COVID-19 subject 2757

2021-01-19

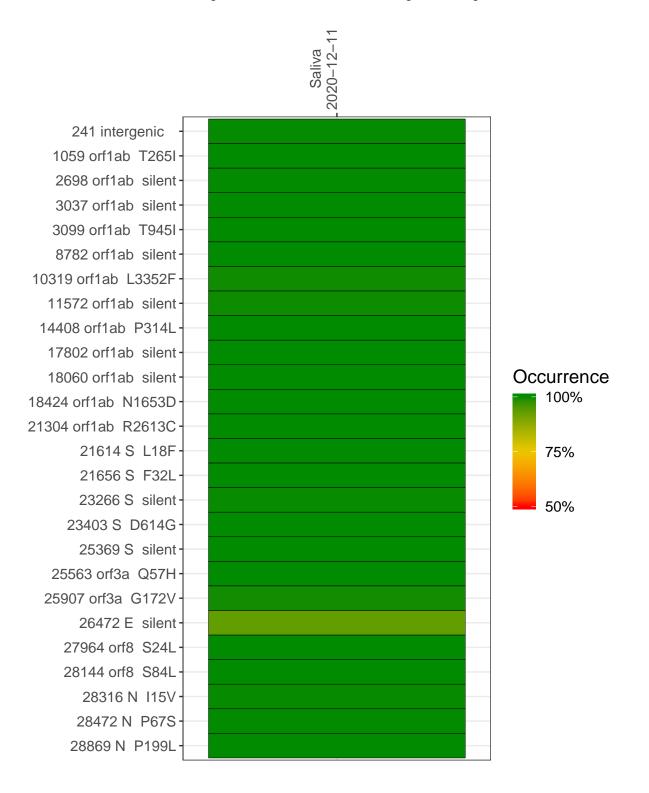
The table below provides a summary of subject samples for which sequencing data is available. The experiments column shows the number of sequencing experiments performed for each specimen. Experiment specific analyses are shown at the end of this report. The code base for this analysis can be found (here).

Table 1. Sample summary.

Experiment	Туре	Input genomes	Sample type	Sample date	Largest contig (KD)	Reference read coverage	Reference read coverage (>= 5 reads)
VSP0538-1	single experiment	NA	Saliva	2020-12-11	22.40	99.7%	98.8%

Variants shared across samples

The heat map below shows how variants (reference genome USA-WA1-2020) are shared across subject samples where the percent variance is colored. Variants are called if a variant position is covered by 5 or more reads, the alternative base is found in > 50% of read pairs and the variant yields a PHRED score > 20. Gray tiles denote positions where the variant was not the major variant or no variants were found. The relative base compositions of each experiment used to calculate tiles are shown in the following plot where the total number of position reads are shown atop of each plot.



Saliva 2020–12–11

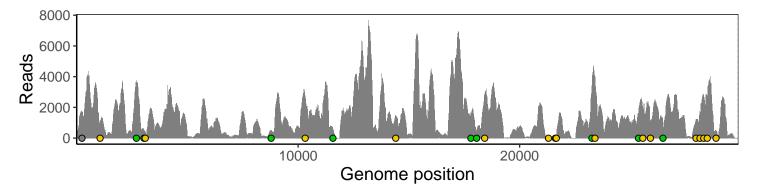
241 intergenic 1059 orf1ab T265I 2698 orf1ab silent 3037 orf1ab silent 3037 orf1ab silent 3039 orf1ab T945I 8782 orf1ab silent 526 10319 orf1ab L3352F 2707 11572 orf1ab silent 14408 orf1ab P314L 17802 orf1ab silent 18060 orf1ab silent 18424 orf1ab N1653D 2900 21304 orf1ab R2613C 21614 S L18F 21656 S F32L 23266 S silent 23403 S D614G 4035 25369 S silent 25563 orf3a Q57H 25907 orf3a G172V 26472 E silent 28144 orf8 S84L 2816 N I15V 28472 N P67S 28869 N P199L		2020-12-11
2698 orf1ab silent 3037 orf1ab silent 3039 orf1ab T945I 8782 orf1ab silent 10319 orf1ab silent 11572 orf1ab silent 11575 orf1a	241 intergenic	1684
3037 orf1ab silent 3099 orf1ab T945I 8782 orf1ab silent 10319 orf1ab L3352F 2707 11572 orf1ab silent 576 14408 orf1ab P314L 17802 orf1ab silent 18060 orf1ab silent 18424 orf1ab N1653D 21304 orf1ab R2613C 21614 S L18F 21656 S F32L 23266 S silent 23403 S D614G 25369 S silent 25563 orf3a Q57H 25907 orf3a G172V 26472 E silent 28144 orf8 S84L 28172 N P67S 28869 N P199L	1059 orf1ab T265I	994
3099 orf1ab T945I 8782 orf1ab silent 526 10319 orf1ab L3352F 2707 11572 orf1ab silent 576 14408 orf1ab P314L 17802 orf1ab silent 18060 orf1ab silent 18424 orf1ab N1653D 2900 21304 orf1ab R2613C 21614 S L18F 21656 S F32L 23266 S silent 23403 S D614G 4035 25369 S silent 25563 orf3a Q57H 25907 orf3a G172V 26472 E silent 28144 orf8 S84L 2816 N 115V 28472 N P67S 28869 N P199L	2698 orf1ab silent	3571
8782 orf1ab silent 10319 orf1ab L3352F 2707 11572 orf1ab silent 576 14408 orf1ab P314L 17802 orf1ab silent 18060 orf1ab silent 18424 orf1ab N1653D 2900 21304 orf1ab R2613C 21614 S L18F 21656 S F32L 23266 S silent 23403 S D614G 25369 S silent 25563 orf3a Q57H 25907 orf3a G172V 26472 E silent 28144 orf8 S84L 2816 N I15V 28472 N P67S 28869 N P199L	3037 orf1ab silent	530
10319 orf1ab L3352F 11572 orf1ab silent 14408 orf1ab P314L 17802 orf1ab silent 18060 orf1ab silent 18424 orf1ab N1653D 2900 21304 orf1ab R2613C 21614 S L18F 21656 S F32L 74 23266 S silent 23403 S D614G 25369 S silent 25563 orf3a Q57H 25907 orf3a G172V 26472 E silent 28144 orf8 S84L 2814 N I15V 28472 N P67S 28869 N P199L	3099 orf1ab T945I	419
11572 orf1ab silent 14408 orf1ab P314L 1397 17802 orf1ab silent 18060 orf1ab silent 18424 orf1ab N1653D 2900 21304 orf1ab R2613C 21614 S L18F 21656 S F32L 23266 S silent 23403 S D614G 25369 S silent 25563 orf3a Q57H 25907 orf3a G172V 26472 E silent 28144 orf8 S84L 28472 N P67S 28869 N P199L	8782 orf1ab silent	526
14408 orf1ab P314L 1397 17802 orf1ab silent 1615 18060 orf1ab silent 418 18424 orf1ab N1653D 2900 21304 orf1ab R2613C 50 21614 S L18F 86 21656 S F32L 74 23266 S silent 3355 23403 S D614G 4035 25369 S silent 1545 25563 orf3a Q57H 2028 25907 orf3a G172V 1055 26472 E silent 1200 27964 orf8 S24L 1177 28144 orf8 S84L 1651 28316 N I15V 2714 28472 N P67S 2560 28869 N P199L 461	10319 orf1ab L3352F	2707
17802 orf1ab silent 18060 orf1ab silent 418 18424 orf1ab N1653D 2900 21304 orf1ab R2613C 21614 S L18F 86 21656 S F32L 74 23266 S silent 23403 S D614G 25369 S silent 25563 orf3a Q57H 25907 orf3a G172V 26472 E silent 28144 orf8 S84L 28316 N I15V 28472 N P67S 28869 N P199L	11572 orf1ab silent	576
18060 orf1ab silent 18424 orf1ab N1653D 2900 21304 orf1ab R2613C 50 21614 S L18F 86 21656 S F32L 74 23266 S silent 23403 S D614G 25369 S silent 25563 orf3a Q57H 25907 orf3a G172V 26472 E silent 28144 orf8 S84L 28316 N I15V 28472 N P67S 28869 N P199L	14408 orf1ab P314L	1397
18424 orf1ab N1653D 2900 21304 orf1ab R2613C 50 21614 S L18F 86 21656 S F32L 74 23266 S silent 3355 23403 S D614G 4035 25369 S silent 1545 25563 orf3a Q57H 2028 25907 orf3a G172V 1055 26472 E silent 1200 27964 orf8 S24L 1177 28144 orf8 S84L 1651 28316 N I15V 2714 28472 N P67S 2560 28869 N P199L 461	17802 orf1ab silent	1615
21304 orf1ab R2613C 21614 S L18F 21656 S F32L 74 23266 S silent 23403 S D614G 25369 S silent 25563 orf3a Q57H 25907 orf3a G172V 26472 E silent 28144 orf8 S24L 28316 N I15V 28472 N P67S 28869 N P199L	18060 orf1ab silent	418
21614 S L18F 21656 S F32L 74 23266 S silent 23403 S D614G 25369 S silent 25563 orf3a Q57H 25907 orf3a G172V 26472 E silent 27964 orf8 S24L 28144 orf8 S84L 28316 N I15V 28472 N P67S 28869 N P199L	18424 orf1ab N1653D	2900
21656 S F32L 74 23266 S silent 3355 23403 S D614G 4035 25369 S silent 1545 25563 orf3a Q57H 2028 25907 orf3a G172V 1055 26472 E silent 1200 27964 orf8 S24L 1177 28144 orf8 S84L 1651 28316 N I15V 2714 28472 N P67S 2560 28869 N P199L 461	21304 orf1ab R2613C	50
23266 S silent 3355 23403 S D614G 4035 25369 S silent 1545 25563 orf3a Q57H 2028 25907 orf3a G172V 1055 26472 E silent 1200 27964 orf8 S24L 1177 28144 orf8 S84L 1651 28316 N I15V 2714 28472 N P67S 2560 28869 N P199L 461	21614 S L18F	86
23403 S D614G 25369 S silent 1545 25563 orf3a Q57H 2028 25907 orf3a G172V 1055 26472 E silent 27964 orf8 S24L 28144 orf8 S84L 28316 N I15V 28472 N P67S 28869 N P199L 461	21656 S F32L	74
25369 S silent 1545 25563 orf3a Q57H 2028 25907 orf3a G172V 1055 26472 E silent 1200 27964 orf8 S24L 1177 28144 orf8 S84L 1651 28316 N I15V 2714 28472 N P67S 2560 28869 N P199L 461	23266 S silent	3355
25563 orf3a Q57H 2028 25907 orf3a G172V 1055 26472 E silent 1200 27964 orf8 S24L 1177 28144 orf8 S84L 1651 28316 N I15V 2714 28472 N P67S 2560 28869 N P199L 461	23403 S D614G	4035
25907 orf3a G172V 1055 26472 E silent 1200 27964 orf8 S24L 1177 28144 orf8 S84L 1651 28316 N I15V 2714 28472 N P67S 2560 28869 N P199L 461	25369 S silent	1545
26472 E silent 1200 27964 orf8 S24L 1177 28144 orf8 S84L 1651 28316 N I15V 2714 28472 N P67S 2560 28869 N P199L 461	25563 orf3a Q57H	2028
27964 orf8 S24L 1177 28144 orf8 S84L 1651 28316 N I15V 2714 28472 N P67S 2560 28869 N P199L 461	25907 orf3a G172V	1055
28144 orf8 S84L 1651 28316 N I15V 2714 28472 N P67S 2560 28869 N P199L 461	26472 E silent	1200
28316 N I15V 2714 28472 N P67S 2560 28869 N P199L 461	27964 orf8 S24L	1177
28472 N P67S 2560 28869 N P199L 461	28144 orf8 S84L	1651
28869 N P199L 461	28316 N I15V	2714
	28472 N P67S	2560
38-1	28869 N P199L	461
VSP05;		VSP0538-1



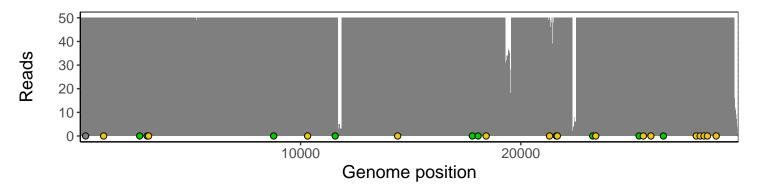
Analyses of individual experiments and composite results.

VSP0538-1 | 2020-12-11 | Saliva | 2757 | genomes | single experiment

The plot below shows the number of reads covering each nucleotide position in the reference genome. 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.

