

COVID-19 subject 235

2020-08-13

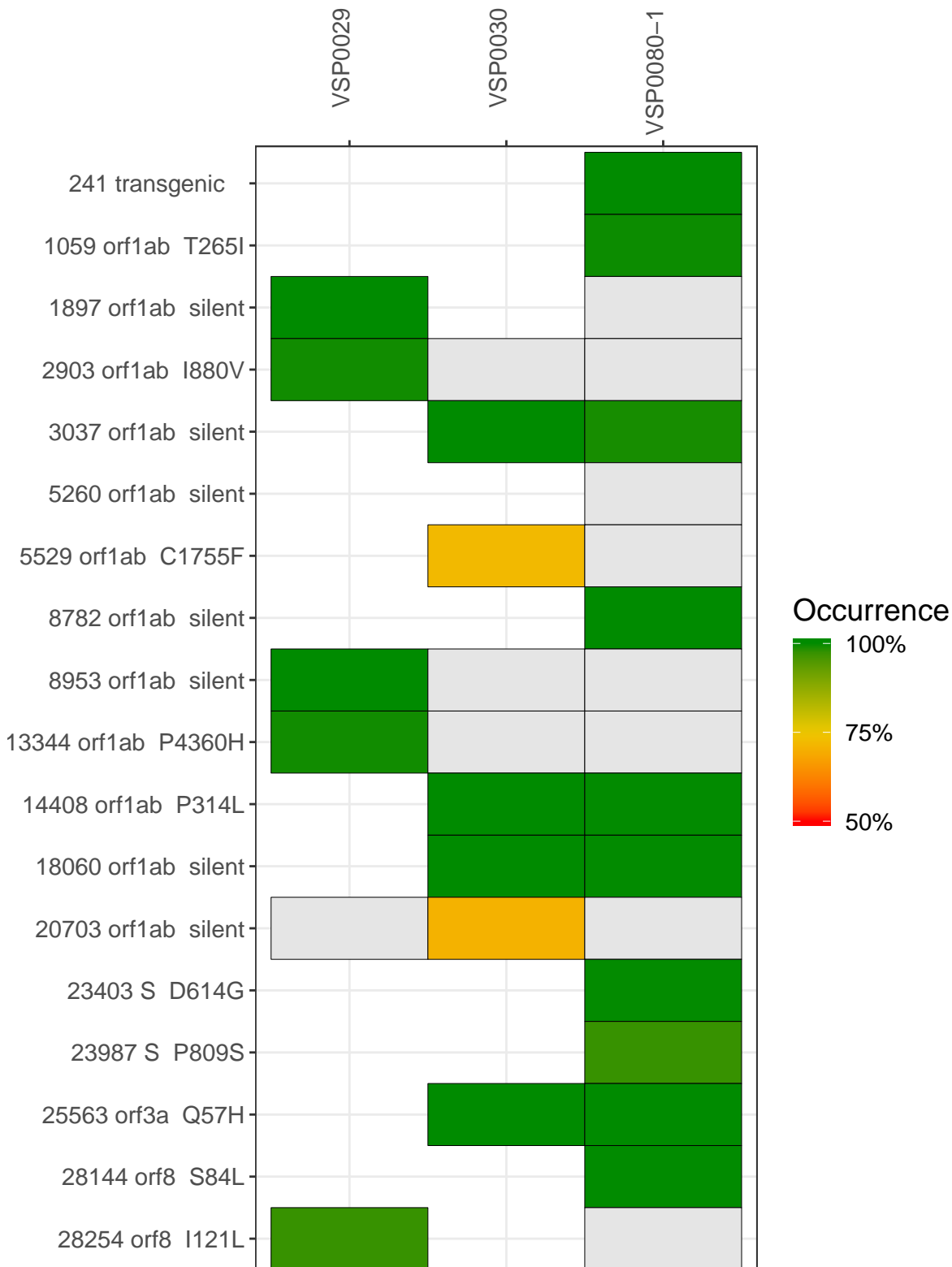
The table below provides a summary of subject samples for which sequencing data is available. The experiments column shows the number of sequencing experiments performed for each specimen. Experiment specific analyses are shown at the end of this report.

Table 1. Sample summary.

| Experiment | Type | Input genomes | Sample type | Sample date | Largest contig (KD) | Reference read coverage | Reference read coverage (>= 5 reads) |
|------------|-------------------|---------------|-------------|-------------|---------------------|-------------------------|--------------------------------------|
| VSP0029 | composite | NA | NP-OP | 4/27/2020 | 0.50 | 16.7% | 12.2% |
| VSP0030 | composite | NA | NP-OP | 4/27/2020 | 2.47 | 76.0% | 54.2% |
| VSP0029-1a | single experiment | 443 | NP-OP | 4/27/2020 | 0.50 | 16.7% | 12.2% |
| VSP0029-1b | single experiment | 443 | NP-OP | 4/27/2020 | NA | NA | NA |
| VSP0030-1a | single experiment | 371000 | NP-OP | 4/27/2020 | 1.05 | 50.4% | 20.1% |
| VSP0030-1b | single experiment | 371000 | NP-OP | 4/27/2020 | NA | NA | NA |
| VSP0030-2 | single experiment | NA | NP-OP | 4/27/2020 | 1.96 | 55.0% | 52.1% |
| VSP0080-1 | single experiment | 176000 | NP-OP | 04/24/2020 | 29.87 | 99.9% | 99.8% |

Variants shared across samples

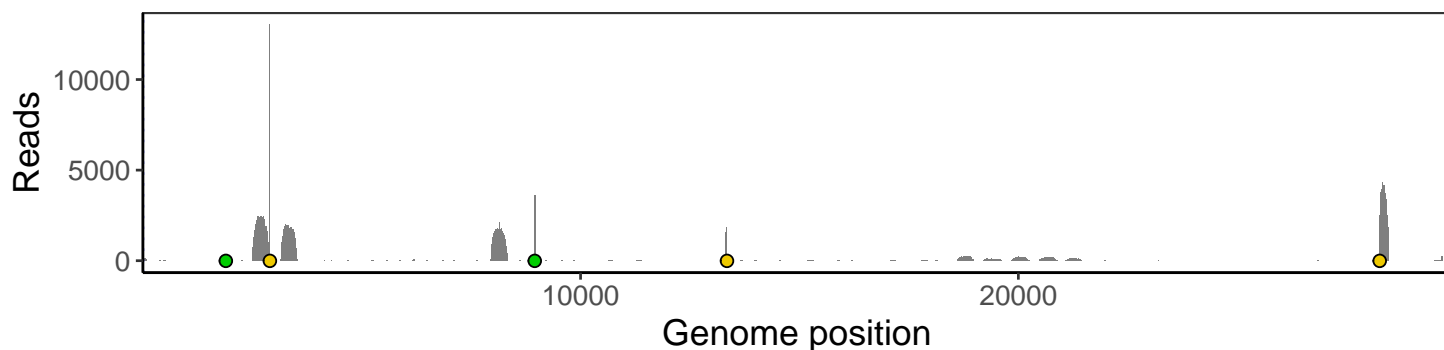
The heat map below shows how variants are shared across subject samples. The quality scores are PHRED scaled values [$Q = -10\log_{10}(\text{error rate})$] where a score of 30 represents a probability of 99.9% that a variant is called correctly and a score of 50 represents a probability of 99.999%. Gray tiles denote that 10 or more reads covered the variant position and the reference base was observed. Tiles are omitted if there are less than 10 reads covering a variant position.



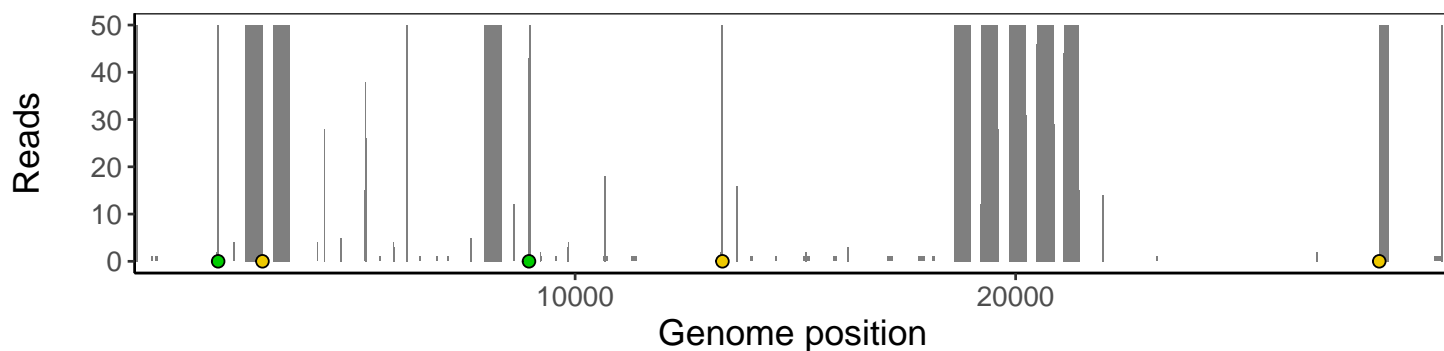
Analyses of individual experiments and composite results.

VSP0029 | 4/27/2020 | NP-OP | 235-tri | composite result

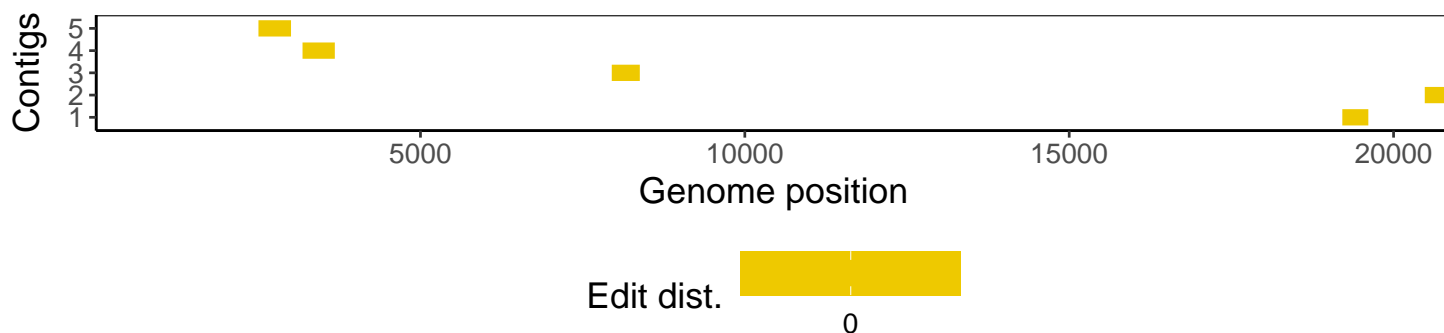
The plot below shows the number of reads covering each nucleotide position in the reference genome (USA-WA1-2020). Variants are shown as colored dots along the bottom of the plot and are color coded according by variant types: gray - transgenic, green - silent, gold - missense, red - nonsense, black - indel.



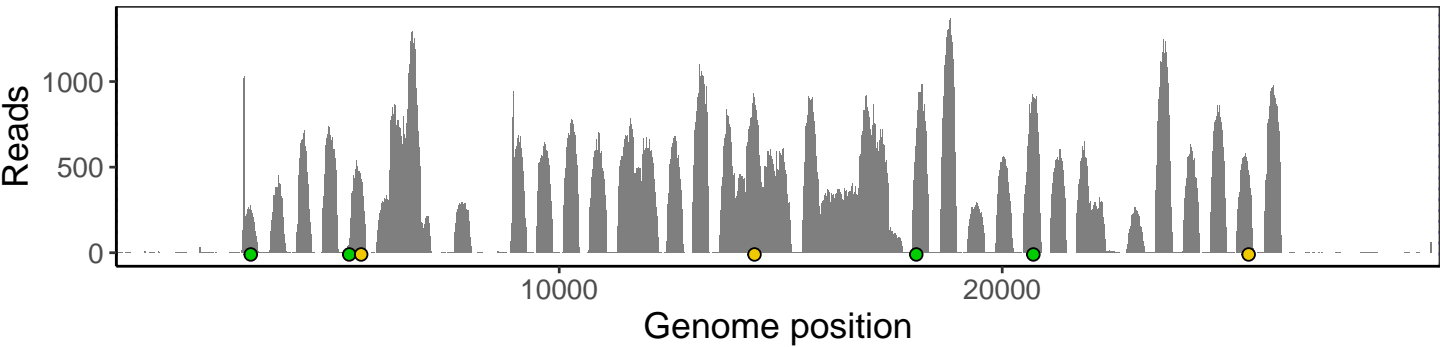
Excerpt from plot above focusing on reads coverage from 0 to 50 NT.



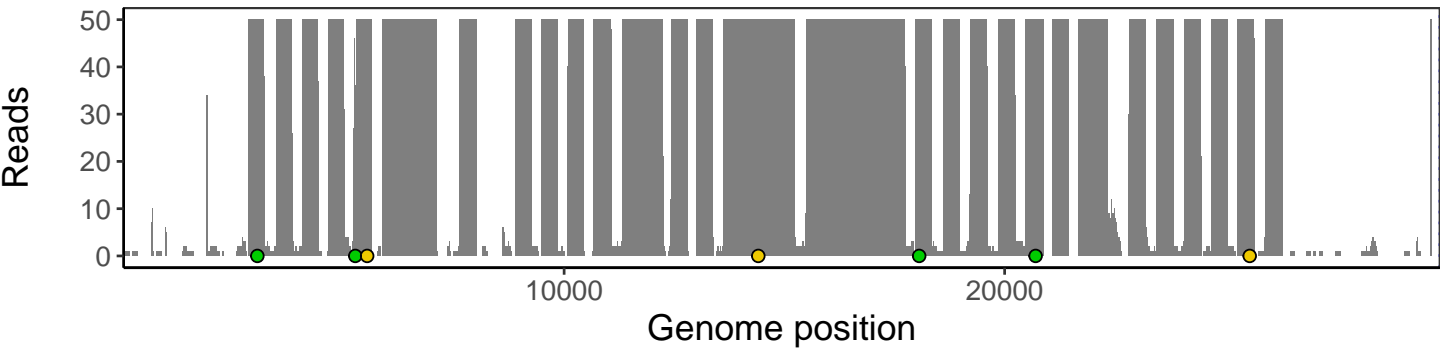
The longest five assembled contigs are shown below colored by their edit distance to the reference genome.



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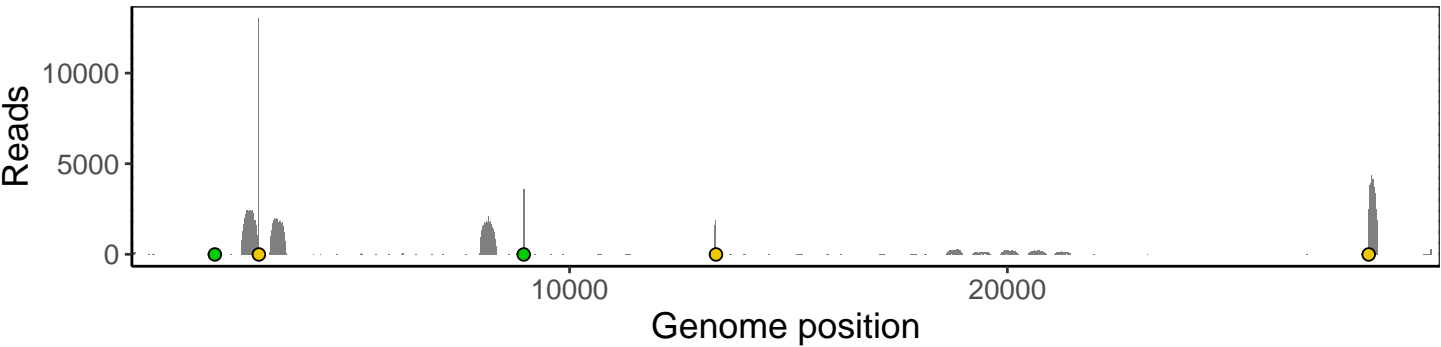
Excerpt from plot above focusing on reads coverage from 0 to 50 NT.



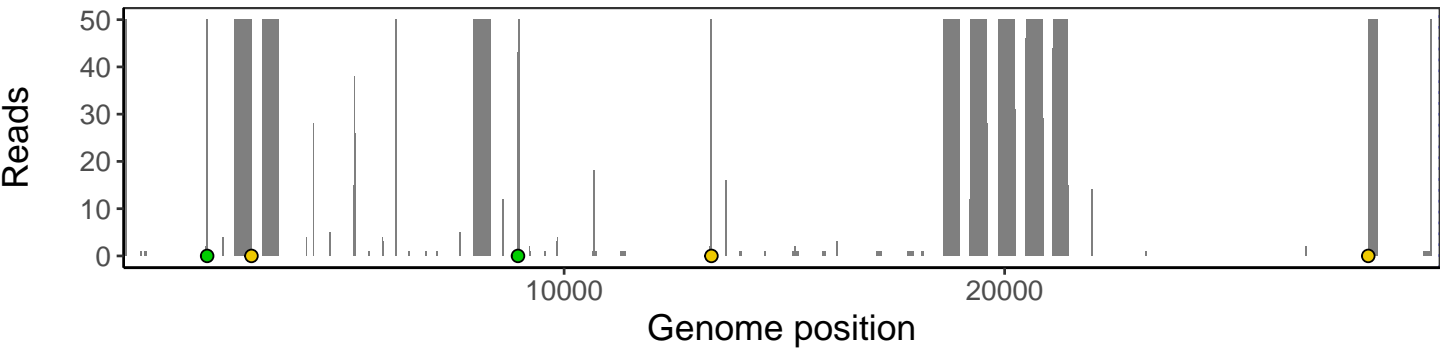
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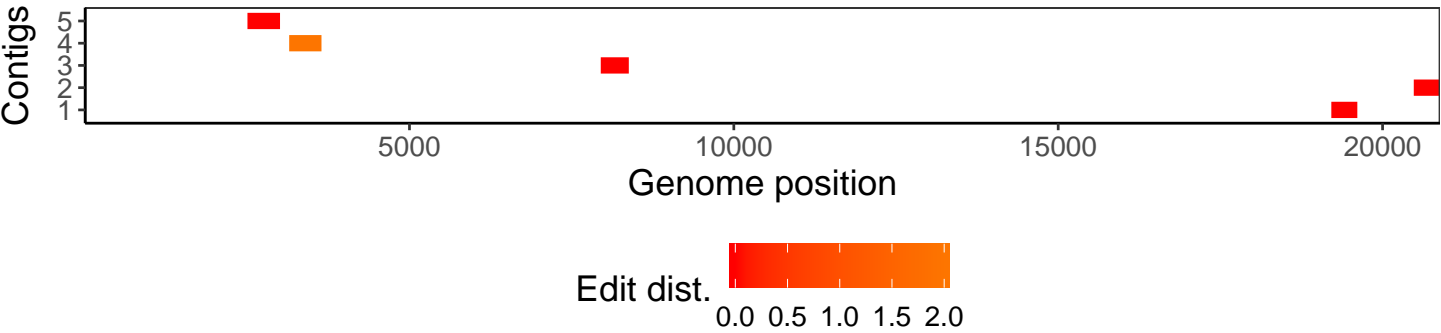
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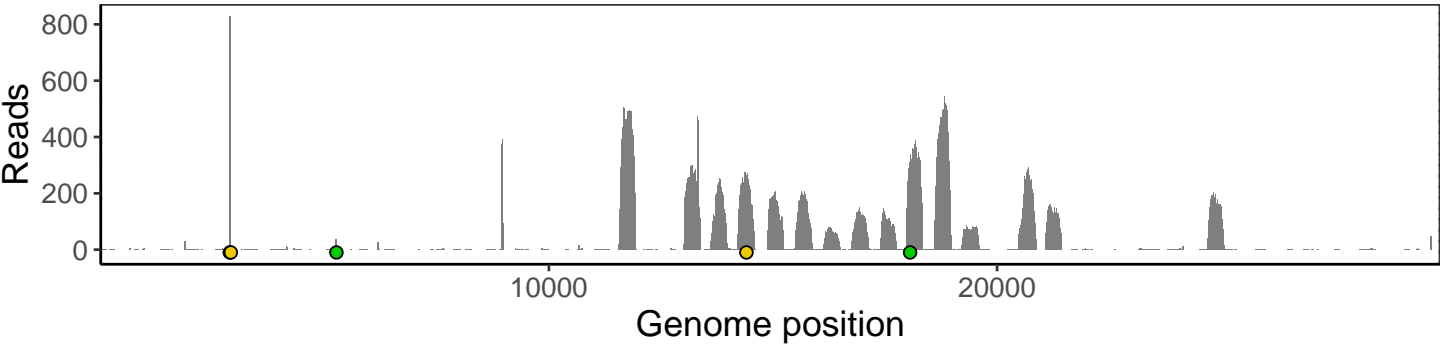


VSP0029-1b | 4/27/2020 | NP-OP | 235-tri | 443 genomes | single experiment

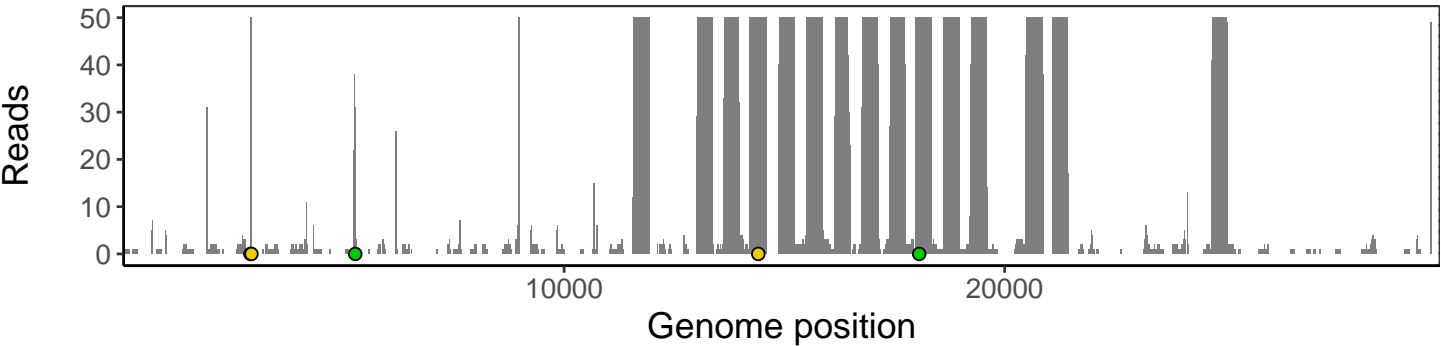
No pileup data available.

No contig data available.

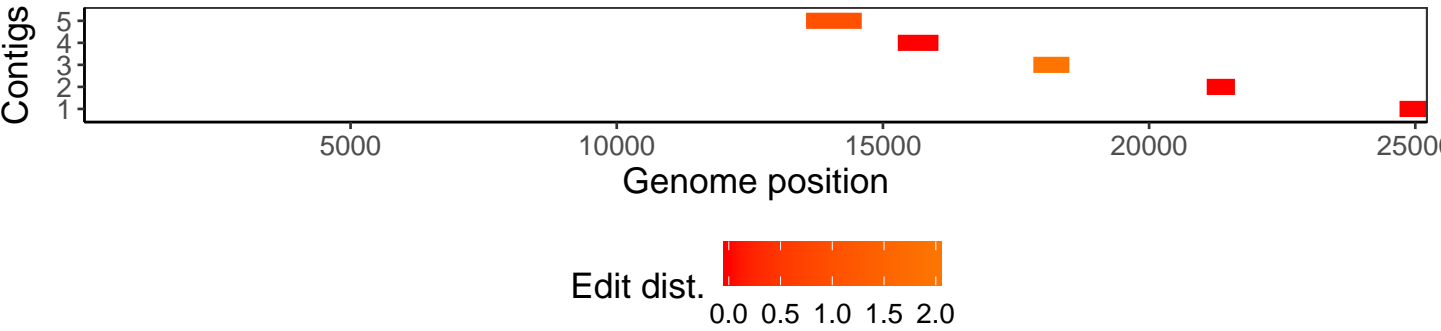
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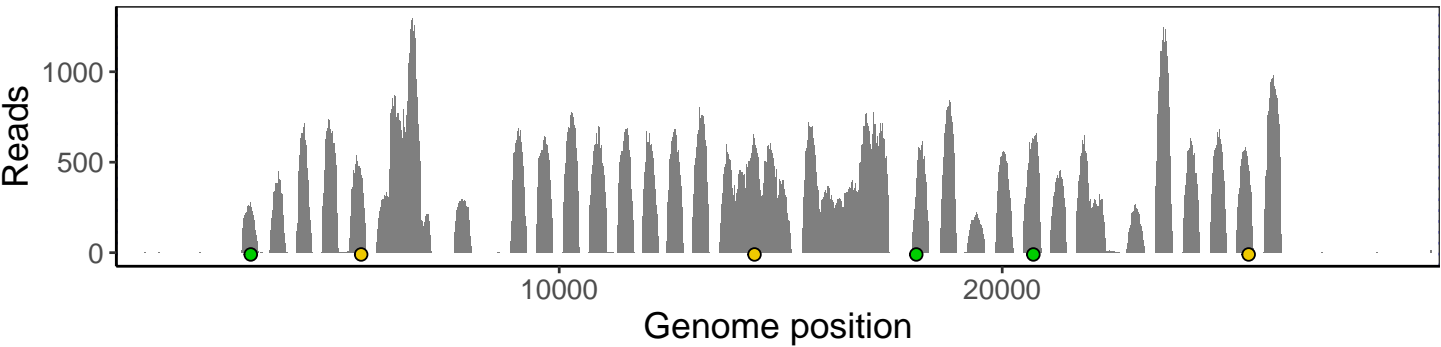


VSP0030-1b | 4/27/2020 | NP-OP | 235-qia | 371000 genomes | single experiment

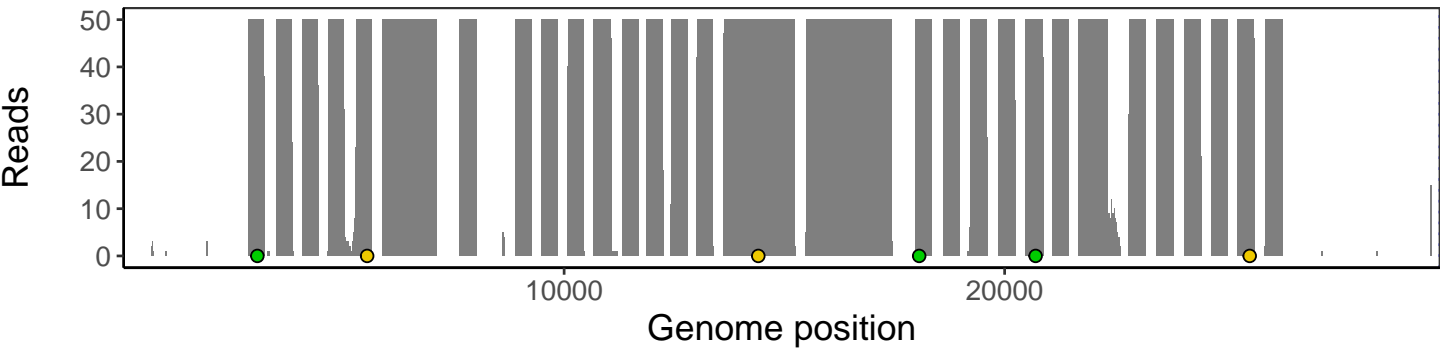
No pileup data available.

No contig data available.

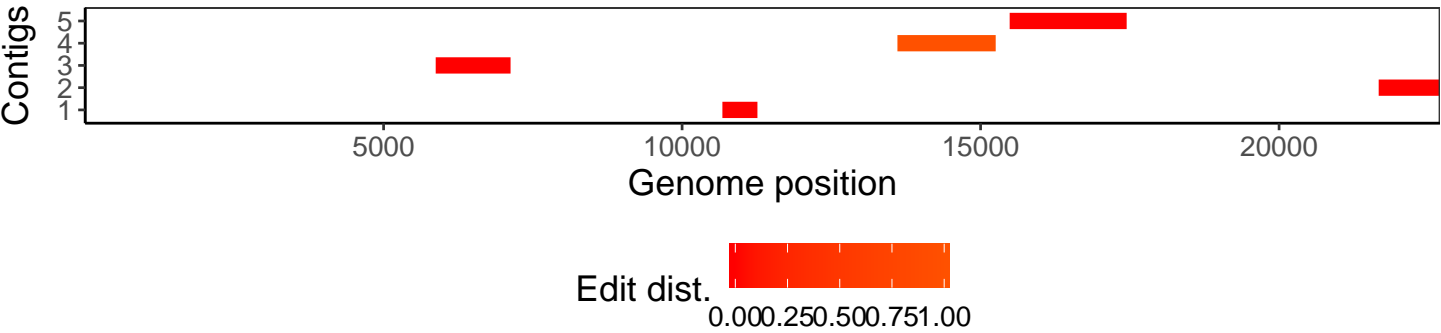
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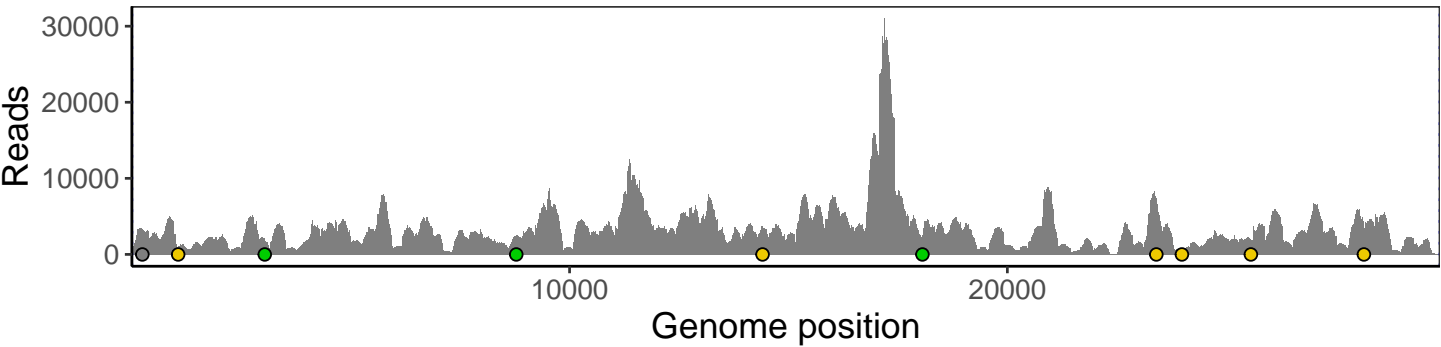
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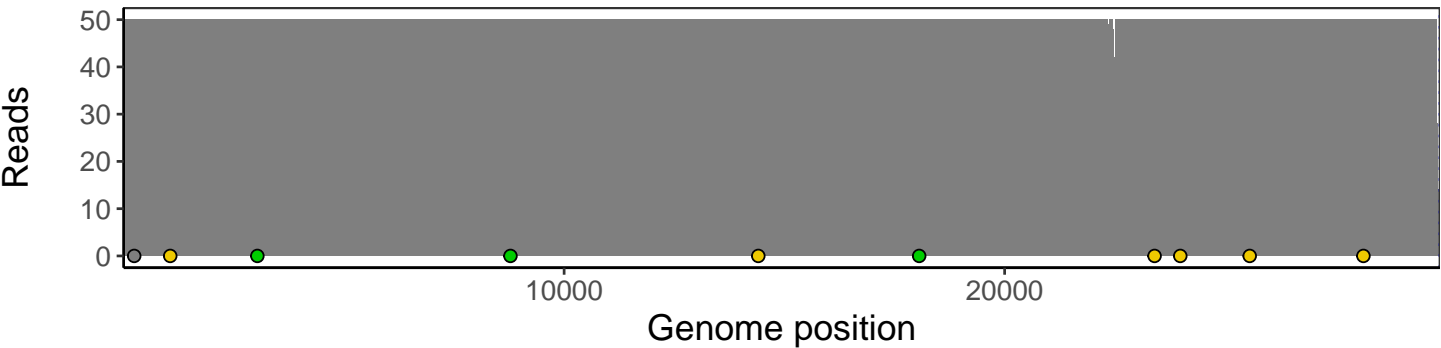
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