

Quantachrome Porometer 3G Summary Report

Maximum Pore Size: 0.0451  $\mu\text{m}$   
Mean Pore Size (MFP): 0.0000  $\mu\text{m}$   
Minimum Pore Size: 0.0327  $\mu\text{m}$   
Bubble Point Pressure: 14.2000 bar  
Bubble Point Flow Rate: 147.7354 l/m  
Bubble Point Auto Mode: Auto Tolerance: 1.000  
Pore Density:  $7.806\text{E}+11$  / $\text{cm}^2$   
Porosity (Open Area Data): 2426.742 %

Quantachrome Porometer 3G Data Report

Maximum Pore Size: 0.0451  $\mu\text{m}$   
Mean Pore Size (MFP): 0.0000  $\mu\text{m}$   
Minimum Pore Size: 0.0327  $\mu\text{m}$   
Bubble Point Pressure: 14.2000 bar  
Bubble Point Flow Rate: 147.7354 l/m  
Bubble Point Auto Mode: Auto Tolerance: 1.000  
Pore Density: 7.806E+11 /cm<sup>2</sup>  
Porosity (Open Area Data): 2426.742 %

| Point # | Wet.Targ.Pr. bar | Wet Flow l/m | Dry Flow l/m | Pore Flow Cum % | Pore Flow Diff % | Pore Num Cum (/cm <sup>2</sup> ) | Pore Num Diff (/cm <sup>2</sup> ) | Pore Open Area Cum (/cm <sup>2</sup> ) | Pore Open Area Diff (/cm <sup>2</sup> ) |
|---------|------------------|--------------|--------------|-----------------|------------------|----------------------------------|-----------------------------------|--|---|
| 0       | 6.40000          | 96.8317      | 98.3623      | 98.1735         | 0.0000           | 0                                | 0                                 | 0                                      | 0                                       |
| 1       | 6.50000          | 97.1745      | 99.4001      | 98.1735         | 0.0000           | 0                                | 0                                 | 0                                      | 0                                       |
| 2       | 6.60000          | 97.5404      | 100.4396     | 98.1735         | 0.0000           | 0                                | 0                                 | 0                                      | 0                                       |
| 3       | 6.70000          | 97.9207      | 101.4792     | 98.1735         | 0.0000           | 0                                | 0                                 | 0                                      | 0                                       |
| 4       | 6.80000          | 98.3129      | 102.5201     | 98.1735         | 0.0000           | 0                                | 0                                 | 0                                      | 0                                       |
| 5       | 6.90000          | 98.8916      | 103.5723     | 98.1735         | 0.0000           | 0                                | 0                                 | 0                                      | 0                                       |
| 6       | 7.00000          | 99.5661      | 104.6275     | 98.1735         | 0.0000           | 0                                | 0                                 | 0                                      | 0                                       |
| 7       | 7.10000          | 100.2957     | 105.6807     | 98.1735         | 0.0000           | 0                                | 0                                 | 0                                      | 0                                       |
| 8       | 7.20000          | 101.0629     | 106.7303     | 98.1735         | 0.0000           | 0                                | 0                                 | 0                                      | 0                                       |
| 9       | 7.30000          | 101.8610     | 107.7726     | 98.1735         | 0.0000           | 0                                | 0                                 | 0                                      | 0                                       |
| 10      | 7.40000          | 102.6816     | 108.8033     | 98.1735         | 0.0000           | 0                                | 0                                 | 0                                      | 0                                       |
| 11      | 7.50000          | 103.5176     | 109.8213     | 98.1735         | 0.0000           | 0                                | 0                                 | 0                                      | 0                                       |
| 12      | 7.60000          | 104.3617     | 110.8262     | 98.1735         | 0.0000           | 0                                | 0                                 | 0                                      | 0                                       |
| 13      | 7.70000          | 105.2123     | 111.8142     | 98.1735         | 0.0000           | 0                                | 0                                 | 0                                      | 0                                       |
| 14      | 7.80000          | 106.0585     | 112.7875     | 98.1735         | 0.0000           | 0                                | 0                                 | 0                                      | 0                                       |
| 15      | 7.90000          | 106.8912     | 113.7505     | 98.1735         | 0.0000           | 0                                | 0                                 | 0                                      | 0                                       |
| 16      | 8.00000          | 107.7147     | 114.7113     | 98.1735         | 0.0000           | 0                                | 0                                 | 0                                      | 0                                       |
| 17      | 8.10000          | 108.5377     | 115.6746     | 98.1735         | 0.0000           | 0                                | 0                                 | 0                                      | 0                                       |
| 18      | 8.20000          | 109.3623     | 116.6351     | 98.1735         | 0.0000           | 0                                | 0                                 | 0                                      | 0                                       |
| 19      | 8.30000          | 110.1857     | 117.5957     | 98.1735         | 0.0000           | 0                                | 0                                 | 0                                      | 0                                       |
| 20      | 8.40000          | 111.0116     | 118.5634     | 98.1735         | 0.0000           | 0                                | 0                                 | 0                                      | 0                                       |
| 21      | 8.50000          | 111.8459     | 119.5368     | 98.1735         | 0.0000           | 4.238E+06                        | 4.238E+06                         | 0.0001887                              | 0.0001887                               |
| 22      | 8.60000          | 112.6867     | 120.5058     | 98.1735         | 0.0000           | 4.441E+07                        | 4.017E+07                         | 0.001936                               | 0.001747                                |
| 23      | 8.70000          | 113.5258     | 121.4666     | 98.1735         | 0.0000           | 2.275E+08                        | 1.831E+08                         | 0.009718                               | 0.007782                                |
| 24      | 8.80000          | 114.3636     | 122.4206     | 98.1735         | 0.0000           | 7.997E+08                        | 5.722E+08                         | 0.03349                                | 0.02377                                 |
| 25      | 8.90000          | 115.2020     | 123.3681     | 98.1735         | 0.0000           | 2.209E+09                        | 1.41E+09                          | 0.09074                                | 0.05725                                 |
| 26      | 9.00000          | 116.0395     | 124.3023     | 98.1735         | 0.0000           | 5.147E+09                        | 2.938E+09                         | 0.2074                                 | 0.1167                                  |
| 27      | 9.10000          | 116.8680     | 125.2260     | 98.1735         | 0.0000           | 1.055E+10                        | 5.4E+09                           | 0.4172                                 | 0.2098                                  |
| 28      | 9.20000          | 117.6868     | 126.1483     | 98.1735         | 0.0000           | 1.953E+10                        | 8.985E+09                         | 0.7587                                 | 0.3415                                  |
| 29      | 9.30000          | 118.5005     | 127.0707     | 98.1735         | 0.0000           | 3.331E+10                        | 1.378E+10                         | 1.271                                  | 0.5126                                  |
| 30      | 9.40000          | 119.3076     | 127.9890     | 98.1735         | 0.0000           | 5.306E+10                        | 1.975E+10                         | 1.99                                   | 0.719                                   |
| 31      | 9.50000          | 120.1081     | 128.9011     | 98.1735         | 0.0000           | 7.967E+10                        | 2.661E+10                         | 2.939                                  | 0.9485                                  |
| 32      | 9.60000          | 120.9082     | 129.7784     | 98.1735         | 0.0000           | 1.134E+11                        | 3.369E+10                         | 4.115                                  | 1.176                                   |
| 33      | 9.70000          | 121.7032     | 130.5579     | 98.1735         | 0.0000           | 1.536E+11                        | 4.026E+10                         | 5.491                                  | 1.376                                   |
| 34      | 9.80000          | 122.4906     | 131.1659     | 98.1735         | 0.0000           | 1.994E+11                        | 4.577E+10                         | 7.024                                  | 1.533                                   |
| 35      | 9.90000          | 123.2768     | 131.5341     | 98.1735         | 0.0102           | 2.494E+11                        | 4.996E+10                         | 8.664                                  | 1.64                                    |
| 36      | 10.00000         | 124.0658     | 131.6194     | 98.1735         | 0.0569           | 3.021E+11                        | 5.279E+10                         | 10.36                                  | 1.698                                   |
| 37      | 10.10000         | 124.8553     | 131.4126     | 98.1735         | 0.1354           | 3.565E+11                        | 5.435E+10                         | 12.08                                  | 1.714                                   |
| 38      | 10.20000         | 125.6383     | 130.9502     | 98.1735         | 0.2065           | 4.113E+11                        | 5.479E+10                         | 13.77                                  | 1.694                                   |
| 39      | 10.30000         | 126.4071     | 130.3079     | 98.1735         | 0.2475           | 4.655E+11                        | 5.425E+10                         | 15.42                                  | 1.645                                   |
| 40      | 10.40000         | 127.1482     | 129.5763     | 98.1735         | 0.2613           | 5.183E+11                        | 5.275E+10                         | 16.98                                  | 1.569                                   |
| 41      | 10.50000         | 127.8502     | 128.8499     | 99.1175         | 0.2611           | 5.686E+11                        | 5.027E+10                         | 18.45                                  | 1.467                                   |
| 42      | 10.60000         | 128.5184     | 128.1933     | 100.0000        | 0.2467           | 6.152E+11                        | 4.669E+10                         | 19.79                                  | 1.337                                   |
| 43      | 10.70000         | 129.1622     | 127.6185     | 100.0000        | 0.2045           | 6.572E+11                        | 4.194E+10                         | 20.97                                  | 1.179                                   |
| 44      | 10.80000         | 129.7772     | 127.1057     | 100.0000        | 0.1325           | 6.933E+11                        | 3.612E+10                         | 21.96                                  | 0.9962                                  |
| 45      | 10.90000         | 130.3763     | 126.6314     | 100.0000        | 0.0544           | 7.228E+11                        | 2.953E+10                         | 22.76                                  | 0.7995                                  |
| 46      | 11.00000         | 130.9767     | 126.1678     | 100.0000        | 0.0095           | 7.455E+11                        | 2.263E+10                         | 23.36                                  | 0.6018                                  |

|     |          |          |          |          |        |           |           |       |          |
|-----|----------|----------|----------|----------|--------|-----------|-----------|-------|----------|
| 47  | 11.10000 | 131.5761 | 125.6837 | 100.0000 | 0.0000 | 7.615E+11 | 1.6E+10   | 23.78 | 0.4178   |
| 48  | 11.20000 | 132.1634 | 125.1569 | 100.0000 | 0.0000 | 7.717E+11 | 1.018E+10 | 24.04 | 0.2612   |
| 49  | 11.30000 | 132.7409 | 124.5959 | 100.0000 | 0.0000 | 7.773E+11 | 5.609E+09 | 24.18 | 0.1413   |
| 50  | 11.40000 | 133.3148 | 124.0156 | 100.0000 | 0.0000 | 7.798E+11 | 2.49E+09  | 24.25 | 0.06164  |
| 51  | 11.50000 | 133.8879 | 123.4261 | 100.0000 | 0.0000 | 7.805E+11 | 7.672E+08 | 24.26 | 0.01866  |
| 52  | 11.60000 | 134.4519 | 122.8399 | 100.0000 | 0.0000 | 7.806E+11 | 1.064E+08 | 24.27 | 0.002545 |
| 53  | 11.70000 | 135.0040 | 122.2681 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 54  | 11.80000 | 135.5432 | 121.7122 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 55  | 11.90000 | 136.0616 | 121.1667 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 56  | 12.00000 | 136.5638 | 120.6229 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 57  | 12.10000 | 137.0597 | 120.0681 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 58  | 12.20000 | 137.5601 | 119.5001 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 59  | 12.30000 | 138.0791 | 118.9204 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 60  | 12.40000 | 138.6257 | 118.3368 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 61  | 12.50000 | 139.1941 | 117.7611 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 62  | 12.60000 | 139.7716 | 117.2084 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 63  | 12.70000 | 140.3552 | 116.6898 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 64  | 12.80000 | 140.9318 | 116.2090 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 65  | 12.90000 | 141.4947 | 115.7534 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 66  | 13.00000 | 142.0391 | 115.3134 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 67  | 13.10000 | 142.5697 | 114.8810 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 68  | 13.20000 | 143.0868 | 114.4513 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 69  | 13.30000 | 143.5907 | 114.0229 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 70  | 13.40000 | 144.0795 | 113.5979 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 71  | 13.50000 | 144.5595 | 113.1762 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 72  | 13.60000 | 145.0278 | 112.7590 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 73  | 13.70000 | 145.4872 | 112.3484 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 74  | 13.80000 | 145.9438 | 111.9466 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 75  | 13.90000 | 146.3994 | 111.5529 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 76  | 14.00000 | 146.8533 | 111.1585 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 77  | 14.10000 | 147.2993 | 110.7516 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 78  | 14.20000 | 147.7354 | 110.3327 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 79  | 14.30000 | 148.1603 | 109.9064 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 80  | 14.40000 | 148.5723 | 109.4775 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 81  | 14.50000 | 148.9726 | 109.0449 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 82  | 14.60000 | 149.3622 | 108.6060 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 83  | 14.70000 | 149.7375 | 108.1684 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 84  | 14.80000 | 150.0889 | 107.7373 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 85  | 14.90000 | 150.4036 | 107.3033 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 86  | 15.00000 | 150.6680 | 106.8553 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 87  | 15.10000 | 150.8760 | 106.3976 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 88  | 15.20000 | 151.0389 | 105.9440 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 89  | 15.30000 | 151.1895 | 105.4988 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 90  | 15.40000 | 151.3560 | 105.0513 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 91  | 15.50000 | 151.5302 | 104.6045 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 92  | 15.60000 | 151.6806 | 104.1683 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 93  | 15.70000 | 151.7900 | 103.7409 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 94  | 15.80000 | 151.8516 | 103.3142 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 95  | 15.90000 | 151.8515 | 102.8876 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 96  | 16.00000 | 151.7827 | 102.4640 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 97  | 16.10000 | 151.6735 | 102.0746 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 98  | 16.20000 | 151.5691 | 101.7913 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 99  | 16.30000 | 151.4911 | 101.6339 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 100 | 16.40000 | 151.4311 | 101.5820 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 101 | 16.50000 | 151.3815 | 101.6093 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 102 | 16.60000 | 151.3404 | 101.7023 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 103 | 16.70000 | 151.3055 | 101.8216 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 104 | 16.80000 | 151.2730 | 101.9032 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 105 | 16.90000 | 151.0463 | 101.9121 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 106 | 17.00000 | 150.3768 | 101.8895 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 107 | 17.10000 | 149.7213 | 101.8586 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 108 | 17.20000 | 149.4419 | 101.8215 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |
| 109 | 17.30000 | 149.5067 | 101.7811 | 100.0000 | 0.0000 | 7.806E+11 | 0         | 24.27 | 0        |

|     |          |          |          |          |        |           |   |       |   |
|-----|----------|----------|----------|----------|--------|-----------|---|-------|---|
| 110 | 17.40000 | 149.7350 | 101.7389 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 111 | 17.50000 | 150.2078 | 101.6969 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 112 | 17.60000 | 150.9973 | 101.6561 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 113 | 17.70000 | 151.8267 | 101.6158 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 114 | 17.80000 | 152.1613 | 101.5764 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 115 | 17.90000 | 152.1487 | 101.5393 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 116 | 18.00000 | 152.0500 | 101.5037 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 117 | 18.10000 | 151.9354 | 101.4686 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 118 | 18.20000 | 151.8275 | 101.4314 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 119 | 18.30000 | 151.7369 | 101.3909 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 120 | 18.40000 | 151.6713 | 101.3470 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 121 | 18.50000 | 151.6291 | 101.3004 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 122 | 18.60000 | 151.6020 | 101.2517 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 123 | 18.70000 | 151.5775 | 101.2018 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 124 | 18.80000 | 151.5473 | 101.1523 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 125 | 18.90000 | 151.5038 | 101.1058 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 126 | 19.00000 | 151.4410 | 101.0619 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 127 | 19.10000 | 151.3596 | 101.0194 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 128 | 19.20000 | 151.2664 | 100.9779 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 129 | 19.30000 | 151.1688 | 100.9373 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 130 | 19.40000 | 151.0717 | 100.8982 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 131 | 19.50000 | 150.9738 | 100.8604 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 132 | 19.60000 | 150.8706 | 100.8239 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 133 | 19.70000 | 150.7617 | 100.7882 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 134 | 19.80000 | 150.6513 | 100.7532 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 135 | 19.90000 | 150.5420 | 100.7181 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 136 | 20.00000 | 150.4347 | 100.6825 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 137 | 20.10000 | 150.3287 | 100.6452 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 138 | 20.20000 | 150.2238 | 100.6061 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 139 | 20.30000 | 150.1210 | 100.5660 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 140 | 20.40000 | 150.0205 | 100.5254 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 141 | 20.50000 | 149.9230 | 100.4848 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 142 | 20.60000 | 149.8275 | 100.4438 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 143 | 20.70000 | 149.7355 | 100.4023 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 144 | 20.80000 | 149.6480 | 100.3610 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 145 | 20.90000 | 149.5655 | 100.3208 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 146 | 21.00000 | 149.4871 | 100.2818 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 147 | 21.10000 | 149.4107 | 100.2423 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 148 | 21.20000 | 149.3359 | 100.2011 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 149 | 21.30000 | 149.2642 | 100.1593 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 150 | 21.40000 | 149.1946 | 100.1184 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 151 | 21.50000 | 149.1254 | 100.0777 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 152 | 21.60000 | 149.0549 | 100.0367 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 153 | 21.70000 | 148.9844 | 99.9962  | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 154 | 21.80000 | 148.9163 | 99.9573  | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 155 | 21.90000 | 148.8497 | 99.9196  | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 156 | 22.00000 | 148.7846 | 99.8811  | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 157 | 22.10000 | 148.7221 | 99.8402  | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 158 | 22.20000 | 148.6628 | 99.7980  | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 159 | 22.30000 | 148.6075 | 99.7554  | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 160 | 22.40000 | 148.5549 | 99.7126  | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 161 | 22.50000 | 148.5039 | 99.6689  | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 162 | 22.60000 | 148.4542 | 99.6247  | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 163 | 22.70000 | 148.4055 | 99.5815  | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 164 | 22.80000 | 148.3585 | 99.5407  | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 165 | 22.90000 | 148.3137 | 99.5013  | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 166 | 23.00000 | 148.2701 | 99.4613  | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 167 | 23.10000 | 148.2289 | 99.4199  | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 168 | 23.20000 | 148.1909 | 99.3776  | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 169 | 23.30000 | 148.1553 | 99.3348  | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 170 | 23.40000 | 148.1197 | 99.2912  | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 171 | 23.50000 | 148.0836 | 99.2469  | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 172 | 23.60000 | 148.0485 | 99.2037  | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |

|     |          |          |         |          |        |           |   |       |   |
|-----|----------|----------|---------|----------|--------|-----------|---|-------|---|
| 173 | 23.70000 | 148.0143 | 99.1631 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 174 | 23.80000 | 147.9793 | 99.1242 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 175 | 23.90000 | 147.9443 | 99.0849 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 176 | 24.00000 | 147.9118 | 99.0439 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 177 | 24.10000 | 147.8817 | 99.0005 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 178 | 24.20000 | 147.8518 | 98.9537 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 179 | 24.30000 | 147.8218 | 98.9030 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 180 | 24.40000 | 147.7912 | 98.8500 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 181 | 24.50000 | 147.7601 | 98.7971 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 182 | 24.60000 | 147.7296 | 98.7457 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 183 | 24.70000 | 147.7008 | 98.6968 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 184 | 24.80000 | 147.6729 | 98.6505 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 185 | 24.90000 | 147.6451 | 98.6065 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 186 | 25.00000 | 147.6177 | 98.5640 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 187 | 25.10000 | 147.5913 | 98.5212 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 188 | 25.20000 | 147.5645 | 98.4777 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 189 | 25.30000 | 147.5364 | 98.4346 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 190 | 25.40000 | 147.5073 | 98.3919 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 191 | 25.50000 | 147.4785 | 98.3495 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 192 | 25.60000 | 147.4510 | 98.3068 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 193 | 25.70000 | 147.4247 | 98.2632 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 194 | 25.80000 | 147.3996 | 98.2189 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 195 | 25.90000 | 147.3757 | 98.1731 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 196 | 26.00000 | 147.3532 | 98.1255 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 197 | 26.10000 | 147.3308 | 98.0761 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 198 | 26.20000 | 147.3058 | 98.0254 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 199 | 26.30000 | 147.2777 | 97.9752 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 200 | 26.40000 | 147.2473 | 97.9269 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 201 | 26.50000 | 147.2155 | 97.8795 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 202 | 26.60000 | 147.1830 | 97.8322 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 203 | 26.70000 | 147.1521 | 97.7855 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 204 | 26.80000 | 147.1251 | 97.7395 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 205 | 26.90000 | 147.1014 | 97.6941 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 206 | 27.00000 | 147.0796 | 97.6499 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 207 | 27.10000 | 147.0593 | 97.6060 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 208 | 27.20000 | 147.0400 | 97.5627 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 209 | 27.30000 | 147.0210 | 97.5196 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 210 | 27.40000 | 147.0013 | 97.4760 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 211 | 27.50000 | 146.9812 | 97.4304 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 212 | 27.60000 | 146.9611 | 97.3820 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 213 | 27.70000 | 146.9393 | 97.3320 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 214 | 27.80000 | 146.9150 | 97.2831 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 215 | 27.90000 | 146.8904 | 97.2362 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 216 | 28.00000 | 146.8665 | 97.1908 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 217 | 28.10000 | 146.8433 | 97.1469 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 218 | 28.20000 | 146.8214 | 97.1041 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 219 | 28.30000 | 146.8008 | 97.0613 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 220 | 28.40000 | 146.7812 | 97.0175 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 221 | 28.50000 | 146.7623 | 96.9737 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 222 | 28.60000 | 146.7428 | 96.9301 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 223 | 28.70000 | 146.7226 | 96.8866 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 224 | 28.80000 | 146.7026 | 96.8439 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 225 | 28.90000 | 146.6837 | 96.8015 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 226 | 29.00000 | 146.6657 | 96.7590 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 227 | 29.10000 | 146.6487 | 96.7143 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 228 | 29.20000 | 146.6314 | 96.6683 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 229 | 29.30000 | 146.6143 | 96.6234 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 230 | 29.40000 | 146.5962 | 96.5811 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 231 | 29.50000 | 146.5757 | 96.5419 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 232 | 29.60000 | 146.5540 | 96.5091 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 233 | 29.70000 | 146.5319 | 96.4859 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 234 | 29.80000 | 146.5088 | 96.4735 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 235 | 29.90000 | 146.4856 | 96.4717 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |

|     |          |          |         |          |        |           |   |       |   |
|-----|----------|----------|---------|----------|--------|-----------|---|-------|---|
| 236 | 30.00000 | 146.4638 | 96.4807 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 237 | 30.10000 | 146.4433 | 96.5000 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 238 | 30.20000 | 146.4231 | 96.5285 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 239 | 30.30000 | 146.4031 | 96.5643 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 240 | 30.40000 | 146.3837 | 96.6068 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 241 | 30.50000 | 146.3646 | 96.6559 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 242 | 30.60000 | 146.3444 | 96.7112 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 243 | 30.70000 | 146.3231 | 96.7735 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 244 | 30.80000 | 146.3024 | 96.8426 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 245 | 30.90000 | 146.2808 | 96.9159 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 246 | 31.00000 | 146.2577 | 96.9924 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 247 | 31.10000 | 146.2336 | 97.0720 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 248 | 31.20000 | 146.2090 | 97.1559 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 249 | 31.30000 | 146.1843 | 97.2443 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 250 | 31.40000 | 146.1593 | 97.3353 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 251 | 31.50000 | 146.1347 | 97.4289 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 252 | 31.60000 | 146.1130 | 97.5258 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 253 | 31.70000 | 146.0914 | 97.6233 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 254 | 31.80000 | 146.0700 | 97.7208 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |
| 255 | 31.90000 | 146.0489 | 97.8182 | 100.0000 | 0.0000 | 7.806E+11 | 0 | 24.27 | 0 |











