

Field Name	Data Type
wwtp_name	string
sample_id	unique sample id (a string 20 characters)
pooled	category
samples_in_pool	string (comma-separated list)
sample_collect_date	date ([yyyy]-[mm]-[dd]) or comma-separated
received_by_lab_date	date ([yyyy]-[mm]-[dd]) or comma-separated
selected_for_sequencing	category
reason_not_sequenced	category
date_sent_seq	date ([yyyy]-[mm]-[dd])
seq_run_type	category
major_seq_method	integer
major_seq_method_desc	string
genome_coverage	float
total_raw_reads	integer
coverage_above_thresh	category
selected_for_deposition	category
date_deposited	date ([yyyy]-[mm]-[dd])
date_deposition_accepted	date ([yyyy]-[mm]-[dd])
sra_accession	string
biosample_accession	string
seq_vendor	string
pcr_target_avg_conc	float
sequencing_run_id	integer
addl_seq_method_notes	string
major_lab_method	integer

Description

The name of the Wastewater Treatment Plant (WWTP), or the name of the septic or other treatment system to wastewater

An unique ID assigned to a wastewater sample selected for sequencing. It must be unique for this NWSS reporting jurisdiction.

Was this sample pooling before sequencing?

If sample is pooled, submit a separate list of the sample_ids that were pooled, if not pooled with other pooled samples must **within 7 days of each other.**

The date of sample collection; for composite samples, specify the date on which sample collection began. For pooled samples, the date samples arrived in Biobot's laboratory. For pooled samples, to define the separate set of arrival dates for all constituent samples_in_pool)

Was this sample selected for sequencing (Yes or No)?

If sample was not sequenced, succinctly indicate why?

Date sample was sent to Biobot's sequencing vendor

Choose one of the following: standard sequencing, re-run due to low coverage, method validation

A number used to distinguish major sequencing methods

Description of sequencing method

% of SARS-CoV-2 genome covered at 10x or more

Number of total sequencing reads

Did the sequencing meet the minimum QC criteria (Yes or No)? (currently 20% of SARS-CoV-2 genome covered at $\geq 10x$, min. 100 reads) (was the sequencing run selected for deposition in NCBI? (this will generally be 'yes' if coverage_above_threshold is ≥ 20 ; it can be deposited)

Date the sample was submitted for deposition to the NCBI repository (or other CDC-specified repository)

Date the deposition was accepted to the NCBI repository and went live

Accession number for SRA experiment

Biosample ID from NCBI

Vendor that performed the sequencing

Concentration of the PCR target back-calculated to unconcentrated sample basis (from NWSS). This will be the M

Numeric ID to distinguish multiple sequencing runs of the same biological sample

Additional details on sequencing methodology, as needed (e.g., minor changes too small to be included in 'major_lab_method')

A number used to distinguish major lab methods at the reporting jurisdiction level.

Value Set

[string, length less than or equal to 40 characters]

[sample id]

vs_yn

[string];

[date not after tomorrow's date] (or list thereof)

[date not after tomorrow's date] (or list thereof)

vs_ynp

vs_reason_not_sequenced

[date not after tomorrow's date]; [empty]

vs_seq_run_type

[greater than or equal to 0];

[string];

[empty]

[0 to 100]; [empty]

[0 or greater]; [empty]

vs_yne

vs_yne

[date not after tomorrow's date]; [empty]

[date not after tomorrow's date]; [empty]

[string, length less than or equal to 40 characters]; [empty]

[string, length less than or equal to 40 characters]; [empty]

[string]; [empty]

[any positive float other than 0];

[if no qualification observed]

[0 or greater]

[string of any length--free text description]

[greater than or equal to 0]

Units

[none]

[none]

[none]

[none]

[none]

[none]

[none]

[none]

[none]

[none]

[none]

[none]

[none]

[none]

[none]

[none]

[none]

[none]

[none]

[none]

[none]

[none]

[units specified]

[none]

[none]

[none]

[none]

Dependent Fields

None

None

None

If 'pooled' is "yes", then this must have a non-empty value

None

None

None

If 'selected for sequencing' is "no", then this must have a non-empty value

None

If 'date_sent_seq' has a non-empty value, then this must have a non-empty value

If 'date_sent_seq' has a non-empty value, then this must have a non-empty value

If 'date_sent_seq' has a non-empty value, then this must have a non-empty value

If 'selected_for_deposition' has a non-empty value, then this must also have a non-empty value

If 'selected_for_deposition' has a non-empty value, then this must also have a non-empty value

If 'selected_for_deposition' has a non-empty value, then this must also have a non-empty value

None

Empty if selected_for_deposition is "no"

Empty if selected_for_deposition is "no"

If 'date_deposition_accepted' is non-empty, then this must also have a non-empty value

If 'date_deposition_accepted' is non-empty, then this must also have a non-empty value

If 'date_sent_seq' has a non-empty value, then this must have a non-empty value

None

If 'date_sent_seq' has a non-empty value, then this must have a non-empty value

None

None

Note that we may add to these value sets as we test additional sequencing protocols, etc

This includes only new value sets (for fields from NWSS, we use the NWSS values sets)

vs_reason_not_sequenced	Description	vs_seq_run_type
ANOTHER_SAMPLE_SELECTED	Another sample from this same STANDARD	standard seque
NOT_DETECTED	SARS-CoV-2 was not detected	RERUN re-run of a sam
CT_ABOVE_THRESHOLD	SARS-CoV-2 was detected in t	METHOD_VAL method validati
TRIBAL_TERRITORY_OPTOUT	This location is from a tribal na [empty]	No sequencing
SAMPLE_SELECTION_ERROR	Due to lab error, we were unable to send this sample for seque	

vs_ynp	Description
YES	selected for sequencing
NO	not selected for sequencing
POOLED	pooled with another sample before sequencing
run	
ncing	