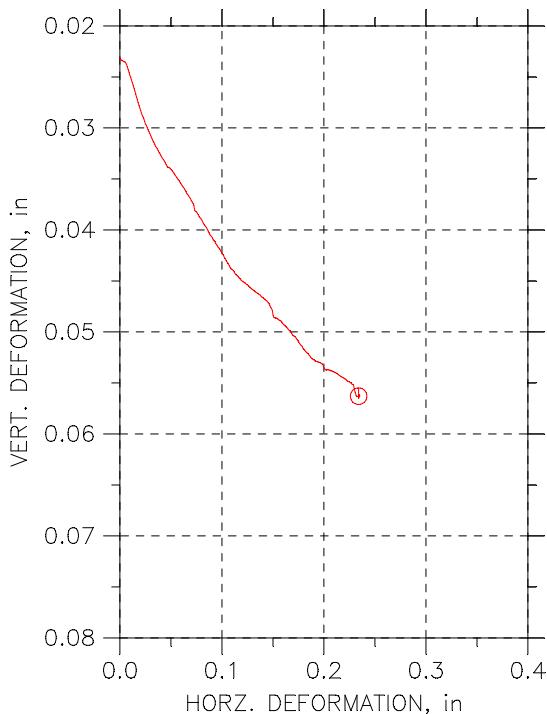
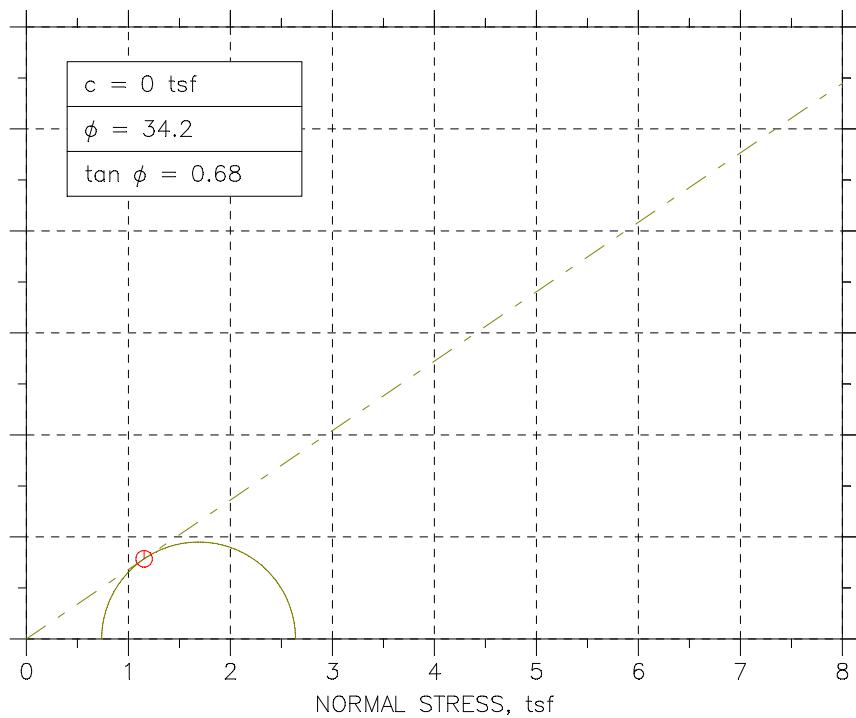
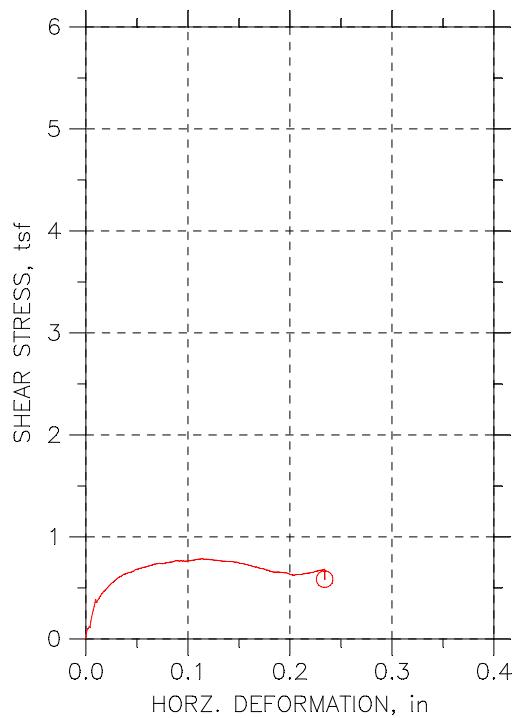


# DIRECT SHEAR TEST REPORT



| Symbol     | $\odot$                |         |  |  |
|------------|------------------------|---------|--|--|
| Test No.   | 5742107BS5             |         |  |  |
| Sample No. | OST-5                  |         |  |  |
| Shape      | Circular               |         |  |  |
| Initial    | Dimension, in          | 2.3642  |  |  |
|            | Area, in <sup>2</sup>  | 4.3898  |  |  |
|            | Height, in             | 0.95197 |  |  |
|            | Water Content, %       | 26.39   |  |  |
|            | Dry Density, pcf       | 96.78   |  |  |
|            | Saturation, %          | 96.57   |  |  |
|            | Void Ratio             | 0.73526 |  |  |
|            | Consol. Height, in     | 0.92881 |  |  |
|            | Consol. Void Ratio     | 0.69304 |  |  |
| Final      | Water Content, %       | 23.52   |  |  |
|            | Dry Density, pcf       | 102.9   |  |  |
|            | Saturation, %          | 100.01  |  |  |
|            | Void Ratio             | 0.63263 |  |  |
|            | Normal Stress, tsf     | 1.1535  |  |  |
|            | Max. Shear Stress, tsf | 0.78513 |  |  |
|            | Ult. Shear Stress, tsf | 0.58571 |  |  |
|            | Time to Failure, min   | 2073.9  |  |  |

Project: KINGSTON COAL

Location: TN

Project No.: 60095742

Boring No.: 09-107B S-5

Sample Type: 3" OST

Description: F-M SAND AND SILT TRACE CLAY - ORANGISH GRAY (SM)

Remarks: TEST PERFORMED AS PER ASTM D 3080

## DIRECT SHEAR TEST DATA

Project: KINGSTON COAL  
 Boring No.: 09-107B S-5  
 Sample No.: OST-5  
 Test No.: 5742107BS5

Location: TN  
 Tested By: BCM  
 Test Date: 02/09/09  
 Sample Type: 3" OST

Project No.: 60095742  
 Checked By: WPQ  
 Depth: 47.0' - 49.5'  
 Elevation:

Soil Description: F-M SAND AND SILT TRACE CLAY - ORANGE SH GRAY (SM)  
 Remarks: TEST PERFORMED AS PER ASTM D 3080

Step: 1 of 1

|    | Elapsed Time min | Vertical Stress tsf | Vertical Displacement in | Horizontal Stress tsf | Horizontal Displacement in | Cumulative Displacement in |
|----|------------------|---------------------|--------------------------|-----------------------|----------------------------|----------------------------|
| 1  | 0.00             | 1.154               | 0.02315                  | 0                     | 0                          | 0                          |
| 2  | 7.90             | 1.154               | 0.02326                  | 0.02818               | 0.0001411                  | 0.0001411                  |
| 3  | 15.90            | 1.154               | 0.02323                  | 0.05549               | 0.0004232                  | 0.0004232                  |
| 4  | 35.90            | 1.154               | 0.02336                  | 0.09885               | 0.001552                   | 0.001552                   |
| 5  | 48.90            | 1.154               | 0.0234                   | 0.09841               | 0.002257                   | 0.002257                   |
| 6  | 63.90            | 1.154               | 0.02345                  | 0.1192                | 0.003104                   | 0.003104                   |
| 7  | 78.90            | 1.154               | 0.02351                  | 0.1127                | 0.004091                   | 0.004091                   |
| 8  | 93.90            | 1.154               | 0.02351                  | 0.1738                | 0.004796                   | 0.004796                   |
| 9  | 108.90           | 1.154               | 0.02361                  | 0.215                 | 0.005643                   | 0.005643                   |
| 10 | 123.90           | 1.154               | 0.02379                  | 0.2575                | 0.006489                   | 0.006489                   |
| 11 | 138.90           | 1.154               | 0.024                    | 0.284                 | 0.007195                   | 0.007195                   |
| 12 | 153.90           | 1.154               | 0.02428                  | 0.3204                | 0.008041                   | 0.008041                   |
| 13 | 168.90           | 1.154               | 0.02452                  | 0.3568                | 0.008888                   | 0.008888                   |
| 14 | 183.90           | 1.154               | 0.0248                   | 0.3867                | 0.009593                   | 0.009593                   |
| 15 | 198.90           | 1.154               | 0.02504                  | 0.3555                | 0.01058                    | 0.01058                    |
| 16 | 213.90           | 1.154               | 0.02529                  | 0.3759                | 0.01129                    | 0.01129                    |
| 17 | 228.90           | 1.154               | 0.02557                  | 0.3876                | 0.01213                    | 0.01213                    |
| 18 | 243.90           | 1.154               | 0.02581                  | 0.401                 | 0.01298                    | 0.01298                    |
| 19 | 258.90           | 1.154               | 0.02609                  | 0.4149                | 0.01383                    | 0.01383                    |
| 20 | 273.90           | 1.154               | 0.02635                  | 0.4262                | 0.01453                    | 0.01453                    |
| 21 | 288.90           | 1.154               | 0.02667                  | 0.4413                | 0.01552                    | 0.01552                    |
| 22 | 303.90           | 1.154               | 0.02699                  | 0.4496                | 0.01622                    | 0.01622                    |
| 23 | 318.90           | 1.154               | 0.02722                  | 0.4613                | 0.01707                    | 0.01707                    |
| 24 | 333.90           | 1.154               | 0.02752                  | 0.47                  | 0.01778                    | 0.01778                    |
| 25 | 348.90           | 1.154               | 0.02778                  | 0.4769                | 0.01862                    | 0.01862                    |
| 26 | 363.90           | 1.154               | 0.028                    | 0.4838                | 0.01947                    | 0.01947                    |
| 27 | 378.90           | 1.154               | 0.0283                   | 0.4916                | 0.02031                    | 0.02031                    |
| 28 | 393.90           | 1.154               | 0.02855                  | 0.5016                | 0.02116                    | 0.02116                    |
| 29 | 408.90           | 1.154               | 0.02877                  | 0.5107                | 0.02187                    | 0.02187                    |
| 30 | 423.90           | 1.154               | 0.02893                  | 0.5202                | 0.02271                    | 0.02271                    |
| 31 | 438.90           | 1.154               | 0.02912                  | 0.5289                | 0.02342                    | 0.02342                    |
| 32 | 453.90           | 1.154               | 0.02936                  | 0.5372                | 0.02426                    | 0.02426                    |
| 33 | 468.90           | 1.154               | 0.02962                  | 0.5437                | 0.02511                    | 0.02511                    |
| 34 | 483.90           | 1.154               | 0.02976                  | 0.5528                | 0.02596                    | 0.02596                    |
| 35 | 498.90           | 1.154               | 0.02999                  | 0.558                 | 0.0268                     | 0.0268                     |
| 36 | 513.90           | 1.154               | 0.03019                  | 0.5653                | 0.02751                    | 0.02751                    |
| 37 | 528.90           | 1.154               | 0.03035                  | 0.5727                | 0.02836                    | 0.02836                    |
| 38 | 543.90           | 1.154               | 0.03051                  | 0.5792                | 0.0292                     | 0.0292                     |
| 39 | 558.90           | 1.154               | 0.03071                  | 0.587                 | 0.03005                    | 0.03005                    |
| 40 | 573.90           | 1.154               | 0.03089                  | 0.5931                | 0.03075                    | 0.03075                    |
| 41 | 588.90           | 1.154               | 0.03109                  | 0.5996                | 0.0316                     | 0.0316                     |
| 42 | 603.90           | 1.154               | 0.03129                  | 0.6048                | 0.03245                    | 0.03245                    |
| 43 | 618.90           | 1.154               | 0.03141                  | 0.6078                | 0.03329                    | 0.03329                    |
| 44 | 633.90           | 1.154               | 0.0316                   | 0.613                 | 0.03414                    | 0.03414                    |
| 45 | 648.90           | 1.154               | 0.03176                  | 0.6174                | 0.03484                    | 0.03484                    |
| 46 | 663.90           | 1.154               | 0.03195                  | 0.6239                | 0.03583                    | 0.03583                    |
| 47 | 678.90           | 1.154               | 0.03203                  | 0.633                 | 0.03668                    | 0.03668                    |
| 48 | 693.90           | 1.154               | 0.03221                  | 0.6347                | 0.03753                    | 0.03753                    |
| 49 | 708.90           | 1.154               | 0.0324                   | 0.6369                | 0.03837                    | 0.03837                    |
| 50 | 723.90           | 1.154               | 0.03251                  | 0.6416                | 0.03922                    | 0.03922                    |
| 51 | 738.90           | 1.154               | 0.0327                   | 0.6421                | 0.04006                    | 0.04006                    |
| 52 | 753.90           | 1.154               | 0.03283                  | 0.6455                | 0.04091                    | 0.04091                    |
| 53 | 768.90           | 1.154               | 0.033                    | 0.6503                | 0.04176                    | 0.04176                    |
| 54 | 783.90           | 1.154               | 0.0331                   | 0.6503                | 0.0426                     | 0.0426                     |
| 55 | 798.90           | 1.154               | 0.03324                  | 0.6529                | 0.04359                    | 0.04359                    |
| 56 | 813.90           | 1.154               | 0.03339                  | 0.6568                | 0.0443                     | 0.0443                     |
| 57 | 828.90           | 1.154               | 0.03359                  | 0.659                 | 0.04528                    | 0.04528                    |
| 58 | 843.90           | 1.154               | 0.03374                  | 0.6637                | 0.04613                    | 0.04613                    |
| 59 | 858.90           | 1.154               | 0.03384                  | 0.6663                | 0.04698                    | 0.04698                    |
| 60 | 873.90           | 1.154               | 0.03387                  | 0.6733                | 0.04768                    | 0.04768                    |
| 61 | 888.90           | 1.154               | 0.03392                  | 0.6789                | 0.04853                    | 0.04853                    |
| 62 | 903.90           | 1.154               | 0.03398                  | 0.682                 | 0.04938                    | 0.04938                    |
| 63 | 918.90           | 1.154               | 0.03408                  | 0.6833                | 0.05022                    | 0.05022                    |
| 64 | 933.90           | 1.154               | 0.03415                  | 0.6859                | 0.05107                    | 0.05107                    |
| 65 | 948.90           | 1.154               | 0.03429                  | 0.6893                | 0.05191                    | 0.05191                    |
| 66 | 963.90           | 1.154               | 0.03443                  | 0.6911                | 0.0529                     | 0.0529                     |
| 67 | 978.90           | 1.154               | 0.03456                  | 0.6928                | 0.05375                    | 0.05375                    |
| 68 | 993.90           | 1.154               | 0.03467                  | 0.6958                | 0.05445                    | 0.05445                    |
| 69 | 1008.90          | 1.154               | 0.03482                  | 0.6997                | 0.05544                    | 0.05544                    |
| 70 | 1023.90          | 1.154               | 0.03494                  | 0.6997                | 0.05629                    | 0.05629                    |
| 71 | 1038.90          | 1.154               | 0.03506                  | 0.7041                | 0.05713                    | 0.05713                    |
| 72 | 1053.90          | 1.154               | 0.03517                  | 0.7058                | 0.05798                    | 0.05798                    |
| 73 | 1068.90          | 1.154               | 0.03533                  | 0.7067                | 0.05897                    | 0.05897                    |
| 74 | 1083.90          | 1.154               | 0.03545                  | 0.7084                | 0.05967                    | 0.05967                    |
| 75 | 1098.90          | 1.154               | 0.03558                  | 0.711                 | 0.06052                    | 0.06052                    |
| 76 | 1113.90          | 1.154               | 0.03571                  | 0.7145                | 0.06137                    | 0.06137                    |
| 77 | 1128.90          | 1.154               | 0.03582                  | 0.7162                | 0.06221                    | 0.06221                    |
| 78 | 1143.90          | 1.154               | 0.03596                  | 0.7192                | 0.0632                     | 0.0632                     |
| 79 | 1158.90          | 1.154               | 0.03611                  | 0.7214                | 0.06391                    | 0.06391                    |

|     |          |        |          |         |          |          |
|-----|----------|--------|----------|---------|----------|----------|
| 80  | 1173. 90 | 1. 154 | 0. 03624 | 0. 724  | 0. 06475 | 0. 06475 |
| 81  | 1188. 90 | 1. 154 | 0. 03642 | 0. 727  | 0. 0656  | 0. 0656  |
| 82  | 1203. 90 | 1. 154 | 0. 03654 | 0. 7314 | 0. 06645 | 0. 06645 |
| 83  | 1218. 90 | 1. 154 | 0. 03665 | 0. 7331 | 0. 06729 | 0. 06729 |
| 84  | 1233. 90 | 1. 154 | 0. 0368  | 0. 7344 | 0. 06814 | 0. 06814 |
| 85  | 1248. 90 | 1. 154 | 0. 03691 | 0. 7366 | 0. 06913 | 0. 06913 |
| 86  | 1263. 90 | 1. 154 | 0. 03711 | 0. 737  | 0. 06997 | 0. 06997 |
| 87  | 1278. 90 | 1. 154 | 0. 03725 | 0. 74   | 0. 07082 | 0. 07082 |
| 88  | 1293. 90 | 1. 154 | 0. 03741 | 0. 7405 | 0. 07167 | 0. 07167 |
| 89  | 1308. 90 | 1. 154 | 0. 03757 | 0. 74   | 0. 07237 | 0. 07237 |
| 90  | 1323. 90 | 1. 154 | 0. 03809 | 0. 7387 | 0. 07336 | 0. 07336 |
| 91  | 1338. 90 | 1. 154 | 0. 03818 | 0. 7383 | 0. 0742  | 0. 0742  |
| 92  | 1353. 90 | 1. 154 | 0. 03823 | 0. 737  | 0. 07505 | 0. 07505 |
| 93  | 1368. 90 | 1. 154 | 0. 03836 | 0. 7387 | 0. 0759  | 0. 0759  |
| 94  | 1383. 90 | 1. 154 | 0. 03849 | 0. 74   | 0. 0766  | 0. 0766  |
| 95  | 1398. 90 | 1. 154 | 0. 03867 | 0. 7435 | 0. 07759 | 0. 07759 |
| 96  | 1413. 90 | 1. 154 | 0. 03877 | 0. 747  | 0. 0783  | 0. 0783  |
| 97  | 1428. 90 | 1. 154 | 0. 03888 | 0. 747  | 0. 07914 | 0. 07914 |
| 98  | 1443. 90 | 1. 154 | 0. 03901 | 0. 7478 | 0. 08013 | 0. 08013 |
| 99  | 1458. 90 | 1. 154 | 0. 03916 | 0. 7483 | 0. 08083 | 0. 08083 |
| 100 | 1473. 90 | 1. 154 | 0. 03933 | 0. 7509 | 0. 08168 | 0. 08168 |
| 101 | 1488. 90 | 1. 154 | 0. 03946 | 0. 7535 | 0. 08253 | 0. 08253 |
| 102 | 1503. 90 | 1. 154 | 0. 03957 | 0. 7544 | 0. 08323 | 0. 08323 |
| 103 | 1518. 90 | 1. 154 | 0. 03968 | 0. 7548 | 0. 08408 | 0. 08408 |
| 104 | 1533. 90 | 1. 154 | 0. 03981 | 0. 7552 | 0. 08493 | 0. 08493 |
| 105 | 1548. 90 | 1. 154 | 0. 03996 | 0. 757  | 0. 08577 | 0. 08577 |
| 106 | 1563. 90 | 1. 154 | 0. 04011 | 0. 7609 | 0. 08648 | 0. 08648 |
| 107 | 1578. 90 | 1. 154 | 0. 04028 | 0. 7656 | 0. 08732 | 0. 08732 |
| 108 | 1593. 90 | 1. 154 | 0. 04044 | 0. 7669 | 0. 08817 | 0. 08817 |
| 109 | 1608. 90 | 1. 154 | 0. 04056 | 0. 7661 | 0. 08902 | 0. 08902 |
| 110 | 1623. 90 | 1. 154 | 0. 04065 | 0. 7656 | 0. 08986 | 0. 08986 |
| 111 | 1638. 90 | 1. 154 | 0. 04079 | 0. 7643 | 0. 09071 | 0. 09071 |
| 112 | 1653. 90 | 1. 154 | 0. 04096 | 0. 7639 | 0. 09142 | 0. 09142 |
| 113 | 1668. 90 | 1. 154 | 0. 04106 | 0. 7643 | 0. 09226 | 0. 09226 |
| 114 | 1683. 90 | 1. 154 | 0. 04117 | 0. 7643 | 0. 09311 | 0. 09311 |
| 115 | 1698. 90 | 1. 154 | 0. 04132 | 0. 7652 | 0. 09395 | 0. 09395 |
| 116 | 1713. 90 | 1. 154 | 0. 04145 | 0. 7639 | 0. 09466 | 0. 09466 |
| 117 | 1728. 90 | 1. 154 | 0. 04156 | 0. 7643 | 0. 09551 | 0. 09551 |
| 118 | 1743. 90 | 1. 154 | 0. 04169 | 0. 7622 | 0. 09635 | 0. 09635 |
| 119 | 1758. 90 | 1. 154 | 0. 04177 | 0. 7622 | 0. 09706 | 0. 09706 |
| 120 | 1773. 90 | 1. 154 | 0. 04187 | 0. 7622 | 0. 0979  | 0. 0979  |
| 121 | 1788. 90 | 1. 154 | 0. 04202 | 0. 7635 | 0. 09861 | 0. 09861 |
| 122 | 1803. 90 | 1. 154 | 0. 04215 | 0. 7643 | 0. 09946 | 0. 09946 |
| 123 | 1818. 90 | 1. 154 | 0. 0423  | 0. 7648 | 0. 1003  | 0. 1003  |
| 124 | 1833. 90 | 1. 154 | 0. 04242 | 0. 7669 | 0. 101   | 0. 101   |
| 125 | 1848. 90 | 1. 154 | 0. 04253 | 0. 7669 | 0. 1017  | 0. 1017  |
| 126 | 1863. 90 | 1. 154 | 0. 04277 | 0. 7674 | 0. 1026  | 0. 1026  |
| 127 | 1878. 90 | 1. 154 | 0. 0428  | 0. 7687 | 0. 1033  | 0. 1033  |
| 128 | 1893. 90 | 1. 154 | 0. 04296 | 0. 7713 | 0. 104   | 0. 104   |
| 129 | 1908. 90 | 1. 154 | 0. 04309 | 0. 7704 | 0. 1048  | 0. 1048  |
| 130 | 1923. 90 | 1. 154 | 0. 04324 | 0. 7739 | 0. 1057  | 0. 1057  |
| 131 | 1938. 90 | 1. 154 | 0. 04333 | 0. 7752 | 0. 1064  | 0. 1064  |
| 132 | 1953. 90 | 1. 154 | 0. 04348 | 0. 7765 | 0. 1071  | 0. 1071  |
| 133 | 1968. 90 | 1. 154 | 0. 04364 | 0. 7778 | 0. 1079  | 0. 1079  |
| 134 | 1983. 90 | 1. 154 | 0. 04376 | 0. 7795 | 0. 1086  | 0. 1086  |
| 135 | 1998. 90 | 1. 154 | 0. 04385 | 0. 7808 | 0. 1095  | 0. 1095  |
| 136 | 2013. 90 | 1. 154 | 0. 04389 | 0. 7808 | 0. 1102  | 0. 1102  |
| 137 | 2028. 90 | 1. 154 | 0. 04396 | 0. 7825 | 0. 111   | 0. 111   |
| 138 | 2043. 90 | 1. 154 | 0. 04407 | 0. 7834 | 0. 1117  | 0. 1117  |
| 139 | 2058. 90 | 1. 154 | 0. 04419 | 0. 7843 | 0. 1124  | 0. 1124  |
| 140 | 2073. 90 | 1. 154 | 0. 04433 | 0. 7851 | 0. 1133  | 0. 1133  |
| 141 | 2088. 90 | 1. 154 | 0. 0444  | 0. 7851 | 0. 114   | 0. 114   |
| 142 | 2103. 90 | 1. 154 | 0. 04448 | 0. 7843 | 0. 1148  | 0. 1148  |
| 143 | 2118. 90 | 1. 154 | 0. 04455 | 0. 7825 | 0. 1157  | 0. 1157  |
| 144 | 2133. 90 | 1. 154 | 0. 04463 | 0. 7808 | 0. 1164  | 0. 1164  |
| 145 | 2148. 90 | 1. 154 | 0. 04473 | 0. 7812 | 0. 1172  | 0. 1172  |
| 146 | 2163. 90 | 1. 154 | 0. 0448  | 0. 7804 | 0. 1179  | 0. 1179  |
| 147 | 2178. 90 | 1. 154 | 0. 04492 | 0. 7812 | 0. 1186  | 0. 1186  |
| 148 | 2193. 90 | 1. 154 | 0. 04496 | 0. 7812 | 0. 1193  | 0. 1193  |
| 149 | 2208. 90 | 1. 154 | 0. 04506 | 0. 7808 | 0. 1202  | 0. 1202  |
| 150 | 2223. 90 | 1. 154 | 0. 04508 | 0. 7782 | 0. 121   | 0. 121   |
| 151 | 2238. 90 | 1. 154 | 0. 04513 | 0. 7773 | 0. 1217  | 0. 1217  |
| 152 | 2253. 90 | 1. 154 | 0. 04522 | 0. 7765 | 0. 1226  | 0. 1226  |
| 153 | 2268. 90 | 1. 154 | 0. 04521 | 0. 776  | 0. 1232  | 0. 1232  |
| 154 | 2283. 90 | 1. 154 | 0. 04535 | 0. 776  | 0. 124   | 0. 124   |
| 155 | 2298. 90 | 1. 154 | 0. 04536 | 0. 7752 | 0. 1248  | 0. 1248  |
| 156 | 2313. 90 | 1. 154 | 0. 04545 | 0. 773  | 0. 1257  | 0. 1257  |
| 157 | 2328. 90 | 1. 154 | 0. 04552 | 0. 7717 | 0. 1264  | 0. 1264  |
| 158 | 2343. 90 | 1. 154 | 0. 0456  | 0. 7708 | 0. 1272  | 0. 1272  |
| 159 | 2358. 90 | 1. 154 | 0. 04569 | 0. 7713 | 0. 1281  | 0. 1281  |
| 160 | 2373. 90 | 1. 154 | 0. 04577 | 0. 7691 | 0. 1289  | 0. 1289  |
| 161 | 2388. 90 | 1. 154 | 0. 04583 | 0. 7687 | 0. 1298  | 0. 1298  |
| 162 | 2403. 90 | 1. 154 | 0. 04588 | 0. 7678 | 0. 1306  | 0. 1306  |
| 163 | 2418. 90 | 1. 154 | 0. 04595 | 0. 7669 | 0. 1313  | 0. 1313  |
| 164 | 2433. 90 | 1. 154 | 0. 04604 | 0. 7674 | 0. 1322  | 0. 1322  |
| 165 | 2448. 90 | 1. 154 | 0. 04608 | 0. 7639 | 0. 133   | 0. 133   |
| 166 | 2463. 90 | 1. 154 | 0. 04614 | 0. 763  | 0. 1337  | 0. 1337  |
| 167 | 2478. 90 | 1. 154 | 0. 04618 | 0. 7617 | 0. 1346  | 0. 1346  |
| 168 | 2493. 90 | 1. 154 | 0. 04623 | 0. 7617 | 0. 1354  | 0. 1354  |
| 169 | 2508. 90 | 1. 154 | 0. 0463  | 0. 7617 | 0. 1363  | 0. 1363  |
| 170 | 2523. 90 | 1. 154 | 0. 04636 | 0. 7609 | 0. 1371  | 0. 1371  |
| 171 | 2538. 90 | 1. 154 | 0. 04642 | 0. 7596 | 0. 1378  | 0. 1378  |
| 172 | 2553. 90 | 1. 154 | 0. 04654 | 0. 7609 | 0. 1387  | 0. 1387  |
| 173 | 2568. 90 | 1. 154 | 0. 04661 | 0. 7591 | 0. 1395  | 0. 1395  |
| 174 | 2583. 90 | 1. 154 | 0. 04666 | 0. 7583 | 0. 1404  | 0. 1404  |

|     |          |        |          |         |         |         |
|-----|----------|--------|----------|---------|---------|---------|
| 175 | 2598. 90 | 1. 154 | 0. 04673 | 0. 7591 | 0. 1411 | 0. 1411 |
| 176 | 2613. 90 | 1. 154 | 0. 0468  | 0. 76   | 0. 1421 | 0. 1421 |
| 177 | 2628. 90 | 1. 154 | 0. 04687 | 0. 7583 | 0. 1428 | 0. 1428 |
| 178 | 2643. 90 | 1. 154 | 0. 04694 | 0. 7578 | 0. 1436 | 0. 1436 |
| 179 | 2658. 90 | 1. 154 | 0. 04702 | 0. 7565 | 0. 1446 | 0. 1446 |
| 180 | 2673. 90 | 1. 154 | 0. 04713 | 0. 7548 | 0. 1453 | 0. 1453 |
| 181 | 2688. 90 | 1. 154 | 0. 04725 | 0. 7522 | 0. 1462 | 0. 1462 |
| 182 | 2703. 90 | 1. 154 | 0. 0474  | 0. 7531 | 0. 147  | 0. 147  |
| 183 | 2718. 90 | 1. 154 | 0. 0476  | 0. 7526 | 0. 1478 | 0. 1478 |
| 184 | 2733. 90 | 1. 154 | 0. 04771 | 0. 75   | 0. 1487 | 0. 1487 |
| 185 | 2748. 90 | 1. 154 | 0. 0479  | 0. 747  | 0. 1494 | 0. 1494 |
| 186 | 2763. 90 | 1. 154 | 0. 04841 | 0. 7439 | 0. 1502 | 0. 1502 |
| 187 | 2778. 90 | 1. 154 | 0. 04861 | 0. 7396 | 0. 1511 | 0. 1511 |
| 188 | 2793. 90 | 1. 154 | 0. 04862 | 0. 7379 | 0. 1521 | 0. 1521 |
| 189 | 2808. 90 | 1. 154 | 0. 04863 | 0. 7383 | 0. 1528 | 0. 1528 |
| 190 | 2823. 90 | 1. 154 | 0. 04865 | 0. 7383 | 0. 1538 | 0. 1538 |
| 191 | 2838. 90 | 1. 154 | 0. 04872 | 0. 737  | 0. 1545 | 0. 1545 |
| 192 | 2853. 90 | 1. 154 | 0. 04876 | 0. 7353 | 0. 1553 | 0. 1553 |
| 193 | 2868. 90 | 1. 154 | 0. 04883 | 0. 7318 | 0. 156  | 0. 156  |
| 194 | 2883. 90 | 1. 154 | 0. 0489  | 0. 7301 | 0. 157  | 0. 157  |
| 195 | 2898. 90 | 1. 154 | 0. 04893 | 0. 7288 | 0. 1579 | 0. 1579 |
| 196 | 2913. 90 | 1. 154 | 0. 04904 | 0. 7266 | 0. 1587 | 0. 1587 |
| 197 | 2928. 90 | 1. 154 | 0. 04914 | 0. 7244 | 0. 1596 | 0. 1596 |
| 198 | 2943. 90 | 1. 154 | 0. 04927 | 0. 7214 | 0. 1603 | 0. 1603 |
| 199 | 2958. 90 | 1. 154 | 0. 04932 | 0. 7192 | 0. 1611 | 0. 1611 |
| 200 | 2973. 90 | 1. 154 | 0. 04941 | 0. 7162 | 0. 162  | 0. 162  |
| 201 | 2988. 90 | 1. 154 | 0. 04949 | 0. 7136 | 0. 1628 | 0. 1628 |
| 202 | 3003. 90 | 1. 154 | 0. 04956 | 0. 711  | 0. 1636 | 0. 1636 |
| 203 | 3018. 90 | 1. 154 | 0. 04965 | 0. 7093 | 0. 1645 | 0. 1645 |
| 204 | 3033. 90 | 1. 154 | 0. 04977 | 0. 7071 | 0. 1652 | 0. 1652 |
| 205 | 3048. 90 | 1. 154 | 0. 04986 | 0. 7041 | 0. 166  | 0. 166  |
| 206 | 3063. 90 | 1. 154 | 0. 04988 | 0. 7075 | 0. 1669 | 0. 1669 |
| 207 | 3078. 90 | 1. 154 | 0. 05002 | 0. 701  | 0. 1677 | 0. 1677 |
| 208 | 3093. 90 | 1. 154 | 0. 05018 | 0. 6984 | 0. 1686 | 0. 1686 |
| 209 | 3108. 90 | 1. 154 | 0. 05032 | 0. 698  | 0. 1694 | 0. 1694 |
| 210 | 3123. 90 | 1. 154 | 0. 05039 | 0. 6941 | 0. 1703 | 0. 1703 |
| 211 | 3138. 90 | 1. 154 | 0. 05042 | 0. 6911 | 0. 171  | 0. 171  |
| 212 | 3153. 90 | 1. 154 | 0. 05049 | 0. 6898 | 0. 172  | 0. 172  |
| 213 | 3168. 90 | 1. 154 | 0. 05063 | 0. 6902 | 0. 1728 | 0. 1728 |
| 214 | 3183. 90 | 1. 154 | 0. 05074 | 0. 6889 | 0. 1737 | 0. 1737 |
| 215 | 3198. 90 | 1. 154 | 0. 05088 | 0. 685  | 0. 1745 | 0. 1745 |
| 216 | 3213. 90 | 1. 154 | 0. 05101 | 0. 6837 | 0. 1754 | 0. 1754 |
| 217 | 3228. 90 | 1. 154 | 0. 05112 | 0. 6794 | 0. 1761 | 0. 1761 |
| 218 | 3243. 90 | 1. 154 | 0. 05123 | 0. 6754 | 0. 1769 | 0. 1769 |
| 219 | 3258. 90 | 1. 154 | 0. 05133 | 0. 675  | 0. 1778 | 0. 1778 |
| 220 | 3273. 90 | 1. 154 | 0. 05143 | 0. 6724 | 0. 1787 | 0. 1787 |
| 221 | 3288. 90 | 1. 154 | 0. 0516  | 0. 6707 | 0. 1794 | 0. 1794 |
| 222 | 3303. 90 | 1. 154 | 0. 05169 | 0. 6665 | 0. 1803 | 0. 1803 |
| 223 | 3318. 90 | 1. 154 | 0. 05178 | 0. 6629 | 0. 1811 | 0. 1811 |
| 224 | 3333. 90 | 1. 154 | 0. 05189 | 0. 6607 | 0. 182  | 0. 182  |
| 225 | 3348. 90 | 1. 154 | 0. 05199 | 0. 6577 | 0. 1827 | 0. 1827 |
| 226 | 3363. 90 | 1. 154 | 0. 05206 | 0. 6564 | 0. 1837 | 0. 1837 |
| 227 | 3378. 90 | 1. 154 | 0. 05214 | 0. 6559 | 0. 1845 | 0. 1845 |
| 228 | 3393. 90 | 1. 154 | 0. 05227 | 0. 6559 | 0. 1854 | 0. 1854 |
| 229 | 3408. 90 | 1. 154 | 0. 05233 | 0. 6551 | 0. 1861 | 0. 1861 |
| 230 | 3423. 90 | 1. 154 | 0. 05247 | 0. 6555 | 0. 1869 | 0. 1869 |
| 231 | 3438. 90 | 1. 154 | 0. 05258 | 0. 6568 | 0. 1878 | 0. 1878 |
| 232 | 3453. 90 | 1. 154 | 0. 05265 | 0. 6572 | 0. 1886 | 0. 1886 |
| 233 | 3468. 90 | 1. 154 | 0. 05269 | 0. 6551 | 0. 1895 | 0. 1895 |
| 234 | 3483. 90 | 1. 154 | 0. 05275 | 0. 6538 | 0. 1903 | 0. 1903 |
| 235 | 3498. 90 | 1. 154 | 0. 05282 | 0. 652  | 0. 1912 | 0. 1912 |
| 236 | 3513. 90 | 1. 154 | 0. 05289 | 0. 6499 | 0. 192  | 0. 192  |
| 237 | 3528. 90 | 1. 154 | 0. 05289 | 0. 6507 | 0. 1927 | 0. 1927 |
| 238 | 3543. 90 | 1. 154 | 0. 05293 | 0. 6503 | 0. 1936 | 0. 1936 |
| 239 | 3558. 90 | 1. 154 | 0. 05294 | 0. 6486 | 0. 1944 | 0. 1944 |
| 240 | 3573. 90 | 1. 154 | 0. 05297 | 0. 6481 | 0. 1952 | 0. 1952 |
| 241 | 3588. 90 | 1. 154 | 0. 053   | 0. 6486 | 0. 1961 | 0. 1961 |
| 242 | 3603. 90 | 1. 154 | 0. 05304 | 0. 6477 | 0. 1969 | 0. 1969 |
| 243 | 3618. 90 | 1. 154 | 0. 05311 | 0. 6425 | 0. 1976 | 0. 1976 |
| 244 | 3633. 90 | 1. 154 | 0. 05315 | 0. 6403 | 0. 1986 | 0. 1986 |
| 245 | 3648. 90 | 1. 154 | 0. 05338 | 0. 636  | 0. 1995 | 0. 1995 |
| 246 | 3663. 90 | 1. 154 | 0. 05358 | 0. 6325 | 0. 2003 | 0. 2003 |
| 247 | 3678. 90 | 1. 154 | 0. 05369 | 0. 6308 | 0. 2012 | 0. 2012 |
| 248 | 3693. 90 | 1. 154 | 0. 05373 | 0. 6286 | 0. 202  | 0. 202  |
| 249 | 3708. 90 | 1. 154 | 0. 05366 | 0. 6269 | 0. 2027 | 0. 2027 |
| 250 | 3723. 90 | 1. 154 | 0. 05372 | 0. 6265 | 0. 2036 | 0. 2036 |
| 251 | 3738. 90 | 1. 154 | 0. 05372 | 0. 6278 | 0. 2044 | 0. 2044 |
| 252 | 3753. 90 | 1. 154 | 0. 05374 | 0. 6291 | 0. 2054 | 0. 2054 |
| 253 | 3768. 90 | 1. 154 | 0. 05376 | 0. 6308 | 0. 2062 | 0. 2062 |
| 254 | 3783. 90 | 1. 154 | 0. 05383 | 0. 6317 | 0. 2071 | 0. 2071 |
| 255 | 3798. 90 | 1. 154 | 0. 05384 | 0. 6321 | 0. 2079 | 0. 2079 |
| 256 | 3813. 90 | 1. 154 | 0. 05386 | 0. 6317 | 0. 2086 | 0. 2086 |
| 257 | 3828. 90 | 1. 154 | 0. 05391 | 0. 6321 | 0. 2095 | 0. 2095 |
| 258 | 3843. 90 | 1. 154 | 0. 05394 | 0. 6317 | 0. 2103 | 0. 2103 |
| 259 | 3858. 90 | 1. 154 | 0. 054   | 0. 6312 | 0. 2112 | 0. 2112 |
| 260 | 3873. 90 | 1. 154 | 0. 05404 | 0. 6334 | 0. 212  | 0. 212  |
| 261 | 3888. 90 | 1. 154 | 0. 05408 | 0. 6373 | 0. 2129 | 0. 2129 |
| 262 | 3903. 90 | 1. 154 | 0. 05416 | 0. 6377 | 0. 2137 | 0. 2137 |
| 263 | 3918. 90 | 1. 154 | 0. 05422 | 0. 6399 | 0. 2146 | 0. 2146 |
| 264 | 3933. 90 | 1. 154 | 0. 05428 | 0. 6416 | 0. 2154 | 0. 2154 |
| 265 | 3948. 90 | 1. 154 | 0. 05435 | 0. 6434 | 0. 2163 | 0. 2163 |
| 266 | 3963. 90 | 1. 154 | 0. 05439 | 0. 6438 | 0. 2171 | 0. 2171 |
| 267 | 3978. 90 | 1. 154 | 0. 05445 | 0. 6455 | 0. 218  | 0. 218  |
| 268 | 3993. 90 | 1. 154 | 0. 05449 | 0. 6464 | 0. 2188 | 0. 2188 |
| 269 | 4008. 90 | 1. 154 | 0. 05453 | 0. 6486 | 0. 2197 | 0. 2197 |

|     |          |             |          |         |         |         |
|-----|----------|-------------|----------|---------|---------|---------|
| 270 | 4023. 90 | 1. 154      | 0. 0546  | 0. 6503 | 0. 2205 | 0. 2205 |
| 271 | 4038. 90 | 1. 154      | 0. 05464 | 0. 6512 | 0. 2213 | 0. 2213 |
| 272 | 4053. 90 | 1. 154      | 0. 05471 | 0. 6525 | 0. 2222 | 0. 2222 |
| 273 | 4068. 90 | 1. 154      | 0. 05481 | 0. 6542 | 0. 223  | 0. 223  |
| 274 | 4083. 90 | 1. 154      | 0. 05485 | 0. 6581 | 0. 2239 | 0. 2239 |
| 275 | 4098. 90 | 1. 154      | 0. 05489 | 0. 662  | 0. 2247 | 0. 2247 |
| 276 | 4113. 90 | 1. 154      | 0. 05494 | 0. 6624 | 0. 2256 | 0. 2256 |
| 277 | 4128. 90 | 1. 154      | 0. 05501 | 0. 6646 | 0. 2264 | 0. 2264 |
| 278 | 4143. 90 | 1. 154      | 0. 05509 | 0. 6672 | 0. 2273 | 0. 2273 |
| 279 | 4158. 90 | 1. 154      | 0. 05513 | 0. 6685 | 0. 2281 | 0. 2281 |
| 280 | 4173. 90 | 1. 154      | 0. 05519 | 0. 672  | 0. 229  | 0. 229  |
| 281 | 4188. 90 | 1. 154      | 0. 05558 | 0. 6728 | 0. 2298 | 0. 2298 |
| 282 | 4203. 90 | 1. 154      | 0. 05595 | 0. 6746 | 0. 2307 | 0. 2307 |
| 283 | 4218. 90 | 1. 154      | 0. 05621 | 0. 6763 | 0. 2315 | 0. 2315 |
| 284 | 4233. 90 | 1. 154      | 0. 05635 | 0. 6798 | 0. 2323 | 0. 2323 |
| 285 | 4248. 90 | 1. 154      | 0. 05631 | 0. 6802 | 0. 2332 | 0. 2332 |
| 286 | 4263. 90 | 1. 154      | 0. 05631 | 0. 6833 | 0. 234  | 0. 234  |
| 287 | 4278. 90 | 1. 154      | 0. 05628 | 0. 6746 | 0. 2342 | 0. 2342 |
| 288 | 4293. 90 | 1. 154      | 0. 0562  | 0. 6733 | 0. 2343 | 0. 2343 |
| 289 | 4308. 90 | 3. 603e+004 | 0. 0562  | 0. 6676 | 0. 2342 | 0. 2342 |
| 290 | 4323. 90 | 3. 605e+004 | 0. 05616 | 0. 6577 | 0. 2343 | 0. 2343 |
| 291 | 4338. 90 | 3. 608e+004 | 0. 0562  | 0. 6468 | 0. 2342 | 0. 2342 |
| 292 | 4353. 90 | 3. 611e+004 | 0. 05626 | 0. 636  | 0. 2342 | 0. 2342 |
| 293 | 4368. 90 | 3. 614e+004 | 0. 05626 | 0. 6269 | 0. 2342 | 0. 2342 |
| 294 | 4383. 90 | 3. 616e+004 | 0. 05638 | 0. 6174 | 0. 2342 | 0. 2342 |
| 295 | 4398. 90 | 3. 618e+004 | 0. 05649 | 0. 6117 | 0. 2342 | 0. 2342 |
| 296 | 4413. 90 | 3. 619e+004 | 0. 05638 | 0. 6078 | 0. 2342 | 0. 2342 |
| 297 | 4428. 90 | 3. 62e+004  | 0. 05635 | 0. 6035 | 0. 2342 | 0. 2342 |
| 298 | 4443. 90 | 3. 621e+004 | 0. 0563  | 0. 6004 | 0. 2342 | 0. 2342 |
| 299 | 4458. 90 | 3. 622e+004 | 0. 05626 | 0. 5965 | 0. 2342 | 0. 2342 |
| 300 | 4473. 90 | 3. 622e+004 | 0. 05624 | 0. 5935 | 0. 234  | 0. 234  |
| 301 | 4488. 90 | 3. 623e+004 | 0. 05628 | 0. 5909 | 0. 2342 | 0. 2342 |
| 302 | 4503. 90 | 3. 624e+004 | 0. 05628 | 0. 5883 | 0. 2342 | 0. 2342 |
| 303 | 4518. 90 | 3. 624e+004 | 0. 0563  | 0. 587  | 0. 234  | 0. 234  |
| 304 | 4533. 90 | 3. 624e+004 | 0. 0563  | 0. 5861 | 0. 2342 | 0. 2342 |
| 305 | 4534. 19 | 3. 624e+004 | 0. 0563  | 0. 5857 | 0. 234  | 0. 234  |
| 306 | 4488. 90 | 3. 623e+004 | 0. 05628 | 0. 5909 | 0. 2342 | 0. 2342 |
| 307 | 4503. 90 | 3. 624e+004 | 0. 05628 | 0. 5883 | 0. 2342 | 0. 2342 |
| 308 | 4518. 90 | 3. 624e+004 | 0. 0563  | 0. 587  | 0. 234  | 0. 234  |
| 309 | 4533. 90 | 3. 624e+004 | 0. 0563  | 0. 5861 | 0. 2342 | 0. 2342 |
| 310 | 4534. 19 | 3. 624e+004 | 0. 0563  | 0. 5857 | 0. 234  | 0. 234  |