**Supplementary Tables**  
Appendix 1: List of samples and whole-metagenome sequencing data details. The raw pair end reads were trimmed to remove the adapters and low-quality regions. Trimmed reads were mapped against the ARS-UCD1.2 *Bos Taurus* genome (GCA_002263795.2) to categorise the reads into cattle and microbial reads.

| Sample type          | Host-depletion method | Extraction method | Replicate | Giga base pairs (Gbps) | Raw paired end (bp) | Trimmed paired end (bp) | Cattle reads (bp) | Microbial reads (bp) |
|----------------------|-----------------------|-------------------|-----------|------------------------|---------------------|------------------------|-------------------|---------------------|
| Vaginal swab         | None                  | DNeasy            | 1         | 7.15                   | 54,841,662          | 51,388,792            | 50,659,788        | 729,004             |
| Vaginal swab         | None                  | DNeasy            | 2         | 5.92                   | 45,793,444          | 42,753,084            | 42,124,872        | 628,212             |
| Vaginal swab+Spike   | None                  | DNeasy            | 1         | 5.57                   | 42,901,092          | 39,973,024            | 38,921,028        | 1,051,996           |
| Vaginal swab+Spike   | None                  | DNeasy            | 2         | 6.35                   | 49,212,664          | 45,954,588            | 44,779,034        | 1,175,554           |
| Spike only           | None                  | DNeasy            | 1         | 6.03                   | 45,667,332          | 43,195,152            | 42,124,872        | 628,212             |
| Spike only           | None                  | DNeasy            | 2         | 7.3                    | 55,093,054          | 52,106,996            | 195,138           | 51,911,858          |
| Vaginal swab         | None                  | DNeasy            | 1         | 6.12                   | 47,825,738          | 44,706,948            | 44,023,532        | 683,416             |
| Vaginal swab         | None                  | DNeasy            | 2         | 7                      | 54,816,874          | 51,431,890            | 50,646,172        | 785,718             |
| Vaginal swab+Spike   | None                  | DNeasy            | 1         | 6.58                   | 51,713,386          | 48,290,888            | 46,616,720        | 1,674,168           |
| Vaginal swab+Spike   | None                  | DNeasy            | 2         | 7.36                   | 57,551,250          | 54,009,344            | 51,874,256        | 2,135,088           |
| Spike only           | None                  | DNeasy            | 1         | 7.93                   | 61,163,078          | 57,815,130            | 185,122           | 57,630,008          |
| Spike only           | None                  | DNeasy            | 2         | 7.31                   | 56,082,584          | 52,970,100            | 126,308           | 52,843,792          |
| Vaginal swab         | Soft-spin             | DNeasy            | 1         | 8.65                   | 66,896,442          | 62,943,414            | 62,073,920        | 869,444             |
| Vaginal swab         | Soft-spin             | DNeasy            | 2         | 5.77                   | 41,737,256          | 40,035,658            | 39,555,414        | 480,244             |
| Vaginal swab+Spike   | Soft-spin             | DNeasy            | 1         | 5.8                    | 42,922,514          | 41,035,622            | 40,055,080        | 980,542             |
| Vaginal swab+Spike   | Soft-spin             | DNeasy            | 2         | 5.41                   | 38,571,614          | 37,069,938            | 36,248,348        | 821,590             |
| Spike only           | Soft-spin             | DNeasy            | 1         | 6.34                   | 46,714,512          | 44,900,522            | 119,670           | 44,780,852          |
| Spike only           | Soft-spin             | DNeasy            | 2         | 5.75                   | 42,703,968          | 40,097,850            | 86,170            | 41,011,680          |
| Vaginal swab         | PMA                   | DNeasy            | 1         | 4.71                   | 35,477,370          | 33,605,076            | 33,257,414        | 347,662             |
| Vaginal swab         | PMA                   | DNeasy            | 2         | 5.32                   | 38,512,490          | 36,987,704            | 36,609,752        | 377,952             |
| Vaginal swab+Spike   | PMA                   | DNeasy            | 1         | 4.29                   | 32,510,824          | 30,840,264            | 30,062,776        | 777,488             |
| Vaginal swab+Spike   | PMA                   | DNeasy            | 2         | 6.2                    | 47,765,746          | 45,309,436            | 44,177,848        | 1,131,588           |
| Spike only           | PMA                   | DNeasy            | 1         | 5.66                   | 41,158,146          | 39,606,368            | 605,142           | 39,001,226          |
| Spike only           | PMA                   | DNeasy            | 2         | 6.24                   | 47,259,214          | 45,317,916            | 1,448,058         | 43,869,858          |
| Vaginal swab         | Soft-spin             | QIAamp            | 1         | 8.04                   | 82,197,126          | 75,261,330            | 69,884,686        | 5,376,662           |
| Vaginal swab         | Soft-spin             | QIAamp            | 2         | 6                      | 60,730,598          | 55,831,046            | 50,420,636        | 5,410,410           |
| Vaginal swab+Spike   | Soft-spin             | QIAamp            | 1         | 9.24                   | 87,737,012          | 81,253,078            | 61,515,620        | 19,737,458          |
| Sample type         | Host-depletion method | Extraction method | Replicate | Giga base pairs (Gbps) | Raw paired end (bp) | Trimmed paired end (bp) | Cattle reads (bp) | Microbial reads (bp) |
|---------------------|-----------------------|-------------------|-----------|------------------------|---------------------|-------------------------|-------------------|----------------------|
| Vaginal swab+Spike  | Soft-spin             | QIAamp            | 2         | 5.57                   | 52,935,166          | 48,183,458              | 30,293,844        | 17,889,614           |
| Spike only          | Soft-spin             | QIAamp            | 1         | 5.74                   | 41,007,194          | 39,471,306              | 42,678            | 39,428,628           |
| Spike only          | Soft-spin             | QIAamp            | 2         | 5.437                  | 38,415,324          | 37,375,574              | 62,212            | 37,313,362           |
| Vaginal swab        | PMA                   | QIAamp            | 1         | 7.806                  | 74,585,456          | 69,512,506              | 64,637,312        | 4,875,194            |
| Vaginal swab        | PMA                   | QIAamp            | 2         | 7.186                  | 67,837,476          | 63,368,182              | 58,981,184        | 4,386,998            |
| Vaginal swab+Spike  | PMA                   | QIAamp            | 1         | 6.617                  | 60,602,786          | 56,703,484              | 37,875,914        | 18,827,570           |
| Vaginal swab+Spike  | PMA                   | QIAamp            | 2         | 9.009                  | 80,111,394          | 75,414,350              | 51,457,334        | 23,957,016           |
| Spike only          | PMA                   | QIAamp            | 1         | 5.509                  | 38,463,722          | 37,318,694              | 134,698           | 37,183,996           |
| Spike only          | PMA                   | QIAamp            | 2         | 5.841                  | 40,909,084          | 39,732,818              | 25,928            | 39,706,890           |
Appendix 2: Details of contigs generated for each sample, including the number of contigs, total bases, the length of the smallest and largest contig, mean contig length and minimum contig length needed to cover 50% of the genome (N50).

| Sample type          | Host-depletion method | Extraction method | Replicate | No. of contigs | Total bases (bp) | Smallest contig (bp) | Largest contig (bp) | Mean contig length | N50 (bp) |
|----------------------|-----------------------|-------------------|-----------|----------------|------------------|----------------------|---------------------|-------------------|----------|
| Vaginal swab         | None                  | DNeasy            | 1         | 2,699          | 1,316,615        | 201                  | 9,730               | 487               | 470      |
| Vaginal swab         | None                  | DNeasy            | 2         | 1,917          | 929,274          | 200                  | 10,924              | 484               | 461      |
| Vaginal swab+Spike   | None                  | DNeasy            | 1         | 6,654          | 7,016,420        | 200                  | 120,918             | 1,054             | 4,770    |
| Vaginal swab+Spike   | None                  | DNeasy            | 2         | 7,537          | 7,689,825        | 201                  | 172,763             | 1,020             | 2,964    |
| Spike only           | None                  | DNeasy            | 1         | 598            | 16,386,754       | 200                  | 541,271             | 27,402            | 141,929  |
| Spike only           | None                  | DNeasy            | 2         | 483            | 16,388,872       | 200                  | 541,156             | 33,931            | 137,770  |
| Vaginal swab         | NEBNext               | DNeasy            | 1         | 3,539          | 1,719,466        | 200                  | 10,742              | 485               | 464      |
| Vaginal swab         | NEBNext               | DNeasy            | 2         | 4,800          | 2,384,221        | 204                  | 10,529              | 496               | 476      |
| Vaginal swab+Spike   | NEBNext               | DNeasy            | 1         | 11,225         | 10,832,616       | 200                  | 258,039             | 965               | 1,153    |
| Vaginal swab+Spike   | NEBNext               | DNeasy            | 2         | 10,505         | 13,263,105       | 204                  | 408,377             | 1,262             | 2,222    |
| Spike only           | NEBNext               | DNeasy            | 1         | 426            | 16,376,645       | 200                  | 541,271             | 38,442            | 134,863  |
| Spike only           | NEBNext               | DNeasy            | 2         | 453            | 16,392,106       | 200                  | 541,271             | 36,185            | 137,770  |
| Vaginal swab         | Soft-spin             | DNeasy            | 1         | 3,158          | 1,536,980        | 200                  | 11,016              | 486               | 472      |
| Vaginal swab         | Soft-spin             | DNeasy            | 2         | 2,082          | 1,020,450        | 205                  | 10,718              | 490               | 479      |
| Vaginal swab+Spike   | Soft-spin             | DNeasy            | 1         | 7,526          | 8,005,646        | 200                  | 258,924             | 1,063             | 1,890    |
| Vaginal swab+Spike   | Soft-spin             | DNeasy            | 2         | 7,375          | 7,797,394        | 200                  | 215,287             | 1,057             | 2,278    |
| Spike only           | Soft-spin             | DNeasy            | 1         | 423            | 16,383,008       | 200                  | 541,041             | 38,730            | 146,025  |
| Spike only           | Soft-spin             | DNeasy            | 2         | 450            | 16,382,622       | 200                  | 559,395             | 36,405            | 148,572  |
| Vaginal swab         | PMA                   | DNeasy            | 1         | 1,390          | 720,524          | 200                  | 14,786              | 518               | 498      |
| Vaginal swab         | PMA                   | DNeasy            | 2         | 2,290          | 1,120,579        | 200                  | 10,021              | 489               | 474      |
| Vaginal swab+Spike   | PMA                   | DNeasy            | 1         | 4,988          | 6,282,751        | 201                  | 171,325             | 1,259             | 11,949   |
| Vaginal swab+Spike   | PMA                   | DNeasy            | 2         | 5,884          | 6,866,944        | 200                  | 316,795             | 1,167             | 42,636   |
| Spike only           | PMA                   | DNeasy            | 1         | 364            | 16,401,196       | 200                  | 1,427,014           | 45,058            | 195,667  |
| Spike only           | PMA                   | DNeasy            | 2         | 372            | 16,408,047       | 200                  | 1,427,014           | 44,107            | 217,243  |
| Vaginal swab         | Soft-spin             | QIAamp            | 1         | 19,711         | 23,362,645       | 200                  | 764,995             | 1,185             | 37,221   |
| Vaginal swab         | Soft-spin             | QIAamp            | 2         | 10,641         | 33,383,054       | 200                  | 1,427,014           | 3,137             | 85,117   |
| Vaginal swab+Spike   | Soft-spin             | QIAamp            | 1         | 364            | 16,401,196       | 200                  | 1,427,014           | 45,058            | 195,667  |
| Vaginal swab+Spike   | Soft-spin             | QIAamp            | 2         | 7,784          | 31,745,591       | 200                  | 1,427,014           | 4,078             | 59,055   |
| Sample type       | Host-depletion method | Extraction method | Replicate | No. of contigs | Total bases (bp) | Smallest contig (bp) | Largest contig (bp) | Mean contig length | N50 (bp) |
|------------------|-----------------------|-------------------|-----------|----------------|------------------|----------------------|---------------------|--------------------|---------|
| Spike only       | Soft-spin             | QIAamp            | 1         | 339            | 16,386,339       | 200                  | 1,427,014           | 48,337             | 217,772 |
| Spike only       | Soft-spin             | QIAamp            | 2         | 358            | 16,386,713       | 200                  | 1,427,014           | 45,772             | 192,717 |
| Vaginal swab     | PMA                   | QIAamp            | 1         | 16,990         | 22,807,467       | 200                  | 976,973             | 1,342              | 55,132  |
| Vaginal swab     | PMA                   | QIAamp            | 2         | 18,406         | 23,746,878       | 200                  | 698,080             | 1,290              | 34,406  |
| Vaginal swab+Spike| PMA                   | QIAamp            | 1         | 11,736         | 34,846,431       | 200                  | 1,427,014           | 2,969              | 113,678 |
| Vaginal swab+Spike| PMA                   | QIAamp            | 2         | 14,786         | 37,166,499       | 200                  | 1,427,014           | 2,513              | 161,000 |
| Spike only       | PMA                   | QIAamp            | 1         | 362            | 16,411,379       | 200                  | 1,427,014           | 45,335             | 218,956 |
| Spike only       | PMA                   | QIAamp            | 2         | 335            | 16,385,456       | 200                  | 1,427,014           | 48,911             | 217,228 |
| co-assembly      |                       |                   |           | 54,409         | 94,842,349       | 200                  | 1,426,252           | 1,743              | 16,111  |
Appendix 3: Evaluation on the quality of assembled contigs based on the by mapping the raw reads back to the assembled contigs.

| Sample type | Host-depletion method | Extraction method | Replicate | Reads | Mapped reads | Mapped bases | Ref scaffolds | Ref bases | Percent mapped | Percent proper pairs | Average coverage | Average coverage with deletions | Standard deviation | Percent scaffolds with any coverage | Percent of reference bases covered |
|-------------|-----------------------|-------------------|-----------|-------|-------------|-------------|--------------|-----------|----------------|----------------------|-----------------|-------------------------------|-----------------|----------------------------------|-------------------------------|
| Vaginal swab| None                  | DNeasy            | 1         | 727,690 | 301,296     | 35,193,412  | 2,699        | 1,316,615  | 41.404 | 30.949         | 26.73                | 27.339           | 164.659          | 99.96                         | 99.41                         |
| Vaginal swab| None                  | DNeasy            | 2         | 626,588 | 151,937     | 18,495,833  | 1,917        | 929,274    | 24.248 | 18.825         | 19.904               | 20.393           | 84.068           | 100                           | 99.18                         |
| Vaginal swab+Spike only| None                  | DNeasy            | 1         | 1,050,862 | 641,970     | 80,220,156  | 6,654        | 7,016,420  | 61.09  | 54.905         | 11.433               | 11.497           | 39.598           | 99.97                         | 99.86                         |
| Vaginal swab+Spike only| None                  | DNeasy            | 2         | 1,174,024 | 711,842     | 88,381,659  | 7,537        | 7,689,825  | 60.633 | 55.563         | 11.493               | 11.609           | 126.071          | 99.99                         | 99.89                         |
| Spike only  | None                  | DNeasy            | 1         | 43,025,676 | 42,862,980  | 5,551,458,965 | 598          | 16,386,754 | 99.622 | 99.217         | 338.777              | 338.788          | 421.022          | 100                           | 99.99                         |
| Spike only  | None                  | DNeasy            | 2         | 51,909,338 | 51,718,685  | 6,721,199,295 | 483          | 16,388,872 | 99.633 | 99.199         | 410.107              | 410.119          | 509.911          | 99.59                         | 99.98                         |
| Vaginal swab| NEBNext               | DNeasy            | 1         | 681,852  | 102,484     | 12,645,958  | 3,539        | 1,719,466  | 15.03  | 13.623         | 7.355                | 7.384            | 14.453           | 99.97                         | 99.75                         |
| Vaginal swab| NEBNext               | DNeasy            | 2         | 783,794  | 134,432     | 16,584,223  | 4,800        | 2,384,221  | 17.151 | 15.594         | 6.956                | 6.98             | 14.343           | 99.94                         | 99.73                         |
| Vaginal swab+Spike only| NEBNext               | DNeasy            | 1         | 1,672,010 | 932,860     | 119,512,910 | 11,225       | 10,832,616 | 55.793 | 54.428         | 11.033               | 11.038           | 11.253           | 99.99                         | 99.93                         |
| Vaginal swab+Spike only| NEBNext               | DNeasy            | 2         | 2,133,658 | 1,463,918   | 186,712,699 | 10,505       | 13,263,105 | 68.611 | 67.397         | 14.078               | 14.082           | 15.573           | 99.96                         | 99.93                         |
| Spike only  | NEBNext               | DNeasy            | 1         | 57,623,102 | 57,412,871  | 7,308,581,788 | 426          | 16,376,645 | 99.635 | 99.247         | 446.281              | 446.293          | 528.067          | 100                           | 99.99                         |
| Spike only  | NEBNext               | DNeasy            | 2         | 52,840,998 | 52,650,674  | 6,739,353,110 | 453          | 16,392,106 | 99.64  | 99.225         | 411.134              | 411.146          | 505.153          | 99.56                         | 99.98                         |
| Vaginal swab| Soft-spin             | DNeasy            | 1         | 867,496  | 265,576     | 30,454,244  | 3,158        | 1,536,980  | 30.614 | 23.927         | 19.814               | 20.186           | 268.28           | 99.87                         | 99.46                         |
| Vaginal swab| Soft-spin             | DNeasy            | 2         | 479,032  | 93,333      | 12,318,867  | 2,082        | 1,020,450  | 19.484 | 14.743         | 12.072               | 12.347           | 22.56            | 99.9                          | 99.21                          |
| Vaginal swab+Spike only| Soft-spin             | DNeasy            | 1         | 979,344  | 641,789     | 84,282,428  | 7,526        | 8,005,646  | 65.533 | 58.524         | 10.528               | 10.615           | 86.163           | 99.95                         | 99.85                         |
| Vaginal swab+Spike only| Soft-spin             | DNeasy            | 2         | 820,708  | 550,526     | 74,222,059  | 7,375        | 7,797,394  | 67.079 | 57.423         | 9.519                | 9.558            | 30.587           | 99.84                         | 99.75                         |
| Spike only  | Soft-spin             | DNeasy            | 1         | 44,777,184 | 44,666,727  | 6,001,203,305 | 423          | 16,383,008 | 99.753 | 99.228         | 366.307              | 366.318          | 518.986          | 100                           | 99.99                         |
| Spike only  | Soft-spin             | DNeasy            | 2         | 41,008,208 | 40,917,506  | 5,454,555,648 | 450          | 16,382,622 | 99.779 | 99.315         | 332.948              | 332.959          | 471.834          | 100                           | 99.99                         |
| Vaginal swab| PMA                   | DNeasy            | 1         | 346,776  | 76,758      | 9,841,418   | 1,390        | 720,524    | 22.135 | 18.648         | 13.659               | 14.035           | 25.57            | 99.86                         | 99.36                         |
| Vaginal swab| PMA                   | DNeasy            | 2         | 376,990  | 175,754     | 21,849,686  | 2,290        | 1,120,579  | 46.62  | 33.618         | 19.499               | 19.936           | 85.391           | 99.83                         | 99.2                           |
| Sample type | Host depletion method | Extraction method | Replicate | Reads  | Mapped reads | Mapped bases | Ref scaffolds | Ref bases | Percent mapped | Percent proper pairs | Average coverage | Average coverage with deletions | Standard deviation | Percent scaffolds with any coverage | Percent of reference bases covered |
|-------------|----------------------|-------------------|-----------|--------|-------------|-------------|--------------|----------|----------------|----------------------|-----------------|-------------------------------|----------------|--------------------------------|-----------------------------|
| Vaginal swab+Spike only | PMA | DNeasy | 1 | 775,510 | 517,559 | 68,858,469 | 4,988 | 6,282,751 | 66.738 | 62.904 | 10.96 | 11.033 | 48.01 | 99.94 | 99.89 |
| Vaginal swab+Spike only | PMA | DNeasy | 2 | 1,130,310 | 726,188 | 96,029,299 | 5,884 | 6,866,944 | 64.247 | 61.426 | 13.984 | 14.044 | 82.712 | 99.95 | 99.87 |
| Spike only | PMA | DNeasy | 1 | 38,997,492 | 38,807,578 | 5,285,762,051 | 364 | 16,401,196 | 99.513 | 99.094 | 322.279 | 322.289 | 277.09 | 100 | 99.99 |
| Spike only | PMA | DNeasy | 2 | 43,864,144 | 43,646,582 | 5,728,632,021 | 372 | 16,408,047 | 99.504 | 99.076 | 349.136 | 349.147 | 317.065 | 99.73 | 99.99 |
| Vaginal swab | Soft-spin | QIAamp | 1 | 5,367,822 | 3,644,625 | 429,190,825 | 19,711 | 23,362,645 | 67.898 | 63.42 | 18.371 | 18.797 | 164.808 | 100 | 99.94 |
| Vaginal swab | Soft-spin | QIAamp | 2 | 5,392,182 | 3,921,852 | 498,673,309 | 24,630 | 28,712,852 | 72.732 | 69.164 | 17.368 | 17.573 | 109.121 | 99.99 | 99.93 |
| Vaginal swab+Spike only | Soft-spin | QIAamp | 1 | 19,730,906 | 18,298,691 | 2,456,738,623 | 10,641 | 33,383,054 | 92.741 | 91.437 | 73.592 | 73.828 | 124.628 | 99.97 | 99.96 |
| Vaginal swab+Spike only | Soft-spin | QIAamp | 2 | 17,885,164 | 16,635,633 | 2,348,322,720 | 7,784 | 31,745,591 | 93.014 | 92.146 | 73.973 | 74.054 | 124.734 | 99.92 | 99.97 |
| Spike only | Soft-spin | QIAamp | 1 | 39,426,638 | 39,336,402 | 5,427,855,513 | 339 | 16,386,339 | 99.771 | 99.194 | 331.243 | 331.252 | 234.89 | 100 | 99.99 |
| Spike only | Soft-spin | QIAamp | 2 | 37,309,692 | 37,236,319 | 5,226,620,514 | 358 | 16,386,713 | 99.803 | 99.279 | 318.955 | 318.965 | 242.56 | 100 | 99.99 |
| Vaginal swab | PMA | QIAamp | 1 | 4,870,746 | 3,756,915 | 475,904,447 | 16,990 | 22,807,467 | 77.132 | 72.134 | 20.866 | 21.167 | 108.542 | 99.99 | 99.93 |
| Vaginal swab | PMA | QIAamp | 2 | 4,380,988 | 3,221,566 | 413,918,096 | 18,406 | 23,746,878 | 73.535 | 68.512 | 17.43 | 17.662 | 99.054 | 99.99 | 99.93 |
| Vaginal swab+Spike only | PMA | QIAamp | 1 | 18,818,460 | 17,819,195 | 2,478,913,505 | 11,736 | 34,846,431 | 94.69 | 93.894 | 71.138 | 71.201 | 168.28 | 99.98 | 99.97 |
| Vaginal swab+Spike only | PMA | QIAamp | 2 | 23,946,990 | 22,949,097 | 3,196,014,333 | 14,786 | 37,166,499 | 95.833 | 94.825 | 85.992 | 86.111 | 176.887 | 99.97 | 99.97 |
| Spike only | PMA | QIAamp | 1 | 37,181,570 | 37,081,548 | 5,261,509,228 | 362 | 16,411,379 | 99.731 | 99.149 | 320.601 | 320.616 | 96.812 | 99.45 | 99.94 |
| Spike only | PMA | QIAamp | 2 | 39,640,874 | 39,476,422 | 5,595,809,155 | 335 | 16,385,456 | 99.585 | 99.023 | 341.511 | 341.53 | 172.327 | 99.4 | 99.99 |
## Appendix 4: Evaluation on the quality of assembled contigs based on the mapped reads and coverage against a list of reference genomes detected in the samples.

| Sample type | Sample details | Host-depletion method | Extrac method | Replicate | Genome fraction (%) | N | A | 5 | 0 | N | A | 7 | 5 | L | A | 5 | 0 | L | A | 7 | 5 | Map (%) | Avg. covagagor depth | # misassemblies | Misassembled contigs length | # fully unaligne d contigs | Fully unaligne d length | # partially unaligne d contigs | Partially unaligne d length | Misassemblies | Unaligned | Statistics without reference |
|-------------|----------------|-----------------------|---------------|-----------|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vaginal swab | None | DNeasy | 1 | 0.034 | ... | 49.9 | 1 | 28 | 7 | 3,362 | 2,201 | 1,105,533 | 3 | 0 | 0 | 0 | 2,040 | 2,6 | 99 | 9,730 | 1,31 | 6,61 | 5 | 47 | 37 | 52 | 9 | 4 | 8 |
| Vaginal swab | None | DNeasy | 2 | 0.016 | ... | 44.7 | 24 | 4 | 1,747 | 1,666 | 830,250 | 0 | 0 | 0 | 0 | 954 | 19 | 17 | 10,92 | 4 | 929 | 274 | 14 | 6 | 1 | 6 | 8 |
| Vaginal swab+Spike | None | DNeasy | 1 | 0.934 | ... | 1 | 3 | 3 | 3 | 5 | 4 | 3 | 5 | 3 | 67.1 | 11 | 105 | 594,434 | 2,140 | 1,144,04 | 0 | 72 | 208,286 | 41.38 | 9 | 6.6 | 54 | 120.9 | 18 | 7.01 | 6.42 | 70 | 53 | 3 | 2 | 1 | 6 | 9 |
| Vaginal swab+Spike | None | DNeasy | 2 | 1.028 | ... | 1 | 3 | 3 | 5 | 4 | 3 | 5 | 2 | 68.4 | 7 | 12 | 104 | 959,845 | 2,277 | 1,227,55 | 1 | 72 | 230,916 | 44.64 | 3 | 7.5 | 37 | 172.7 | 63 | 17.6 | 9.82 | 5 | 64 | 9 | 4 | 2 | 2 | 6 |
| Spike only | None | DNeasy | 1 | 2.435 | ... | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 99.7 | 9 | 338 | 215 | 9,025,393 | 46 | 120,026 | 134 | 1,544,298 | 118.1 | 98 | 598 | 541.2 | 71 | 16.3 | 86.7 | 54 | 14.9 | 70 | 5 | 1 | 51.1 | 76 | 2 | 3 | 7 |
| Spike only | None | DNeasy | 2 | 2.435 | ... | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 99.8 | 17 | 410 | 218 | 9,159,124 | 60 | 135,241 | 130 | 1,534,325 | 117.9 | 78 | 483 | 541.1 | 56 | 16.3 | 88.8 | 72 | 13.7 | 77 | 62 | 51 | 2 | 3 | 7 |
| Vaginal swab | NEBNex t | DNeasy | 1 | 0.084 | ... | 24.0 | 6 | 9 | 16 | 7,752 | 2,374 | 1,195,24 | 6 | 4 | 3,485 | 4,917 | 3 | 5 | 3 | 10.7 | 3 | 171.9 | 46 | 9.46 | 6 | 46 | 37 | 1 | 9 | 1 | 2 |
| Vaginal swab | NEBNex t | DNeasy | 2 | 0.138 | ... | 26.3 | 8 | 28 | 18,874 | 2,986 | 1,512,85 | 5 | 6 | 4,104 | 8,073 | 4 | 8 | 00 | 10.52 | 9 | 2,38 | 422 | 5 | 46 | 37 | 9 | 1 | 2 | 3 | 0 | 1 | 3 | 6 |
| Vaginal swab+Spike | NEBNex t | DNeasy | 1 | 1.405 | ... | 1 | 3 | 3 | 5 | 5 | 2 | 1 | 5 | 6 | 61.0 | 6 | 11 | 141 | 1,752,890 | 3,504 | 1,986,21 | 2 | 69 | 321,886 | 58.42 | 3 | 11 | 225 | 258.0 | 39 | 10.8 | 32.6 | 16 | 55 | 3 | 9 | 5 | 8 | 5 |
| Vaginal swab+Spike | NEBNex t | DNeasy | 2 | 1.714 | ... | 1 | 3 | 3 | 5 | 5 | 2 | 1 | 5 | 6 | 73.0 | 5 | 14 | 146 | 2,106,278 | 4,011 | 2,444,11 | 6 | 85 | 412,729 | 69.79 | 3 | 10 | 505 | 408.3 | 77 | 13.2 | 63.1 | 65 | 22 | 0 | 8 | 3 | 1 | 3 | 2 |
| Spike only | NEBNex t | DNeasy | 1 | 2.436 | ... | 1 | 3 | 3 | 3 | 6 | 2 | 1 | 6 | 2 | 99.8 | 1 | 446 | 226 | 9,178,760 | 42 | 67,616 | 125 | 1,592,375 | 118.0 | 52 | 426 | 541.2 | 71 | 16.3 | 76.6 | 45 | 13.7 | 64 | 38 | 0 | 3 | 7 |
| Spike only | NEBNex t | DNeasy | 2 | 2.436 | ... | 6 | 2 | 1 | 6 | 2 | 99.8 | 1 | 446 | 226 | 9,178,760 | 42 | 67,616 | 125 | 1,592,375 | 118.0 | 52 | 426 | 541.2 | 71 | 16.3 | 76.6 | 45 | 13.7 | 64 | 38 | 0 | 3 | 7 |
| Sample type | Sample details | Host-depletion method | Extrac method | Replicate | Genome fraction (%) | N A | N A | N L | N L | L A | L A | Map ed (%) | Avg. coverage depth | # misassemblies | Misassemb led contigs length | # fully unaligned contigs | # partially unaligned contigs | Partially unaligned length | Unaligned | Mis matches | # mis matches | Larg est contig | Total 1 length | N5 | N7 | L 5 | L 7 |
|-------------|---------------|----------------------|---------------|-----------|---------------------|-----|-----|-----|-----|-----|-----|-----------|----------------------|----------------|---------------------------|-------------------------|-------------------------|-------------------------|----------|-----------|----------------|----------------|-------------|-----|-----|-----|-----|
| Sample type       | Sample details | Host-depletion method | Extraction method | Replicate | Genome fraction (%) | N A 5 | N A 7 | L A 5 | L A 7 | Map (%) | Avg. coverage depth | # misassemblies | Misassembled contigs length | # fully unaligned contigs length | # partially unaligned contigs length | Partially unaligned length | Matches # misassemblies | # contigs | Largest contig | Total length | N5 | N7 | L5 | L7 | 5 |
|-------------------|----------------|-----------------------|-------------------|-----------|---------------------|-------|-------|-------|-------|---------|----------------------|----------------|------------------------|-------------------------------|---------------------------------|-------------------------------|----------------------|-----------|-------------|-------------|----|----|----|----|----|
| Spike only        | PMA            | DNase y               | 2                 | 5.8       | 8                   | 2.436 | 8     | 6     | 8     | 0.8     | 0.7                  | 349              | 223                     | 11,146,903                  | 83                             | 87,892                      | 101                   | 1,603,635 | 117,9       | 96,3          | 372 | 47 | 72 | 43 | 10 | 70 | 2 | 0 | 5 | 0 | 7 | 1 |
| Vaginal swab      | Soft-spin      | QIAamp              | 1                 | 5.8       | 8                   | 1.178 | 1     | ...   | ...   | 0.7     | 0.7                  | 19               | 158                    | 2,477,483                   | 13,676                         | 8,060,366                   | 846                   | 7,803,188 | 100,7       | 63,3          | 91,11 | 74 | 111 | 95 | 23,3 | 62,6 | 45 | 7 | 37 | 22 | 1 | 5 | 8 | 7 | 1 |
| Vaginal swab      | Soft-spin      | QIAamp              | 1                 | 5.8       | 8                   | 1.387 | 1     | ...   | ...   | 0.7     | 0.7                  | 17               | 179                    | 2,902,998                   | 17,231                         | 11,333,3                    | 69                    | 887                 | 8,567,382   | 138,0       | 51,3          | 630 | 790,5 | 128 | 52 | 1,7 | 65 | 4 | 8 | 0 | 9 | 2 | 3 | 1 | 2 |
| Vaginal swab+S    | Soft-spin      | QIAamp              | 1                 | 5.8       | 8                   | 1.334 | 1     | ...   | ...   | 0.7     | 0.7                  | 74               | 288                    | 11,141,846                 | 7,175                          | 5,401,54                    | 359                   | 7,678,007 | 168,7       | 85,0          | 641 | 1,427 | 0.014 | 1,427 | 0.014 | 10 | 17 | 30 | 8 | 5 | 1 | 2 |
| Vaginal swab+S    | Soft-spin      | QIAamp              | 1                 | 5.8       | 8                   | 3.259 | 1     | ...   | ...   | 0.7     | 0.7                  | 74               | 264                    | 10,716,692                 | 5,303                          | 6,265,84                    | 361                   | 5,683,970 | 153,7       | 7,303         | 84 | 1,427 | 0.014 | 31,7 | 45,5 | 91 | 59 | 5 | 14 | 38 | 9 | 9 | 0 | 3 | 2 |
| Spike only        | Soft-spin      | QIAamp              | 1                 | 5.8       | 8                   | 2.437 | 1     | 5     | 5     | 9       | 0                   | 8                | 331                    | 11,244,282                 | 38                             | 61,473                      | 100                   | 1,601,980 | 118,0       | 39,0          | 339 | 1,427 | 0.014 | 16,3 | 86,3 | 39 | 18 | 85 | 10 | 4 | 2 | 1 | 8 |
| Spike only        | Soft-spin      | QIAamp              | 1                 | 5.8       | 8                   | 3.416 | 1     | 8     | 2     | 0       | 7                   | 7                | 319                   | 10,847,048                 | 51                             | 66,154                      | 101                   | 1,601,631 | 118,0       | 14,0          | 358 | 1,427 | 0.014 | 16,3 | 86,7 | 13 | 19 | 27 | 5 | 16 | 77 | 4 | 2 | 5 |
| Vaginal swab      | PMA            | QIAamp              | 1                 | 5.8       | 8                   | 1.141 | 1     | ...   | ...   | 0.7     | 0.7                  | 21               | 146                    | 2,181,627                  | 12,054                         | 7,550,79                    | 564                   | 8,038,473 | 107,3       | 57,0          | 990 | 96,7 | 73 | 22,8 | 67,4 | 67 | 55 | 12 | 70 | 8 | 6 | 5 | 4 | 8 | 4 |
| Vaginal swab      | PMA            | QIAamp              | 1                 | 5.8       | 8                   | 1.236 | 1     | ...   | ...   | 0.7     | 0.7                  | 18               | 151                    | 2,899,165                  | 12,121                         | 7,879,45                    | 572                   | 8,037,192 | 108,5       | 31,0          | 406 | 698,0 | 80 | 23,7 | 46,8 | 78 | 34 | 40 | 68 | 63 | 6 | 3 | 1 | 5 | 0 |
| Vaginal swab+S    | PMA            | QIAamp              | 1                 | 5.8       | 8                   | 3.416 | 1     | ...   | ...   | 0.7     | 0.7                  | 71               | 307                    | 12,242,232                 | 7,642                          | 5,071,26                    | 390                   | 8,906,811 | 186,4       | 41,0          | 736 | 1,427 | 0.014 | 34,8 | 46,4 | 31 | 33 | 51 | 7 | 6 | 5 | 1 | 2 | 5 | 4 | 5 | 1 |
| Sample type | Host depletion method | Extraction method | Genome type | N | A | 5 | 7 | 5 | L | A | 5 | 7 | Map (%) | Avg. coverage depth | # misassemblies | Misassembled contigs length | # fully unaligned contigs | Fully unaligned length | # partially unaligned contigs | Partially unaligned length | Elongation length | N5 | N7 | L | 5 | 7 |
|-------------|----------------------|------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vaginal swab+Spike | PMA | QIAamp | 2 | 3.547 | 3 | 9 | 6 | 7 | ... | 97.3 | 4 | 86 | 353 | 13,283,730 | 9,615 | 5,932,366 | 6 | 525 | 9,514,056 | 213,2 | 34 | 14,786 | 1,427,014 | 37,1 | 66,4 | 99 | 16 | 1,0 | 00 | 25 | 1 | 3 | 8 | 6 |
| Spike only | PMA | QIAamp | 1 | 2.437 | 3 | 0 | 8 | 3 | 9 | 5 | 1 | 3 | 320 | 225 | 11,376,464 | 57 | 69,091 | 101 | 1,600,509 | 118,4 | 91 | 362 | 1,427,014 | 16,4 | 11,3 | 79 | 21 | 8 | 96 | 10 | 6 | 4 | 2 | 2 | 9 |
| Spike only | PMA | QIAamp | 2 | 2.437 | 3 | 0 | 8 | 3 | 9 | 5 | 1 | 3 | 2 | 99.7 | 341 | 222 | 11,227,761 | 38 | 66,565 | 100 | 1,597,713 | 117,9 | 30 | 335 | 1,427,014 | 16,3 | 85,4 | 56 | 21 | 7 | 28 | 10 | 7 | 0 | 2 | 4 | 9 |