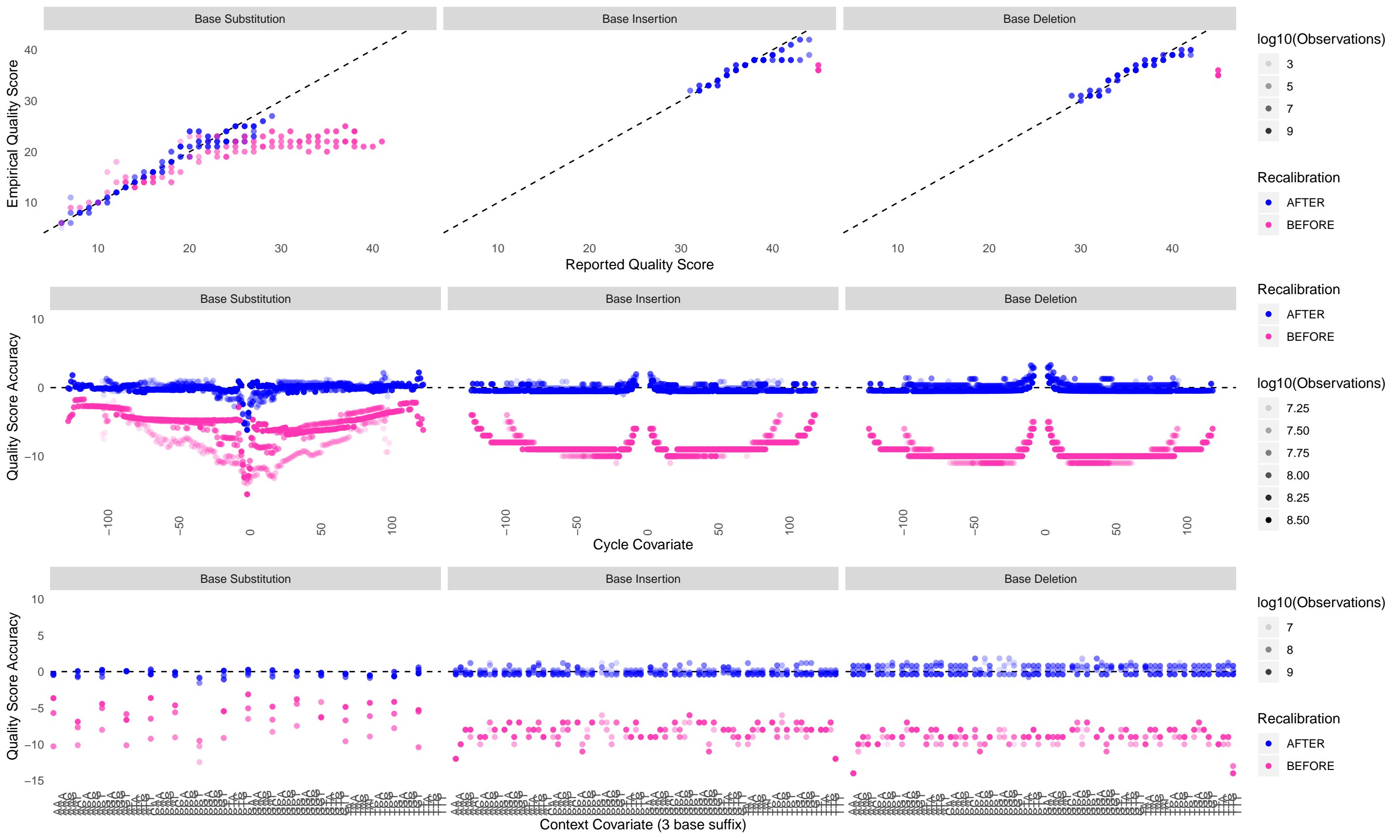
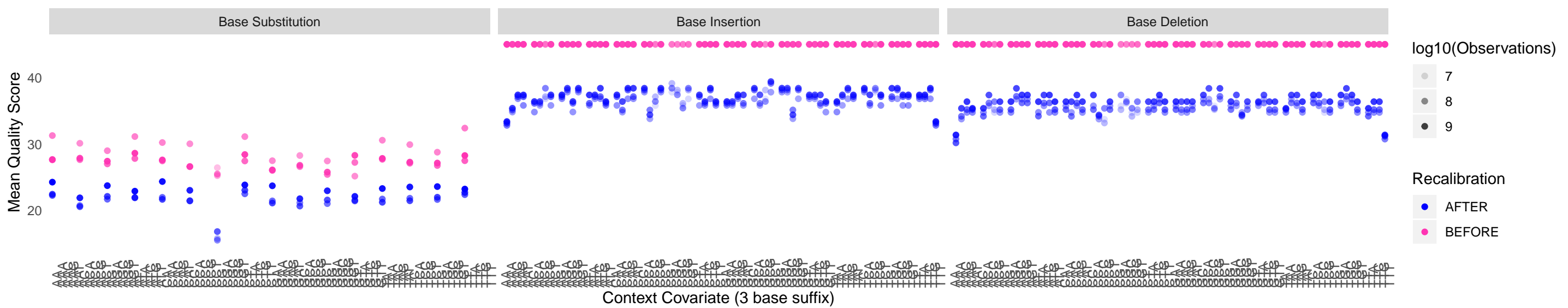
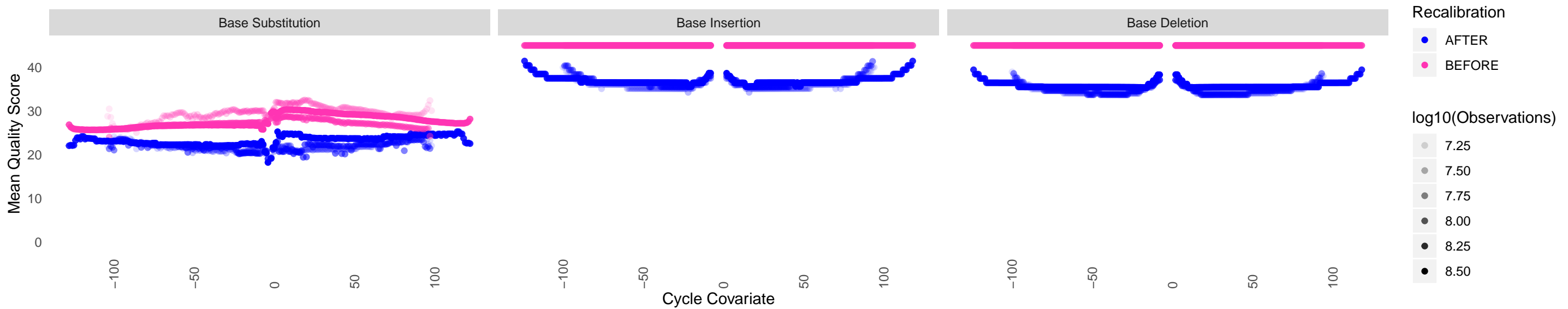
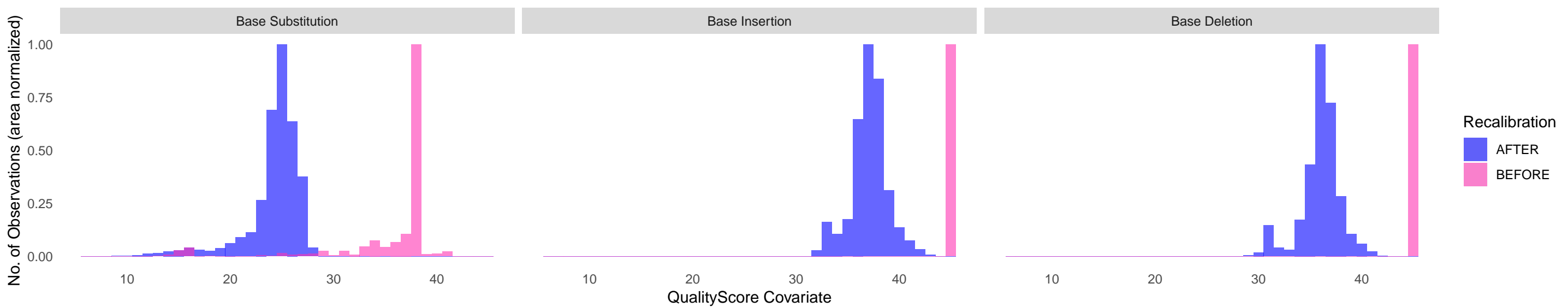


| Argument | Value |
|----------------------------|--------------------------------------|
| binary_tag_name | None |
| covariate | ReadGroup,QualityScore,Context,Cycle |
| default_platform | None |
| deletions_default_quality | 45 |
| force_platform | None |
| indels_context_size | 3 |
| insertions_default_quality | 45 |
| low_quality_tail | 2 |
| maximum_cycle_value | 500 |
| mismatches_context_size | 2 |
| mismatches_default_quality | -1 |
| no_standard_covs | false |
| quantizing_levels | 16 |
| run_without_dbsnp | false |
| solid_nocall_strategy | THROW_EXCEPTION |
| solid_recal_mode | SET_Q_ZERO |





Overall error rates by event type

| ReadGroup | SAMN04316321 | SAMN04316321 | SAMN04316321 | C2V1GACXX.3.A20 | C2V1GACXX.3.A20 | C2V1GACXX.3.A20 | C6GFVANXX.1.A20 | C6GFVANXX.1.A20 | C6GFVANXX.1.A20 |
|--------------------|--------------|--------------|--------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| EventType | M | I | D | M | I | D | M | I | A |
| EmpiricalQuality | 22.0 | 36.0 | 35.0 | 21.0 | 36.0 | 35.0 | 21.0 | 37.0 | 36.0 |
| EstimatedQReported | 27.5 | 45.0 | 45.0 | 29.4 | 45.0 | 45.0 | 27.1 | 45.0 | 45.0 |
| Observations | 6.68e+10 | 6.68e+10 | 6.68e+10 | 4.98e+09 | 4.98e+09 | 4.98e+09 | 1.46e+10 | 1.46e+10 | 1.46e+10 |
| Errors | 3.86e+08 | 1.51e+07 | 1.89e+07 | 4.36e+07 | 1.25e+06 | 1.53e+06 | 1.19e+08 | 3.27e+06 | 3.96e+06 |

Error rates by event type and initial quality score

| ReadGroup | QualityScore | EventType | EmpiricalQuality | Observations | Errors |
|-----------------|--------------|-----------|------------------|--------------|--------------|
| SAMN04316321 | 11 | M | 16 | 64747 | 1601.02 |
| SAMN04316321 | 12 | M | 18 | 97456 | 1636.69 |
| SAMN04316321 | 13 | M | 14 | 73275822 | 3069547.42 |
| SAMN04316321 | 14 | M | 13 | 291405554 | 13232153.79 |
| SAMN04316321 | 15 | M | 14 | 1304358860 | 47009189.54 |
| SAMN04316321 | 16 | M | 14 | 1654030261 | 61047554.65 |
| SAMN04316321 | 18 | M | 14 | 77954443 | 2964956.50 |
| SAMN04316321 | 19 | M | 22 | 58789 | 308.22 |
| SAMN04316321 | 20 | M | 23 | 96506 | 449.41 |
| SAMN04316321 | 21 | M | 23 | 21859324 | 121791.19 |
| SAMN04316321 | 22 | M | 22 | 3711325 | 22836.48 |
| SAMN04316321 | 23 | M | 23 | 175966093 | 937763.91 |
| SAMN04316321 | 24 | M | 21 | 75627709 | 573271.33 |
| SAMN04316321 | 25 | M | 22 | 612699770 | 3558262.49 |
| SAMN04316321 | 26 | M | 23 | 255488031 | 1220935.70 |
| SAMN04316321 | 27 | M | 22 | 420275712 | 2478409.65 |
| SAMN04316321 | 28 | M | 23 | 536843095 | 2497060.17 |
| SAMN04316321 | 29 | M | 24 | 1045016812 | 4353572.36 |
| SAMN04316321 | 30 | M | 23 | 104091446 | 528285.49 |
| SAMN04316321 | 31 | M | 24 | 1026124298 | 4168911.83 |
| SAMN04316321 | 32 | M | 32 | 282176730 | 1910325.22 |
| SAMN04316321 | 33 | M | 23 | 1893081779 | 10090368.82 |
| SAMN04316321 | 34 | M | 23 | 3076660513 | 14413850.86 |
| SAMN04316321 | 35 | M | 24 | 1471357540 | 5796906.86 |
| SAMN04316321 | 36 | M | 24 | 2745742887 | 10554907.09 |
| SAMN04316321 | 37 | M | 25 | 4253492505 | 14955802.38 |
| SAMN04316321 | 38 | M | 24 | 45445405931 | 180058896.64 |
| SAMN04316321 | 45 | I | 36 | 66846963938 | 15119571.89 |
| SAMN04316321 | 45 | D | 35 | 66846963938 | 18888686.24 |
| C2V1GACXX.3.A20 | 6 | M | 6 | 827526 | 204081.35 |
| C2V1GACXX.3.A20 | 7 | M | 9 | 6477603 | 749452.40 |
| C2V1GACXX.3.A20 | 8 | M | 9 | 5796674 | 784418.47 |
| C2V1GACXX.3.A20 | 9 | M | 10 | 3281429 | 366003.56 |
| C2V1GACXX.3.A20 | 10 | M | 10 | 3531157 | 392664.50 |
| C2V1GACXX.3.A20 | 11 | M | 12 | 1858827 | 127376.08 |
| C2V1GACXX.3.A20 | 12 | M | 14 | 1166035 | 52047.52 |
| C2V1GACXX.3.A20 | 13 | M | 15 | 3407339 | 111935.57 |
| C2V1GACXX.3.A20 | 14 | M | 14 | 1177212 | 47219.78 |
| C2V1GACXX.3.A20 | 15 | M | 15 | 2967731 | 94443.78 |
| C2V1GACXX.3.A20 | 16 | M | 15 | 3547538 | 119964.98 |
| C2V1GACXX.3.A20 | 17 | M | 15 | 4021569 | 121504.83 |
| C2V1GACXX.3.A20 | 18 | M | 16 | 10102650 | 233973.50 |
| C2V1GACXX.3.A20 | 19 | M | 16 | 6005331 | 138118.82 |
| C2V1GACXX.3.A20 | 20 | M | 19 | 8061591 | 102794.62 |
| C2V1GACXX.3.A20 | 21 | M | 18 | 3959658 | 56910.51 |
| C2V1GACXX.3.A20 | 22 | M | 20 | 7720948 | 85899.97 |
| C2V1GACXX.3.A20 | 23 | M | 19 | 9989307 | 125115.42 |
| C2V1GACXX.3.A20 | 24 | M | 19 | 13896143 | 169485.65 |
| C2V1GACXX.3.A20 | 25 | M | 20 | 21674911 | 230216.40 |
| C2V1GACXX.3.A20 | 26 | M | 20 | 30489330 | 274939.58 |
| C2V1GACXX.3.A20 | 27 | M | 20 | 25201362 | 258856.74 |
| C2V1GACXX.3.A20 | 28 | M | 21 | 22837376 | 189749.72 |
| C2V1GACXX.3.A20 | 29 | M | 21 | 48091130 | 419501.00 |
| C2V1GACXX.3.A20 | 30 | M | 21 | 63746573 | 512314.96 |
| C2V1GACXX.3.A20 | 31 | M | 21 | 113434935 | 937142.12 |
| C2V1GACXX.3.A20 | 32 | M | 21 | 85503182 | 674230.98 |
| C2V1GACXX.3.A20 | 33 | M | 20 | 122216388 | 1103415.75 |
| C2V1GACXX.3.A20 | 34 | M | 21 | 330232903 | 2704146.01 |
| C2V1GACXX.3.A20 | 35 | M | 20 | 540618014 | 4906820.01 |
| C2V1GACXX.3.A20 | 36 | M | 21 | 285754778 | 2210502.20 |
| C2V1GACXX.3.A20 | 37 | M | 22 | 463246630 | 3112352.32 |
| C2V1GACXX.3.A20 | 38 | M | 21 | 292508681 | 2274998.99 |
| C2V1GACXX.3.A20 | 39 | M | 21 | 545484207 | 3914599.56 |
| C2V1GACXX.3.A20 | 40 | M | 21 | 658603859 | 5236049.47 |
| C2V1GACXX.3.A20 | 41 | M | 22 | 1237209729 | 10569712.75 |
| C2V1GACXX.3.A20 | 45 | I | 36 | 4984650256 | 1249620.80 |
| C2V1GACXX.3.A20 | 45 | D | 35 | 4984650256 | 1531251.41 |
| C6GFVANXX.1.A20 | 13 | M | 14 | 4133247 | 177588.28 |
| C6GFVANXX.1.A20 | 14 | M | 13 | 75302319 | 3637303.14 |
| C6GFVANXX.1.A20 | 15 | M | 13 | 221720976 | 7914366.97 |
| C6GFVANXX.1.A20 | 16 | M | 14 | 525805794 | 17727437.47 |
| C6GFVANXX.1.A20 | 18 | M | 17 | 19959672 | 442161.87 |
| C6GFVANXX.1.A20 | 21 | M | 19 | 650157 | 8397.72 |
| C6GFVANXX.1.A20 | 22 | M | 20 | 484977 | 5477.03 |
| C6GFVANXX.1.A20 | 23 | M | 20 | 12082750 | 133370.61 |
| C6GFVANXX.1.A20 | 24 | M | 19 | 21224916 | 260874.60 |
| C6GFVANXX.1.A20 | 25 | M | 21 | 179406680 | 1379081.48 |
| C6GFVANXX.1.A20 | 26 | M | 22 | 47422339 | 314119.62 |
| C6GFVANXX.1.A20 | 27 | M | 21 | 120115053 | 1030173.51 |
| C6GFVANXX.1.A20 | 28 | M | 21 | 142654051 | 1024925.19 |
| C6GFVANXX.1.A20 | 29 | M | 22 | 289032044 | 1982191.13 |
| C6GFVANXX.1.A20 | 30 | M | 22 | 31216408 | 203763.56 |
| C6GFVANXX.1.A20 | 31 | M | 22 | 259866626 | 1658813.97 |
| C6GFVANXX.1.A20 | 32 | M | 22 | 82338156 | 552139.26 |
| C6GFVANXX.1.A20 | 33 | M | 22 | 514232492 | 3392041.70 |
| C6GFVANXX.1.A20 | 34 | M | 22 | 733951343 | 4688996.31 |
| C6GFVANXX.1.A20 | 35 | M | 22 | 367399486 | 2490001.51 |
| C6GFVANXX.1.A20 | 36 | M | 22 | 666629572 | 4295156.93 |
| C6GFVANXX.1.A20 | 37 | M | 22 | 1121850234 | 6661910.08 |
| C6GFVANXX.1.A20 | 38 | M | 22 | 9123297237 | 59294707.94 |
| C6GFVANXX.1.A20 | 45 | I | 37 | 14560776529 | 3267218.60 |
| C6GFVANXX.1.A20 | 45 | D | 36 | 14560776529 | 3964787.16 |