

Print



# ADVANCED ENGINE CONCEPTS, INC

OWNER  
DAN TIMM  
↓  
Advanced Engine Concepts, Inc.  
W1702 North Street  
Green Lake, WI 54941  
phone (920) 294-0474  
fax (920) 294-6050

[www.adengine.co](http://www.adengine.co)

## Customer Information

Customer: Test Date: 7/1/2017 Engine: SB2.2

Address: City/State: Zip:

Wk Phone: Hm Phone: Cell Phone:

## Engine specifications

Brand: Chev C.I.D.: Carburetor:

Fuel: Compression: Intake:

Head Type: Camshaft: 0.007 cold 0.016 hot Timing: 32

Notes:

## Peaks

|                                |     |                                         |      |                                  |     |                                           |      |
|--------------------------------|-----|-----------------------------------------|------|----------------------------------|-----|-------------------------------------------|------|
| Peak CorrHP(6/29/2017 Sweep 3) | 809 | Speed at peak CorrHP(6/29/2017 Sweep 3) | 7600 | Peak CorrTorq(6/29/2017 Sweep 3) | 600 | Speed at peak CorrTorq(6/29/2017 Sweep 3) | 6400 |
| Peak CorrHP(6/29/2017 Sweep 4) | 813 | Speed at peak CorrHP(6/29/2017 Sweep 4) | 7700 | Peak CorrTorq(6/29/2017 Sweep 4) | 603 | Speed at peak CorrTorq(6/29/2017 Sweep 4) | 6300 |
| Peak CorrHP(6/29/2017 Sweep 5) | 809 | Speed at peak CorrHP(6/29/2017 Sweep 5) | 7500 | Peak CorrTorq(6/29/2017 Sweep 5) | 605 | Speed at peak CorrTorq(6/29/2017 Sweep 5) | 6400 |
| Peak CorrHP(6/29/2017 Sweep 6) | 813 | Speed at peak CorrHP(6/29/2017 Sweep 6) | 7800 | Peak CorrTorq(6/29/2017 Sweep 6) | 604 | Speed at peak CorrTorq(6/29/2017 Sweep 6) | 6500 |

## Averages

|                                         |     |                                   |     |                                     |     |
|-----------------------------------------|-----|-----------------------------------|-----|-------------------------------------|-----|
| Average Acceleration(6/29/2017 Sweep 3) | 630 | Average CorrHP(6/29/2017 Sweep 3) | 652 | Average CorrTorq(6/29/2017 Sweep 3) | 553 |
| Average Acceleration(6/29/2017 Sweep 4) | 621 | Average CorrHP(6/29/2017 Sweep 4) | 656 | Average CorrTorq(6/29/2017 Sweep 4) | 555 |
| Average Acceleration(6/29/2017 Sweep 5) | 611 | Average CorrHP(6/29/2017 Sweep 5) | 656 | Average CorrTorq(6/29/2017 Sweep 5) | 555 |
| Average Acceleration(6/29/2017 Sweep 6) | 619 | Average CorrHP(6/29/2017 Sweep 6) | 656 | Average CorrTorq(6/29/2017 Sweep 6) | 556 |

## Weather Conditions

|                                      |    |                                               |       |                                       |      |
|--------------------------------------|----|-----------------------------------------------|-------|---------------------------------------|------|
| Average AirTemp 5(6/29/2017 Sweep 3) | 68 | Average Barometric Press 4(6/29/2017 Sweep 3) | 28.67 | Average Humidity 3(6/29/2017 Sweep 3) | 64.4 |
| Average AirTemp 5(6/29/2017 Sweep 4) | 68 | Average Barometric Press 4(6/29/2017 Sweep 4) | 28.67 | Average Humidity 3(6/29/2017 Sweep 4) | 62.7 |
| Average AirTemp 5(6/29/2017 Sweep 5) | 68 | Average Barometric Press 4(6/29/2017 Sweep 5) | 28.68 | Average Humidity 3(6/29/2017 Sweep 5) | 61.2 |
| Average AirTemp 5(6/29/2017 Sweep 6) | 68 | Average Barometric Press 4(6/29/2017 Sweep 6) | 28.67 | Average Humidity 3(6/29/2017 Sweep 6) | 61.2 |

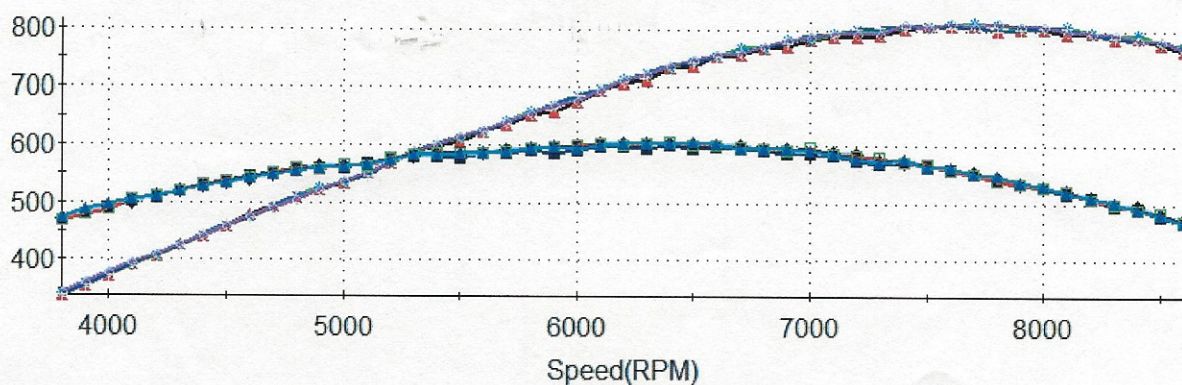


Performance SpreadSheet

| Speed<br>(RPM) | CorrTorq (ft-lbs)    |                      |                      |                      | CorrHP (Hp)          |                      |                      |                      |
|----------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|                | 6/29/2017 Sweep<br>3 | 6/29/2017 Sweep<br>4 | 6/29/2017 Sweep<br>5 | 6/29/2017 Sweep<br>6 | 6/29/2017 Sweep<br>3 | 6/29/2017 Sweep<br>4 | 6/29/2017 Sweep<br>5 | 6/29/2017 Sweep<br>6 |
| 3800           | 466                  | 470                  | 467                  | 473                  | 337                  | 340                  | 338                  | 343                  |
| 3900           | 478                  | 481                  | 479                  | 486                  | 355                  | 357                  | 356                  | 361                  |
| 4000           | 489                  | 490                  | 487                  | 495                  | 373                  | 373                  | 371                  | 377                  |
| 4100           | 501                  | 498                  | 503                  | 505                  | 391                  | 389                  | 393                  | 394                  |
| 4200           | 507                  | 509                  | 512                  | 511                  | 406                  | 407                  | 409                  | 408                  |
| 4300           | 520                  | 518                  | 518                  | 520                  | 425                  | 424                  | 424                  | 425                  |
| 4400           | 527                  | 528                  | 529                  | 526                  | 442                  | 442                  | 443                  | 441                  |
| 4500           | 536                  | 534                  | 537                  | 534                  | 460                  | 458                  | 460                  | 457                  |
| 4600           | 545                  | 539                  | 541                  | 542                  | 477                  | 472                  | 474                  | 475                  |
| 4700           | 552                  | 547                  | 550                  | 549                  | 494                  | 490                  | 492                  | 491                  |
| 4800           | 559                  | 557                  | 558                  | 553                  | 511                  | 509                  | 510                  | 505                  |
| 4900           | 559                  | 561                  | 558                  | 560                  | 522                  | 523                  | 520                  | 523                  |
| 5000           | 560                  | 561                  | 564                  | 563                  | 534                  | 534                  | 537                  | 536                  |
| 5100           | 568                  | 565                  | 561                  | 566                  | 552                  | 549                  | 545                  | 549                  |
| 5200           | 572                  | 572                  | 576                  | 574                  | 567                  | 567                  | 570                  | 568                  |
| 5300           | 579                  | 579                  | 582                  | 583                  | 584                  | 584                  | 587                  | 588                  |
| 5400           | 579                  | 583                  | 585                  | 583                  | 596                  | 600                  | 601                  | 599                  |
| 5500           | 577                  | 583                  | 586                  | 585                  | 604                  | 611                  | 614                  | 613                  |
| 5600           | 584                  | 584                  | 584                  | 586                  | 623                  | 623                  | 623                  | 625                  |
| 5700           | 586                  | 590                  | 588                  | 589                  | 636                  | 640                  | 638                  | 640                  |
| 5800           | 591                  | 594                  | 593                  | 593                  | 652                  | 656                  | 655                  | 655                  |
| 5900           | 586                  | 597                  | 597                  | 596                  | 658                  | 670                  | 671                  | 669                  |
| 6000           | 590                  | 600                  | 600                  | 593                  | 674                  | 685                  | 685                  | 678                  |
| 6100           | 598                  | 602                  | 601                  | 599                  | 694                  | 699                  | 698                  | 696                  |
| 6200           | 598                  | 603                  | 600                  | 603                  | 706                  | 712                  | 708                  | 712                  |
| 6300           | 594                  | 603                  | 604                  | 601                  | 713                  | 724                  | 724                  | 721                  |
| 6400           | 600                  | 602                  | 605                  | 602                  | 732                  | 733                  | 738                  | 734                  |
| 6500           | 593                  | 602                  | 599                  | 604                  | 734                  | 745                  | 742                  | 748                  |
| 6600           | 598                  | 599                  | 598                  | 602                  | 751                  | 753                  | 752                  | 756                  |
| 6700           | 593                  | 601                  | 596                  | 594                  | 756                  | 766                  | 760                  | 758                  |
| 6800           | 592                  | 593                  | 595                  | 595                  | 767                  | 767                  | 770                  | 770                  |
| 6900           | 586                  | 594                  | 590                  | 594                  | 770                  | 781                  | 775                  | 780                  |
| 7000           | 586                  | 586                  | 596                  | 591                  | 781                  | 781                  | 794                  | 788                  |
| 7100           | 581                  | 587                  | 585                  | 586                  | 786                  | 793                  | 791                  | 793                  |
| 7200           | 575                  | 584                  | 584                  | 578                  | 788                  | 801                  | 800                  | 792                  |
| 7300           | 569                  | 574                  | 579                  | 571                  | 791                  | 798                  | 805                  | 794                  |
| 7400           | 570                  | 571                  | 571                  | 576                  | 803                  | 804                  | 805                  | 811                  |
| 7500           | 565                  | 565                  | 567                  | 563                  | 807                  | 807                  | 809                  | 804                  |
| 7600           | 559                  | 560                  | 555                  | 561                  | 809                  | 811                  | 804                  | 812                  |
| 7700           | 550                  | 554                  | 551                  | 551                  | 806                  | 813                  | 807                  | 808                  |
| 7800           | 539                  | 545                  | 538                  | 547                  | 800                  | 809                  | 799                  | 813                  |
| 7900           | 534                  | 534                  | 533                  | 536                  | 803                  | 804                  | 802                  | 807                  |
| 8000           | 526                  | 529                  | 527                  | 529                  | 802                  | 805                  | 803                  | 807                  |
| 8100           | 515                  | 523                  | 521                  | 519                  | 794                  | 806                  | 804                  | 800                  |
| 8200           | 510                  | 509                  | 508                  | 509                  | 796                  | 795                  | 793                  | 795                  |
| 8300           | 496                  | 499                  | 499                  | 501                  | 785                  | 789                  | 788                  | 792                  |
| 8400           | 493                  | 495                  | 489                  | 491                  | 788                  | 792                  | 782                  | 786                  |
| 8500           | 479                  | 481                  | 485                  | 482                  | 776                  | 778                  | 785                  | 780                  |
| 8600           | 467                  | 473                  | 469                  | 468                  | 765                  | 774                  | 768                  | 766                  |



Corrected Performance Graph



- |     |                                    |     |                                    |
|-----|------------------------------------|-----|------------------------------------|
| —▲— | CorrHP(Hp) 6/29/2017 Sweep 3       | —◆— | CorrHP(Hp) 6/29/2017 Sweep 4       |
| —■— | CorrHP(Hp) 6/29/2017 Sweep 5       | —◆— | CorrHP(Hp) 6/29/2017 Sweep 6       |
| —■— | CorrTorq(ft-lbs) 6/29/2017 Sweep 3 | —◆— | CorrTorq(ft-lbs) 6/29/2017 Sweep 4 |
| —■— | CorrTorq(ft-lbs) 6/29/2017 Sweep 5 | —◆— | CorrTorq(ft-lbs) 6/29/2017 Sweep 6 |

Test Notes



**Fuel Table**

|                                     |    |                                  |    |                                 |       |                             |       |
|-------------------------------------|----|----------------------------------|----|---------------------------------|-------|-----------------------------|-------|
| Average FuelFlow(6/29/2017 Sweep 3) | 35 | Peak FuelFlow(6/29/2017 Sweep 3) | 51 | Average BSFC(6/29/2017 Sweep 3) | 0.342 | Low BSFC(6/29/2017 Sweep 3) | 0.278 |
| Average FuelFlow(6/29/2017 Sweep 4) | 39 | Peak FuelFlow(6/29/2017 Sweep 4) | 54 | Average BSFC(6/29/2017 Sweep 4) | 0.379 | Low BSFC(6/29/2017 Sweep 4) | 0.317 |
| Average FuelFlow(6/29/2017 Sweep 5) | 39 | Peak FuelFlow(6/29/2017 Sweep 5) | 55 | Average BSFC(6/29/2017 Sweep 5) | 0.380 | Low BSFC(6/29/2017 Sweep 5) | 0.321 |
| Average FuelFlow(6/29/2017 Sweep 6) | 40 | Peak FuelFlow(6/29/2017 Sweep 6) | 55 | Average BSFC(6/29/2017 Sweep 6) | 0.384 | Low BSFC(6/29/2017 Sweep 6) | 0.327 |

**Fuel SpreadSheet**

| Speed (RPM) | FuelFlow (gal/hr) |                   |                   |                   | FuelMassFlow (lbs/hour) |                   |                   |                   | BSFC (lbs/Hp-hr)  |                   |                   |                   | FUEL (PSI)        |                   |                   |                   |
|-------------|-------------------|-------------------|-------------------|-------------------|-------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|             | 6/29/2017 Sweep 3 | 6/29/2017 Sweep 4 | 6/29/2017 Sweep 5 | 6/29/2017 Sweep 6 | 6/29/2017 Sweep 3       | 6/29/2017 Sweep 4 | 6/29/2017 Sweep 5 | 6/29/2017 Sweep 6 | 6/29/2017 Sweep 3 | 6/29/2017 Sweep 4 | 6/29/2017 Sweep 5 | 6/29/2017 Sweep 6 | 6/29/2017 Sweep 3 | 6/29/2017 Sweep 4 | 6/29/2017 Sweep 5 | 6/29/2017 Sweep 6 |
| 3800        | 20                | 23                | 22                | 23                | 120                     | 136               | 129               | 135               | 0.386             | 0.432             | 0.413             | 0.426             | 14                | 14                | 14                | 1                 |
| 3900        | 20                | 23                | 22                | 22                | 121                     | 134               | 130               | 134               | 0.368             | 0.406             | 0.396             | 0.401             | 14                | 14                | 15                | 1                 |
| 4000        | 20                | 22                | 22                | 23                | 120                     | 133               | 129               | 135               | 0.348             | 0.386             | 0.377             | 0.385             | 15                | 14                | 14                | 1                 |
| 4100        | 20                | 23                | 22                | 23                | 121                     | 136               | 133               | 134               | 0.336             | 0.378             | 0.367             | 0.368             | 15                | 14                | 15                | 1                 |
| 4200        | 20                | 22                | 22                | 23                | 120                     | 130               | 131               | 137               | 0.320             | 0.345             | 0.349             | 0.362             | 14                | 14                | 14                | 1                 |
| 4300        | 21                | 23                | 22                | 23                | 124                     | 136               | 131               | 138               | 0.315             | 0.347             | 0.334             | 0.350             | 14                | 14                | 15                | 1                 |
| 4400        | 21                | 23                | 22                | 23                | 124                     | 136               | 132               | 139               | 0.303             | 0.332             | 0.323             | 0.341             | 14                | 14                | 15                | 1                 |
| 4500        | 21                | 23                | 23                | 24                | 125                     | 137               | 139               | 143               | 0.294             | 0.324             | 0.328             | 0.337             | 14                | 14                | 14                | 1                 |
| 4600        | 22                | 24                | 24                | 25                | 132                     | 141               | 143               | 147               | 0.300             | 0.323             | 0.326             | 0.335             | 14                | 14                | 14                | 1                 |
| 4700        | 23                | 25                | 25                | 26                | 136                     | 151               | 146               | 153               | 0.298             | 0.333             | 0.321             | 0.337             | 13                | 14                | 14                | 1                 |
| 4800        | 23                | 26                | 26                | 27                | 135                     | 154               | 152               | 160               | 0.287             | 0.327             | 0.322             | 0.341             | 14                | 14                | 14                | 1                 |
| 4900        | 23                | 26                | 27                | 27                | 134                     | 154               | 161               | 158               | 0.278             | 0.317             | 0.333             | 0.327             | 14                | 14                | 14                | 1                 |
| 5000        | 23                | 28                | 29                | 27                | 140                     | 164               | 173               | 163               | 0.283             | 0.332             | 0.348             | 0.329             | 14                | 14                | 14                | 1                 |
| 5100        | 24                | 29                | 29                | 29                | 144                     | 173               | 175               | 172               | 0.282             | 0.341             | 0.345             | 0.338             | 14                | 14                | 14                | 1                 |
| 5200        | 24                | 31                | 30                | 31                | 145                     | 182               | 177               | 182               | 0.278             | 0.346             | 0.338             | 0.345             | 14                | 14                | 14                | 1                 |
| 5300        | 26                | 32                | 31                | 32                | 155                     | 189               | 186               | 189               | 0.286             | 0.350             | 0.343             | 0.346             | 13                | 14                | 14                | 1                 |
| 5400        | 28                | 32                | 33                | 33                | 164                     | 189               | 197               | 198               | 0.298             | 0.341             | 0.355             | 0.357             | 14                | 14                | 13                | 1                 |
| 5500        | 28                | 33                | 33                | 34                | 169                     | 198               | 199               | 204               | 0.303             | 0.350             | 0.350             | 0.359             | 14                | 14                | 14                | 1                 |
| 5600        | 29                | 35                | 36                | 35                | 172                     | 206               | 213               | 208               | 0.300             | 0.357             | 0.369             | 0.360             | 13                | 14                | 14                | 1                 |
| 5700        | 31                | 35                | 37                | 37                | 186                     | 210               | 219               | 219               | 0.318             | 0.354             | 0.371             | 0.370             | 13                | 14                | 14                | 1                 |
| 5800        | 32                | 37                | 38                | 38                | 193                     | 217               | 223               | 225               | 0.320             | 0.358             | 0.368             | 0.372             | 13                | 13                | 14                | 1                 |
| 5900        | 33                | 38                | 39                | 39                | 196                     | 228               | 232               | 234               | 0.322             | 0.368             | 0.372             | 0.378             | 13                | 14                | 14                | 1                 |
| 6000        | 34                | 39                | 40                | 40                | 200                     | 231               | 238               | 241               | 0.322             | 0.364             | 0.375             | 0.383             | 13                | 14                | 13                | 1                 |
| 6100        | 36                | 40                | 41                | 41                | 213                     | 238               | 242               | 245               | 0.332             | 0.368             | 0.374             | 0.380             | 13                | 14                | 14                | 1                 |
| 6200        | 37                | 42                | 42                | 42                | 221                     | 250               | 251               | 249               | 0.339             | 0.379             | 0.382             | 0.378             | 13                | 13                | 14                | 1                 |
| 6300        | 37                | 43                | 42                | 43                | 222                     | 256               | 253               | 257               | 0.336             | 0.382             | 0.376             | 0.384             | 13                | 13                | 14                | 1                 |
| 6400        | 37                | 43                | 43                | 43                | 219                     | 258               | 253               | 257               | 0.324             | 0.380             | 0.370             | 0.378             | 13                | 13                | 14                | 1                 |
| 6500        | 38                | 44                | 44                | 45                | 229                     | 263               | 264               | 265               | 0.336             | 0.382             | 0.383             | 0.383             | 14                | 14                | 14                | 1                 |
| 6600        | 40                | 45                | 45                | 46                | 239                     | 271               | 267               | 273               | 0.344             | 0.388             | 0.382             | 0.390             | 13                | 13                | 14                | 1                 |
| 6700        | 40                | 46                | 45                | 46                | 237                     | 274               | 270               | 275               | 0.339             | 0.385             | 0.382             | 0.392             | 13                | 13                | 14                | 1                 |
| 6800        | 41                | 49                | 47                | 46                | 242                     | 289               | 278               | 276               | 0.342             | 0.406             | 0.390             | 0.387             | 13                | 14                | 14                | 1                 |
| 6900        | 44                | 49                | 47                | 49                | 261                     | 289               | 278               | 289               | 0.366             | 0.402             | 0.387             | 0.401             | 13                | 14                | 13                | 1                 |
| 7000        | 44                | 48                | 47                | 48                | 262                     | 285               | 277               | 288               | 0.362             | 0.394             | 0.376             | 0.395             | 13                | 14                | 14                | 1                 |
| 7100        | 42                | 47                | 47                | 49                | 253                     | 280               | 282               | 290               | 0.348             | 0.382             | 0.385             | 0.395             | 13                | 14                | 14                | 1                 |
| 7200        | 43                | 50                | 48                | 48                | 256                     | 300               | 285               | 286               | 0.350             | 0.405             | 0.385             | 0.389             | 13                | 14                | 14                | 1                 |
| 7300        | 48                | 49                | 49                | 49                | 287                     | 294               | 291               | 292               | 0.392             | 0.397             | 0.390             | 0.397             | 12                | 14                | 13                | 1                 |
| 7400        | 51                | 50                | 50                | 51                | 301                     | 296               | 296               | 303               | 0.405             | 0.397             | 0.396             | 0.402             | 12                | 14                | 13                | 1                 |
| 7500        | 50                | 50                | 50                | 51                | 296                     | 296               | 296               | 306               | 0.396             | 0.396             | 0.395             | 0.412             | 12                | 13                | 14                | 1                 |
| 7600        | 49                | 50                | 52                | 52                | 291                     | 300               | 310               | 307               | 0.389             | 0.399             | 0.414             | 0.408             | 12                | 13                | 14                | 1                 |
| 7700        | 45                | 52                | 55                | 52                | 267                     | 309               | 328               | 309               | 0.359             | 0.410             | 0.437             | 0.412             | 13                | 13                | 13                | 1                 |
| 7800        | 48                | 51                | 54                | 55                | 286                     | 302               | 321               | 326               | 0.387             | 0.402             | 0.430             | 0.434             | 13                | 14                | 13                | 1                 |
| 7900        | 49                | 51                | 54                | 55                | 289                     | 306               | 321               | 330               | 0.388             | 0.410             | 0.430             | 0.442             | 13                | 14                | 13                | 1                 |
| 8000        | 48                | 51                | 52                | 53                | 283                     | 304               | 312               | 317               | 0.381             | 0.408             | 0.418             | 0.425             | 13                | 14                | 13                | 1                 |
| 8100        | 48                | 50                | 52                | 52                | 285                     | 296               | 310               | 307               | 0.386             | 0.396             | 0.415             | 0.414             | 13                | 13                | 13                | 1                 |
| 8200        | 47                | 52                | 54                | 52                | 279                     | 311               | 319               | 307               | 0.378             | 0.423             | 0.434             | 0.418             | 13                | 13                | 13                | 1                 |
| 8300        | 48                | 54                | 54                | 52                | 283                     | 319               | 319               | 308               | 0.390             | 0.435             | 0.436             | 0.421             | 13                | 13                | 13                | 1                 |
| 8400        | 50                | 54                | 52                | 52                | 297                     | 321               | 311               | 312               | 0.409             | 0.436             | 0.429             | 0.428             | 13                | 13                | 13                | 1                 |
| 8500        | 50                | 54                | 55                | 53                | 295                     | 321               | 327               | 317               | 0.410             | 0.445             | 0.450             | 0.436             | 13                | 13                | 12                | 1                 |
| 8600        | 50                | 53                | 54                | 54                | 299                     | 318               | 321               | 320               | 0.421             | 0.442             | 0.450             | 0.450             | 13                | 13                | 13                | 1                 |



Oil SpreadSheet

| Speed<br>(RPM) | OIL (PSI) |           |           |           | Water temp 1 (°F) |           |           |           | Water Temp T2 (°F) |           |           |           | oil in (°F) |           |           |           |
|----------------|-----------|-----------|-----------|-----------|-------------------|-----------|-----------|-----------|--------------------|-----------|-----------|-----------|-------------|-----------|-----------|-----------|
|                | 6/29/2017 | 6/29/2017 | 6/29/2017 | 6/29/2017 | 6/29/2017         | 6/29/2017 | 6/29/2017 | 6/29/2017 | 6/29/2017          | 6/29/2017 | 6/29/2017 | 6/29/2017 | 6/29/2017   | 6/29/2017 | 6/29/2017 | 6/29/2017 |
|                | Sweep 3   | Sweep 4   | Sweep 5   | Sweep 6   | Sweep 3           | Sweep 4   | Sweep 5   | Sweep 6   | Sweep 3            | Sweep 4   | Sweep 5   | Sweep 6   | Sweep 3     | Sweep 4   | Sweep 5   | Sweep 6   |
| 3800           | 73        | 81        | 74        | 63        | 159               | 161       | 159       | 165       | 146                | 149       | 156       | 154       | 143         | 128       | 138       | 14        |
| 3900           | 74        | 82        | 76        | 64        | 159               | 162       | 159       | 167       | 152                | 150       | 156       | 154       | 142         | 120       | 136       | 14        |
| 4000           | 76        | 83        | 77        | 65        | 159               | 161       | 159       | 169       | 150                | 149       | 156       | 154       | 149         | 120       | 138       | 14        |
| 4100           | 77        | 85        | 78        | 66        | 159               | 161       | 159       | 168       | 148                | 149       | 159       | 154       | 153         | 119       | 136       | 11        |
| 4200           | 78        | 86        | 79        | 67        | 159               | 162       | 159       | 168       | 148                | 149       | 158       | 153       | 155         | 119       | 142       | 13        |
| 4300           | 79        | 87        | 81        | 69        | 159               | 162       | 159       | 166       | 148                | 149       | 157       | 156       | 152         | 120       | 141       | 13        |
| 4400           | 82        | 90        | 83        | 71        | 158               | 165       | 159       | 166       | 147                | 148       | 157       | 156       | 153         | 120       | 140       | 14        |
| 4500           | 83        | 91        | 84        | 72        | 159               | 164       | 159       | 167       | 146                | 148       | 156       | 155       | 146         | 120       | 139       | 14        |
| 4600           | 84        | 93        | 87        | 73        | 159               | 163       | 159       | 166       | 147                | 151       | 156       | 155       | 149         | 119       | 138       | 14        |
| 4700           | 83        | 94        | 89        | 75        | 159               | 162       | 159       | 165       | 147                | 150       | 156       | 155       | 153         | 119       | 137       | 14        |
| 4800           | 80        | 97        | 92        | 77        | 159               | 162       | 163       | 165       | 150                | 150       | 156       | 156       | NA          | NA        | 138       | 13        |
| 4900           | 75        | 98        | 93        | 80        | 159               | 161       | 162       | 165       | 149                | 150       | 156       | 156       | 157         | 120       | 141       | 13        |
| 5000           | 71        | 102       | 95        | 83        | 159               | 160       | 161       | 165       | 148                | 149       | 156       | 155       | 157         | 116       | 140       | 14        |
| 5100           | 68        | 104       | 98        | 84        | 159               | 160       | 162       | 170       | 150                | 149       | 156       | 155       | 159         | 117       | 140       | 14        |
| 5200           | 68        | 105       | 100       | 86        | 160               | 160       | 161       | 168       | 150                | 149       | 156       | 155       | 157         | 120       | 139       | 14        |
| 5300           | 68        | 107       | 101       | 88        | 159               | 160       | 161       | 167       | 149                | 149       | 159       | 155       | 157         | 125       | 139       | 11        |
| 5400           | 69        | 107       | 102       | 92        | 163               | 160       | 160       | 168       | 148                | 150       | 158       | 155       | 156         | 121       | 139       | 10        |
| 5500           | 70        | 108       | 103       | 93        | 162               | 160       | 160       | 166       | 148                | 150       | 157       | 155       | 135         | 116       | 113       | 9         |
| 5600           | 72        | 108       | 103       | 95        | 161               | 164       | 160       | 166       | 148                | 155       | 156       | 154       | 145         | 115       | 127       | 11        |
| 5700           | 73        | 108       | 103       | 96        | 160               | 164       | 160       | 165       | 148                | 152       | 156       | 154       | 148         | 115       | 133       | 13        |
| 5800           | 74        | 108       | 104       | 97        | 160               | 162       | 161       | 168       | 148                | 151       | 159       | 154       | NA          | 116       | 130       | 13        |
| 5900           | 76        | 108       | 104       | 98        | 160               | 160       | 163       | 166       | 148                | 150       | 158       | 154       | 101         | 94        | 131       | 13        |
| 6000           | 77        | 108       | 104       | 99        | 160               | 160       | 162       | 165       | 148                | 149       | 157       | 154       | NA          | 105       | NA        | 14        |
| 6100           | 78        | 108       | 104       | 99        | 160               | 160       | 161       | 165       | 148                | 149       | 159       | 154       | 158         | 109       | 123       | 14        |
| 6200           | 80        | 108       | 104       | 99        | 160               | 162       | 160       | 165       | 148                | 149       | 158       | 154       | 157         | 113       | 118       | 14        |
| 6300           | 81        | 108       | 104       | 100       | 159               | 161       | 160       | 164       | 147                | 149       | 158       | 155       | 132         | 120       | 118       | 14        |
| 6400           | 82        | 108       | 104       | 100       | 164               | 161       | 160       | 164       | 148                | 149       | 158       | 156       | 135         | 120       | 118       | 14        |
| 6500           | 84        | 108       | 104       | 99        | 162               | 161       | 160       | 164       | 148                | 149       | 157       | 156       | 130         | 98        | 120       | 14        |
| 6600           | 86        | 108       | 104       | 100       | 161               | 160       | 160       | 165       | 148                | 150       | 160       | 156       | 137         | 101       | 100       | 14        |
| 6700           | 89        | 107       | 104       | 99        | 160               | 160       | 159       | 164       | 148                | 149       | 159       | 159       | 125         | 110       | NA        | 13        |
| 6800           | 90        | 107       | 104       | 98        | 158               | 160       | 160       | 164       | 148                | 149       | 162       | 161       | 137         | 113       | NA        | 13        |
| 6900           | 92        | 109       | 104       | 98        | 159               | 160       | 161       | 164       | 154                | 150       | 167       | 159       | NA          | NA        | 138       | NA        |
| 7000           | 93        | 109       | 104       | 98        | 159               | 160       | 161       | 164       | 151                | 150       | 163       | 157       | 68          | NA        | 138       | 11        |
| 7100           | 95        | 109       | 103       | 98        | 161               | 160       | 160       | 164       | 150                | 150       | 160       | 156       | 87          | 119       | NA        | 12        |
| 7200           | 96        | 109       | 103       | 97        | 160               | 159       | 161       | 164       | 148                | 151       | 158       | 156       | 127         | 119       | 91        | 13        |
| 7300           | 96        | 108       | 103       | 96        | 159               | 160       | 160       | 164       | 148                | 152       | 158       | 159       | NA          | 112       | 111       | 14        |
| 7400           | 97        | 108       | 103       | 97        | 160               | 160       | 160       | 164       | 149                | 151       | 157       | 157       | 156         | 101       | 121       | 14        |
| 7500           | 97        | 107       | 103       | 98        | 160               | 160       | 160       | 164       | 149                | 151       | 157       | 156       | 155         | 109       | 133       | 12        |
| 7600           | 99        | 106       | 103       | 98        | 160               | 160       | 161       | 163       | 152                | 150       | 157       | 156       | 127         | 111       | 139       | 12        |
| 7700           | 100       | 107       | 102       | 97        | 163               | 160       | 163       | 164       | 150                | 150       | 157       | 156       | 132         | 114       | 137       | 13        |
| 7800           | 100       | 107       | 102       | 97        | 160               | 166       | 162       | 164       | 149                | 150       | 157       | 156       | NA          | 100       | 145       | 14        |
| 7900           | 100       | 106       | 102       | 97        | 161               | 163       | 161       | 164       | 149                | 146       | 162       | 156       | 156         | 113       | 137       | 3         |
| 8000           | 100       | 105       | 102       | 97        | 160               | 161       | 161       | 164       | 149                | 148       | 161       | 156       | 139         | NA        | 137       | 7         |
| 8100           | 100       | 105       | 102       | 98        | 160               | 161       | 161       | 164       | 148                | 149       | 160       | 156       | 146         | 95        | 109       | 11        |
| 8200           | 100       | 105       | 103       | 99        | 160               | 163       | 160       | 164       | 147                | 149       | 158       | 159       | 136         | 104       | 124       | 10        |
| 8300           | 100       | 105       | 103       | 99        | 159               | 162       | 165       | 163       | 153                | 150       | 158       | 159       | 147         | 110       | 134       | 12        |
| 8400           | 99        | 105       | 103       | 100       | 160               | 161       | 163       | 163       | 151                | 149       | 158       | 157       | 153         | 87        | 103       | 7         |
| 8500           | 99        | 103       | 103       | 100       | 160               | 163       | 165       | 164       | 150                | 152       | 157       | 156       | 150         | NA        | 133       | 15        |
| 8600           | 97        | 103       | 103       | 100       | 160               | 162       | 163       | 164       | 149                | 152       | 157       | 159       | 130         | 106       | 134       | 10        |