.4 | 116.0  | 141.7    | 231.7    | 254.9   |
| 01     | 7.10 | 0.00  | 481.0 | 1.050 | 0.0   | 335.7 | 120.7  | 147.6    | 241.2    | 265.4   |
| 01     | 6.90 | 0.00  | 495.0 | 1.061 | 0.0   | 349.0 | 125.5  | 153.4    | 250.8    | 275.9   |
| 01     | 6.70 | 0.00  | 509.0 | 1.071 | 0.0   | 362.3 | 130.3  | 159.2    | 260.3    | 286.4   |
| 01     | 6.50 | 0.00  | 523.0 | 1.080 | 0.0   | 375.6 | 135.1  | 165.1    | 269.9    | 296.9   |
| 01     | 6.30 | 0.00  | 537.0 | 1.089 | 0.0   | 388.9 | 139.9  | 170.9    | 279.4    | 307.4   |
| 01     | 6.10 | 0.00  | 551.0 | 1.098 | 0.0   | 402.2 | 144.7  | 176.8    | 289.0    | 317.9   |
| 01     | 5.90 | 0.00  | 565.0 | 1.106 | 0.0   | 415.5 | 149.4  | 182.6    | 298.6    | 328.4   |
| 01     | 5.90 | 0.00  | 565.0 | 1.106 | 0.0   | 415.5 | 149.4  | 182.6    | 298.6    | 328.4   |
| 02     | 5.90 | 55.00 | 600.0 | 1.100 | 0.0   | 438.7 | 157.8  | 192.8    | 315.3    | 346.8   |
| 02     | 5.70 | 55.00 | 600.0 | 1.113 | 31.8  | 443.9 | 175.7  | 214.7    | 341.9    | 376.1   |
| 02     | 5.50 | 55.00 | 600.0 | 1.126 | 63.6  | 449.1 | 193.5  | 236.5    | 368.4    | 405.3   |
| 02     | 5.30 | 55.00 | 600.0 | 1.139 | 95.4  | 454.3 | 211.4  | 258.4    | 395.0    | 434.6   |
| 02     | 5.10 | 55.00 | 600.0 | 1.152 | 127.2 | 459.6 | 229.2  | 280.2    | 421.6    | 463.8   |
| 02     | 4.90 | 55.00 | 600.0 | 1.165 | 159.0 | 464.8 | 247.1  | 302.0    | 448.2    | 493.1   |
| 02     | 4.70 | 55.00 | 600.0 | 1.178 | 190.8 | 470.0 | 264.9  | 323.9    | 474.8    | 522.3   |
| 02     | 4.50 | 55.00 | 600.0 | 1.191 | 222.6 | 475.2 | 282.8  | 345.7    | 501.4    | 551.5   |



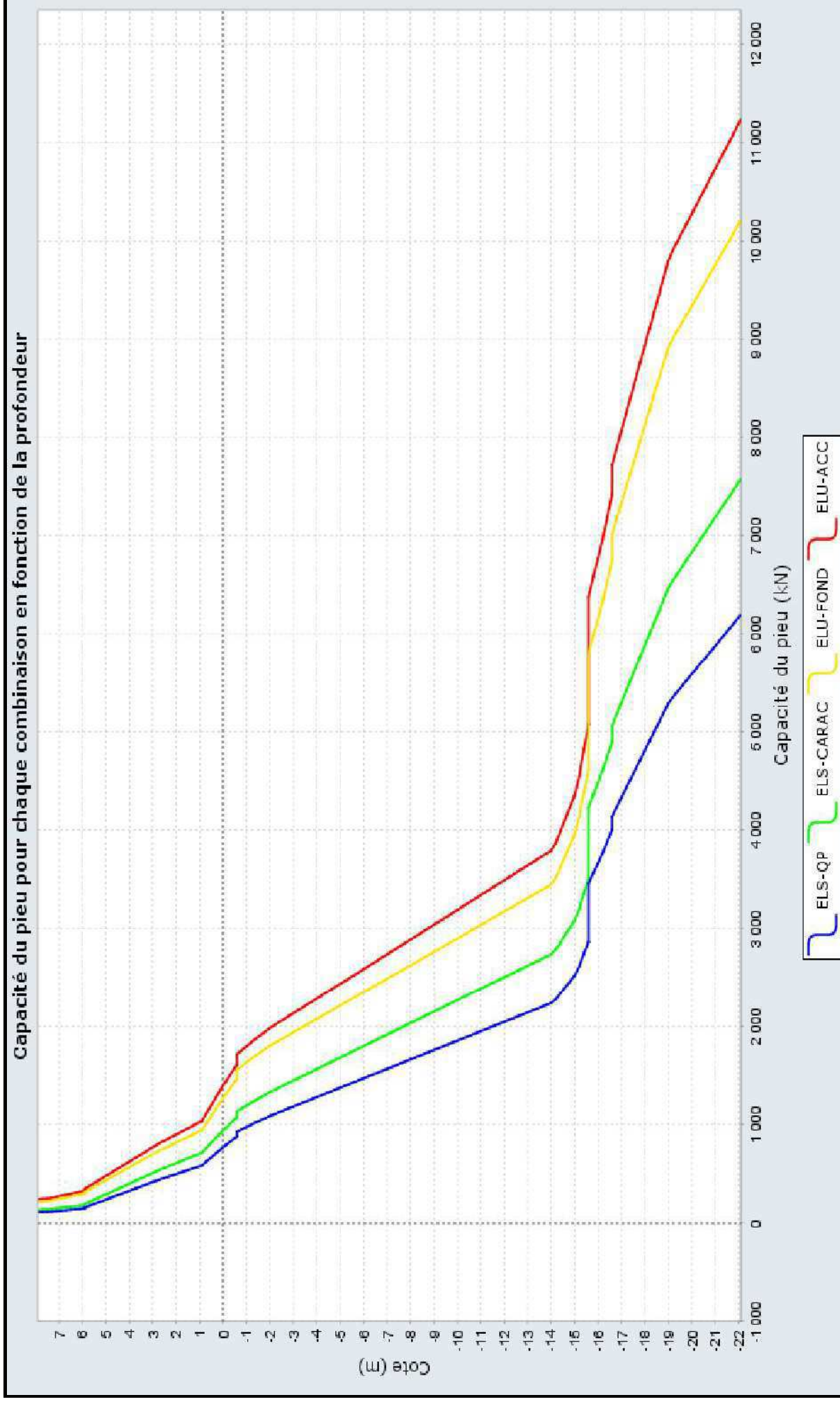
**FoXta v3**  
v3.3.6

Imprimé le : 06/09/2022 - 13:14:22  
 Calcul réalisé par : MAGMA CARAIBES  
 Projet : SP5\_compression  
 Module : Fondprof (Pieu 1/1)

|    |        |       |        |       |        |        |        |        |        |        |
|----|--------|-------|--------|-------|--------|--------|--------|--------|--------|--------|
| 02 | 4.30   | 55.00 | 600.0  | 1.204 | 254.3  | 480.4  | 300.7  | 367.6  | 527.9  | 580.8  |
| 02 | 4.10   | 55.00 | 600.0  | 1.217 | 286.1  | 485.6  | 318.5  | 389.4  | 554.5  | 610.0  |
| 02 | 3.90   | 55.00 | 600.0  | 1.230 | 317.9  | 490.8  | 336.4  | 411.2  | 581.1  | 639.3  |
| 02 | 3.70   | 55.00 | 600.0  | 1.243 | 349.7  | 496.0  | 354.2  | 433.1  | 607.7  | 668.5  |
| 02 | 3.50   | 55.00 | 600.0  | 1.257 | 381.5  | 501.2  | 372.1  | 454.9  | 634.3  | 697.8  |
| 02 | 3.30   | 55.00 | 600.0  | 1.270 | 413.3  | 506.4  | 389.9  | 476.8  | 660.9  | 727.0  |
| 02 | 3.10   | 55.00 | 600.0  | 1.283 | 445.1  | 511.6  | 407.8  | 498.6  | 687.4  | 756.3  |
| 02 | 2.90   | 55.00 | 600.0  | 1.296 | 476.9  | 516.8  | 425.6  | 520.4  | 714.0  | 785.5  |
| 02 | 2.70   | 55.00 | 600.0  | 1.300 | 508.7  | 518.5  | 442.3  | 540.8  | 738.1  | 812.0  |
| 02 | 2.50   | 55.00 | 600.0  | 1.300 | 540.5  | 518.5  | 458.2  | 560.3  | 761.0  | 837.1  |
| 02 | 2.30   | 55.00 | 600.0  | 1.300 | 572.3  | 518.5  | 474.2  | 579.9  | 783.8  | 862.3  |
| 02 | 2.10   | 55.00 | 600.0  | 1.300 | 604.1  | 518.5  | 490.2  | 599.4  | 806.7  | 887.4  |
| 02 | 1.90   | 55.00 | 600.0  | 1.300 | 635.9  | 518.5  | 506.2  | 619.0  | 829.5  | 912.5  |
| 02 | 1.70   | 55.00 | 600.0  | 1.300 | 667.7  | 518.5  | 522.2  | 638.5  | 852.4  | 937.7  |
| 02 | 1.50   | 55.00 | 600.0  | 1.300 | 699.4  | 518.5  | 538.2  | 658.1  | 875.2  | 962.8  |
| 02 | 1.30   | 55.00 | 600.0  | 1.300 | 731.2  | 518.5  | 554.1  | 677.6  | 898.0  | 987.9  |
| 02 | 1.10   | 55.00 | 600.0  | 1.300 | 763.0  | 518.5  | 570.1  | 697.2  | 920.9  | 1013.1 |
| 02 | 0.90   | 55.00 | 600.0  | 1.300 | 794.8  | 518.5  | 586.1  | 716.7  | 943.7  | 1038.2 |
| 02 | 0.70   | 55.00 | 680.0  | 1.300 | 826.6  | 587.6  | 627.0  | 766.7  | 1016.3 | 1118.0 |
| 02 | 0.50   | 55.00 | 760.0  | 1.300 | 858.4  | 656.8  | 667.8  | 816.6  | 1088.8 | 1197.8 |
| 02 | 0.30   | 55.00 | 840.0  | 1.300 | 890.2  | 725.9  | 708.7  | 866.6  | 1161.3 | 1277.6 |
| 02 | 0.10   | 55.00 | 920.0  | 1.300 | 922.0  | 795.1  | 749.5  | 916.5  | 1233.8 | 1357.4 |
| 02 | -0.10  | 55.00 | 1000.0 | 1.295 | 953.8  | 860.7  | 789.1  | 964.9  | 1303.9 | 1434.4 |
| 02 | -0.30  | 55.00 | 1080.0 | 1.280 | 985.6  | 919.1  | 826.1  | 1010.1 | 1368.7 | 1505.7 |
| 02 | -0.50  | 55.00 | 1160.0 | 1.268 | 1017.4 | 977.5  | 863.1  | 1055.3 | 1433.5 | 1577.0 |
| 02 | -0.60  | 55.00 | 1200.0 | 1.262 | 1033.3 | 1006.7 | 881.6  | 1077.9 | 1465.9 | 1612.6 |
| 03 | -0.60  | 66.00 | 1400.0 | 1.225 | 1033.3 | 1139.6 | 929.4  | 1136.4 | 1561.4 | 1717.7 |
| 03 | -0.80  | 66.00 | 1400.0 | 1.238 | 1071.4 | 1151.8 | 952.9  | 1165.2 | 1597.5 | 1757.5 |
| 03 | -1.00  | 66.00 | 1400.0 | 1.251 | 1109.6 | 1163.9 | 976.5  | 1194.0 | 1633.7 | 1797.2 |
| 03 | -1.20  | 66.00 | 1400.0 | 1.264 | 1147.7 | 1176.0 | 1000.0 | 1222.8 | 1669.8 | 1837.0 |
| 03 | -1.40  | 66.00 | 1400.0 | 1.275 | 1185.9 | 1186.2 | 1022.9 | 1250.7 | 1704.5 | 1875.2 |
| 03 | -1.60  | 66.00 | 1400.0 | 1.283 | 1224.0 | 1194.3 | 1045.0 | 1277.7 | 1737.8 | 1911.8 |
| 03 | -1.80  | 66.00 | 1400.0 | 1.292 | 1262.2 | 1202.5 | 1067.1 | 1304.8 | 1771.1 | 1948.4 |
| 03 | -2.00  | 66.00 | 1400.0 | 1.300 | 1300.3 | 1209.9 | 1088.9 | 1331.5 | 1803.8 | 1984.3 |
| 03 | -2.20  | 66.00 | 1400.0 | 1.300 | 1338.5 | 1209.9 | 1108.1 | 1355.0 | 1831.2 | 2014.5 |
| 03 | -2.40  | 66.00 | 1400.0 | 1.300 | 1376.6 | 1209.9 | 1127.3 | 1378.4 | 1858.6 | 2044.7 |
| 03 | -2.60  | 66.00 | 1400.0 | 1.300 | 1414.8 | 1209.9 | 1146.5 | 1401.9 | 1886.0 | 2074.8 |
| 03 | -2.80  | 66.00 | 1400.0 | 1.300 | 1452.9 | 1209.9 | 1165.7 | 1425.4 | 1913.4 | 2105.0 |
| 03 | -3.00  | 66.00 | 1400.0 | 1.300 | 1491.1 | 1209.9 | 1184.8 | 1448.8 | 1940.8 | 2135.1 |
| 03 | -3.20  | 66.00 | 1400.0 | 1.300 | 1529.2 | 1209.9 | 1204.0 | 1472.3 | 1968.3 | 2165.3 |
| 03 | -3.40  | 66.00 | 1400.0 | 1.300 | 1567.4 | 1209.9 | 1223.2 | 1495.7 | 1995.7 | 2195.5 |
| 03 | -3.60  | 66.00 | 1400.0 | 1.300 | 1605.5 | 1209.9 | 1242.4 | 1519.2 | 2023.1 | 2225.6 |
| 03 | -3.80  | 66.00 | 1400.0 | 1.300 | 1643.7 | 1209.9 | 1261.6 | 1542.7 | 2050.5 | 2255.8 |
| 03 | -4.00  | 66.00 | 1400.0 | 1.300 | 1681.8 | 1209.9 | 1280.7 | 1566.1 | 2077.9 | 2285.9 |
| 03 | -4.20  | 66.00 | 1400.0 | 1.300 | 1720.0 | 1209.9 | 1299.9 | 1589.6 | 2105.3 | 2316.1 |
| 03 | -4.40  | 66.00 | 1400.0 | 1.300 | 1758.1 | 1209.9 | 1319.1 | 1613.1 | 2132.7 | 2346.3 |
| 03 | -4.60  | 66.00 | 1400.0 | 1.300 | 1796.3 | 1209.9 | 1338.3 | 1636.5 | 2160.2 | 2376.4 |
| 03 | -4.80  | 66.00 | 1400.0 | 1.300 | 1834.5 | 1209.9 | 1357.5 | 1660.0 | 2187.6 | 2406.6 |
| 03 | -5.00  | 66.00 | 1400.0 | 1.300 | 1872.6 | 1209.9 | 1376.7 | 1683.5 | 2215.0 | 2436.7 |
| 03 | -5.20  | 66.00 | 1400.0 | 1.300 | 1910.8 | 1209.9 | 1395.8 | 1706.9 | 2242.4 | 2466.9 |
| 03 | -5.40  | 66.00 | 1400.0 | 1.300 | 1948.9 | 1209.9 | 1415.0 | 1730.4 | 2269.8 | 2497.1 |
| 03 | -5.60  | 66.00 | 1400.0 | 1.300 | 1987.1 | 1209.9 | 1434.2 | 1753.8 | 2297.2 | 2527.2 |
| 03 | -5.80  | 66.00 | 1400.0 | 1.300 | 2025.2 | 1209.9 | 1453.4 | 1777.3 | 2324.7 | 2557.4 |
| 03 | -6.00  | 66.00 | 1400.0 | 1.300 | 2063.4 | 1209.9 | 1472.6 | 1800.8 | 2352.1 | 2587.5 |
| 03 | -6.20  | 66.00 | 1400.0 | 1.300 | 2101.5 | 1209.9 | 1491.7 | 1824.2 | 2379.5 | 2617.7 |
| 03 | -6.40  | 66.00 | 1400.0 | 1.300 | 2139.7 | 1209.9 | 1510.9 | 1847.7 | 2406.9 | 2647.8 |
| 03 | -6.60  | 66.00 | 1400.0 | 1.300 | 2177.8 | 1209.9 | 1530.1 | 1871.2 | 2434.3 | 2678.0 |
| 03 | -6.80  | 66.00 | 1400.0 | 1.300 | 2216.0 | 1209.9 | 1549.3 | 1894.6 | 2461.7 | 2708.2 |
| 03 | -7.00  | 66.00 | 1400.0 | 1.300 | 2254.1 | 1209.9 | 1568.5 | 1918.1 | 2489.1 | 2738.3 |
| 03 | -7.20  | 66.00 | 1400.0 | 1.300 | 2292.3 | 1209.9 | 1587.6 | 1941.6 | 2516.6 | 2768.5 |
| 03 | -7.40  | 66.00 | 1400.0 | 1.300 | 2330.4 | 1209.9 | 1606.8 | 1965.0 | 2544.0 | 2798.6 |
| 03 | -7.60  | 66.00 | 1400.0 | 1.300 | 2368.6 | 1209.9 | 1626.0 | 1988.5 | 2571.4 | 2828.8 |
| 03 | -7.80  | 66.00 | 1400.0 | 1.300 | 2406.7 | 1209.9 | 1645.2 | 2011.9 | 2598.8 | 2859.0 |
| 03 | -8.00  | 66.00 | 1400.0 | 1.300 | 2444.9 | 1209.9 | 1664.4 | 2035.4 | 2626.2 | 2889.1 |
| 03 | -8.20  | 66.00 | 1400.0 | 1.300 | 2483.0 | 1209.9 | 1683.6 | 2058.9 | 2653.6 | 2919.3 |
| 03 | -8.40  | 66.00 | 1400.0 | 1.300 | 2521.2 | 1209.9 | 1702.7 | 2082.3 | 2681.0 | 2949.4 |
| 03 | -8.60  | 66.00 | 1400.0 | 1.300 | 2559.3 | 1209.9 | 1721.9 | 2105.8 | 2708.5 | 2979.6 |
| 03 | -8.80  | 66.00 | 1400.0 | 1.300 | 2597.5 | 1209.9 | 1741.1 | 2129.3 | 2735.9 | 3009.8 |
| 03 | -9.00  | 66.00 | 1400.0 | 1.300 | 2635.6 | 1209.9 | 1760.3 | 2152.7 | 2763.3 | 3039.9 |
| 03 | -9.20  | 66.00 | 1400.0 | 1.300 | 2673.8 | 1209.9 | 1779.5 | 2176.2 | 2790.7 | 3070.1 |
| 03 | -9.40  | 66.00 | 1400.0 | 1.300 | 2711.9 | 1209.9 | 1798.6 | 2199.7 | 2818.1 | 3100.2 |
| 03 | -9.60  | 66.00 | 1400.0 | 1.300 | 2750.1 | 1209.9 | 1817.8 | 2223.1 | 2845.5 | 3130.4 |
| 03 | -9.80  | 66.00 | 1400.0 | 1.300 | 2788.2 | 1209.9 | 1837.0 | 2246.6 | 2872.9 | 3160.6 |
| 03 | -10.00 | 66.00 | 1400.0 | 1.300 | 2826.4 | 1209.9 | 1856.2 | 2270.1 | 2900.4 | 3190.7 |
| 03 | -10.20 | 66.00 | 1400.0 | 1.300 | 2864.5 | 1209.9 | 1875.4 | 2293.5 | 2927.8 | 3220.9 |
| 03 | -10.40 | 66.00 | 1400.0 | 1.300 | 2902.7 | 1209.9 | 1894.5 | 2317.0 | 2955.2 | 3251.0 |
| 03 | -10.60 | 66.00 | 1400.0 | 1.300 | 2940.8 | 1209.9 | 1913.7 | 2340.4 | 2982.6 | 3281.2 |
| 03 | -10.80 | 66.00 | 1400.0 | 1.300 | 2979.0 | 1209.9 | 1932.9 | 2363.9 | 3010.0 | 3311.4 |
| 03 | -11.00 | 66.00 | 1400.0 | 1.300 | 3017.1 | 1209.9 | 1952.1 | 2387.4 | 3037.4 | 3341.5 |
| 03 | -11.20 | 66.00 | 1400.0 | 1.300 | 3055.3 | 1209.9 | 1971.3 | 2410.8 | 3064.8 | 3371.7 |
| 03 | -11.40 | 66.00 | 1400.0 | 1.300 | 3093.5 | 1209.9 | 1990.5 | 2434.3 | 3092.3 | 3401.8 |
| 03 | -11.60 | 66.00 | 1400.0 | 1.300 | 3131.6 | 1209.9 | 2009.6 | 2457.8 | 3119.7 | 3432.0 |
| 03 | -11.80 | 66.00 | 1400.0 | 1.300 | 3169.8 | 1209.9 | 2028.8 | 2481.2 | 3147.1 | 3462.1 |
| 03 | -12.00 | 66.00 | 1400.0 | 1.300 | 3207.9 | 1209.9 | 2048.0 | 2504.7 | 3174.5 | 3492.3 |
| 03 | -12.20 | 66.00 | 1400.0 | 1.300 | 3246.1 | 1209.9 | 2067.2 | 2528.2 | 3201.9 | 3522.5 |
| 03 | -12.40 | 66.00 | 1400.0 | 1.300 | 3284.2 | 1209.9 | 2086.4 | 2551.6 | 3229.3 | 3552.6 |

|    |        |        |        |       |        |        |        |        |         |         |
|----|--------|--------|--------|-------|--------|--------|--------|--------|---------|---------|
| 03 | -12.60 | 66.00  | 1400.0 | 1.300 | 3322.4 | 1209.9 | 2105.5 | 2575.1 | 3256.8  | 3582.8  |
| 03 | -12.80 | 66.00  | 1400.0 | 1.300 | 3360.5 | 1209.9 | 2124.7 | 2598.5 | 3284.2  | 3612.9  |
| 03 | -13.00 | 66.00  | 1400.0 | 1.300 | 3398.7 | 1209.9 | 2143.9 | 2622.0 | 3311.6  | 3643.1  |
| 03 | -13.20 | 66.00  | 1400.0 | 1.300 | 3436.8 | 1209.9 | 2163.1 | 2645.5 | 3339.0  | 3673.3  |
| 03 | -13.40 | 66.00  | 1400.0 | 1.300 | 3475.0 | 1209.9 | 2182.3 | 2668.9 | 3366.4  | 3703.4  |
| 03 | -13.60 | 66.00  | 1400.0 | 1.300 | 3513.1 | 1209.9 | 2201.4 | 2692.4 | 3393.8  | 3733.6  |
| 03 | -13.80 | 66.00  | 1400.0 | 1.300 | 3551.3 | 1209.9 | 2220.6 | 2715.9 | 3421.2  | 3763.7  |
| 03 | -14.00 | 66.00  | 1400.0 | 1.300 | 3589.4 | 1209.9 | 2239.8 | 2739.3 | 3448.7  | 3793.9  |
| 03 | -14.20 | 66.00  | 1466.0 | 1.300 | 3627.6 | 1266.9 | 2279.5 | 2787.9 | 3517.1  | 3869.1  |
| 03 | -14.40 | 66.00  | 1598.0 | 1.300 | 3665.7 | 1381.0 | 2339.7 | 2861.5 | 3626.4  | 3989.5  |
| 03 | -14.60 | 66.00  | 1730.0 | 1.300 | 3703.9 | 1495.0 | 2399.9 | 2935.1 | 3735.8  | 4109.8  |
| 03 | -14.80 | 66.00  | 1862.0 | 1.300 | 3742.0 | 1609.1 | 2460.1 | 3008.7 | 3845.2  | 4230.2  |
| 03 | -15.00 | 66.00  | 1994.0 | 1.300 | 3780.2 | 1723.2 | 2520.4 | 3082.3 | 3954.6  | 4350.5  |
| 03 | -15.20 | 66.00  | 2240.0 | 1.300 | 3818.3 | 1935.8 | 2616.0 | 3199.2 | 4134.8  | 4548.7  |
| 03 | -15.40 | 66.00  | 2600.0 | 1.300 | 3856.5 | 2246.9 | 2747.1 | 3359.4 | 4385.7  | 4824.8  |
| 03 | -15.60 | 66.00  | 2960.0 | 1.284 | 3894.6 | 2526.1 | 2866.7 | 3505.6 | 4613.8  | 5075.7  |
| 03 | -15.60 | 66.00  | 2960.0 | 1.284 | 3894.6 | 2526.1 | 2866.7 | 3505.6 | 4613.8  | 5075.7  |
| 04 | -15.60 | 171.00 | 3480.0 | 1.805 | 3894.6 | 4174.7 | 3459.7 | 4230.2 | 5798.4  | 6378.9  |
| 04 | -15.80 | 171.00 | 3658.8 | 1.781 | 3993.5 | 4331.7 | 3565.8 | 4360.0 | 5982.3  | 6581.2  |
| 04 | -16.00 | 171.00 | 3800.0 | 1.767 | 4092.3 | 4463.7 | 3663.0 | 4478.8 | 6148.2  | 6763.7  |
| 04 | -16.20 | 171.00 | 3974.0 | 1.748 | 4191.2 | 4617.5 | 3768.0 | 4607.2 | 6329.7  | 6963.4  |
| 04 | -16.40 | 171.00 | 4202.0 | 1.721 | 4290.0 | 4807.3 | 3886.0 | 4751.4 | 6537.1  | 7191.5  |
| 04 | -16.60 | 171.00 | 4430.0 | 1.697 | 4388.9 | 4997.0 | 4003.9 | 4895.5 | 6744.5  | 7419.6  |
| 04 | -16.60 | 171.00 | 4430.0 | 1.697 | 4388.9 | 4997.0 | 4003.9 | 4895.5 | 6744.5  | 7419.6  |
| 05 | -16.60 | 200.00 | 5000.0 | 1.617 | 4388.9 | 5375.9 | 4140.2 | 5062.1 | 7016.7  | 7719.2  |
| 05 | -16.80 | 200.00 | 5000.0 | 1.649 | 4504.5 | 5479.9 | 4235.7 | 5178.9 | 7174.6  | 7892.8  |
| 05 | -17.00 | 200.00 | 5000.0 | 1.680 | 4620.1 | 5584.0 | 4331.3 | 5295.8 | 7332.4  | 8066.5  |
| 05 | -17.20 | 200.00 | 5000.0 | 1.711 | 4735.7 | 5688.0 | 4426.8 | 5412.6 | 7490.3  | 8240.1  |
| 05 | -17.40 | 200.00 | 5000.0 | 1.743 | 4851.3 | 5792.1 | 4522.4 | 5529.4 | 7648.1  | 8413.8  |
| 05 | -17.60 | 200.00 | 5000.0 | 1.774 | 4966.9 | 5896.1 | 4617.9 | 5646.3 | 7805.9  | 8587.4  |
| 05 | -17.80 | 200.00 | 5000.0 | 1.805 | 5082.5 | 6000.2 | 4713.5 | 5763.1 | 7963.8  | 8761.0  |
| 05 | -18.00 | 200.00 | 5000.0 | 1.837 | 5198.1 | 6104.2 | 4809.0 | 5879.9 | 8121.6  | 8934.7  |
| 05 | -18.20 | 200.00 | 5000.0 | 1.868 | 5313.8 | 6208.3 | 4904.6 | 5996.8 | 8279.5  | 9108.3  |
| 05 | -18.40 | 200.00 | 5000.0 | 1.899 | 5429.4 | 6312.3 | 5000.1 | 6113.6 | 8437.3  | 9282.0  |
| 05 | -18.60 | 200.00 | 5000.0 | 1.930 | 5545.0 | 6416.4 | 5095.7 | 6230.4 | 8595.2  | 9455.6  |
| 05 | -18.80 | 200.00 | 5000.0 | 1.962 | 5660.6 | 6520.4 | 5191.3 | 6347.3 | 8753.0  | 9629.3  |
| 05 | -19.00 | 200.00 | 5000.0 | 1.993 | 5776.2 | 6624.5 | 5286.8 | 6464.1 | 8910.8  | 9802.9  |
| 05 | -19.20 | 200.00 | 5000.0 | 2.000 | 5891.8 | 6647.6 | 5353.2 | 6545.4 | 9010.5  | 9912.6  |
| 05 | -19.40 | 200.00 | 5000.0 | 2.000 | 6007.4 | 6647.6 | 5411.4 | 6616.5 | 9093.6  | 10004.0 |
| 05 | -19.60 | 200.00 | 5000.0 | 2.000 | 6123.0 | 6647.6 | 5469.5 | 6687.6 | 9176.7  | 10095.4 |
| 05 | -19.80 | 200.00 | 5000.0 | 2.000 | 6238.6 | 6647.6 | 5527.6 | 6758.7 | 9259.8  | 10186.8 |
| 05 | -20.00 | 200.00 | 5000.0 | 2.000 | 6354.2 | 6647.6 | 5585.7 | 6829.8 | 9342.8  | 10278.1 |
| 05 | -20.20 | 200.00 | 5000.0 | 2.000 | 6469.9 | 6647.6 | 5643.9 | 6900.9 | 9425.9  | 10369.5 |
| 05 | -20.40 | 200.00 | 5000.0 | 2.000 | 6585.5 | 6647.6 | 5702.0 | 6972.0 | 9509.0  | 10460.9 |
| 05 | -20.60 | 200.00 | 5000.0 | 2.000 | 6701.1 | 6647.6 | 5760.1 | 7043.1 | 9592.1  | 10552.3 |
| 05 | -20.80 | 200.00 | 5000.0 | 2.000 | 6816.7 | 6647.6 | 5818.2 | 7114.2 | 9675.1  | 10643.7 |
| 05 | -21.00 | 200.00 | 5000.0 | 2.000 | 6932.3 | 6647.6 | 5876.4 | 7185.3 | 9758.2  | 10735.1 |
| 05 | -21.20 | 200.00 | 5000.0 | 2.000 | 7047.9 | 6647.6 | 5934.5 | 7256.4 | 9841.3  | 10826.5 |
| 05 | -21.40 | 200.00 | 5000.0 | 2.000 | 7163.5 | 6647.6 | 5992.6 | 7327.5 | 9924.4  | 10917.9 |
| 05 | -21.60 | 200.00 | 5000.0 | 2.000 | 7279.1 | 6647.6 | 6050.7 | 7398.6 | 10007.4 | 11009.3 |
| 05 | -21.80 | 200.00 | 5000.0 | 2.000 | 7394.7 | 6647.6 | 6108.9 | 7469.7 | 10090.5 | 11100.7 |
| 05 | -22.00 | 200.00 | 5000.0 | 2.000 | 7510.4 | 6647.6 | 6167.0 | 7540.8 | 10173.6 | 11192.1 |
| 05 | -22.10 | 200.00 | 5000.0 | 2.000 | 7568.2 | 6647.6 | 6196.1 | 7576.4 | 10215.1 | 11237.8 |

# Capacité du pieu pour chaque combinaison en fonction de la profondeur





**ANNEXE 25**

**RESULTATS DES CALCULS FOXTA**

**PIEUX FORES A LA TARIERE CREUSE**

**SONDAGE SP6**

- Pieux  $\Phi$  620 en compression
- Pieux  $\Phi$  720 en compression
- Pieux  $\Phi$  820 en compression
- Pieux  $\Phi$  920 en compression

# Données

Titre du projet : Eco-Village d'entreprises à Carrère (pieu n°1)  
Numéro d'affaire : 22-1222  
Commentaires : Sondage SP6  
Titre du calcul : Titre du calcul  
Cadre réglementaire : EC 7 - Norme NF P94-262/A1 (juillet 2018)  
Méthode de dimensionnement : A partir des résultats pressiométriques  
Traitement des données : Traitement par couches  
Pas du calcul (m) : 0,20  
Section de calcul : Section de calcul circulaire  
Diamètre de calcul (m) : 0,62  
Classe du pieu : 2 - Pieu tarière creuse  
Catégorie du pieu : 6 [FTC, FTCD] - Foré tarière creuse simple rotation, ou double rotation  
Mode de chargement : Travail en compression

## Combinaisons

|                                 | ELS-QP | ELS-CARAC | ELU-FOND | ELU-ACC |
|---------------------------------|--------|-----------|----------|---------|
| Pondérations combinées sur Qs.k | 0,636  | 0,778     | 0,909    | 1,000   |
| Pondérations combinées sur Qp.k | 0,455  | 0,556     | 0,909    | 1,000   |

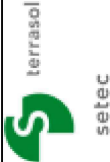
Cote de référence (m) : 6,20

## Définition des couches de sol

| No | Nom                                       | Couleur | Classe de sol               | Zbase  | pl*     | qsl    | kpmax | $\sqrt{R_s.d1 \times \gamma R_s.d2}$ |
|----|-------------------------------------------|---------|-----------------------------|--------|---------|--------|-------|--------------------------------------|
| 1  | Remblais                                  |         | Argile, limons              | 3,70   | 460,00  | 0,00   | 1,30  | 1,265                                |
| 2  | Lave altérée argilisée raide              |         | Argile, limons              | -0,80  | 890,00  | 61,00  | 1,30  | 1,265                                |
| 3  | Lave altérée argilisée raide à très raide |         | Argile, limons              | -5,30  | 1400,00 | 66,00  | 1,30  | 1,265                                |
| 4  | Lave altérée argilisée très raide         |         | Roche altérée et fragmentée | -25,00 | 2720,00 | 171,00 | 2,00  | 1,265                                |

Critère de calcul : Longueur imposée

Longueur du pieu (m) : 30,00

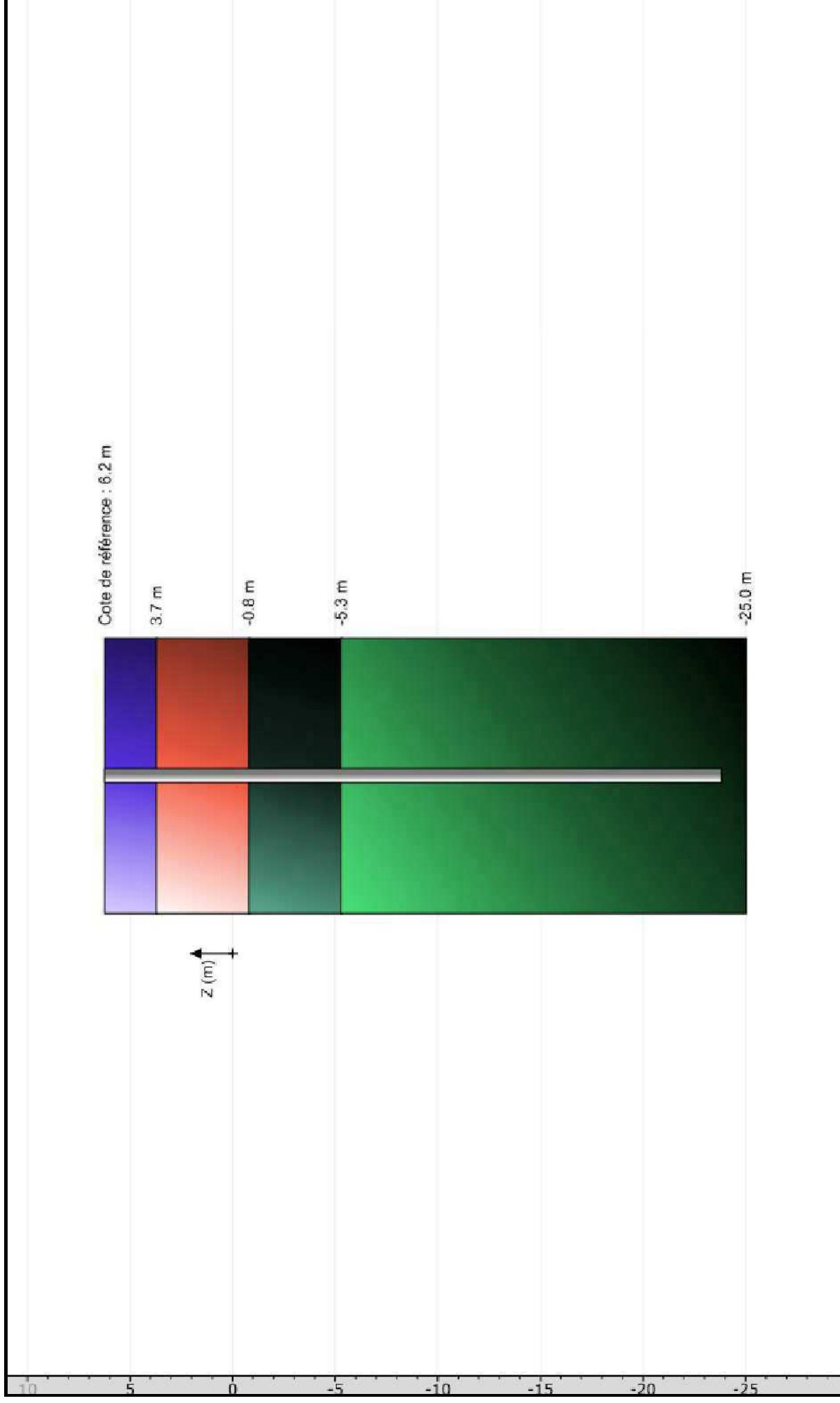


FoXta v3  
v3.3.6

Imprimé le : 06/09/2022 - 12:55:58  
Calcul réalisé par : MAGMA CARAIBES

Projet : SP6\_compression  
Module : Fondprof (Pieu 1/1)

# Onglet "Paramètres généraux"



File : C:\Users\morel\AppData\Local\Temp\Terrasol\FoxTa v3\3812\temp[FP]-1.resu

Calcul réalisé le : 06/09/2022 à 12h55  
par : MAGMA CARAIBES

## Options du calcul :

- calcul basé sur des paramètres issus du pressiomètre de Ménard
- calcul selon les règles de la norme NF P 94 262
- profil de pression limite pl\* défini par couche
- pour pieu de catégorie : 6
- pour pieu travaillant en compression

| Combinaisons | ELS-QP | ELS-CARA | ELU-FOND | ELU-ACC |
|--------------|--------|----------|----------|---------|
| Frottement   | 0.636  | 0.778    | 0.909    | 1.000   |
| Pointe       | 0.455  | 0.556    | 0.909    | 1.000   |

Cote de référence : 6.200

Section du pieu : 0.302  
Périmètre : 1.948

## Caractéristiques des couches (données utilisateur)

| couche | base   | pl*    | qsl    | kpmin | kpmax | gamrd |
|--------|--------|--------|--------|-------|-------|-------|
| 01     | 3.70   | 460.0  | 0.00   | 1.00  | 1.30  | 1.26  |
| 02     | -0.80  | 890.0  | 61.00  | 1.00  | 1.30  | 1.26  |
| 03     | -5.30  | 1400.0 | 66.00  | 1.00  | 1.30  | 1.26  |
| 04     | -25.00 | 2720.0 | 171.00 | 1.00  | 2.00  | 1.26  |

Pas du calcul : 0.20

\*\*\*\*\*  
\*\*\*SOLUTION\*\*\*  
\*\*\*\*\*

Calcul à longueur imposée : L = 30.00

| couche | cote | qsl   | ple   | kp    | Qs    | Qp    | ELS-QP | ELS-CARA | ELU-FOND | ELU-ACC |
|--------|------|-------|-------|-------|-------|-------|--------|----------|----------|---------|
| 01     | 6.20 | 0.00  | 460.0 | 1.000 | 0.0   | 138.9 | 50.0   | 61.0     | 99.8     | 109.8   |
| 01     | 6.00 | 0.00  | 460.0 | 1.019 | 0.0   | 141.6 | 50.9   | 62.2     | 101.7    | 111.9   |
| 01     | 5.80 | 0.00  | 460.0 | 1.039 | 0.0   | 144.3 | 51.9   | 63.4     | 103.7    | 114.0   |
| 01     | 5.60 | 0.00  | 460.0 | 1.058 | 0.0   | 146.9 | 52.9   | 64.6     | 105.6    | 116.2   |
| 01     | 5.40 | 0.00  | 460.0 | 1.077 | 0.0   | 149.6 | 53.8   | 65.8     | 107.5    | 118.3   |
| 01     | 5.20 | 0.00  | 460.0 | 1.097 | 0.0   | 152.3 | 54.8   | 66.9     | 109.5    | 120.4   |
| 01     | 5.00 | 0.00  | 503.0 | 1.106 | 0.0   | 168.0 | 60.4   | 73.8     | 120.7    | 132.8   |
| 01     | 4.80 | 0.00  | 546.0 | 1.114 | 0.0   | 183.7 | 66.1   | 80.7     | 132.0    | 145.2   |
| 01     | 4.60 | 0.00  | 589.0 | 1.121 | 0.0   | 199.3 | 71.7   | 87.6     | 143.2    | 157.6   |
| 01     | 4.40 | 0.00  | 632.0 | 1.127 | 0.0   | 215.0 | 77.3   | 94.5     | 154.5    | 170.0   |
| 01     | 4.20 | 0.00  | 675.0 | 1.132 | 0.0   | 230.7 | 83.0   | 101.4    | 165.8    | 182.3   |
| 01     | 4.00 | 0.00  | 718.0 | 1.136 | 0.0   | 246.3 | 88.6   | 108.3    | 177.0    | 194.7   |
| 01     | 3.80 | 0.00  | 761.0 | 1.140 | 0.0   | 262.0 | 94.2   | 115.2    | 188.3    | 207.1   |
| 01     | 3.70 | 0.00  | 782.5 | 1.142 | 0.0   | 269.8 | 97.1   | 118.6    | 193.9    | 213.3   |
| 02     | 3.70 | 61.00 | 890.0 | 1.125 | 0.0   | 302.3 | 108.7  | 132.9    | 217.2    | 239.0   |
| 02     | 3.50 | 61.00 | 890.0 | 1.144 | 23.8  | 307.5 | 122.5  | 149.8    | 238.0    | 261.9   |
| 02     | 3.30 | 61.00 | 890.0 | 1.164 | 47.5  | 312.7 | 136.4  | 166.7    | 258.8    | 284.8   |
| 02     | 3.10 | 61.00 | 890.0 | 1.183 | 71.3  | 317.9 | 150.2  | 183.6    | 279.7    | 307.7   |
| 02     | 2.90 | 61.00 | 890.0 | 1.202 | 95.1  | 323.1 | 164.0  | 200.5    | 300.5    | 330.6   |
| 02     | 2.70 | 61.00 | 890.0 | 1.222 | 118.8 | 328.3 | 177.8  | 217.4    | 321.3    | 353.5   |
| 02     | 2.50 | 61.00 | 890.0 | 1.241 | 142.6 | 333.5 | 191.6  | 234.3    | 342.1    | 376.3   |

|    |        |        |        |       |        |        |        |        |        |        |
|----|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|
| 02 | 2.30   | 61.00  | 890.0  | 1.261 | 166.3  | 338.7  | 205.5  | 251.2  | 362.9  | 399.2  |
| 02 | 2.10   | 61.00  | 890.0  | 1.280 | 190.1  | 343.9  | 219.3  | 268.1  | 383.7  | 422.1  |
| 02 | 1.90   | 61.00  | 890.0  | 1.299 | 213.9  | 349.1  | 233.1  | 285.0  | 404.5  | 445.0  |
| 02 | 1.70   | 61.00  | 890.0  | 1.300 | 237.6  | 349.3  | 245.1  | 299.7  | 421.8  | 464.0  |
| 02 | 1.50   | 61.00  | 890.0  | 1.300 | 261.4  | 349.3  | 257.1  | 314.3  | 438.8  | 482.8  |
| 02 | 1.30   | 61.00  | 890.0  | 1.300 | 285.2  | 349.3  | 269.0  | 328.9  | 455.9  | 501.6  |
| 02 | 1.10   | 61.00  | 890.0  | 1.300 | 308.9  | 349.3  | 281.0  | 343.5  | 473.0  | 520.3  |
| 02 | 0.90   | 61.00  | 890.0  | 1.300 | 332.7  | 349.3  | 292.9  | 358.1  | 490.1  | 539.1  |
| 02 | 0.70   | 61.00  | 890.0  | 1.300 | 356.4  | 349.3  | 304.8  | 372.7  | 507.1  | 557.9  |
| 02 | 0.50   | 61.00  | 941.0  | 1.300 | 380.2  | 369.3  | 324.0  | 396.2  | 538.6  | 592.5  |
| 02 | 0.30   | 61.00  | 992.0  | 1.300 | 404.0  | 389.3  | 343.1  | 419.6  | 570.1  | 627.1  |
| 02 | 0.10   | 61.00  | 1043.0 | 1.300 | 427.7  | 409.4  | 362.3  | 443.0  | 601.5  | 661.7  |
| 02 | -0.10  | 61.00  | 1094.0 | 1.300 | 451.5  | 429.4  | 381.4  | 466.4  | 633.0  | 696.3  |
| 02 | -0.30  | 61.00  | 1145.0 | 1.300 | 475.3  | 449.4  | 400.6  | 489.8  | 664.4  | 730.9  |
| 02 | -0.50  | 61.00  | 1196.0 | 1.300 | 499.0  | 469.4  | 419.7  | 513.2  | 695.9  | 765.6  |
| 02 | -0.70  | 61.00  | 1247.0 | 1.300 | 522.8  | 489.4  | 438.9  | 536.6  | 727.3  | 800.2  |
| 02 | -0.80  | 61.00  | 1272.5 | 1.300 | 534.7  | 499.4  | 448.4  | 548.3  | 743.1  | 817.5  |
| 03 | -0.80  | 66.00  | 1400.0 | 1.300 | 534.7  | 549.5  | 466.4  | 570.3  | 779.0  | 857.0  |
| 03 | -1.00  | 66.00  | 1400.0 | 1.300 | 560.4  | 549.5  | 479.4  | 586.2  | 797.5  | 877.4  |
| 03 | -1.20  | 66.00  | 1400.0 | 1.300 | 586.1  | 549.5  | 492.3  | 602.0  | 816.0  | 897.7  |
| 03 | -1.40  | 66.00  | 1400.0 | 1.300 | 611.8  | 549.5  | 505.2  | 617.8  | 834.5  | 918.0  |
| 03 | -1.60  | 66.00  | 1400.0 | 1.300 | 637.5  | 549.5  | 518.2  | 633.6  | 852.9  | 938.3  |
| 03 | -1.80  | 66.00  | 1400.0 | 1.300 | 663.2  | 549.5  | 531.1  | 649.4  | 871.4  | 958.7  |
| 03 | -2.00  | 66.00  | 1400.0 | 1.300 | 688.9  | 549.5  | 544.0  | 665.2  | 889.9  | 979.0  |
| 03 | -2.20  | 66.00  | 1400.0 | 1.300 | 714.6  | 549.5  | 556.9  | 681.0  | 908.4  | 999.3  |
| 03 | -2.40  | 66.00  | 1400.0 | 1.300 | 740.4  | 549.5  | 569.9  | 696.8  | 926.8  | 1019.6 |
| 03 | -2.60  | 66.00  | 1400.0 | 1.300 | 766.1  | 549.5  | 582.8  | 712.7  | 945.3  | 1039.9 |
| 03 | -2.80  | 66.00  | 1400.0 | 1.300 | 791.8  | 549.5  | 595.7  | 728.5  | 963.8  | 1060.3 |
| 03 | -3.00  | 66.00  | 1400.0 | 1.300 | 817.5  | 549.5  | 608.6  | 744.3  | 982.3  | 1080.6 |
| 03 | -3.20  | 66.00  | 1400.0 | 1.300 | 843.2  | 549.5  | 621.6  | 760.1  | 1000.7 | 1100.9 |
| 03 | -3.40  | 66.00  | 1400.0 | 1.300 | 868.9  | 549.5  | 634.5  | 775.9  | 1019.2 | 1121.2 |
| 03 | -3.60  | 66.00  | 1400.0 | 1.300 | 894.6  | 549.5  | 647.4  | 791.7  | 1037.7 | 1141.6 |
| 03 | -3.80  | 66.00  | 1400.0 | 1.300 | 920.3  | 549.5  | 660.3  | 807.5  | 1056.2 | 1161.9 |
| 03 | -4.00  | 66.00  | 1532.0 | 1.300 | 946.0  | 601.3  | 691.9  | 846.1  | 1111.9 | 1223.2 |
| 03 | -4.20  | 66.00  | 1664.0 | 1.300 | 971.8  | 653.1  | 723.5  | 884.7  | 1167.6 | 1284.5 |
| 03 | -4.40  | 66.00  | 1796.0 | 1.300 | 997.5  | 704.9  | 755.0  | 923.3  | 1223.3 | 1345.7 |
| 03 | -4.60  | 66.00  | 1928.0 | 1.300 | 1023.2 | 756.7  | 786.6  | 961.9  | 1279.0 | 1407.0 |
| 03 | -4.80  | 66.00  | 2060.0 | 1.300 | 1048.9 | 808.5  | 818.2  | 1000.4 | 1334.7 | 1468.3 |
| 03 | -5.00  | 66.00  | 2192.0 | 1.300 | 1074.6 | 860.3  | 849.7  | 1039.0 | 1390.4 | 1529.6 |
| 03 | -5.20  | 66.00  | 2324.0 | 1.300 | 1100.3 | 912.1  | 881.3  | 1077.6 | 1446.1 | 1590.9 |
| 03 | -5.30  | 66.00  | 2390.0 | 1.300 | 1113.2 | 938.0  | 897.1  | 1096.9 | 1473.9 | 1621.5 |
| 04 | -5.30  | 171.00 | 2720.0 | 1.927 | 1113.2 | 1582.1 | 1128.7 | 1380.0 | 1936.7 | 2130.6 |
| 04 | -5.50  | 171.00 | 2720.0 | 1.970 | 1179.8 | 1617.7 | 1175.0 | 1436.6 | 2010.2 | 2211.5 |
| 04 | -5.70  | 171.00 | 2720.0 | 2.000 | 1246.4 | 1642.4 | 1217.4 | 1488.4 | 2075.8 | 2283.6 |
| 04 | -5.90  | 171.00 | 2720.0 | 2.000 | 1313.0 | 1642.4 | 1250.9 | 1529.4 | 2123.7 | 2336.3 |
| 04 | -6.10  | 171.00 | 2720.0 | 2.000 | 1379.6 | 1642.4 | 1284.4 | 1570.4 | 2171.5 | 2388.9 |
| 04 | -6.30  | 171.00 | 2720.0 | 2.000 | 1446.2 | 1642.4 | 1317.9 | 1611.3 | 2219.4 | 2441.6 |
| 04 | -6.50  | 171.00 | 2720.0 | 2.000 | 1512.8 | 1642.4 | 1351.3 | 1652.3 | 2267.3 | 2494.2 |
| 04 | -6.70  | 171.00 | 2720.0 | 2.000 | 1579.5 | 1642.4 | 1384.8 | 1693.3 | 2315.1 | 2546.9 |
| 04 | -6.90  | 171.00 | 2720.0 | 2.000 | 1646.1 | 1642.4 | 1418.3 | 1734.2 | 2363.0 | 2599.6 |
| 04 | -7.10  | 171.00 | 2720.0 | 2.000 | 1712.7 | 1642.4 | 1451.8 | 1775.2 | 2410.9 | 2652.2 |
| 04 | -7.30  | 171.00 | 2720.0 | 2.000 | 1779.3 | 1642.4 | 1485.3 | 1816.2 | 2458.7 | 2704.9 |
| 04 | -7.50  | 171.00 | 2720.0 | 2.000 | 1845.9 | 1642.4 | 1518.8 | 1857.1 | 2506.6 | 2757.5 |
| 04 | -7.70  | 171.00 | 2720.0 | 2.000 | 1912.5 | 1642.4 | 1552.3 | 1898.1 | 2554.5 | 2810.2 |
| 04 | -7.90  | 171.00 | 2720.0 | 2.000 | 1979.1 | 1642.4 | 1585.8 | 1939.1 | 2602.3 | 2862.9 |
| 04 | -8.10  | 171.00 | 2720.0 | 2.000 | 2045.8 | 1642.4 | 1619.3 | 1980.0 | 2650.2 | 2915.5 |
| 04 | -8.30  | 171.00 | 2720.0 | 2.000 | 2112.4 | 1642.4 | 1652.8 | 2021.0 | 2698.1 | 2968.2 |
| 04 | -8.50  | 171.00 | 2720.0 | 2.000 | 2179.0 | 1642.4 | 1686.3 | 2062.0 | 2745.9 | 3020.8 |
| 04 | -8.70  | 171.00 | 2720.0 | 2.000 | 2245.6 | 1642.4 | 1719.8 | 2103.0 | 2793.8 | 3073.5 |
| 04 | -8.90  | 171.00 | 2720.0 | 2.000 | 2312.2 | 1642.4 | 1753.2 | 2143.9 | 2841.7 | 3126.2 |
| 04 | -9.10  | 171.00 | 2720.0 | 2.000 | 2378.8 | 1642.4 | 1786.7 | 2184.9 | 2889.5 | 3178.8 |
| 04 | -9.30  | 171.00 | 2720.0 | 2.000 | 2445.4 | 1642.4 | 1820.2 | 2225.9 | 2937.4 | 3231.5 |
| 04 | -9.50  | 171.00 | 2720.0 | 2.000 | 2512.1 | 1642.4 | 1853.7 | 2266.8 | 2985.3 | 3284.1 |
| 04 | -9.70  | 171.00 | 2720.0 | 2.000 | 2578.7 | 1642.4 | 1887.2 | 2307.8 | 3033.2 | 3336.8 |
| 04 | -9.90  | 171.00 | 2720.0 | 2.000 | 2645.3 | 1642.4 | 1920.7 | 2348.8 | 3081.0 | 3389.5 |
| 04 | -10.10 | 171.00 | 2720.0 | 2.000 | 2711.9 | 1642.4 | 1954.2 | 2389.7 | 3128.9 | 3442.1 |
| 04 | -10.30 | 171.00 | 2720.0 | 2.000 | 2778.5 | 1642.4 | 1987.7 | 2430.7 | 3176.8 | 3494.8 |
| 04 | -10.50 | 171.00 | 2720.0 | 2.000 | 2845.1 | 1642.4 | 2021.2 | 2471.7 | 3224.6 | 3547.4 |
| 04 | -10.70 | 171.00 | 2720.0 | 2.000 | 2911.7 | 1642.4 | 2054.7 | 2512.6 | 3272.5 | 3600.1 |
| 04 | -10.90 | 171.00 | 2720.0 | 2.000 | 2978.4 | 1642.4 | 2088.2 | 2553.6 | 3320.4 | 3652.8 |
| 04 | -11.10 | 171.00 | 2720.0 | 2.000 | 3045.0 | 1642.4 | 2121.6 | 2594.6 | 3368.2 | 3705.4 |
| 04 | -11.30 | 171.00 | 2720.0 | 2.000 | 3111.6 | 1642.4 | 2155.1 | 2635.6 | 3416.1 | 3758.1 |
| 04 | -11.50 | 171.00 | 2720.0 | 2.000 | 3178.2 | 1642.4 | 2188.6 | 2676.5 | 3464.0 | 3810.7 |
| 04 | -11.70 | 171.00 | 2720.0 | 2.000 | 3244.8 | 1642.4 | 2222.1 | 2717.5 | 3511.8 | 3863.4 |
| 04 | -11.90 | 171.00 | 2720.0 | 2.000 | 3311.4 | 1642.4 | 2255.6 | 2758.5 | 3559.7 | 3916.1 |
| 04 | -12.10 | 171.00 | 2720.0 | 2.000 | 3378.0 | 1642.4 | 2289.1 | 2799.4 | 3607.6 | 3968.7 |
| 04 | -12.30 | 171.00 | 2720.0 | 2.000 | 3444.7 | 1642.4 | 2322.6 | 2840.4 | 3655.4 | 4021.4 |
| 04 | -12.50 | 171.00 | 2720.0 | 2.000 | 3511.3 | 1642.4 | 2356.1 | 2881.4 | 3703.3 | 4074.0 |
| 04 | -12.70 | 171.00 | 2720.0 | 2.000 | 3577.9 | 1642.4 | 2389.6 | 2922.3 | 3751.2 | 4126.7 |
| 04 | -12.90 | 171.00 | 2720.0 | 2.000 | 3644.5 | 1642.4 | 2423.1 | 2963.3 | 3799.0 | 4179.4 |
| 04 | -13.10 | 171.00 | 2720.0 | 2.000 | 3711.1 | 1642.4 | 2456.6 | 3004.3 | 3846.9 | 4232.0 |
| 04 | -13.30 | 171.00 | 2720.0 | 2.000 | 3777.7 | 1642.4 | 2490.1 | 3045.2 | 3894.8 | 4284.7 |
| 04 | -13.50 | 171.00 | 2720.0 | 2.000 | 3844.3 | 1642.4 | 2523.5 | 3086.2 | 3942.6 | 4337.3 |
| 04 | -13.70 | 171.00 | 2720.0 | 2.000 | 3911.0 | 1642.4 | 2557.0 | 3127.2 | 3990.5 | 4390.0 |
| 04 | -13.90 | 171.00 | 2720.0 | 2.000 | 3977.6 | 1642.4 | 2590.5 | 3168.2 | 4038.4 | 4442.6 |
| 04 | -14.10 | 171.00 | 2720.0 | 2.000 | 4044.2 | 1642.4 | 2624.0 | 3209.1 | 4086.2 | 4495.3 |

|    |        |        |        |       |        |        |        |        |        |        |
|----|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|
| 04 | -14.30 | 171.00 | 2720.0 | 2.000 | 4110.8 | 1642.4 | 2657.5 | 3250.1 | 4134.1 | 4548.0 |
| 04 | -14.50 | 171.00 | 2720.0 | 2.000 | 4177.4 | 1642.4 | 2691.0 | 3291.1 | 4182.0 | 4600.6 |
| 04 | -14.70 | 171.00 | 2720.0 | 2.000 | 4244.0 | 1642.4 | 2724.5 | 3332.0 | 4229.8 | 4653.3 |
| 04 | -14.90 | 171.00 | 2720.0 | 2.000 | 4310.6 | 1642.4 | 2758.0 | 3373.0 | 4277.7 | 4705.9 |
| 04 | -15.10 | 171.00 | 2720.0 | 2.000 | 4377.3 | 1642.4 | 2791.5 | 3414.0 | 4325.6 | 4758.6 |
| 04 | -15.30 | 171.00 | 2720.0 | 2.000 | 4443.9 | 1642.4 | 2825.0 | 3454.9 | 4373.4 | 4811.3 |
| 04 | -15.50 | 171.00 | 2720.0 | 2.000 | 4510.5 | 1642.4 | 2858.5 | 3495.9 | 4421.3 | 4863.9 |
| 04 | -15.70 | 171.00 | 2720.0 | 2.000 | 4577.1 | 1642.4 | 2892.0 | 3536.9 | 4469.2 | 4916.6 |
| 04 | -15.90 | 171.00 | 2720.0 | 2.000 | 4643.7 | 1642.4 | 2925.4 | 3577.8 | 4517.0 | 4969.2 |
| 04 | -16.10 | 171.00 | 2720.0 | 2.000 | 4710.3 | 1642.4 | 2958.9 | 3618.8 | 4564.9 | 5021.9 |
| 04 | -16.30 | 171.00 | 2720.0 | 2.000 | 4776.9 | 1642.4 | 2992.4 | 3659.8 | 4612.8 | 5074.6 |
| 04 | -16.50 | 171.00 | 2720.0 | 2.000 | 4843.6 | 1642.4 | 3025.9 | 3700.8 | 4660.6 | 5127.2 |
| 04 | -16.70 | 171.00 | 2720.0 | 2.000 | 4910.2 | 1642.4 | 3059.4 | 3741.7 | 4708.5 | 5179.9 |
| 04 | -16.90 | 171.00 | 2720.0 | 2.000 | 4976.8 | 1642.4 | 3092.9 | 3782.7 | 4756.4 | 5232.5 |
| 04 | -17.10 | 171.00 | 2720.0 | 2.000 | 5043.4 | 1642.4 | 3126.4 | 3823.7 | 4804.2 | 5285.2 |
| 04 | -17.30 | 171.00 | 2720.0 | 2.000 | 5110.0 | 1642.4 | 3159.9 | 3864.6 | 4852.1 | 5337.9 |
| 04 | -17.50 | 171.00 | 2720.0 | 2.000 | 5176.6 | 1642.4 | 3193.4 | 3905.6 | 4900.0 | 5390.5 |
| 04 | -17.70 | 171.00 | 2720.0 | 2.000 | 5243.2 | 1642.4 | 3226.9 | 3946.6 | 4947.9 | 5443.2 |
| 04 | -17.90 | 171.00 | 2720.0 | 2.000 | 5309.9 | 1642.4 | 3260.4 | 3987.5 | 4995.7 | 5495.8 |
| 04 | -18.10 | 171.00 | 2720.0 | 2.000 | 5376.5 | 1642.4 | 3293.9 | 4028.5 | 5043.6 | 5548.5 |
| 04 | -18.30 | 171.00 | 2720.0 | 2.000 | 5443.1 | 1642.4 | 3327.3 | 4069.5 | 5091.5 | 5601.2 |
| 04 | -18.50 | 171.00 | 2720.0 | 2.000 | 5509.7 | 1642.4 | 3360.8 | 4110.4 | 5139.3 | 5653.8 |
| 04 | -18.70 | 171.00 | 2720.0 | 2.000 | 5576.3 | 1642.4 | 3394.3 | 4151.4 | 5187.2 | 5706.5 |
| 04 | -18.90 | 171.00 | 2720.0 | 2.000 | 5642.9 | 1642.4 | 3427.8 | 4192.4 | 5235.1 | 5759.1 |
| 04 | -19.10 | 171.00 | 2720.0 | 2.000 | 5709.5 | 1642.4 | 3461.3 | 4233.4 | 5282.9 | 5811.8 |
| 04 | -19.30 | 171.00 | 2720.0 | 2.000 | 5776.2 | 1642.4 | 3494.8 | 4274.3 | 5330.8 | 5864.5 |
| 04 | -19.50 | 171.00 | 2720.0 | 2.000 | 5842.8 | 1642.4 | 3528.3 | 4315.3 | 5378.7 | 5917.1 |
| 04 | -19.70 | 171.00 | 2720.0 | 2.000 | 5909.4 | 1642.4 | 3561.8 | 4356.3 | 5426.5 | 5969.8 |
| 04 | -19.90 | 171.00 | 2720.0 | 2.000 | 5976.0 | 1642.4 | 3595.3 | 4397.2 | 5474.4 | 6022.4 |
| 04 | -20.10 | 171.00 | 2720.0 | 2.000 | 6042.6 | 1642.4 | 3628.8 | 4438.2 | 5522.3 | 6075.1 |
| 04 | -20.30 | 171.00 | 2720.0 | 2.000 | 6109.2 | 1642.4 | 3662.3 | 4479.2 | 5570.1 | 6127.8 |
| 04 | -20.50 | 171.00 | 2720.0 | 2.000 | 6175.8 | 1642.4 | 3695.7 | 4520.1 | 5618.0 | 6180.4 |
| 04 | -20.70 | 171.00 | 2720.0 | 2.000 | 6242.5 | 1642.4 | 3729.2 | 4561.1 | 5665.9 | 6233.1 |
| 04 | -20.90 | 171.00 | 2720.0 | 2.000 | 6309.1 | 1642.4 | 3762.7 | 4602.1 | 5713.7 | 6285.7 |
| 04 | -21.10 | 171.00 | 2720.0 | 2.000 | 6375.7 | 1642.4 | 3796.2 | 4643.0 | 5761.6 | 6338.4 |
| 04 | -21.30 | 171.00 | 2720.0 | 2.000 | 6442.3 | 1642.4 | 3829.7 | 4684.0 | 5809.5 | 6391.1 |
| 04 | -21.50 | 171.00 | 2720.0 | 2.000 | 6508.9 | 1642.4 | 3863.2 | 4725.0 | 5857.3 | 6443.7 |
| 04 | -21.70 | 171.00 | 2720.0 | 2.000 | 6575.5 | 1642.4 | 3896.7 | 4766.0 | 5905.2 | 6496.4 |
| 04 | -21.90 | 171.00 | 2720.0 | 2.000 | 6642.2 | 1642.4 | 3930.2 | 4806.9 | 5953.1 | 6549.0 |
| 04 | -22.10 | 171.00 | 2720.0 | 2.000 | 6708.8 | 1642.4 | 3963.7 | 4847.9 | 6000.9 | 6601.7 |
| 04 | -22.30 | 171.00 | 2720.0 | 2.000 | 6775.4 | 1642.4 | 3997.2 | 4888.9 | 6048.8 | 6654.4 |
| 04 | -22.50 | 171.00 | 2720.0 | 2.000 | 6842.0 | 1642.4 | 4030.7 | 4929.8 | 6096.7 | 6707.0 |
| 04 | -22.70 | 171.00 | 2720.0 | 2.000 | 6908.6 | 1642.4 | 4064.2 | 4970.8 | 6144.5 | 6759.7 |
| 04 | -22.90 | 171.00 | 2720.0 | 2.000 | 6975.2 | 1642.4 | 4097.6 | 5011.8 | 6192.4 | 6812.3 |
| 04 | -23.10 | 171.00 | 2720.0 | 2.000 | 7041.8 | 1642.4 | 4131.1 | 5052.7 | 6240.3 | 6865.0 |
| 04 | -23.30 | 171.00 | 2720.0 | 2.000 | 7108.5 | 1642.4 | 4164.6 | 5093.7 | 6288.1 | 6917.6 |
| 04 | -23.50 | 171.00 | 2720.0 | 2.000 | 7175.1 | 1642.4 | 4198.1 | 5134.7 | 6336.0 | 6970.3 |
| 04 | -23.70 | 171.00 | 2720.0 | 2.000 | 7241.7 | 1642.4 | 4231.6 | 5175.6 | 6383.9 | 7023.0 |
| 04 | -23.80 | 171.00 | 2720.0 | 2.000 | 7275.0 | 1642.4 | 4248.4 | 5196.1 | 6407.8 | 7049.3 |



# Capacité du pieu pour chaque combinaison en fonction de la profondeur



# Données

Titre du projet : Eco-Village d'entreprises à Carrère (pieu n°1)  
Numéro d'affaire : 22-1222  
Commentaires : Sondage SP6  
Titre du calcul : Titre du calcul  
Cadre réglementaire : EC 7 - Norme NF P94-262/A1 (juillet 2018)  
Méthode de dimensionnement : A partir des résultats pressiométriques  
Traitement des données : Traitement par couches  
Pas du calcul (m) : 0,20  
Section de calcul : Section de calcul circulaire  
Diamètre de calcul (m) : 0,72  
Classe du pieu : 2 - Pieu tarière creuse  
Catégorie du pieu : 6 [FTC, FTCD] - Foré tarière creuse simple rotation, ou double rotation  
Mode de chargement : Travail en compression

## Combinaisons

|                                 | ELS-QP | ELS-CARAC | ELU-FOND | ELU-ACC |
|---------------------------------|--------|-----------|----------|---------|
| Pondérations combinées sur Qs.k | 0.636  | 0.778     | 0.909    | 1.000   |
| Pondérations combinées sur Qp.k | 0.455  | 0.556     | 0.909    | 1.000   |

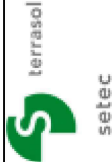
Cote de référence (m) : 6,20

## Définition des couches de sol

| No | Nom                                       | Couleur | Classe de sol               | Zbase  | pl*     | qsl    | kpmax | $\sqrt{R_s.d1 \times \gamma R_s.d2}$ |
|----|-------------------------------------------|---------|-----------------------------|--------|---------|--------|-------|--------------------------------------|
| 1  | Remblais                                  |         | Argile, limons              | 3,70   | 460,00  | 0,00   | 1,30  | 1,265                                |
| 2  | Lave altérée argilisée raide              |         | Argile, limons              | -0,80  | 890,00  | 61,00  | 1,30  | 1,265                                |
| 3  | Lave altérée argilisée raide à très raide |         | Argile, limons              | -5,30  | 1400,00 | 66,00  | 1,30  | 1,265                                |
| 4  | Lave altérée argilisée très raide         |         | Roche altérée et fragmentée | -25,00 | 2720,00 | 171,00 | 2,00  | 1,265                                |

Critère de calcul : Longueur imposée

Longueur du pieu (m) : 30,00

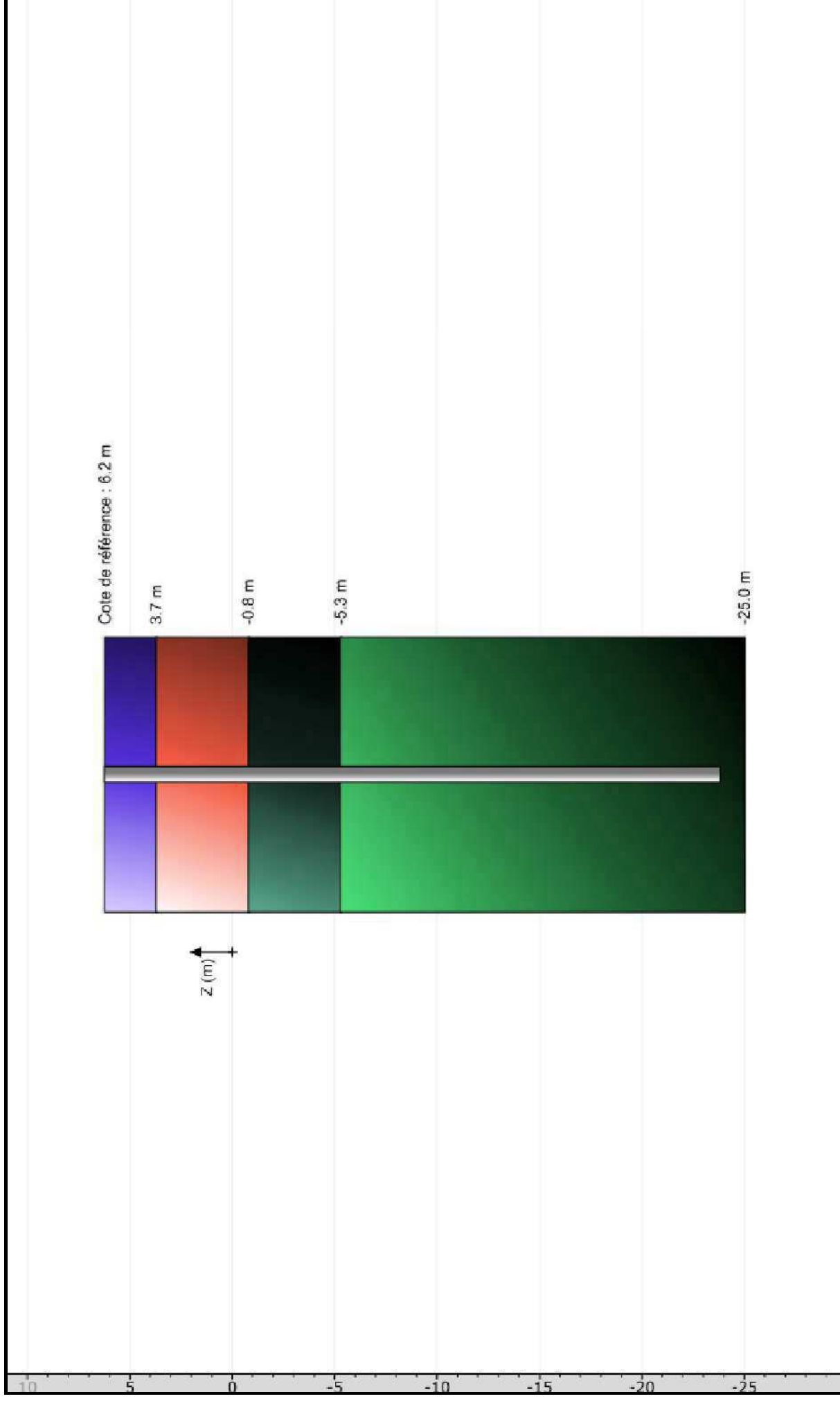


FoXta v3  
v3.3.6

Imprimé le : 06/09/2022 - 12:56:30  
Calcul réalisé par : MAGMA CARAIBES

Projet : SP6\_compression  
Module : Fondprof (Pieu 1/1)

# Onglet "Paramètres généraux"



File : C:\Users\morel\AppData\Local\Temp\Terrasol\FoXta v3\3812\temp[FP]-1.resu

Calcul réalisé le : 06/09/2022 à 12h56  
par : MAGMA CARAIBES

## Options du calcul :

- calcul basé sur des paramètres issus du pressiomètre de Ménard
- calcul selon les règles de la norme NF P 94 262
- profil de pression limite pl\* défini par couche
- pour pieu de catégorie : 6
- pour pieu travaillant en compression

| Combinaisons | ELS-QP | ELS-CARA | ELU-FOND | ELU-ACC |
|--------------|--------|----------|----------|---------|
| Frottement   | 0.636  | 0.778    | 0.909    | 1.000   |
| Pointe       | 0.455  | 0.556    | 0.909    | 1.000   |

Cote de référence : 6.200

Section du pieu : 0.407  
Périmètre : 2.262

## Caractéristiques des couches (données utilisateur)

| couche | base   | pl*    | qsl    | kpmin | kpmax | gamrd |
|--------|--------|--------|--------|-------|-------|-------|
| 01     | 3.70   | 460.0  | 0.00   | 1.00  | 1.30  | 1.26  |
| 02     | -0.80  | 890.0  | 61.00  | 1.00  | 1.30  | 1.26  |
| 03     | -5.30  | 1400.0 | 66.00  | 1.00  | 1.30  | 1.26  |
| 04     | -25.00 | 2720.0 | 171.00 | 1.00  | 2.00  | 1.26  |

Pas du calcul : 0.20

\*\*\*\*\*  
 \*\*\*SOLUTION\*\*\*  
 \*\*\*\*\*

Calcul à longueur imposée : L = 30.00

| couche | cote | qsl   | ple   | kp    | Qs    | Qp    | ELS-QP | ELS-CARA | ELU-FOND | ELU-ACC |
|--------|------|-------|-------|-------|-------|-------|--------|----------|----------|---------|
| 01     | 6.20 | 0.00  | 460.0 | 1.000 | 0.0   | 187.3 | 67.4   | 82.3     | 134.6    | 148.1   |
| 01     | 6.00 | 0.00  | 460.0 | 1.017 | 0.0   | 190.4 | 68.5   | 83.7     | 136.8    | 150.5   |
| 01     | 5.80 | 0.00  | 460.0 | 1.033 | 0.0   | 193.5 | 69.6   | 85.1     | 139.1    | 153.0   |
| 01     | 5.60 | 0.00  | 460.0 | 1.050 | 0.0   | 196.7 | 70.7   | 86.4     | 141.3    | 155.5   |
| 01     | 5.40 | 0.00  | 460.0 | 1.067 | 0.0   | 199.8 | 71.9   | 87.8     | 143.6    | 157.9   |
| 01     | 5.20 | 0.00  | 460.0 | 1.083 | 0.0   | 202.9 | 73.0   | 89.2     | 145.8    | 160.4   |
| 01     | 5.00 | 0.00  | 503.0 | 1.091 | 0.0   | 223.5 | 80.4   | 98.2     | 160.6    | 176.7   |
| 01     | 4.80 | 0.00  | 546.0 | 1.098 | 0.0   | 244.2 | 87.8   | 107.3    | 175.4    | 193.0   |
| 01     | 4.60 | 0.00  | 589.0 | 1.104 | 0.0   | 264.8 | 95.2   | 116.4    | 190.3    | 209.3   |
| 01     | 4.40 | 0.00  | 632.0 | 1.109 | 0.0   | 285.4 | 102.7  | 125.4    | 205.1    | 225.6   |
| 01     | 4.20 | 0.00  | 675.0 | 1.114 | 0.0   | 306.0 | 110.1  | 134.5    | 219.9    | 241.9   |
| 01     | 4.00 | 0.00  | 718.0 | 1.117 | 0.0   | 326.7 | 117.5  | 143.6    | 234.7    | 258.2   |
| 01     | 3.80 | 0.00  | 761.0 | 1.121 | 0.0   | 347.3 | 124.9  | 152.6    | 249.6    | 274.5   |
| 01     | 3.70 | 0.00  | 782.5 | 1.122 | 0.0   | 357.6 | 128.6  | 157.2    | 257.0    | 282.7   |
| 02     | 3.70 | 61.00 | 890.0 | 1.108 | 0.0   | 401.4 | 144.4  | 176.4    | 288.4    | 317.3   |
| 02     | 3.50 | 61.00 | 890.0 | 1.124 | 27.6  | 407.4 | 160.4  | 196.0    | 312.6    | 343.9   |
| 02     | 3.30 | 61.00 | 890.0 | 1.141 | 55.2  | 413.5 | 176.5  | 215.7    | 336.8    | 370.5   |
| 02     | 3.10 | 61.00 | 890.0 | 1.158 | 82.8  | 419.5 | 192.5  | 235.3    | 360.9    | 397.1   |
| 02     | 2.90 | 61.00 | 890.0 | 1.174 | 110.4 | 425.5 | 208.6  | 254.9    | 385.1    | 423.7   |
| 02     | 2.70 | 61.00 | 890.0 | 1.191 | 138.0 | 431.6 | 224.6  | 274.5    | 409.3    | 450.2   |
| 02     | 2.50 | 61.00 | 890.0 | 1.208 | 165.6 | 437.6 | 240.6  | 294.2    | 433.4    | 476.8   |

|    |        |        |        |       |        |        |        |        |        |        |
|----|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|
| 02 | 2.30   | 61.00  | 890.0  | 1.224 | 193.2  | 443.7  | 256.7  | 313.8  | 457.6  | 503.4  |
| 02 | 2.10   | 61.00  | 890.0  | 1.241 | 220.8  | 449.7  | 272.7  | 333.4  | 481.8  | 530.0  |
| 02 | 1.90   | 61.00  | 890.0  | 1.258 | 248.4  | 455.7  | 288.8  | 353.1  | 505.9  | 556.6  |
| 02 | 1.70   | 61.00  | 890.0  | 1.274 | 276.0  | 461.8  | 304.8  | 372.7  | 530.1  | 583.2  |
| 02 | 1.50   | 61.00  | 890.0  | 1.291 | 303.6  | 467.8  | 320.9  | 392.3  | 554.3  | 609.8  |
| 02 | 1.30   | 61.00  | 890.0  | 1.300 | 331.1  | 471.1  | 335.9  | 410.7  | 576.5  | 634.2  |
| 02 | 1.10   | 61.00  | 890.0  | 1.300 | 358.7  | 471.1  | 349.8  | 427.7  | 596.3  | 656.0  |
| 02 | 0.90   | 61.00  | 890.0  | 1.300 | 386.3  | 471.1  | 363.7  | 444.7  | 616.1  | 677.8  |
| 02 | 0.70   | 61.00  | 890.0  | 1.300 | 413.9  | 471.1  | 377.6  | 461.6  | 635.9  | 699.6  |
| 02 | 0.50   | 61.00  | 941.0  | 1.300 | 441.5  | 498.1  | 401.1  | 490.5  | 675.2  | 742.8  |
| 02 | 0.30   | 61.00  | 992.0  | 1.300 | 469.1  | 525.1  | 424.7  | 519.3  | 714.4  | 785.9  |
| 02 | 0.10   | 61.00  | 1043.0 | 1.300 | 496.7  | 552.1  | 448.3  | 548.1  | 753.6  | 829.1  |
| 02 | -0.10  | 61.00  | 1094.0 | 1.300 | 524.3  | 579.0  | 471.9  | 577.0  | 792.9  | 872.2  |
| 02 | -0.30  | 61.00  | 1145.0 | 1.300 | 551.9  | 606.0  | 495.5  | 605.8  | 832.1  | 915.4  |
| 02 | -0.50  | 61.00  | 1196.0 | 1.300 | 579.5  | 633.0  | 519.1  | 634.6  | 871.3  | 958.5  |
| 02 | -0.70  | 61.00  | 1247.0 | 1.300 | 607.1  | 660.0  | 542.6  | 663.5  | 910.5  | 1001.7 |
| 02 | -0.80  | 61.00  | 1272.5 | 1.300 | 620.9  | 673.5  | 554.4  | 677.9  | 930.1  | 1023.3 |
| 03 | -0.80  | 66.00  | 1400.0 | 1.300 | 620.9  | 741.0  | 578.7  | 707.6  | 978.6  | 1076.6 |
| 03 | -1.00  | 66.00  | 1400.0 | 1.300 | 650.8  | 741.0  | 593.7  | 725.9  | 1000.1 | 1100.2 |
| 03 | -1.20  | 66.00  | 1400.0 | 1.300 | 680.6  | 741.0  | 608.7  | 744.3  | 1021.6 | 1123.8 |
| 03 | -1.40  | 66.00  | 1400.0 | 1.300 | 710.5  | 741.0  | 623.7  | 762.7  | 1043.0 | 1147.4 |
| 03 | -1.60  | 66.00  | 1400.0 | 1.300 | 740.3  | 741.0  | 638.7  | 781.0  | 1064.5 | 1171.0 |
| 03 | -1.80  | 66.00  | 1400.0 | 1.300 | 770.2  | 741.0  | 653.8  | 799.4  | 1085.9 | 1194.6 |
| 03 | -2.00  | 66.00  | 1400.0 | 1.300 | 800.1  | 741.0  | 668.8  | 817.7  | 1107.4 | 1218.2 |
| 03 | -2.20  | 66.00  | 1400.0 | 1.300 | 829.9  | 741.0  | 683.8  | 836.1  | 1128.8 | 1241.8 |
| 03 | -2.40  | 66.00  | 1400.0 | 1.300 | 859.8  | 741.0  | 698.8  | 854.5  | 1150.3 | 1265.4 |
| 03 | -2.60  | 66.00  | 1400.0 | 1.300 | 889.6  | 741.0  | 713.8  | 872.8  | 1171.7 | 1289.0 |
| 03 | -2.80  | 66.00  | 1400.0 | 1.300 | 919.5  | 741.0  | 728.8  | 891.2  | 1193.2 | 1312.6 |
| 03 | -3.00  | 66.00  | 1400.0 | 1.300 | 949.3  | 741.0  | 743.8  | 909.6  | 1214.6 | 1336.2 |
| 03 | -3.20  | 66.00  | 1400.0 | 1.300 | 979.2  | 741.0  | 758.8  | 927.9  | 1236.1 | 1359.9 |
| 03 | -3.40  | 66.00  | 1400.0 | 1.300 | 1009.1 | 741.0  | 773.8  | 946.3  | 1257.6 | 1383.5 |
| 03 | -3.60  | 66.00  | 1400.0 | 1.300 | 1038.9 | 741.0  | 788.9  | 964.6  | 1279.0 | 1407.1 |
| 03 | -3.80  | 66.00  | 1400.0 | 1.300 | 1068.8 | 741.0  | 803.9  | 983.0  | 1300.5 | 1430.7 |
| 03 | -4.00  | 66.00  | 1532.0 | 1.300 | 1098.6 | 810.9  | 844.0  | 1032.1 | 1372.1 | 1509.5 |
| 03 | -4.20  | 66.00  | 1664.0 | 1.300 | 1128.5 | 880.7  | 884.2  | 1081.2 | 1443.8 | 1588.3 |
| 03 | -4.40  | 66.00  | 1796.0 | 1.300 | 1158.3 | 950.6  | 924.3  | 1130.2 | 1515.4 | 1667.2 |
| 03 | -4.60  | 66.00  | 1928.0 | 1.300 | 1188.2 | 1020.5 | 964.4  | 1179.3 | 1587.1 | 1746.0 |
| 03 | -4.80  | 66.00  | 2060.0 | 1.300 | 1218.1 | 1090.3 | 1004.6 | 1228.4 | 1658.8 | 1824.8 |
| 03 | -5.00  | 66.00  | 2192.0 | 1.300 | 1247.9 | 1160.2 | 1044.7 | 1277.4 | 1730.4 | 1903.7 |
| 03 | -5.20  | 66.00  | 2324.0 | 1.300 | 1277.8 | 1230.1 | 1084.9 | 1326.5 | 1802.1 | 1982.5 |
| 03 | -5.30  | 66.00  | 2390.0 | 1.300 | 1292.7 | 1265.0 | 1104.9 | 1351.0 | 1837.9 | 2021.9 |
| 04 | -5.30  | 171.00 | 2720.0 | 1.889 | 1292.7 | 2091.7 | 1402.3 | 1714.4 | 2432.0 | 2675.4 |
| 04 | -5.50  | 171.00 | 2720.0 | 1.926 | 1370.1 | 2133.1 | 1456.1 | 1780.2 | 2517.3 | 2769.3 |
| 04 | -5.70  | 171.00 | 2720.0 | 1.964 | 1447.4 | 2174.5 | 1509.9 | 1846.0 | 2602.6 | 2863.2 |
| 04 | -5.90  | 171.00 | 2720.0 | 2.000 | 1524.8 | 2214.9 | 1563.3 | 1911.3 | 2687.2 | 2956.3 |
| 04 | -6.10  | 171.00 | 2720.0 | 2.000 | 1602.1 | 2214.9 | 1602.2 | 1958.9 | 2742.8 | 3017.4 |
| 04 | -6.30  | 171.00 | 2720.0 | 2.000 | 1679.5 | 2214.9 | 1641.1 | 2006.4 | 2798.4 | 3078.6 |
| 04 | -6.50  | 171.00 | 2720.0 | 2.000 | 1756.9 | 2214.9 | 1680.0 | 2054.0 | 2854.0 | 3139.7 |
| 04 | -6.70  | 171.00 | 2720.0 | 2.000 | 1834.2 | 2214.9 | 1718.8 | 2101.6 | 2909.6 | 3200.9 |
| 04 | -6.90  | 171.00 | 2720.0 | 2.000 | 1911.6 | 2214.9 | 1757.7 | 2149.2 | 2965.2 | 3262.0 |
| 04 | -7.10  | 171.00 | 2720.0 | 2.000 | 1988.9 | 2214.9 | 1796.6 | 2196.7 | 3020.8 | 3323.2 |
| 04 | -7.30  | 171.00 | 2720.0 | 2.000 | 2066.3 | 2214.9 | 1835.5 | 2244.3 | 3076.4 | 3384.3 |
| 04 | -7.50  | 171.00 | 2720.0 | 2.000 | 2143.6 | 2214.9 | 1874.4 | 2291.9 | 3132.0 | 3445.5 |
| 04 | -7.70  | 171.00 | 2720.0 | 2.000 | 2221.0 | 2214.9 | 1913.3 | 2339.5 | 3187.5 | 3506.6 |
| 04 | -7.90  | 171.00 | 2720.0 | 2.000 | 2298.4 | 2214.9 | 1952.2 | 2387.0 | 3243.1 | 3567.8 |
| 04 | -8.10  | 171.00 | 2720.0 | 2.000 | 2375.7 | 2214.9 | 1991.1 | 2434.6 | 3298.7 | 3628.9 |
| 04 | -8.30  | 171.00 | 2720.0 | 2.000 | 2453.1 | 2214.9 | 2030.0 | 2482.2 | 3354.3 | 3690.1 |
| 04 | -8.50  | 171.00 | 2720.0 | 2.000 | 2530.4 | 2214.9 | 2068.9 | 2529.8 | 3409.9 | 3751.3 |
| 04 | -8.70  | 171.00 | 2720.0 | 2.000 | 2607.8 | 2214.9 | 2107.8 | 2577.4 | 3465.5 | 3812.4 |
| 04 | -8.90  | 171.00 | 2720.0 | 2.000 | 2685.2 | 2214.9 | 2146.7 | 2624.9 | 3521.1 | 3873.6 |
| 04 | -9.10  | 171.00 | 2720.0 | 2.000 | 2762.5 | 2214.9 | 2185.6 | 2672.5 | 3576.7 | 3934.7 |
| 04 | -9.30  | 171.00 | 2720.0 | 2.000 | 2839.9 | 2214.9 | 2224.5 | 2720.1 | 3632.2 | 3995.9 |
| 04 | -9.50  | 171.00 | 2720.0 | 2.000 | 2917.2 | 2214.9 | 2263.4 | 2767.7 | 3687.8 | 4057.0 |
| 04 | -9.70  | 171.00 | 2720.0 | 2.000 | 2994.6 | 2214.9 | 2302.2 | 2815.2 | 3743.4 | 4118.2 |
| 04 | -9.90  | 171.00 | 2720.0 | 2.000 | 3072.0 | 2214.9 | 2341.1 | 2862.8 | 3799.0 | 4179.3 |
| 04 | -10.10 | 171.00 | 2720.0 | 2.000 | 3149.3 | 2214.9 | 2380.0 | 2910.4 | 3854.6 | 4240.5 |
| 04 | -10.30 | 171.00 | 2720.0 | 2.000 | 3226.7 | 2214.9 | 2418.9 | 2958.0 | 3910.2 | 4301.6 |
| 04 | -10.50 | 171.00 | 2720.0 | 2.000 | 3304.0 | 2214.9 | 2457.8 | 3005.5 | 3965.8 | 4362.8 |
| 04 | -10.70 | 171.00 | 2720.0 | 2.000 | 3381.4 | 2214.9 | 2496.7 | 3053.1 | 4021.4 | 4423.9 |
| 04 | -10.90 | 171.00 | 2720.0 | 2.000 | 3458.7 | 2214.9 | 2535.6 | 3100.7 | 4076.9 | 4485.1 |
| 04 | -11.10 | 171.00 | 2720.0 | 2.000 | 3536.1 | 2214.9 | 2574.5 | 3148.3 | 4132.5 | 4546.2 |
| 04 | -11.30 | 171.00 | 2720.0 | 2.000 | 3613.5 | 2214.9 | 2613.4 | 3195.9 | 4188.1 | 4607.4 |
| 04 | -11.50 | 171.00 | 2720.0 | 2.000 | 3690.8 | 2214.9 | 2652.3 | 3243.4 | 4243.7 | 4668.6 |
| 04 | -11.70 | 171.00 | 2720.0 | 2.000 | 3768.2 | 2214.9 | 2691.2 | 3291.0 | 4299.3 | 4729.7 |
| 04 | -11.90 | 171.00 | 2720.0 | 2.000 | 3845.5 | 2214.9 | 2730.1 | 3338.6 | 4354.9 | 4790.9 |
| 04 | -12.10 | 171.00 | 2720.0 | 2.000 | 3922.9 | 2214.9 | 2769.0 | 3386.2 | 4410.5 | 4852.0 |
| 04 | -12.30 | 171.00 | 2720.0 | 2.000 | 4000.3 | 2214.9 | 2807.9 | 3433.7 | 4466.1 | 4913.2 |
| 04 | -12.50 | 171.00 | 2720.0 | 2.000 | 4077.6 | 2214.9 | 2846.8 | 3481.3 | 4521.7 | 4974.3 |
| 04 | -12.70 | 171.00 | 2720.0 | 2.000 | 4155.0 | 2214.9 | 2885.6 | 3528.9 | 4577.2 | 5035.5 |
| 04 | -12.90 | 171.00 | 2720.0 | 2.000 | 4232.3 | 2214.9 | 2924.5 | 3576.5 | 4632.8 | 5096.6 |
| 04 | -13.10 | 171.00 | 2720.0 | 2.000 | 4309.7 | 2214.9 | 2963.4 | 3624.0 | 4688.4 | 5157.8 |
| 04 | -13.30 | 171.00 | 2720.0 | 2.000 | 4387.0 | 2214.9 | 3002.3 | 3671.6 | 4744.0 | 5218.9 |
| 04 | -13.50 | 171.00 | 2720.0 | 2.000 | 4464.4 | 2214.9 | 3041.2 | 3719.2 | 4799.6 | 5280.1 |
| 04 | -13.70 | 171.00 | 2720.0 | 2.000 | 4541.8 | 2214.9 | 3080.1 | 3766.8 | 4855.2 | 5341.2 |
| 04 | -13.90 | 171.00 | 2720.0 | 2.000 | 4619.1 | 2214.9 | 3119.0 | 3814.4 | 4910.8 | 5402.4 |
| 04 | -14.10 | 171.00 | 2720.0 | 2.000 | 4696.5 | 2214.9 | 3157.9 | 3861.9 | 4966.4 | 5463.5 |

|    |        |        |        |       |        |        |        |        |        |        |
|----|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|
| 04 | -14.30 | 171.00 | 2720.0 | 2.000 | 4773.8 | 2214.9 | 3196.8 | 3909.5 | 5021.9 | 5524.7 |
| 04 | -14.50 | 171.00 | 2720.0 | 2.000 | 4851.2 | 2214.9 | 3235.7 | 3957.1 | 5077.5 | 5585.8 |
| 04 | -14.70 | 171.00 | 2720.0 | 2.000 | 4928.6 | 2214.9 | 3274.6 | 4004.7 | 5133.1 | 5647.0 |
| 04 | -14.90 | 171.00 | 2720.0 | 2.000 | 5005.9 | 2214.9 | 3313.5 | 4052.2 | 5188.7 | 5708.2 |
| 04 | -15.10 | 171.00 | 2720.0 | 2.000 | 5083.3 | 2214.9 | 3352.4 | 4099.8 | 5244.3 | 5769.3 |
| 04 | -15.30 | 171.00 | 2720.0 | 2.000 | 5160.6 | 2214.9 | 3391.3 | 4147.4 | 5299.9 | 5830.5 |
| 04 | -15.50 | 171.00 | 2720.0 | 2.000 | 5238.0 | 2214.9 | 3430.2 | 4195.0 | 5355.5 | 5891.6 |
| 04 | -15.70 | 171.00 | 2720.0 | 2.000 | 5315.3 | 2214.9 | 3469.0 | 4242.5 | 5411.1 | 5952.8 |
| 04 | -15.90 | 171.00 | 2720.0 | 2.000 | 5392.7 | 2214.9 | 3507.9 | 4290.1 | 5466.7 | 6013.9 |
| 04 | -16.10 | 171.00 | 2720.0 | 2.000 | 5470.1 | 2214.9 | 3546.8 | 4337.7 | 5522.2 | 6075.1 |
| 04 | -16.30 | 171.00 | 2720.0 | 2.000 | 5547.4 | 2214.9 | 3585.7 | 4385.3 | 5577.8 | 6136.2 |
| 04 | -16.50 | 171.00 | 2720.0 | 2.000 | 5624.8 | 2214.9 | 3624.6 | 4432.9 | 5633.4 | 6197.4 |
| 04 | -16.70 | 171.00 | 2720.0 | 2.000 | 5702.1 | 2214.9 | 3663.5 | 4480.4 | 5689.0 | 6258.5 |
| 04 | -16.90 | 171.00 | 2720.0 | 2.000 | 5779.5 | 2214.9 | 3702.4 | 4528.0 | 5744.6 | 6319.7 |
| 04 | -17.10 | 171.00 | 2720.0 | 2.000 | 5856.9 | 2214.9 | 3741.3 | 4575.6 | 5800.2 | 6380.8 |
| 04 | -17.30 | 171.00 | 2720.0 | 2.000 | 5934.2 | 2214.9 | 3780.2 | 4623.2 | 5855.8 | 6442.0 |
| 04 | -17.50 | 171.00 | 2720.0 | 2.000 | 6011.6 | 2214.9 | 3819.1 | 4670.7 | 5911.4 | 6503.1 |
| 04 | -17.70 | 171.00 | 2720.0 | 2.000 | 6088.9 | 2214.9 | 3858.0 | 4718.3 | 5966.9 | 6564.3 |
| 04 | -17.90 | 171.00 | 2720.0 | 2.000 | 6166.3 | 2214.9 | 3896.9 | 4765.9 | 6022.5 | 6625.4 |
| 04 | -18.10 | 171.00 | 2720.0 | 2.000 | 6243.7 | 2214.9 | 3935.8 | 4813.5 | 6078.1 | 6686.6 |
| 04 | -18.30 | 171.00 | 2720.0 | 2.000 | 6321.0 | 2214.9 | 3974.7 | 4861.1 | 6133.7 | 6747.8 |
| 04 | -18.50 | 171.00 | 2720.0 | 2.000 | 6398.4 | 2214.9 | 4013.6 | 4908.6 | 6189.3 | 6808.9 |
| 04 | -18.70 | 171.00 | 2720.0 | 2.000 | 6475.7 | 2214.9 | 4052.4 | 4956.2 | 6244.9 | 6870.1 |
| 04 | -18.90 | 171.00 | 2720.0 | 2.000 | 6553.1 | 2214.9 | 4091.3 | 5003.8 | 6300.5 | 6931.2 |
| 04 | -19.10 | 171.00 | 2720.0 | 2.000 | 6630.4 | 2214.9 | 4130.2 | 5051.4 | 6356.1 | 6992.4 |
| 04 | -19.30 | 171.00 | 2720.0 | 2.000 | 6707.8 | 2214.9 | 4169.1 | 5098.9 | 6411.6 | 7053.5 |
| 04 | -19.50 | 171.00 | 2720.0 | 2.000 | 6785.2 | 2214.9 | 4208.0 | 5146.5 | 6467.2 | 7114.7 |
| 04 | -19.70 | 171.00 | 2720.0 | 2.000 | 6862.5 | 2214.9 | 4246.9 | 5194.1 | 6522.8 | 7175.8 |
| 04 | -19.90 | 171.00 | 2720.0 | 2.000 | 6939.9 | 2214.9 | 4285.8 | 5241.7 | 6578.4 | 7237.0 |
| 04 | -20.10 | 171.00 | 2720.0 | 2.000 | 7017.2 | 2214.9 | 4324.7 | 5289.2 | 6634.0 | 7298.1 |
| 04 | -20.30 | 171.00 | 2720.0 | 2.000 | 7094.6 | 2214.9 | 4363.6 | 5336.8 | 6689.6 | 7359.3 |
| 04 | -20.50 | 171.00 | 2720.0 | 2.000 | 7172.0 | 2214.9 | 4402.5 | 5384.4 | 6745.2 | 7420.4 |
| 04 | -20.70 | 171.00 | 2720.0 | 2.000 | 7249.3 | 2214.9 | 4441.4 | 5432.0 | 6800.8 | 7481.6 |
| 04 | -20.90 | 171.00 | 2720.0 | 2.000 | 7326.7 | 2214.9 | 4480.3 | 5479.6 | 6856.4 | 7542.7 |
| 04 | -21.10 | 171.00 | 2720.0 | 2.000 | 7404.0 | 2214.9 | 4519.2 | 5527.1 | 6911.9 | 7603.9 |
| 04 | -21.30 | 171.00 | 2720.0 | 2.000 | 7481.4 | 2214.9 | 4558.1 | 5574.7 | 6967.5 | 7665.0 |
| 04 | -21.50 | 171.00 | 2720.0 | 2.000 | 7558.7 | 2214.9 | 4597.0 | 5622.3 | 7023.1 | 7726.2 |
| 04 | -21.70 | 171.00 | 2720.0 | 2.000 | 7636.1 | 2214.9 | 4635.8 | 5669.9 | 7078.7 | 7787.4 |
| 04 | -21.90 | 171.00 | 2720.0 | 2.000 | 7713.5 | 2214.9 | 4674.7 | 5717.4 | 7134.3 | 7848.5 |
| 04 | -22.10 | 171.00 | 2720.0 | 2.000 | 7790.8 | 2214.9 | 4713.6 | 5765.0 | 7189.9 | 7909.7 |
| 04 | -22.30 | 171.00 | 2720.0 | 2.000 | 7868.2 | 2214.9 | 4752.5 | 5812.6 | 7245.5 | 7970.8 |
| 04 | -22.50 | 171.00 | 2720.0 | 2.000 | 7945.5 | 2214.9 | 4791.4 | 5860.2 | 7301.1 | 8032.0 |
| 04 | -22.70 | 171.00 | 2720.0 | 2.000 | 8022.9 | 2214.9 | 4830.3 | 5907.7 | 7356.6 | 8093.1 |
| 04 | -22.90 | 171.00 | 2720.0 | 2.000 | 8100.3 | 2214.9 | 4869.2 | 5955.3 | 7412.2 | 8154.3 |
| 04 | -23.10 | 171.00 | 2720.0 | 2.000 | 8177.6 | 2214.9 | 4908.1 | 6002.9 | 7467.8 | 8215.4 |
| 04 | -23.30 | 171.00 | 2720.0 | 2.000 | 8255.0 | 2214.9 | 4947.0 | 6050.5 | 7523.4 | 8276.6 |
| 04 | -23.50 | 171.00 | 2720.0 | 2.000 | 8332.3 | 2214.9 | 4985.9 | 6098.1 | 7579.0 | 8337.7 |
| 04 | -23.70 | 171.00 | 2720.0 | 2.000 | 8409.7 | 2214.9 | 5024.8 | 6145.6 | 7634.6 | 8398.9 |
| 04 | -23.80 | 171.00 | 2720.0 | 2.000 | 8448.4 | 2214.9 | 5044.2 | 6169.4 | 7662.4 | 8429.5 |



# Capacité du pieu pour chaque combinaison en fonction de la profondeur





# Données

Titre du projet : Eco-Village d'entreprises à Carrère (pieu n°1)  
Numéro d'affaire : 22-1222  
Commentaires : Sondage SP6  
Titre du calcul : Titre du calcul  
Cadre réglementaire : EC 7 - Norme NF P94-262/A1 (juillet 2018)  
Méthode de dimensionnement : A partir des résultats pressiométriques  
Traitement des données : Traitement par couches  
Pas du calcul (m) : 0,20  
Section de calcul : Section de calcul circulaire  
Diamètre de calcul (m) : 0,82  
Classe du pieu : 2 - Pieu tarière creuse  
Catégorie du pieu : 6 [FTC, FTCD] - Foré tarière creuse simple rotation, ou double rotation  
Mode de chargement : Travail en compression

## Combinaisons

|                                 | ELS-QP | ELS-CARAC | ELU-FOND | ELU-ACC |
|---------------------------------|--------|-----------|----------|---------|
| Pondérations combinées sur Qs.k | 0,636  | 0,778     | 0,909    | 1,000   |
| Pondérations combinées sur Qp.k | 0,455  | 0,556     | 0,909    | 1,000   |

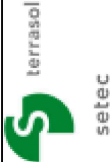
Cote de référence (m) : 6,20

## Définition des couches de sol

| No | Nom                                       | Couleur | Classe de sol               | Zbase  | pl*     | qsl    | kpmax | $\sqrt{R_s.d1 \times \gamma R_s.d2}$ |
|----|-------------------------------------------|---------|-----------------------------|--------|---------|--------|-------|--------------------------------------|
| 1  | Remblais                                  |         | Argile, limons              | 3,70   | 460,00  | 0,00   | 1,30  | 1,265                                |
| 2  | Lave altérée argilisée raide              |         | Argile, limons              | -0,80  | 890,00  | 61,00  | 1,30  | 1,265                                |
| 3  | Lave altérée argilisée raide à très raide |         | Argile, limons              | -5,30  | 1400,00 | 66,00  | 1,30  | 1,265                                |
| 4  | Lave altérée argilisée très raide         |         | Roche altérée et fragmentée | -25,00 | 2720,00 | 171,00 | 2,00  | 1,265                                |

Critère de calcul : Longueur imposée

Longueur du pieu (m) : 30,00

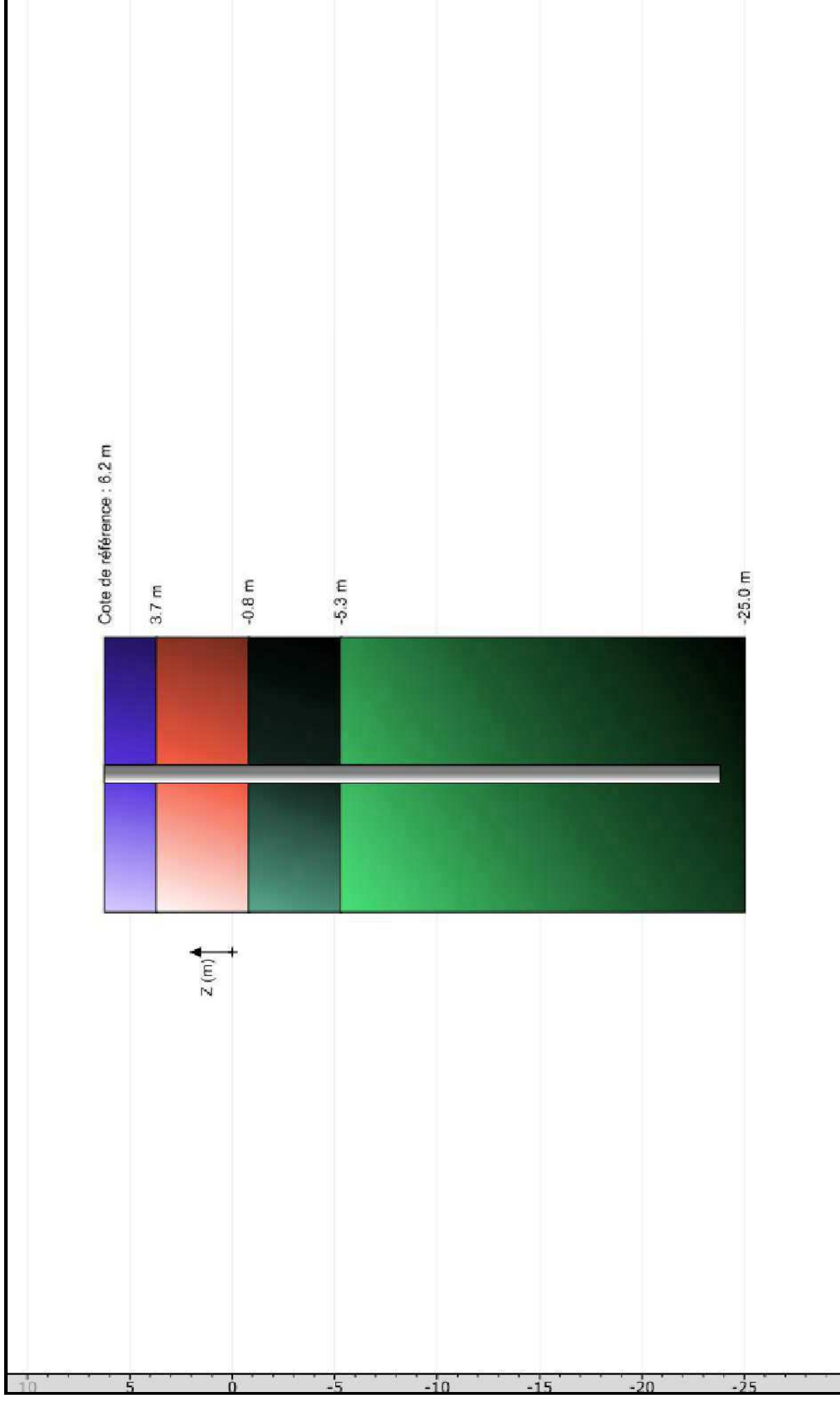


FoXta v3  
v3.3.6

Imprimé le : 06/09/2022 - 12:57:14  
Calcul réalisé par : MAGMA CARAIBES

Projet : SP6\_compression  
Module : Fondprof (Pieu 1/1)

# Onglet "Paramètres généraux"



File : C:\Users\morel\AppData\Local\Temp\Terrasol\FoXta v3\3812\temp[FP]-1.resu

Calcul réalisé le : 06/09/2022 à 12h56  
par : MAGMA CARAIBES

## Options du calcul :

- calcul basé sur des paramètres issus du pressiomètre de Ménard
- calcul selon les règles de la norme NF P 94 262
- profil de pression limite pl\* défini par couche
- pour pieu de catégorie : 6
- pour pieu travaillant en compression

| Combinaisons | ELS-QP | ELS-CARA | ELU-FOND | ELU-ACC |
|--------------|--------|----------|----------|---------|
| Frottement   | 0.636  | 0.778    | 0.909    | 1.000   |
| Pointe       | 0.455  | 0.556    | 0.909    | 1.000   |

Cote de référence : 6.200

Section du pieu : 0.528  
Périmètre : 2.576

## Caractéristiques des couches (données utilisateur)

| couche | base   | pl*    | qsl    | kpmin | kpmax | gamrd |
|--------|--------|--------|--------|-------|-------|-------|
| 01     | 3.70   | 460.0  | 0.00   | 1.00  | 1.30  | 1.26  |
| 02     | -0.80  | 890.0  | 61.00  | 1.00  | 1.30  | 1.26  |
| 03     | -5.30  | 1400.0 | 66.00  | 1.00  | 1.30  | 1.26  |
| 04     | -25.00 | 2720.0 | 171.00 | 1.00  | 2.00  | 1.26  |

Pas du calcul : 0.20

\*\*\*\*\*  
\*\*\*SOLUTION\*\*\*  
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Calcul à longueur imposée : L = 30.00

| couche | cote | qsl   | ple   | kp    | Qs    | Qp    | ELS-QP | ELS-CARA | ELU-FOND | ELU-ACC |
|--------|------|-------|-------|-------|-------|-------|--------|----------|----------|---------|
| 01     | 6.20 | 0.00  | 460.0 | 1.000 | 0.0   | 242.9 | 87.4   | 106.8    | 174.6    | 192.0   |
| 01     | 6.00 | 0.00  | 460.0 | 1.015 | 0.0   | 246.5 | 88.7   | 108.3    | 177.1    | 194.8   |
| 01     | 5.80 | 0.00  | 460.0 | 1.029 | 0.0   | 250.0 | 89.9   | 109.9    | 179.7    | 197.7   |
| 01     | 5.60 | 0.00  | 460.0 | 1.044 | 0.0   | 253.6 | 91.2   | 111.5    | 182.2    | 200.5   |
| 01     | 5.40 | 0.00  | 460.0 | 1.059 | 0.0   | 257.1 | 92.5   | 113.0    | 184.8    | 203.3   |
| 01     | 5.20 | 0.00  | 460.0 | 1.073 | 0.0   | 260.7 | 93.8   | 114.6    | 187.3    | 206.1   |
| 01     | 5.00 | 0.00  | 503.0 | 1.080 | 0.0   | 287.0 | 103.2  | 126.1    | 206.2    | 226.9   |
| 01     | 4.80 | 0.00  | 546.0 | 1.086 | 0.0   | 313.2 | 112.7  | 137.7    | 225.1    | 247.6   |
| 01     | 4.60 | 0.00  | 589.0 | 1.091 | 0.0   | 339.5 | 122.1  | 149.2    | 244.0    | 268.4   |
| 01     | 4.40 | 0.00  | 632.0 | 1.096 | 0.0   | 365.8 | 131.6  | 160.8    | 262.8    | 289.1   |
| 01     | 4.20 | 0.00  | 675.0 | 1.100 | 0.0   | 392.0 | 141.0  | 172.3    | 281.7    | 309.9   |
| 01     | 4.00 | 0.00  | 718.0 | 1.103 | 0.0   | 418.3 | 150.4  | 183.8    | 300.6    | 330.7   |
| 01     | 3.80 | 0.00  | 761.0 | 1.106 | 0.0   | 444.5 | 159.9  | 195.4    | 319.4    | 351.4   |
| 01     | 3.70 | 0.00  | 782.5 | 1.108 | 0.0   | 457.7 | 164.6  | 201.2    | 328.9    | 361.8   |
| 02     | 3.70 | 61.00 | 890.0 | 1.095 | 0.0   | 514.4 | 185.0  | 226.1    | 369.7    | 406.7   |
| 02     | 3.50 | 61.00 | 890.0 | 1.109 | 31.4  | 521.3 | 203.3  | 248.5    | 397.2    | 437.0   |
| 02     | 3.30 | 61.00 | 890.0 | 1.124 | 62.9  | 528.2 | 221.6  | 270.8    | 424.7    | 467.2   |
| 02     | 3.10 | 61.00 | 890.0 | 1.138 | 94.3  | 535.1 | 239.9  | 293.2    | 452.2    | 497.5   |
| 02     | 2.90 | 61.00 | 890.0 | 1.153 | 125.7 | 542.0 | 258.1  | 315.5    | 479.8    | 527.8   |
| 02     | 2.70 | 61.00 | 890.0 | 1.168 | 157.1 | 548.8 | 276.4  | 337.9    | 507.3    | 558.1   |
| 02     | 2.50 | 61.00 | 890.0 | 1.182 | 188.6 | 555.7 | 294.7  | 360.2    | 534.8    | 588.4   |

|    |        |        |        |       |        |        |        |        |        |        |
|----|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|
| 02 | 2.30   | 61.00  | 890.0  | 1.197 | 220.0  | 562.6  | 313.0  | 382.6  | 562.4  | 618.7  |
| 02 | 2.10   | 61.00  | 890.0  | 1.212 | 251.4  | 569.5  | 331.2  | 404.9  | 589.9  | 648.9  |
| 02 | 1.90   | 61.00  | 890.0  | 1.226 | 282.9  | 576.4  | 349.5  | 427.3  | 617.4  | 679.2  |
| 02 | 1.70   | 61.00  | 890.0  | 1.241 | 314.3  | 583.2  | 367.8  | 449.6  | 644.9  | 709.5  |
| 02 | 1.50   | 61.00  | 890.0  | 1.256 | 345.7  | 590.1  | 386.1  | 472.0  | 672.5  | 739.8  |
| 02 | 1.30   | 61.00  | 890.0  | 1.270 | 377.1  | 597.0  | 404.3  | 494.3  | 700.0  | 770.1  |
| 02 | 1.10   | 61.00  | 890.0  | 1.285 | 408.6  | 603.9  | 422.6  | 516.7  | 727.5  | 800.3  |
| 02 | 0.90   | 61.00  | 890.0  | 1.299 | 440.0  | 610.7  | 440.9  | 539.0  | 755.0  | 830.6  |
| 02 | 0.70   | 61.00  | 890.0  | 1.300 | 471.4  | 611.0  | 456.8  | 558.5  | 777.8  | 855.7  |
| 02 | 0.50   | 61.00  | 941.0  | 1.300 | 502.9  | 646.0  | 485.2  | 593.2  | 825.6  | 908.2  |
| 02 | 0.30   | 61.00  | 992.0  | 1.300 | 534.3  | 681.0  | 513.6  | 627.9  | 873.3  | 960.7  |
| 02 | 0.10   | 61.00  | 1043.0 | 1.300 | 565.7  | 716.1  | 542.0  | 662.6  | 921.0  | 1013.3 |
| 02 | -0.10  | 61.00  | 1094.0 | 1.300 | 597.1  | 751.1  | 570.4  | 697.4  | 968.8  | 1065.8 |
| 02 | -0.30  | 61.00  | 1145.0 | 1.300 | 628.6  | 786.1  | 598.8  | 732.1  | 1016.5 | 1118.3 |
| 02 | -0.50  | 61.00  | 1196.0 | 1.299 | 660.0  | 820.5  | 626.9  | 766.5  | 1063.8 | 1170.3 |
| 02 | -0.70  | 61.00  | 1247.0 | 1.297 | 691.4  | 854.3  | 654.9  | 800.7  | 1110.7 | 1221.9 |
| 02 | -0.80  | 61.00  | 1272.5 | 1.296 | 707.1  | 871.2  | 668.9  | 817.8  | 1134.2 | 1247.7 |
| 03 | -0.80  | 66.00  | 1400.0 | 1.269 | 707.1  | 938.5  | 693.1  | 847.4  | 1182.5 | 1300.9 |
| 03 | -1.00  | 66.00  | 1400.0 | 1.284 | 741.1  | 949.4  | 714.1  | 873.1  | 1214.8 | 1336.4 |
| 03 | -1.20  | 66.00  | 1400.0 | 1.299 | 775.2  | 960.2  | 735.1  | 898.8  | 1247.0 | 1371.8 |
| 03 | -1.40  | 66.00  | 1400.0 | 1.300 | 809.2  | 961.1  | 752.5  | 920.1  | 1272.1 | 1399.4 |
| 03 | -1.60  | 66.00  | 1400.0 | 1.300 | 843.2  | 961.1  | 769.6  | 941.0  | 1296.5 | 1426.3 |
| 03 | -1.80  | 66.00  | 1400.0 | 1.300 | 877.2  | 961.1  | 786.7  | 961.9  | 1321.0 | 1453.2 |
| 03 | -2.00  | 66.00  | 1400.0 | 1.300 | 911.2  | 961.1  | 803.8  | 982.8  | 1345.4 | 1480.1 |
| 03 | -2.20  | 66.00  | 1400.0 | 1.300 | 945.2  | 961.1  | 820.9  | 1003.7 | 1369.8 | 1507.0 |
| 03 | -2.40  | 66.00  | 1400.0 | 1.300 | 979.2  | 961.1  | 838.0  | 1024.7 | 1394.3 | 1533.9 |
| 03 | -2.60  | 66.00  | 1400.0 | 1.300 | 1013.2 | 961.1  | 855.1  | 1045.6 | 1418.7 | 1560.7 |
| 03 | -2.80  | 66.00  | 1400.0 | 1.300 | 1047.2 | 961.1  | 872.2  | 1066.5 | 1443.1 | 1587.6 |
| 03 | -3.00  | 66.00  | 1400.0 | 1.300 | 1081.2 | 961.1  | 889.3  | 1087.4 | 1467.6 | 1614.5 |
| 03 | -3.20  | 66.00  | 1400.0 | 1.300 | 1115.2 | 961.1  | 906.4  | 1108.3 | 1492.0 | 1641.4 |
| 03 | -3.40  | 66.00  | 1400.0 | 1.300 | 1149.2 | 961.1  | 923.5  | 1129.2 | 1516.4 | 1668.3 |
| 03 | -3.60  | 66.00  | 1400.0 | 1.300 | 1183.2 | 961.1  | 940.6  | 1150.1 | 1540.9 | 1695.1 |
| 03 | -3.80  | 66.00  | 1400.0 | 1.300 | 1217.2 | 961.1  | 957.7  | 1171.1 | 1565.3 | 1722.0 |
| 03 | -4.00  | 66.00  | 1532.0 | 1.300 | 1251.2 | 1051.8 | 1007.4 | 1231.8 | 1654.9 | 1820.5 |
| 03 | -4.20  | 66.00  | 1664.0 | 1.300 | 1285.2 | 1142.4 | 1057.1 | 1292.5 | 1744.4 | 1919.1 |
| 03 | -4.40  | 66.00  | 1796.0 | 1.300 | 1319.2 | 1233.0 | 1106.8 | 1353.3 | 1834.0 | 2017.6 |
| 03 | -4.60  | 66.00  | 1928.0 | 1.300 | 1353.2 | 1323.6 | 1156.4 | 1414.0 | 1923.5 | 2116.1 |
| 03 | -4.80  | 66.00  | 2060.0 | 1.300 | 1387.2 | 1414.3 | 1206.1 | 1474.8 | 2013.1 | 2214.6 |
| 03 | -5.00  | 66.00  | 2192.0 | 1.300 | 1421.2 | 1504.9 | 1255.8 | 1535.5 | 2102.6 | 2313.1 |
| 03 | -5.20  | 66.00  | 2324.0 | 1.300 | 1455.2 | 1595.5 | 1305.5 | 1596.3 | 2192.2 | 2411.7 |
| 03 | -5.30  | 66.00  | 2390.0 | 1.294 | 1472.2 | 1632.9 | 1327.5 | 1623.1 | 2231.3 | 2454.6 |
| 04 | -5.30  | 171.00 | 2720.0 | 1.860 | 1472.2 | 2672.1 | 1701.3 | 2079.9 | 2978.0 | 3276.1 |
| 04 | -5.50  | 171.00 | 2720.0 | 1.893 | 1560.3 | 2719.2 | 1762.5 | 2154.8 | 3075.2 | 3383.0 |
| 04 | -5.70  | 171.00 | 2720.0 | 1.926 | 1648.5 | 2766.4 | 1823.8 | 2229.7 | 3172.4 | 3490.0 |
| 04 | -5.90  | 171.00 | 2720.0 | 1.959 | 1736.6 | 2813.5 | 1885.0 | 2304.6 | 3269.6 | 3596.9 |
| 04 | -6.10  | 171.00 | 2720.0 | 1.991 | 1824.7 | 2860.6 | 1946.3 | 2379.5 | 3366.7 | 3703.8 |
| 04 | -6.30  | 171.00 | 2720.0 | 2.000 | 1912.8 | 2872.9 | 1995.0 | 2439.1 | 3438.8 | 3783.1 |
| 04 | -6.50  | 171.00 | 2720.0 | 2.000 | 2000.9 | 2872.9 | 2039.3 | 2493.3 | 3502.2 | 3852.8 |
| 04 | -6.70  | 171.00 | 2720.0 | 2.000 | 2089.0 | 2872.9 | 2083.6 | 2547.5 | 3565.5 | 3922.4 |
| 04 | -6.90  | 171.00 | 2720.0 | 2.000 | 2177.1 | 2872.9 | 2127.9 | 2601.6 | 3628.8 | 3992.0 |
| 04 | -7.10  | 171.00 | 2720.0 | 2.000 | 2265.2 | 2872.9 | 2172.2 | 2655.8 | 3692.1 | 4061.7 |
| 04 | -7.30  | 171.00 | 2720.0 | 2.000 | 2353.3 | 2872.9 | 2216.5 | 2710.0 | 3755.4 | 4131.3 |
| 04 | -7.50  | 171.00 | 2720.0 | 2.000 | 2441.4 | 2872.9 | 2260.8 | 2764.2 | 3818.7 | 4201.0 |
| 04 | -7.70  | 171.00 | 2720.0 | 2.000 | 2529.5 | 2872.9 | 2305.1 | 2818.4 | 3882.0 | 4270.6 |
| 04 | -7.90  | 171.00 | 2720.0 | 2.000 | 2617.6 | 2872.9 | 2349.4 | 2872.6 | 3945.3 | 4340.3 |
| 04 | -8.10  | 171.00 | 2720.0 | 2.000 | 2705.7 | 2872.9 | 2393.7 | 2926.8 | 4008.6 | 4409.9 |
| 04 | -8.30  | 171.00 | 2720.0 | 2.000 | 2793.8 | 2872.9 | 2437.9 | 2980.9 | 4071.9 | 4479.6 |
| 04 | -8.50  | 171.00 | 2720.0 | 2.000 | 2881.9 | 2872.9 | 2482.2 | 3035.1 | 4135.2 | 4549.2 |
| 04 | -8.70  | 171.00 | 2720.0 | 2.000 | 2970.0 | 2872.9 | 2526.5 | 3089.3 | 4198.5 | 4618.9 |
| 04 | -8.90  | 171.00 | 2720.0 | 2.000 | 3058.1 | 2872.9 | 2570.8 | 3143.5 | 4261.9 | 4688.5 |
| 04 | -9.10  | 171.00 | 2720.0 | 2.000 | 3146.2 | 2872.9 | 2615.1 | 3197.7 | 4325.2 | 4758.2 |
| 04 | -9.30  | 171.00 | 2720.0 | 2.000 | 3234.3 | 2872.9 | 2659.4 | 3251.9 | 4388.5 | 4827.8 |
| 04 | -9.50  | 171.00 | 2720.0 | 2.000 | 3322.4 | 2872.9 | 2703.7 | 3306.0 | 4451.8 | 4897.5 |
| 04 | -9.70  | 171.00 | 2720.0 | 2.000 | 3410.5 | 2872.9 | 2748.0 | 3360.2 | 4515.1 | 4967.1 |
| 04 | -9.90  | 171.00 | 2720.0 | 2.000 | 3498.6 | 2872.9 | 2792.3 | 3414.4 | 4578.4 | 5036.7 |
| 04 | -10.10 | 171.00 | 2720.0 | 2.000 | 3586.7 | 2872.9 | 2836.6 | 3468.6 | 4641.7 | 5106.4 |
| 04 | -10.30 | 171.00 | 2720.0 | 2.000 | 3674.8 | 2872.9 | 2880.9 | 3522.8 | 4705.0 | 5176.0 |
| 04 | -10.50 | 171.00 | 2720.0 | 2.000 | 3762.9 | 2872.9 | 2925.2 | 3577.0 | 4768.3 | 5245.7 |
| 04 | -10.70 | 171.00 | 2720.0 | 2.000 | 3851.0 | 2872.9 | 2969.5 | 3631.2 | 4831.6 | 5315.3 |
| 04 | -10.90 | 171.00 | 2720.0 | 2.000 | 3939.1 | 2872.9 | 3013.8 | 3685.3 | 4894.9 | 5385.0 |
| 04 | -11.10 | 171.00 | 2720.0 | 2.000 | 4027.2 | 2872.9 | 3058.1 | 3739.5 | 4958.3 | 5454.6 |
| 04 | -11.30 | 171.00 | 2720.0 | 2.000 | 4115.3 | 2872.9 | 3102.4 | 3793.7 | 5021.6 | 5524.3 |
| 04 | -11.50 | 171.00 | 2720.0 | 2.000 | 4203.4 | 2872.9 | 3146.7 | 3847.9 | 5084.9 | 5593.9 |
| 04 | -11.70 | 171.00 | 2720.0 | 2.000 | 4291.5 | 2872.9 | 3191.0 | 3902.1 | 5148.2 | 5663.6 |
| 04 | -11.90 | 171.00 | 2720.0 | 2.000 | 4379.6 | 2872.9 | 3235.3 | 3956.3 | 5211.5 | 5733.2 |
| 04 | -12.10 | 171.00 | 2720.0 | 2.000 | 4467.7 | 2872.9 | 3279.6 | 4010.5 | 5274.8 | 5802.9 |
| 04 | -12.30 | 171.00 | 2720.0 | 2.000 | 4555.8 | 2872.9 | 3323.9 | 4064.6 | 5338.1 | 5872.5 |
| 04 | -12.50 | 171.00 | 2720.0 | 2.000 | 4643.9 | 2872.9 | 3368.1 | 4118.8 | 5401.4 | 5942.2 |
| 04 | -12.70 | 171.00 | 2720.0 | 2.000 | 4732.0 | 2872.9 | 3412.4 | 4173.0 | 5464.7 | 6011.8 |
| 04 | -12.90 | 171.00 | 2720.0 | 2.000 | 4820.2 | 2872.9 | 3456.7 | 4227.2 | 5528.0 | 6081.4 |
| 04 | -13.10 | 171.00 | 2720.0 | 2.000 | 4908.3 | 2872.9 | 3501.0 | 4281.4 | 5591.3 | 6151.1 |
| 04 | -13.30 | 171.00 | 2720.0 | 2.000 | 4996.4 | 2872.9 | 3545.3 | 4335.6 | 5654.6 | 6220.7 |
| 04 | -13.50 | 171.00 | 2720.0 | 2.000 | 5084.5 | 2872.9 | 3589.6 | 4389.7 | 5718.0 | 6290.4 |
| 04 | -13.70 | 171.00 | 2720.0 | 2.000 | 5172.6 | 2872.9 | 3633.9 | 4443.9 | 5781.3 | 6360.0 |
| 04 | -13.90 | 171.00 | 2720.0 | 2.000 | 5260.7 | 2872.9 | 3678.2 | 4498.1 | 5844.6 | 6429.7 |
| 04 | -14.10 | 171.00 | 2720.0 | 2.000 | 5348.8 | 2872.9 | 3722.5 | 4552.3 | 5907.9 | 6499.3 |

|    |        |        |        |       |        |        |        |        |        |        |
|----|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|
| 04 | -14.30 | 171.00 | 2720.0 | 2.000 | 5436.9 | 2872.9 | 3766.8 | 4606.5 | 5971.2 | 6569.0 |
| 04 | -14.50 | 171.00 | 2720.0 | 2.000 | 5525.0 | 2872.9 | 3811.1 | 4660.7 | 6034.5 | 6638.6 |
| 04 | -14.70 | 171.00 | 2720.0 | 2.000 | 5613.1 | 2872.9 | 3855.4 | 4714.9 | 6097.8 | 6708.3 |
| 04 | -14.90 | 171.00 | 2720.0 | 2.000 | 5701.2 | 2872.9 | 3899.7 | 4769.0 | 6161.1 | 6777.9 |
| 04 | -15.10 | 171.00 | 2720.0 | 2.000 | 5789.3 | 2872.9 | 3944.0 | 4823.2 | 6224.4 | 6847.6 |
| 04 | -15.30 | 171.00 | 2720.0 | 2.000 | 5877.4 | 2872.9 | 3988.3 | 4877.4 | 6287.7 | 6917.2 |
| 04 | -15.50 | 171.00 | 2720.0 | 2.000 | 5965.5 | 2872.9 | 4032.6 | 4931.6 | 6351.0 | 6986.8 |
| 04 | -15.70 | 171.00 | 2720.0 | 2.000 | 6053.6 | 2872.9 | 4076.9 | 4985.8 | 6414.4 | 7056.5 |
| 04 | -15.90 | 171.00 | 2720.0 | 2.000 | 6141.7 | 2872.9 | 4121.2 | 5040.0 | 6477.7 | 7126.1 |
| 04 | -16.10 | 171.00 | 2720.0 | 2.000 | 6229.8 | 2872.9 | 4165.5 | 5094.2 | 6541.0 | 7195.8 |
| 04 | -16.30 | 171.00 | 2720.0 | 2.000 | 6317.9 | 2872.9 | 4209.8 | 5148.3 | 6604.3 | 7265.4 |
| 04 | -16.50 | 171.00 | 2720.0 | 2.000 | 6406.0 | 2872.9 | 4254.1 | 5202.5 | 6667.6 | 7335.1 |
| 04 | -16.70 | 171.00 | 2720.0 | 2.000 | 6494.1 | 2872.9 | 4298.3 | 5256.7 | 6730.9 | 7404.7 |
| 04 | -16.90 | 171.00 | 2720.0 | 2.000 | 6582.2 | 2872.9 | 4342.6 | 5310.9 | 6794.2 | 7474.4 |
| 04 | -17.10 | 171.00 | 2720.0 | 2.000 | 6670.3 | 2872.9 | 4386.9 | 5365.1 | 6857.5 | 7544.0 |
| 04 | -17.30 | 171.00 | 2720.0 | 2.000 | 6758.4 | 2872.9 | 4431.2 | 5419.3 | 6920.8 | 7613.7 |
| 04 | -17.50 | 171.00 | 2720.0 | 2.000 | 6846.5 | 2872.9 | 4475.5 | 5473.4 | 6984.1 | 7683.3 |
| 04 | -17.70 | 171.00 | 2720.0 | 2.000 | 6934.6 | 2872.9 | 4519.8 | 5527.6 | 7047.4 | 7753.0 |
| 04 | -17.90 | 171.00 | 2720.0 | 2.000 | 7022.7 | 2872.9 | 4564.1 | 5581.8 | 7110.7 | 7822.6 |
| 04 | -18.10 | 171.00 | 2720.0 | 2.000 | 7110.8 | 2872.9 | 4608.4 | 5636.0 | 7174.1 | 7892.3 |
| 04 | -18.30 | 171.00 | 2720.0 | 2.000 | 7198.9 | 2872.9 | 4652.7 | 5690.2 | 7237.4 | 7961.9 |
| 04 | -18.50 | 171.00 | 2720.0 | 2.000 | 7287.0 | 2872.9 | 4697.0 | 5744.4 | 7300.7 | 8031.5 |
| 04 | -18.70 | 171.00 | 2720.0 | 2.000 | 7375.1 | 2872.9 | 4741.3 | 5798.6 | 7364.0 | 8101.2 |
| 04 | -18.90 | 171.00 | 2720.0 | 2.000 | 7463.2 | 2872.9 | 4785.6 | 5852.7 | 7427.3 | 8170.8 |
| 04 | -19.10 | 171.00 | 2720.0 | 2.000 | 7551.3 | 2872.9 | 4829.9 | 5906.9 | 7490.6 | 8240.5 |
| 04 | -19.30 | 171.00 | 2720.0 | 2.000 | 7639.4 | 2872.9 | 4874.2 | 5961.1 | 7553.9 | 8310.1 |
| 04 | -19.50 | 171.00 | 2720.0 | 2.000 | 7727.5 | 2872.9 | 4918.5 | 6015.3 | 7617.2 | 8379.8 |
| 04 | -19.70 | 171.00 | 2720.0 | 2.000 | 7815.6 | 2872.9 | 4962.8 | 6069.5 | 7680.5 | 8449.4 |
| 04 | -19.90 | 171.00 | 2720.0 | 2.000 | 7903.8 | 2872.9 | 5007.1 | 6123.7 | 7743.8 | 8519.1 |
| 04 | -20.10 | 171.00 | 2720.0 | 2.000 | 7991.9 | 2872.9 | 5051.4 | 6177.8 | 7807.1 | 8588.7 |
| 04 | -20.30 | 171.00 | 2720.0 | 2.000 | 8080.0 | 2872.9 | 5095.7 | 6232.0 | 7870.5 | 8658.4 |
| 04 | -20.50 | 171.00 | 2720.0 | 2.000 | 8168.1 | 2872.9 | 5140.0 | 6286.2 | 7933.8 | 8728.0 |
| 04 | -20.70 | 171.00 | 2720.0 | 2.000 | 8256.2 | 2872.9 | 5184.3 | 6340.4 | 7997.1 | 8797.7 |
| 04 | -20.90 | 171.00 | 2720.0 | 2.000 | 8344.3 | 2872.9 | 5228.5 | 6394.6 | 8060.4 | 8867.3 |
| 04 | -21.10 | 171.00 | 2720.0 | 2.000 | 8432.4 | 2872.9 | 5272.8 | 6448.8 | 8123.7 | 8936.9 |
| 04 | -21.30 | 171.00 | 2720.0 | 2.000 | 8520.5 | 2872.9 | 5317.1 | 6503.0 | 8187.0 | 9006.6 |
| 04 | -21.50 | 171.00 | 2720.0 | 2.000 | 8608.6 | 2872.9 | 5361.4 | 6557.1 | 8250.3 | 9076.2 |
| 04 | -21.70 | 171.00 | 2720.0 | 2.000 | 8696.7 | 2872.9 | 5405.7 | 6611.3 | 8313.6 | 9145.9 |
| 04 | -21.90 | 171.00 | 2720.0 | 2.000 | 8784.8 | 2872.9 | 5450.0 | 6665.5 | 8376.9 | 9215.5 |
| 04 | -22.10 | 171.00 | 2720.0 | 2.000 | 8872.9 | 2872.9 | 5494.3 | 6719.7 | 8440.2 | 9285.2 |
| 04 | -22.30 | 171.00 | 2720.0 | 2.000 | 8961.0 | 2872.9 | 5538.6 | 6773.9 | 8503.5 | 9354.8 |
| 04 | -22.50 | 171.00 | 2720.0 | 2.000 | 9049.1 | 2872.9 | 5582.9 | 6828.1 | 8566.8 | 9424.5 |
| 04 | -22.70 | 171.00 | 2720.0 | 2.000 | 9137.2 | 2872.9 | 5627.2 | 6882.3 | 8630.2 | 9494.1 |
| 04 | -22.90 | 171.00 | 2720.0 | 2.000 | 9225.3 | 2872.9 | 5671.5 | 6936.4 | 8693.5 | 9563.8 |
| 04 | -23.10 | 171.00 | 2720.0 | 2.000 | 9313.4 | 2872.9 | 5715.8 | 6990.6 | 8756.8 | 9633.4 |
| 04 | -23.30 | 171.00 | 2720.0 | 2.000 | 9401.5 | 2872.9 | 5760.1 | 7044.8 | 8820.1 | 9703.1 |
| 04 | -23.50 | 171.00 | 2720.0 | 2.000 | 9489.6 | 2872.9 | 5804.4 | 7099.0 | 8883.4 | 9772.7 |
| 04 | -23.70 | 171.00 | 2720.0 | 2.000 | 9577.7 | 2872.9 | 5848.7 | 7153.2 | 8946.7 | 9842.4 |
| 04 | -23.80 | 171.00 | 2720.0 | 2.000 | 9621.8 | 2872.9 | 5870.8 | 7180.3 | 8978.4 | 9877.2 |

# Capacité du pieu pour chaque combinaison en fonction de la profondeur





# Données

Titre du projet : Eco-Village d'entreprises à Carrère (pieu n°1)  
Numéro d'affaire : 22-1222  
Commentaires : Sondage SP6  
Titre du calcul : Titre du calcul  
Cadre réglementaire : EC 7 - Norme NF P94-262/A1 (juillet 2018)  
Méthode de dimensionnement : A partir des résultats pressiométriques  
Traitement des données : Traitement par couches  
Pas du calcul (m) : 0,20  
Section de calcul : Section de calcul circulaire  
Diamètre de calcul (m) : 0,92  
Classe du pieu : 2 - Pieu tarière creuse  
Catégorie du pieu : 6 [FTC, FTCD] - Foré tarière creuse simple rotation, ou double rotation  
Mode de chargement : Travail en compression

|                                 | ELS-QP | ELS-CARAC | ELU-FOND | ELU-ACC |
|---------------------------------|--------|-----------|----------|---------|
| Pondérations combinées sur Qs.k | 0.636  | 0.778     | 0.909    | 1.000   |
| Pondérations combinées sur Qp.k | 0.455  | 0.556     | 0.909    | 1.000   |

Cote de référence (m) : 6,20

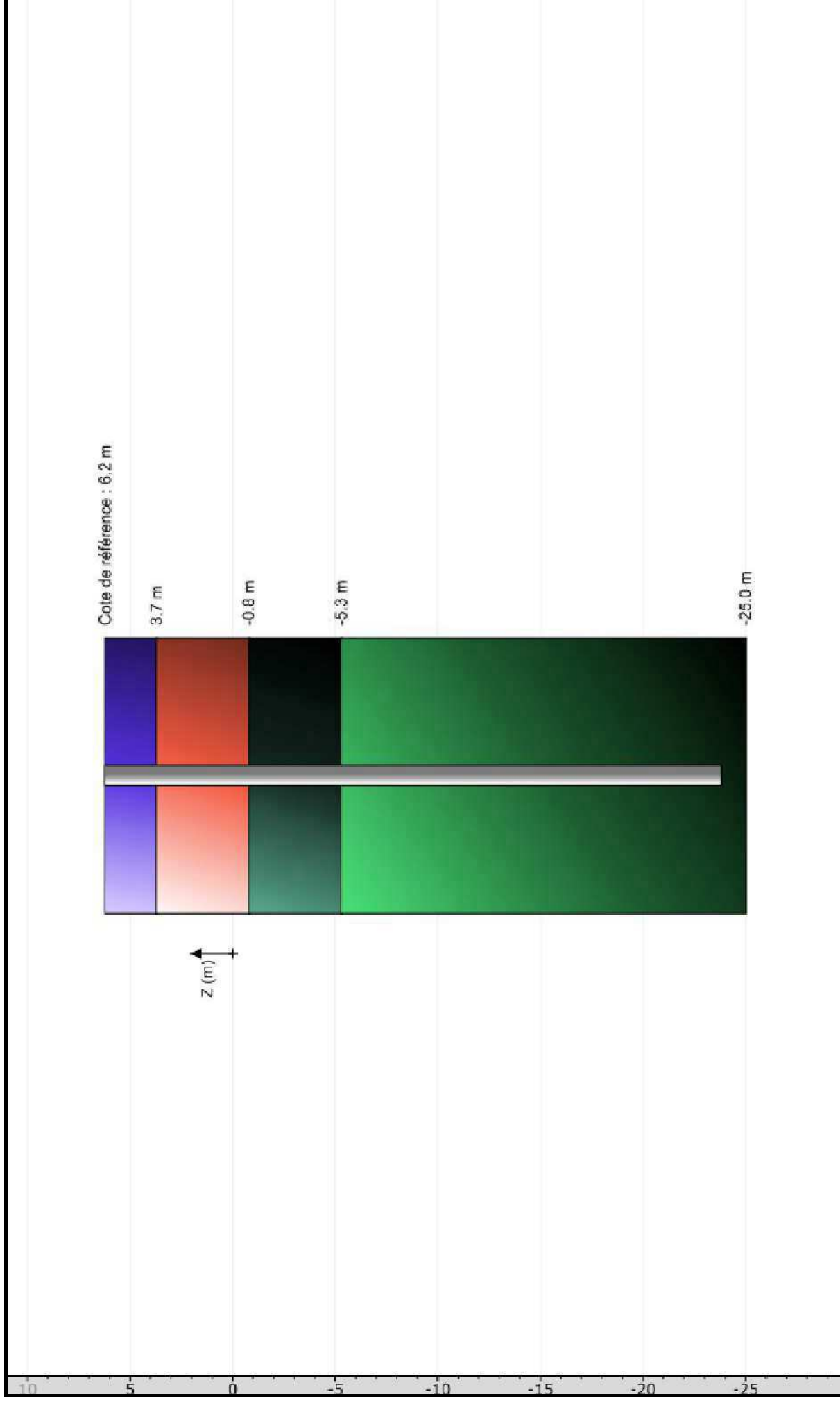
## Définition des couches de sol

| No | Nom                                       | Couleur | Classe de sol               | Zbase  | pl*     | qsl    | kpmax | $\sqrt{R_s.d1 \times \gamma R_s.d2}$ |
|----|-------------------------------------------|---------|-----------------------------|--------|---------|--------|-------|--------------------------------------|
| 1  | Remblais                                  |         | Argile, limons              | 3,70   | 460,00  | 0,00   | 1,30  | 1,265                                |
| 2  | Lave altérée argilisée raide              |         | Argile, limons              | -0,80  | 890,00  | 61,00  | 1,30  | 1,265                                |
| 3  | Lave altérée argilisée raide à très raide |         | Argile, limons              | -5,30  | 1400,00 | 66,00  | 1,30  | 1,265                                |
| 4  | Lave altérée argilisée très raide         |         | Roche altérée et fragmentée | -25,00 | 2720,00 | 171,00 | 2,00  | 1,265                                |

Critère de calcul : Longueur imposée

Longueur du pieu (m) : 30,00

# Onglet "Paramètres généraux"



File : C:\Users\morel\AppData\Local\Temp\Terrasol\FoXta v3\3812\temp[FP]-1.resu

Calcul réalisé le : 06/09/2022 à 12h57  
par : MAGMA CARAIBES

## Options du calcul :

- calcul basé sur des paramètres issus du pressiomètre de Ménard
- calcul selon les règles de la norme NF P 94 262
- profil de pression limite pl\* défini par couche
- pour pieu de catégorie : 6
- pour pieu travaillant en compression

| Combinaisons | ELS-QP | ELS-CARA | ELU-FOND | ELU-ACC |
|--------------|--------|----------|----------|---------|
| Frottement   | 0.636  | 0.778    | 0.909    | 1.000   |
| Pointe       | 0.455  | 0.556    | 0.909    | 1.000   |

Cote de référence : 6.200

Section du pieu : 0.665  
Périmètre : 2.890

## Caractéristiques des couches (données utilisateur)

| couche | base   | pl*    | qsl    | kpmin | kpmax | gamrd |
|--------|--------|--------|--------|-------|-------|-------|
| 01     | 3.70   | 460.0  | 0.00   | 1.00  | 1.30  | 1.26  |
| 02     | -0.80  | 890.0  | 61.00  | 1.00  | 1.30  | 1.26  |
| 03     | -5.30  | 1400.0 | 66.00  | 1.00  | 1.30  | 1.26  |
| 04     | -25.00 | 2720.0 | 171.00 | 1.00  | 2.00  | 1.26  |

Pas du calcul : 0.20

\*\*\*\*\*  
 \*\*\*SOLUTION\*\*\*  
 \*\*\*\*\*

Calcul à longueur imposée : L = 30.00

| couche | cote | qsl   | ple   | kp    | Qs    | Qp    | ELS-QP | ELS-CARA | ELU-FOND | ELU-ACC |
|--------|------|-------|-------|-------|-------|-------|--------|----------|----------|---------|
| 01     | 6.20 | 0.00  | 460.0 | 1.000 | 0.0   | 305.8 | 110.0  | 134.4    | 219.7    | 241.7   |
| 01     | 6.00 | 0.00  | 460.0 | 1.013 | 0.0   | 309.8 | 111.4  | 136.2    | 222.6    | 244.9   |
| 01     | 5.80 | 0.00  | 460.0 | 1.026 | 0.0   | 313.8 | 112.9  | 137.9    | 225.5    | 248.0   |
| 01     | 5.60 | 0.00  | 460.0 | 1.039 | 0.0   | 317.8 | 114.3  | 139.7    | 228.3    | 251.2   |
| 01     | 5.40 | 0.00  | 460.0 | 1.052 | 0.0   | 321.7 | 115.7  | 141.4    | 231.2    | 254.3   |
| 01     | 5.20 | 0.00  | 460.0 | 1.065 | 0.0   | 325.7 | 117.2  | 143.2    | 234.1    | 257.5   |
| 01     | 5.00 | 0.00  | 503.0 | 1.072 | 0.0   | 358.3 | 128.9  | 157.5    | 257.5    | 283.2   |
| 01     | 4.80 | 0.00  | 546.0 | 1.077 | 0.0   | 390.9 | 140.6  | 171.8    | 280.9    | 309.0   |
| 01     | 4.60 | 0.00  | 589.0 | 1.081 | 0.0   | 423.5 | 152.3  | 186.1    | 304.3    | 334.7   |
| 01     | 4.40 | 0.00  | 632.0 | 1.085 | 0.0   | 456.0 | 164.0  | 200.4    | 327.7    | 360.5   |
| 01     | 4.20 | 0.00  | 675.0 | 1.089 | 0.0   | 488.6 | 175.7  | 214.8    | 351.1    | 386.2   |
| 01     | 4.00 | 0.00  | 718.0 | 1.092 | 0.0   | 521.2 | 187.5  | 229.1    | 374.5    | 412.0   |
| 01     | 3.80 | 0.00  | 761.0 | 1.095 | 0.0   | 553.7 | 199.2  | 243.4    | 397.9    | 437.7   |
| 01     | 3.70 | 0.00  | 782.5 | 1.096 | 0.0   | 570.0 | 205.0  | 250.5    | 409.6    | 450.6   |
| 02     | 3.70 | 61.00 | 890.0 | 1.084 | 0.0   | 641.5 | 230.7  | 282.0    | 461.0    | 507.1   |
| 02     | 3.50 | 61.00 | 890.0 | 1.097 | 35.3  | 649.2 | 251.2  | 307.0    | 491.8    | 541.1   |
| 02     | 3.30 | 61.00 | 890.0 | 1.110 | 70.5  | 656.9 | 271.7  | 332.1    | 522.7    | 575.1   |
| 02     | 3.10 | 61.00 | 890.0 | 1.123 | 105.8 | 664.6 | 292.2  | 357.2    | 553.6    | 609.0   |
| 02     | 2.90 | 61.00 | 890.0 | 1.136 | 141.0 | 672.4 | 312.8  | 382.3    | 584.5    | 643.0   |
| 02     | 2.70 | 61.00 | 890.0 | 1.149 | 176.3 | 680.1 | 333.3  | 407.3    | 615.4    | 677.0   |
| 02     | 2.50 | 61.00 | 890.0 | 1.163 | 211.6 | 687.8 | 353.8  | 432.4    | 646.3    | 711.0   |



**FoXta v3**  
v3.3.6

Imprimé le : 06/09/2022 - 12:58:02  
 Calcul réalisé par : MAGMA CARAIBES  
 Projet : SP6\_compression  
 Module : Fondprof (Pieu 1/1)

|    |        |        |        |       |        |        |        |        |        |        |
|----|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|
| 02 | 2.30   | 61.00  | 890.0  | 1.176 | 246.8  | 695.5  | 374.3  | 457.5  | 677.1  | 744.9  |
| 02 | 2.10   | 61.00  | 890.0  | 1.189 | 282.1  | 703.2  | 394.8  | 482.6  | 708.0  | 778.9  |
| 02 | 1.90   | 61.00  | 890.0  | 1.202 | 317.4  | 710.9  | 415.3  | 507.7  | 738.9  | 812.9  |
| 02 | 1.70   | 61.00  | 890.0  | 1.215 | 352.6  | 718.7  | 435.8  | 532.7  | 769.8  | 846.9  |
| 02 | 1.50   | 61.00  | 890.0  | 1.228 | 387.9  | 726.4  | 456.3  | 557.8  | 800.7  | 880.8  |
| 02 | 1.30   | 61.00  | 890.0  | 1.241 | 423.1  | 734.1  | 476.8  | 582.9  | 831.6  | 914.8  |
| 02 | 1.10   | 61.00  | 890.0  | 1.254 | 458.4  | 741.8  | 497.3  | 608.0  | 862.4  | 948.8  |
| 02 | 0.90   | 61.00  | 890.0  | 1.267 | 493.7  | 749.5  | 517.8  | 633.0  | 893.3  | 982.8  |
| 02 | 0.70   | 61.00  | 890.0  | 1.280 | 528.9  | 757.2  | 538.3  | 658.1  | 924.2  | 1016.7 |
| 02 | 0.50   | 61.00  | 941.0  | 1.277 | 564.2  | 798.9  | 571.0  | 698.1  | 979.5  | 1077.5 |
| 02 | 0.30   | 61.00  | 992.0  | 1.275 | 599.4  | 840.5  | 603.7  | 738.1  | 1034.7 | 1138.3 |
| 02 | 0.10   | 61.00  | 1043.0 | 1.272 | 634.7  | 882.1  | 636.4  | 778.1  | 1089.9 | 1199.1 |
| 02 | -0.10  | 61.00  | 1094.0 | 1.270 | 670.0  | 923.7  | 669.1  | 818.0  | 1145.2 | 1259.8 |
| 02 | -0.30  | 61.00  | 1145.0 | 1.268 | 705.2  | 965.3  | 701.8  | 858.0  | 1200.4 | 1320.6 |
| 02 | -0.50  | 61.00  | 1196.0 | 1.267 | 740.5  | 1007.0 | 734.5  | 898.0  | 1255.7 | 1381.4 |
| 02 | -0.70  | 61.00  | 1247.0 | 1.265 | 775.7  | 1048.6 | 767.2  | 938.0  | 1310.9 | 1442.2 |
| 02 | -0.80  | 61.00  | 1272.5 | 1.264 | 793.4  | 1069.4 | 783.5  | 958.0  | 1338.5 | 1472.6 |
| 03 | -0.80  | 66.00  | 1400.0 | 1.240 | 793.4  | 1154.2 | 814.0  | 995.2  | 1399.5 | 1539.6 |
| 03 | -1.00  | 66.00  | 1400.0 | 1.253 | 831.5  | 1166.3 | 837.6  | 1024.0 | 1435.6 | 1579.3 |
| 03 | -1.20  | 66.00  | 1400.0 | 1.266 | 869.7  | 1178.4 | 861.1  | 1052.8 | 1471.7 | 1619.1 |
| 03 | -1.40  | 66.00  | 1400.0 | 1.279 | 907.8  | 1190.6 | 884.7  | 1081.6 | 1507.9 | 1658.8 |
| 03 | -1.60  | 66.00  | 1400.0 | 1.292 | 946.0  | 1202.7 | 908.2  | 1110.4 | 1544.0 | 1698.6 |
| 03 | -1.80  | 66.00  | 1400.0 | 1.300 | 984.1  | 1209.9 | 930.0  | 1137.0 | 1576.6 | 1734.4 |
| 03 | -2.00  | 66.00  | 1400.0 | 1.300 | 1022.3 | 1209.9 | 949.1  | 1160.5 | 1604.0 | 1764.5 |
| 03 | -2.20  | 66.00  | 1400.0 | 1.300 | 1060.4 | 1209.9 | 968.3  | 1184.0 | 1631.4 | 1794.7 |
| 03 | -2.40  | 66.00  | 1400.0 | 1.300 | 1098.6 | 1209.9 | 987.5  | 1207.4 | 1658.8 | 1824.9 |
| 03 | -2.60  | 66.00  | 1400.0 | 1.300 | 1136.7 | 1209.9 | 1006.7 | 1230.9 | 1686.2 | 1855.0 |
| 03 | -2.80  | 66.00  | 1400.0 | 1.300 | 1174.9 | 1209.9 | 1025.9 | 1254.3 | 1713.6 | 1885.2 |
| 03 | -3.00  | 66.00  | 1400.0 | 1.300 | 1213.0 | 1209.9 | 1045.0 | 1277.8 | 1741.0 | 1915.3 |
| 03 | -3.20  | 66.00  | 1400.0 | 1.300 | 1251.2 | 1209.9 | 1064.2 | 1301.3 | 1768.5 | 1945.5 |
| 03 | -3.40  | 66.00  | 1400.0 | 1.300 | 1289.3 | 1209.9 | 1083.4 | 1324.7 | 1795.9 | 1975.7 |
| 03 | -3.60  | 66.00  | 1400.0 | 1.300 | 1327.5 | 1209.9 | 1102.6 | 1348.2 | 1823.3 | 2005.8 |
| 03 | -3.80  | 66.00  | 1400.0 | 1.300 | 1365.7 | 1209.9 | 1121.8 | 1371.7 | 1850.7 | 2036.0 |
| 03 | -4.00  | 66.00  | 1532.0 | 1.300 | 1403.8 | 1323.9 | 1182.0 | 1445.3 | 1960.1 | 2156.3 |
| 03 | -4.20  | 66.00  | 1664.0 | 1.300 | 1442.0 | 1438.0 | 1242.2 | 1518.9 | 2069.5 | 2276.7 |
| 03 | -4.40  | 66.00  | 1796.0 | 1.300 | 1480.1 | 1552.1 | 1302.4 | 1592.5 | 2178.9 | 2397.0 |
| 03 | -4.60  | 66.00  | 1928.0 | 1.300 | 1518.3 | 1666.2 | 1362.6 | 1666.1 | 2288.2 | 2517.3 |
| 03 | -4.80  | 66.00  | 2060.0 | 1.300 | 1556.4 | 1780.2 | 1422.8 | 1739.7 | 2397.6 | 2637.7 |
| 03 | -5.00  | 66.00  | 2192.0 | 1.300 | 1594.6 | 1894.3 | 1483.0 | 1813.3 | 2507.0 | 2758.0 |
| 03 | -5.20  | 66.00  | 2324.0 | 1.289 | 1632.7 | 1991.6 | 1537.2 | 1879.5 | 2604.3 | 2865.1 |
| 03 | -5.30  | 66.00  | 2390.0 | 1.284 | 1651.8 | 2039.5 | 1564.0 | 1912.3 | 2652.5 | 2918.0 |
| 04 | -5.30  | 171.00 | 2720.0 | 1.831 | 1651.8 | 3310.7 | 2021.3 | 2471.0 | 3565.9 | 3922.9 |
| 04 | -5.50  | 171.00 | 2720.0 | 1.867 | 1750.6 | 3376.0 | 2094.4 | 2560.5 | 3683.9 | 4052.7 |
| 04 | -5.70  | 171.00 | 2720.0 | 1.896 | 1849.5 | 3428.9 | 2163.2 | 2644.5 | 3792.9 | 4172.6 |
| 04 | -5.90  | 171.00 | 2720.0 | 1.926 | 1948.3 | 3481.8 | 2231.9 | 2728.6 | 3901.9 | 4292.6 |
| 04 | -6.10  | 171.00 | 2720.0 | 1.955 | 2047.2 | 3534.7 | 2300.6 | 2812.6 | 4011.0 | 4412.5 |
| 04 | -6.30  | 171.00 | 2720.0 | 1.984 | 2146.0 | 3587.5 | 2369.3 | 2896.7 | 4120.0 | 4532.5 |
| 04 | -6.50  | 171.00 | 2720.0 | 2.000 | 2244.9 | 3616.3 | 2429.4 | 2970.1 | 4211.7 | 4633.3 |
| 04 | -6.70  | 171.00 | 2720.0 | 2.000 | 2343.7 | 3616.3 | 2479.1 | 3030.9 | 4282.7 | 4711.5 |
| 04 | -6.90  | 171.00 | 2720.0 | 2.000 | 2442.6 | 3616.3 | 2528.8 | 3091.7 | 4353.8 | 4789.6 |
| 04 | -7.10  | 171.00 | 2720.0 | 2.000 | 2541.4 | 3616.3 | 2578.5 | 3152.5 | 4424.8 | 4867.8 |
| 04 | -7.30  | 171.00 | 2720.0 | 2.000 | 2640.3 | 3616.3 | 2628.2 | 3213.3 | 4495.8 | 4945.9 |
| 04 | -7.50  | 171.00 | 2720.0 | 2.000 | 2739.1 | 3616.3 | 2677.9 | 3274.1 | 4566.8 | 5024.0 |
| 04 | -7.70  | 171.00 | 2720.0 | 2.000 | 2838.0 | 3616.3 | 2727.6 | 3334.9 | 4637.9 | 5102.2 |
| 04 | -7.90  | 171.00 | 2720.0 | 2.000 | 2936.8 | 3616.3 | 2777.2 | 3395.6 | 4708.9 | 5180.3 |
| 04 | -8.10  | 171.00 | 2720.0 | 2.000 | 3035.6 | 3616.3 | 2826.9 | 3456.4 | 4779.9 | 5258.5 |
| 04 | -8.30  | 171.00 | 2720.0 | 2.000 | 3134.5 | 3616.3 | 2876.6 | 3517.2 | 4851.0 | 5336.6 |
| 04 | -8.50  | 171.00 | 2720.0 | 2.000 | 3233.3 | 3616.3 | 2926.3 | 3578.0 | 4922.0 | 5414.7 |
| 04 | -8.70  | 171.00 | 2720.0 | 2.000 | 3332.2 | 3616.3 | 2976.0 | 3638.8 | 4993.0 | 5492.9 |
| 04 | -8.90  | 171.00 | 2720.0 | 2.000 | 3431.0 | 3616.3 | 3025.7 | 3699.6 | 5064.1 | 5571.0 |
| 04 | -9.10  | 171.00 | 2720.0 | 2.000 | 3529.9 | 3616.3 | 3075.4 | 3760.4 | 5135.1 | 5649.2 |
| 04 | -9.30  | 171.00 | 2720.0 | 2.000 | 3628.7 | 3616.3 | 3125.1 | 3821.2 | 5206.1 | 5727.3 |
| 04 | -9.50  | 171.00 | 2720.0 | 2.000 | 3727.6 | 3616.3 | 3174.8 | 3882.0 | 5277.1 | 5805.4 |
| 04 | -9.70  | 171.00 | 2720.0 | 2.000 | 3826.4 | 3616.3 | 3224.5 | 3942.8 | 5348.2 | 5883.6 |
| 04 | -9.90  | 171.00 | 2720.0 | 2.000 | 3925.3 | 3616.3 | 3274.2 | 4003.6 | 5419.2 | 5961.7 |
| 04 | -10.10 | 171.00 | 2720.0 | 2.000 | 4024.1 | 3616.3 | 3323.9 | 4064.4 | 5490.2 | 6039.9 |
| 04 | -10.30 | 171.00 | 2720.0 | 2.000 | 4123.0 | 3616.3 | 3373.6 | 4125.2 | 5561.3 | 6118.0 |
| 04 | -10.50 | 171.00 | 2720.0 | 2.000 | 4221.8 | 3616.3 | 3423.3 | 4186.0 | 5632.3 | 6196.1 |
| 04 | -10.70 | 171.00 | 2720.0 | 2.000 | 4320.7 | 3616.3 | 3473.0 | 4246.7 | 5703.3 | 6274.3 |
| 04 | -10.90 | 171.00 | 2720.0 | 2.000 | 4419.5 | 3616.3 | 3522.7 | 4307.5 | 5774.3 | 6352.4 |
| 04 | -11.10 | 171.00 | 2720.0 | 2.000 | 4518.4 | 3616.3 | 3572.4 | 4368.3 | 5845.4 | 6430.6 |
| 04 | -11.30 | 171.00 | 2720.0 | 2.000 | 4617.2 | 3616.3 | 3622.1 | 4429.1 | 5916.4 | 6508.7 |
| 04 | -11.50 | 171.00 | 2720.0 | 2.000 | 4716.0 | 3616.3 | 3671.8 | 4489.9 | 5987.4 | 6586.8 |
| 04 | -11.70 | 171.00 | 2720.0 | 2.000 | 4814.9 | 3616.3 | 3721.5 | 4550.7 | 6058.5 | 6665.0 |
| 04 | -11.90 | 171.00 | 2720.0 | 2.000 | 4913.7 | 3616.3 | 3771.2 | 4611.5 | 6129.5 | 6743.1 |
| 04 | -12.10 | 171.00 | 2720.0 | 2.000 | 5012.6 | 3616.3 | 3820.9 | 4672.3 | 6200.5 | 6821.3 |
| 04 | -12.30 | 171.00 | 2720.0 | 2.000 | 5111.4 | 3616.3 | 3870.6 | 4733.1 | 6271.5 | 6899.4 |
| 04 | -12.50 | 171.00 | 2720.0 | 2.000 | 5210.3 | 3616.3 | 3920.3 | 4793.9 | 6342.6 | 6977.5 |
| 04 | -12.70 | 171.00 | 2720.0 | 2.000 | 5309.1 | 3616.3 | 3970.0 | 4854.7 | 6413.6 | 7055.7 |
| 04 | -12.90 | 171.00 | 2720.0 | 2.000 | 5408.0 | 3616.3 | 4019.7 | 4915.5 | 6484.6 | 7133.8 |
| 04 | -13.10 | 171.00 | 2720.0 | 2.000 | 5506.8 | 3616.3 | 4069.4 | 4976.3 | 6555.7 | 7212.0 |
| 04 | -13.30 | 171.00 | 2720.0 | 2.000 | 5605.7 | 3616.3 | 4119.1 | 5037.1 | 6626.7 | 7290.1 |
| 04 | -13.50 | 171.00 | 2720.0 | 2.000 | 5704.5 | 3616.3 | 4168.8 | 5097.8 | 6697.7 | 7368.2 |
| 04 | -13.70 | 171.00 | 2720.0 | 2.000 | 5803.4 | 3616.3 | 4218.5 | 5158.6 | 6768.8 | 7446.4 |
| 04 | -13.90 | 171.00 | 2720.0 | 2.000 | 5902.2 | 3616.3 | 4268.2 | 5219.4 | 6839.8 | 7524.5 |
| 04 | -14.10 | 171.00 | 2720.0 | 2.000 | 6001.1 | 3616.3 | 4317.9 | 5280.2 | 6910.8 | 7602.7 |

|    |        |        |        |       |         |        |        |        |         |         |
|----|--------|--------|--------|-------|---------|--------|--------|--------|---------|---------|
| 04 | -14.30 | 171.00 | 2720.0 | 2.000 | 6099.9  | 3616.3 | 4367.6 | 5341.0 | 6981.8  | 7680.8  |
| 04 | -14.50 | 171.00 | 2720.0 | 2.000 | 6198.8  | 3616.3 | 4417.3 | 5401.8 | 7052.9  | 7758.9  |
| 04 | -14.70 | 171.00 | 2720.0 | 2.000 | 6297.6  | 3616.3 | 4466.9 | 5462.6 | 7123.9  | 7837.1  |
| 04 | -14.90 | 171.00 | 2720.0 | 2.000 | 6396.4  | 3616.3 | 4516.6 | 5523.4 | 7194.9  | 7915.2  |
| 04 | -15.10 | 171.00 | 2720.0 | 2.000 | 6495.3  | 3616.3 | 4566.3 | 5584.2 | 7266.0  | 7993.4  |
| 04 | -15.30 | 171.00 | 2720.0 | 2.000 | 6594.1  | 3616.3 | 4616.0 | 5645.0 | 7337.0  | 8071.5  |
| 04 | -15.50 | 171.00 | 2720.0 | 2.000 | 6693.0  | 3616.3 | 4665.7 | 5705.8 | 7408.0  | 8149.6  |
| 04 | -15.70 | 171.00 | 2720.0 | 2.000 | 6791.8  | 3616.3 | 4715.4 | 5766.6 | 7479.0  | 8227.8  |
| 04 | -15.90 | 171.00 | 2720.0 | 2.000 | 6890.7  | 3616.3 | 4765.1 | 5827.4 | 7550.1  | 8305.9  |
| 04 | -16.10 | 171.00 | 2720.0 | 2.000 | 6989.5  | 3616.3 | 4814.8 | 5888.2 | 7621.1  | 8384.1  |
| 04 | -16.30 | 171.00 | 2720.0 | 2.000 | 7088.4  | 3616.3 | 4864.5 | 5948.9 | 7692.1  | 8462.2  |
| 04 | -16.50 | 171.00 | 2720.0 | 2.000 | 7187.2  | 3616.3 | 4914.2 | 6009.7 | 7763.2  | 8540.3  |
| 04 | -16.70 | 171.00 | 2720.0 | 2.000 | 7286.1  | 3616.3 | 4963.9 | 6070.5 | 7834.2  | 8618.5  |
| 04 | -16.90 | 171.00 | 2720.0 | 2.000 | 7384.9  | 3616.3 | 5013.6 | 6131.3 | 7905.2  | 8696.6  |
| 04 | -17.10 | 171.00 | 2720.0 | 2.000 | 7483.8  | 3616.3 | 5063.3 | 6192.1 | 7976.3  | 8774.8  |
| 04 | -17.30 | 171.00 | 2720.0 | 2.000 | 7582.6  | 3616.3 | 5113.0 | 6252.9 | 8047.3  | 8852.9  |
| 04 | -17.50 | 171.00 | 2720.0 | 2.000 | 7681.5  | 3616.3 | 5162.7 | 6313.7 | 8118.3  | 8931.0  |
| 04 | -17.70 | 171.00 | 2720.0 | 2.000 | 7780.3  | 3616.3 | 5212.4 | 6374.5 | 8189.3  | 9009.2  |
| 04 | -17.90 | 171.00 | 2720.0 | 2.000 | 7879.2  | 3616.3 | 5262.1 | 6435.3 | 8260.4  | 9087.3  |
| 04 | -18.10 | 171.00 | 2720.0 | 2.000 | 7978.0  | 3616.3 | 5311.8 | 6496.1 | 8331.4  | 9165.5  |
| 04 | -18.30 | 171.00 | 2720.0 | 2.000 | 8076.8  | 3616.3 | 5361.5 | 6556.9 | 8402.4  | 9243.6  |
| 04 | -18.50 | 171.00 | 2720.0 | 2.000 | 8175.7  | 3616.3 | 5411.2 | 6617.7 | 8473.5  | 9321.7  |
| 04 | -18.70 | 171.00 | 2720.0 | 2.000 | 8274.5  | 3616.3 | 5460.9 | 6678.5 | 8544.5  | 9399.9  |
| 04 | -18.90 | 171.00 | 2720.0 | 2.000 | 8373.4  | 3616.3 | 5510.6 | 6739.3 | 8615.5  | 9478.0  |
| 04 | -19.10 | 171.00 | 2720.0 | 2.000 | 8472.2  | 3616.3 | 5560.3 | 6800.0 | 8686.5  | 9556.2  |
| 04 | -19.30 | 171.00 | 2720.0 | 2.000 | 8571.1  | 3616.3 | 5610.0 | 6860.8 | 8757.6  | 9634.3  |
| 04 | -19.50 | 171.00 | 2720.0 | 2.000 | 8669.9  | 3616.3 | 5659.7 | 6921.6 | 8828.6  | 9712.4  |
| 04 | -19.70 | 171.00 | 2720.0 | 2.000 | 8768.8  | 3616.3 | 5709.4 | 6982.4 | 8899.6  | 9790.6  |
| 04 | -19.90 | 171.00 | 2720.0 | 2.000 | 8867.6  | 3616.3 | 5759.1 | 7043.2 | 8970.7  | 9868.7  |
| 04 | -20.10 | 171.00 | 2720.0 | 2.000 | 8966.5  | 3616.3 | 5808.8 | 7104.0 | 9041.7  | 9946.9  |
| 04 | -20.30 | 171.00 | 2720.0 | 2.000 | 9065.3  | 3616.3 | 5858.5 | 7164.8 | 9112.7  | 10025.0 |
| 04 | -20.50 | 171.00 | 2720.0 | 2.000 | 9164.2  | 3616.3 | 5908.2 | 7225.6 | 9183.7  | 10103.1 |
| 04 | -20.70 | 171.00 | 2720.0 | 2.000 | 9263.0  | 3616.3 | 5957.9 | 7286.4 | 9254.8  | 10181.3 |
| 04 | -20.90 | 171.00 | 2720.0 | 2.000 | 9361.9  | 3616.3 | 6007.6 | 7347.2 | 9325.8  | 10259.4 |
| 04 | -21.10 | 171.00 | 2720.0 | 2.000 | 9460.7  | 3616.3 | 6057.3 | 7408.0 | 9396.8  | 10337.6 |
| 04 | -21.30 | 171.00 | 2720.0 | 2.000 | 9559.6  | 3616.3 | 6107.0 | 7468.8 | 9467.9  | 10415.7 |
| 04 | -21.50 | 171.00 | 2720.0 | 2.000 | 9658.4  | 3616.3 | 6156.6 | 7529.6 | 9538.9  | 10493.8 |
| 04 | -21.70 | 171.00 | 2720.0 | 2.000 | 9757.2  | 3616.3 | 6206.3 | 7590.4 | 9609.9  | 10572.0 |
| 04 | -21.90 | 171.00 | 2720.0 | 2.000 | 9856.1  | 3616.3 | 6256.0 | 7651.1 | 9681.0  | 10650.1 |
| 04 | -22.10 | 171.00 | 2720.0 | 2.000 | 9954.9  | 3616.3 | 6305.7 | 7711.9 | 9752.0  | 10728.3 |
| 04 | -22.30 | 171.00 | 2720.0 | 2.000 | 10053.8 | 3616.3 | 6355.4 | 7772.7 | 9823.0  | 10806.4 |
| 04 | -22.50 | 171.00 | 2720.0 | 2.000 | 10152.6 | 3616.3 | 6405.1 | 7833.5 | 9894.0  | 10884.5 |
| 04 | -22.70 | 171.00 | 2720.0 | 2.000 | 10251.5 | 3616.3 | 6454.8 | 7894.3 | 9965.1  | 10962.7 |
| 04 | -22.90 | 171.00 | 2720.0 | 2.000 | 10350.3 | 3616.3 | 6504.5 | 7955.1 | 10036.1 | 11040.8 |
| 04 | -23.10 | 171.00 | 2720.0 | 2.000 | 10449.2 | 3616.3 | 6554.2 | 8015.9 | 10107.1 | 11119.0 |
| 04 | -23.30 | 171.00 | 2720.0 | 2.000 | 10548.0 | 3616.3 | 6603.9 | 8076.7 | 10178.2 | 11197.1 |
| 04 | -23.50 | 171.00 | 2720.0 | 2.000 | 10646.9 | 3616.3 | 6653.6 | 8137.5 | 10249.2 | 11275.2 |
| 04 | -23.70 | 171.00 | 2720.0 | 2.000 | 10745.7 | 3616.3 | 6703.3 | 8198.3 | 10320.2 | 11353.4 |
| 04 | -23.80 | 171.00 | 2720.0 | 2.000 | 10795.1 | 3616.3 | 6728.2 | 8228.7 | 10355.7 | 11392.4 |

# Capacité du pieu pour chaque combinaison en fonction de la profondeur

