The average Silhouette Score is: 0.7804818134155452

Number of clusters: 7

Cluster 0: 2474 sequences

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Cluster 1: 2474 sequences

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Cluster 2: 16 sequences

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Cluster 3: 2 sequences

['BHR/22120150009_S58_L001/2022', 'BHR/22970088641/2022']

Cluster 4: 8 sequences

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Cluster 5: 6 sequences

['USA/UT-UPHL-220109479721/2022', 'USA/UT-UPHL-220109902039/2022', 'USA/UT-UPHL-220103175466/2021', 'USA/UT-UPHL-220103607989/2021', 'USA/OH-CDC-ASC210566338/2022', 'USA/UT-UPHL-220103275553/2021']

Cluster 6: 5 sequences

['USA/UT-UPHL-220708686006/2022', 'USA/UT-UPHL-220708090362/2022', 'USA/UT-UPHL-220326654464/2022', 'USA/UT-UPHL-220308456806/2022', 'USA/UT-UPHL-220716506106/2022']

Outliers :15 sequences

Total Number of data points in all the clusters and outliers is: 5000.