

# **Public Health Environmental Surveillance Open Data Model (PHES-ODM) Documentation**

Dictionary v2.0.0. Documentation v2.0.1.

2023-05-30



# Table of contents

<b>Introduction</b>	<b>1</b>
How to use the documentation . . . . .	2
Future documentation . . . . .	2
Quick start . . . . .	2
1. Get oriented to the ODM tables where you record results	3
2. View mandatory and optional data fields in the tables reference guide . . . . .	3
3. Try entering example data in ODM Excel templates . . .	4
4. Next steps . . . . .	5
Getting help . . . . .	5
<b>Background</b>	<b>7</b>
<b>Getting to know the ODM</b>	<b>9</b>
What are “Parts” and “Part Types”? . . . . .	9
“Sets” and the rationale behind sets . . . . .	10
Why category sets are treated differently . . . . .	11
The “what” and “why” of Specimen IDs . . . . .	11
The “what” and “why” of Groups and Classes . . . . .	12
Tables and table types within the ODM . . . . .	12
Program description tables . . . . .	13
Results tables . . . . .	13
Look-up tables . . . . .	13
Measures, Methods, and Attributes: Key parts . . . . .	13
Measures . . . . .	14
Methods . . . . .	14

## Table of contents

Attributes . . . . .	14
Data quality and reportability . . . . .	15
Time periods for samples and measures . . . . .	15
Dates within the ODM . . . . .	16
Translation and language capabilities . . . . .	16
Questions and online community . . . . .	17
<b>How to use the ODM</b>	<b>19</b>
How-To guides . . . . .	19
1) How to use templates . . . . .	19
Conditional menus . . . . .	21
2) How to report Measures and Measure sets . . . . .	22
Quick Start . . . . .	23
Measure report template . . . . .	23
<b>Measure Sets Template</b> . . . . .	24
Detailed description . . . . .	24
<b>Measures template</b> . . . . .	24
<b>Measure set report template</b> . . . . .	29
3) How to report samples and sample relationships: . . . . .	30
Quick Start . . . . .	30
Samples Template . . . . .	31
Sample Relationships Template . . . . .	31
Detailed Description . . . . .	32
<b>Sample report template</b> . . . . .	32
<b>Sample relationships template</b> . . . . .	34
4) How to report protocols, protocol steps and protocol relationships: . . . . .	36
Quick Start . . . . .	36
<b>Protocol steps template</b> . . . . .	36
<b>Protocols template</b> . . . . .	37
<b>Protocol relationships template</b> . . . . .	38
Detailed Description . . . . .	39
<b>Protocol steps template</b> . . . . .	39
<b>Protocols template</b> . . . . .	41

## Table of contents

Protocol relationships template . . . . .	42
5) How to report metadata . . . . .	44
Quick Start . . . . .	44
Address (or addresses) template . . . . .	45
Contact (or contacts) template . . . . .	45
Dataset (or datasets) template . . . . .	46
Instrument (or instruments) Template . . . . .	46
Organization (or organizations) template . . . . .	47
Polygon (or polygons) template . . . . .	47
Quality reports (or qualityReports) template . . . . .	48
Sites (or sites) template . . . . .	48
Detailed Description . . . . .	49
Address template . . . . .	49
Contact template . . . . .	50
Dataset template . . . . .	52
Instrument template . . . . .	54
Organization template . . . . .	55
Polygon template . . . . .	57
Quality reports template . . . . .	58
Sites template . . . . .	60
Notes regarding templates . . . . .	62
Templates with conditional menus (Measure report and Protocol steps) . . . . .	62
Templates with menus (all templates other than the Measure sets, Protocols, Contact, Address and Dataset templates) . . . . .	64
 <b>I. Reference guide</b>	 <b>65</b>
 <b>Parts</b>	 <b>69</b>
a1306s delta-variant gene target . . . . .	70
a1918v delta-variant gene target . . . . .	70
a2710t omicron-variant gene target . . . . .	70

## Table of contents

a63t omicron-variant gene target . . . . .	71
a67v omicron-variant gene target . . . . .	71
Atline Analyzer . . . . .	72
Absolute humidity . . . . .	72
Absolute humidity unit set . . . . .	72
Academic institution . . . . .	73
Number of active cases . . . . .	73
Active . . . . .	73
Analysis date . . . . .	74
Analysis date end . . . . .	74
Analysis date start . . . . .	74
Address Line 1 . . . . .	75
Address Line 2 . . . . .	75
Address table . . . . .	76
Addresses table column order . . . . .	76
Address table required headers . . . . .	76
Address ID . . . . .	77
Administrative regions . . . . .	77
Air filter . . . . .	78
Aggregation scale . . . . .	78
Aggregation . . . . .	78
Aggregations . . . . .	79
Aggregation scales . . . . .	79
Aggregation set . . . . .	80
Aggregation sets . . . . .	80
Air compartment . . . . .	80
Air compartment set . . . . .	81
Airplane . . . . .	81
Airport . . . . .	81
Airport lists worksheet . . . . .	82
Air and surface compartment set . . . . .	82
Environmental temperature . . . . .	83
Air and water compartment set . . . . .	83
Alias depreciated . . . . .	83

## *Table of contents*

Alias ID depreciated . . . . .	84
All domains . . . . .	84
Alleles class . . . . .	85
Allele unit set . . . . .	85
Access to all org . . . . .	85
Aloh3 precipitation . . . . .	86
Assay method id default depreciated . . . . .	86
Amicon ultrafiltration . . . . .	87
Amicon filter, extract with MP96 . . . . .	87
Amplicon sequencing . . . . .	87
AND Boolean aggregation . . . . .	88
Any compartment set . . . . .	88
Any specimen set . . . . .	88
Area proportional sample . . . . .	89
Arrival temperature . . . . .	89
Use of the articV3 primer . . . . .	90
Use of the articV4 primer . . . . .	90
Assay ID . . . . .	90
Attributes . . . . .	91
Bacteria Class . . . . .	91
Bacteria unit set . . . . .	92
Miscellaneous bacteria group . . . . .	92
Bead beating, extract with MP96 . . . . .	92
bcov . . . . .	93
bcov culture spike target . . . . .	93
bcov vaccine spike target . . . . .	94
Beef extract flocculation . . . . .	94
Is Before . . . . .	94
Beta . . . . .	95
Biologic . . . . .	95
Digital droplet emulsification PCR . . . . .	95
Binary Large Object (BLOB) data type . . . . .	96
Breadth of coverage ( $\geq 5\times$ depth) . . . . .	96
5-Day carbonaceous biochemical oxygen demand . . . . .	97

## Table of contents

5-day total biochemical oxygen demand . . . . .	97
Boolean data type . . . . .	97
Boolean aggregation set . . . . .	98
Boolean value set . . . . .	98
Bovine respiratory syncytial virus group . . . . .	99
brsv culture spike target . . . . .	99
BRSV-N . . . . .	99
brsv vaccine spike target . . . . .	100
Branch sewer pipeline . . . . .	100
Building cleanout . . . . .	101
Capacity class . . . . .	101
Capacity unit set . . . . .	101
Case report date . . . . .	102
Categorical data type . . . . .	102
Categories . . . . .	102
Long-term acute care hospital . . . . .	103
Child day care . . . . .	103
Degrees Celcius . . . . .	104
Centrifugation . . . . .	104
Centricon ultrafiltration . . . . .	104
Ceres nanotrap . . . . .	105
CFU per 100 ml . . . . .	105
Changes column . . . . .	105
Chemical . . . . .	106
Chemagic viral dna/rna 300 kit . . . . .	106
Child relationship . . . . .	107
City . . . . .	107
Clarified sample . . . . .	107
Class . . . . .	108
Classes . . . . .	108
Cloudy . . . . .	109
Centimetres . . . . .	109
Carbon Dioxide . . . . .	109
Chemical Oxygen Demand . . . . .	110



## *Table of contents*

Collection group . . . . .	110
Collection date time . . . . .	110
Collection date time end . . . . .	111
Collection date time start . . . . .	111
Sample collection set . . . . .	112
Collection number . . . . .	112
Collection number and period . . . . .	112
Collection period . . . . .	113
Sample collection type . . . . .	114
Co-located sample . . . . .	114
Column name depreciated . . . . .	114
Composite sample - archival . . . . .	115
Composite grab sample of 3 . . . . .	115
Composite grab sample of 3 depreciate . . . . .	116
Composite 3hr grab sample . . . . .	116
Composite 3hr grab sample depreciate . . . . .	116
Composite 8hr grab sample depreciated . . . . .	117
Composite 8hr grab sample deprecated . . . . .	117
Compartment . . . . .	118
Compartments . . . . .	118
Compartment sets . . . . .	119
Sample concentrate . . . . .	119
Confirmed Cases Case report date . . . . .	119
Is concurrent to . . . . .	120
Water conductivity . . . . .	120
Conductivity class . . . . .	121
Conductivity unit set . . . . .	121
Number of confirmed cases . . . . .	121
Confirmed cases episode date . . . . .	122
Confirmed Cases Onset date . . . . .	122
Contact ID . . . . .	122
Contact name . . . . .	123
Contact table . . . . .	123
Contacts table column order . . . . .	124

## Table of contents

Contact table required headers . . . . .	124
Contact table set . . . . .	124
Confirmed cases test date . . . . .	125
Cphd ID . . . . .	125
COSCa ball . . . . .	125
Country . . . . .	126
Countries or sovereign states . . . . .	126
Districts, counties, regions . . . . .	127
Covid-19 . . . . .	127
SARS-CoV-2 measure . . . . .	127
SARS-CoV-2-B.1.1.7 . . . . .	128
SARS-CoV-2-B.1.351 . . . . .	128
SARS-CoV-2-E . . . . .	129
SARS-CoV-2-N1 . . . . .	129
SARS-CoV-2-N2 . . . . .	129
SARS-CoV-2-N3 . . . . .	130
SARS-CoV-2-P.1 . . . . .	130
SARS-CoV-2-RdRp . . . . .	130
Covid-19 population measurement date . . . . .	131
Cphd ID . . . . .	131
crAssphage-N . . . . .	132
Crosswalk table set . . . . .	132
Cycle threshold or quantification cycle (Ct or Cq) . . . . .	132
Cumulative count . . . . .	133
Custody Contact ID . . . . .	133
Data custodian ID . . . . .	133
d377y delta-variant gene target . . . . .	134
d3g omicron-variant gene target { #d3g } . . . . .	134
d63g delta-variant gene target . . . . .	135
d796y omicron-variant gene target { #d796y } . . . . .	135
d950n delta-variant gene target . . . . .	135
Daily count . . . . .	136
Dataset creation date . . . . .	136
Dataset ID . . . . .	137

## *Table of contents*

Dataset table . . . . .	137
Datasets table column order . . . . .	137
Dataset table required headers . . . . .	138
Data types . . . . .	138
Date . . . . .	139
Datetime data type . . . . .	139
Days . . . . .	140
ddcov_e sars-cov-2 gene target . . . . .	140
ddcov_n sars-cov-2 gene target { #ddcovN } . . . . .	140
Deaths . . . . .	141
del143/145 . . . . .	141
del 157/158 . . . . .	141
del2084/2084 . . . . .	142
del212/212 . . . . .	142
del3674/3676 . . . . .	143
del69/70 . . . . .	143
Delta . . . . .	143
Depreciated . . . . .	144
Derived sample . . . . .	144
Description . . . . .	144
Description of change . . . . .	145
Desk or counter . . . . .	145
Dewatered solids . . . . .	146
Detected . . . . .	146
Access to details deprecated . . . . .	146
Development . . . . .	147
Dictionary reference table set . . . . .	147
Additional dictionary sheets . . . . .	148
Dictionary set type . . . . .	148
Dilution factor . . . . .	148
Point dillutions . . . . .	149
Dilution Class . . . . .	149
Diseases (human) class . . . . .	150
Dissolved gas concentration unit set . . . . .	150

## Table of contents

Depth of coverage . . . . .	150
Domain . . . . .	151
Domains . . . . .	151
Higher education dormitory or residential building . . . . .	152
e156g delta-variant gene target . . . . .	152
e484a omicron-variant gene target { #e484a } . . . . .	152
Escherichia coli . . . . .	153
Education . . . . .	153
Efficiency . . . . .	153
Contact email . . . . .	154
European Nucleotide Association . . . . .	154
European Nucleotide Association (ENA) - notes . . . . .	155
Rainfall . . . . .	155
Ground snow depth . . . . .	155
Snowfall . . . . .	156
Episode date . . . . .	156
ERD table set . . . . .	156
Sarbecovirus-specific E sars-cov-2 gene target . . . . .	157
Estimated frequency of reads . . . . .	157
Estuary, natural water body . . . . .	158
Experiment Failed . . . . .	158
4s method . . . . .	158
Nucleic acid extraction method . . . . .	159
Nucleic Acid Extraction set . . . . .	159
Extraction volume of sample . . . . .	159
Fecal matter . . . . .	160
FALSE . . . . .	160
Field sample . . . . .	161
Field sample replicate . . . . .	161
File location of polygon . . . . .	161
Filtration . . . . .	162
First Nation . . . . .	162
First name of contact . . . . .	162
First released version . . . . .	163

## *Table of contents*

Foreign key . . . . .	163
AI - Inhibition present but addressed . . . . .	164
B - Trace levels of contamination . . . . .	164
FI - Inhibition present and unaddressed . . . . .	164
J - Weak signal extrapolation . . . . .	165
ND - Non-detect . . . . .	165
UJ - Trace signal extrapolation . . . . .	166
UQ - Unquantifiable . . . . .	166
Float data type . . . . .	167
Flow-normalized mean . . . . .	167
Floor . . . . .	167
Flow rate . . . . .	168
Flow class . . . . .	168
Flow proportional 24hr sample depreciated . . . . .	169
Flow proportional sample . . . . .	169
Volume flow rate unit set . . . . .	169
Flow volume . . . . .	170
Influenza virus measure . . . . .	170
Influenza virus A1 . . . . .	171
influenza virus A2 . . . . .	171
Influenza virus B . . . . .	171
Fluidigm digital PCR . . . . .	172
Foggy . . . . .	172
Fraction analyzed . . . . .	173
Sample fraction set . . . . .	173
Freyja Script . . . . .	173
F-Specific RNA bacteriophages . . . . .	174
F-Specific RNA bacteriophages, G2 . . . . .	174
Sample frozen . . . . .	174
Field sample temperature . . . . .	175
Full dictionary sheets set . . . . .	175
Funder Contact ID . . . . .	176
Funding agency ID . . . . .	176
g215c delta-variant gene target . . . . .	176

## Table of contents

g339d omicron-variant gene target { #g339d }	177
g496s omicron-variant gene target { #g496s }	177
g662s delta-variant gene target	178
Gamma	178
Gas class	178
Gene copies per copy of crAssphage	179
gene copies per day per 100,000	179
Gene copies per gram solids	179
Gene copies per L	180
Gene copies per mL	180
Gene copies per PMMoV copy	180
Genetics unit set	181
General missingness set	181
Generic quality flag set	182
European Petroleum Survey Group Coordinates	182
Latitude	182
Longitude	183
Type of geography	183
Geographic set	183
Well-known text	184
Gram per cubic metre	184
Geometric mean	184
Government agency	185
Grams	185
Gravity settling	186
Grab sample	186
Gromstole 1.0 Script	186
Group	187
Groups	187
Header	188
Health administration or planning agency	188
Heat inactivated sars-cov-2 virus spike target	188
hep g armored rna	189
hep g armored rna spike target	189

## Table of contents

High severity . . . . .	190
Sewer Network Health Region . . . . .	190
Hand Measurement . . . . .	190
Hollow fiber dead end ultrafiltration . . . . .	191
General Hospital Admissions . . . . .	191
Hospital Census . . . . .	191
Hospital . . . . .	192
Holding tank wastewater depreciated . . . . .	192
Hours . . . . .	193
Holding tank wastewater . . . . .	193
Holding tank . . . . .	193
Human compartment . . . . .	194
Human compartment set . . . . .	194
Humidity class . . . . .	194
i1566v omicron-variant gene target { #i1566v } . . . . .	195
i3758v omicron-variant gene target { #i3758v } . . . . .	195
i82t delta-variant gene target . . . . .	196
International Classification of Diseases . . . . .	196
Intensive care unit patients . . . . .	196
Index . . . . .	197
Inhibition set . . . . .	197
Inhibition measure . . . . .	197
Inhibition method . . . . .	198
Innovaprep ultrafiltration . . . . .	198
Input . . . . .	199
Instrument ID . . . . .	199
Instrument table . . . . .	199
Instruments table column order . . . . .	200
Instrutment table required headers . . . . .	200
Other instrument . . . . .	201
Instrument Type . . . . .	201
Describe other instrument type, if applicable . . . . .	201
Instrument set . . . . .	202
Integer data type . . . . .	202

## Table of contents

Intercept . . . . .	203
Combined ip2 and ip4 sars-cov-2 gene target . . . . .	203
ISO639-1 . . . . .	203
ISO639-2B . . . . .	204
ISO639-2T . . . . .	204
ISO639-3 . . . . .	205
ISO639-6 . . . . .	205
k856r omicron-variant gene target { #k856r } . . . . .	206
Kilogram per second . . . . .	206
Kilolitres . . . . .	207
Litres . . . . .	207
l452r delta-variant gene target . . . . .	207
l981f omicron-variant gene target { #l981f } . . . . .	208
Laboratory . . . . .	208
Lab ID default deprecated . . . . .	208
Laboratory duplicate . . . . .	209
Lab ID . . . . .	209
Lagoon system . . . . .	210
Lake, natural water body . . . . .	210
Lambda . . . . .	210
Language ID . . . . .	211
Language family . . . . .	211
Language name . . . . .	211
Language Look-up table . . . . .	212
Language table column order . . . . .	212
Language table required headers . . . . .	213
Last edited . . . . .	213
Last name of contact . . . . .	214
Last updated version . . . . .	214
LaTeX expression . . . . .	214
Low breadth of coverage . . . . .	215
Laboratory control sample duplicate . . . . .	215
Low depth of coverage . . . . .	216
Leaked sample . . . . .	216



## *Table of contents*

Link . . . . .	216
License . . . . .	217
Linear scale aggregation set . . . . .	217
Liquid fraction . . . . .	217
List worksheet . . . . .	218
List set . . . . .	218
Access to local ha . . . . .	219
Limit of detection (LOD) . . . . .	219
Limit of detection (LOD) - sewage . . . . .	219
Logarithmic scale aggregation set . . . . .	220
Dictionary tables . . . . .	220
Limit of quantification (LOQ) . . . . .	221
Low severity . . . . .	221
Lower limit of a 95% confidence interval . . . . .	221
Low-volume sample . . . . .	222
Long-term care facility . . . . .	222
Long-term care - assisted living or retirement home . . . . .	222
Other long-term care . . . . .	223
Life technologies digital PCR . . . . .	223
Lysis buffer . . . . .	224
Cubic metres per day . . . . .	224
Cubic metres per hour . . . . .	224
Cubic metres per second . . . . .	225
Manufacturer . . . . .	225
Mate pair layout . . . . .	225
Maximum length . . . . .	226
Maximum value . . . . .	226
Maximum value part support . . . . .	226
Arithmetic mean . . . . .	227
Measurement group . . . . .	227
Other Measure . . . . .	227
Measures quality set . . . . .	228
Measure . . . . .	228
Measures . . . . .	229

## Table of contents

Report ID . . . . .	229
Measure report table . . . . .	229
Measure set report table . . . . .	230
Measure sets table column order . . . . .	230
Measure Set table required headers . . . . .	231
Measures table column order . . . . .	231
Measures table required headers . . . . .	231
Report set ID . . . . .	232
Median . . . . .	232
Normalized arithmetic mean . . . . .	232
Other Measure Description . . . . .	233
Measure license . . . . .	233
Method . . . . .	234
Concentration method . . . . .	234
Concentration method set . . . . .	234
Methods . . . . .	235
Membrane filtration with acidification and mgcl2 . . . . .	235
Membrane filtration with acidification and mgcl2, mem- brane recombined with separated solids . . . . .	236
Membrane filtration with addition of mgcl2 . . . . .	236
Membrane filtration with mgcl2 and separated solids . . . . .	236
Membrane filtration with no amendment . . . . .	237
Membrane filtration with no amendment, membrane recom- bined with separated solids . . . . .	237
Membrane filtration with sample acidification . . . . .	238
Membrane filtration with sample acidification, membrane recombined with separated solids . . . . .	238
Millions of gallons per day (MG/D) . . . . .	238
Milligrams per litre . . . . .	239
Murine Hepatitis Virus . . . . .	239
Multiple issues . . . . .	239
Mid-level severity . . . . .	240
Minimum length . . . . .	240
Minutes . . . . .	241

## Table of contents

Minimum value . . . . .	241
Minimum value part support . . . . .	241
Miscellaneous attribute group . . . . .	242
Miscellaneous measure group . . . . .	242
Missingness . . . . .	242
Missingness sets . . . . .	243
Mixed/homogenized sample . . . . .	243
Millilitres . . . . .	243
Megalitres per day (ML/d) . . . . .	244
Millimetres . . . . .	244
Measure, method, or attribute . . . . .	245
Measure, method, or attribute sets . . . . .	245
Model . . . . .	245
Months . . . . .	246
Moore swab passive sample . . . . .	246
Metres per second . . . . .	246
ms2 coliphage . . . . .	247
ms2 coliphage spike target . . . . .	247
Matrix spike duplicate . . . . .	248
Moore swab passive sample depreciated . . . . .	248
Major sewer pipeline . . . . .	248
Mu . . . . .	249
murine coronavirus . . . . .	249
murine coronavirus spike target . . . . .	249
Multiple fraction . . . . .	250
Multiple Purpose . . . . .	250
Municipalities or communes . . . . .	251
Municipality . . . . .	251
Mutations class . . . . .	251
N sars-cov-2 gene target . . . . .	252
Combined N1 and N2 sars-cov-2 gene target . . . . .	252
n211i omicron-variant gene target { #n211i } . . . . .	253
n679k omicron-variant gene target { #n679k } . . . . .	253
n856k omicron-variant gene target { #n856k } . . . . .	253

## Table of contents

n969k omicron-variant gene target { #n969k }	254
Not applicable	254
Aggregation not applicable	255
Aggregation scale not applicable	255
Aggregation set not applicable	255
Class not applicable	256
Compartment not applicable	256
Compartment set not applicable	256
Domain not applicable	257
Group not applicable	257
Name	258
Not a number	258
Nomenclature not applicable	258
Specimen not applicable	259
Specimen set not applicable	259
Native Name	260
Unit not applicable	260
Unit set not applicable	260
National Center for Biotechnology Information	261
NCBI - notes	261
Neighbourhood	261
Local administrative units or neighborhoods	262
Population of newly vaccinated persons	262
NextClade nomenclature	262
Normalized geometric mean	263
Ammonium Nitrogen	263
niid_2019-ncov_n sars-cov-2 gene target	264
No quality concerns	264
Sample not labelled	264
No liquid concentration, liquid recombined with separated solids	265
Nomenclature	265
Nomenclatures	266
NORMAN	266

## *Table of contents*

NORMAN - notes . . . . .	266
Norovirus G1 . . . . .	267
Norovirus G2 . . . . .	267
Notes . . . . .	267
Sample missing time stamp . . . . .	268
Not reported . . . . .	268
Not reported, Not applicable missing set . . . . .	269
Sarbecovirus-specific N sars-cov-2 gene target . . . . .	269
Nephelometric turbidity unit . . . . .	269
Nuclisens automated magnetic bead extraction kit . . . . .	270
Nuclisens manual magnetic bead extraction kit . . . . .	270
Null . . . . .	271
National Wastewater Surveillance System . . . . .	271
NWSS - notes . . . . .	271
NWSS - process . . . . .	272
Water . . . . .	272
coronavirus OC43 . . . . .	272
oc43 spike target . . . . .	273
Ocean, natural water body . . . . .	273
Other Collection depreciated . . . . .	273
Lab Analysis . . . . .	274
Omicron BA.1 . . . . .	274
Omicron BA.2 . . . . .	275
Omicron BA.2.75 . . . . .	275
Omicron BA.4 . . . . .	275
Omicron BA.5 . . . . .	276
Onset date . . . . .	276
Online Sensor . . . . .	276
Ontology reference . . . . .	277
Orthophosphates . . . . .	277
Other residential building . . . . .	278
OR Boolean aggregation . . . . .	278
ORF1a sars-cov-2 gene target . . . . .	278
ORF1ab sars-cov-2 gene target . . . . .	279

## Table of contents

ORF1b sars-cov-2 gene target . . . . .	279
Organization ID . . . . .	280
Organization table . . . . .	280
Organizations table column order . . . . .	280
Organziation table required headers . . . . .	281
Organization level . . . . .	281
Organization level set . . . . .	282
Organization sector . . . . .	282
Organization sector set . . . . .	282
Organization Type . . . . .	283
Organization type set . . . . .	283
Sample origin . . . . .	283
Sample Origin set . . . . .	284
Other Collection depreciated . . . . .	284
Other aggregation scale . . . . .	285
Other . . . . .	285
Other aggregation set . . . . .	285
Other aggregation deprecated . . . . .	286
Access to other prov deprecated . . . . .	286
Other report table set . . . . .	287
Variants Other . . . . .	287
Other Site - sample depreciated . . . . .	287
Other Site - Site depreciated . . . . .	288
Other Unit deprecated . . . . .	288
Outbreak . . . . .	289
Outbreak End . . . . .	289
Outbreak - on-going . . . . .	290
Outbreak class . . . . .	290
Outbreak set . . . . .	290
Outbreak start . . . . .	291
p100l delta-variant gene target . . . . .	291
p2046l delta-variant gene target . . . . .	291
p2287s delta-variant gene target . . . . .	292
p3395h omicron-variant gene target { #p3395h } . . . . .	292

## Table of contents

p681r delta-variant gene target . . . . .	293
Paired Layout . . . . .	293
Pangolin nomenclature . . . . .	293
Parent dataset ID . . . . .	294
Parent sample ID . . . . .	294
Parent Site ID . . . . .	294
Part description . . . . .	295
Part identifier . . . . .	295
Part instruction . . . . .	296
Label . . . . .	296
Parts Look-up table . . . . .	297
Parts table column order . . . . .	297
Parts table required headers . . . . .	298
Part types . . . . .	298
Primary Clarifier Effluent deprecated . . . . .	298
Postal or Zip Code . . . . .	299
qPCR Class . . . . .	299
PCR method . . . . .	300
PCR quality set . . . . .	300
PCR sequencingsSelection method . . . . .	300
PCR Method set . . . . .	301
Primary Clarifier Sludge deprecated . . . . .	301
Primary clarifier effluent . . . . .	301
Polyethyleneglycol (PEG) precipitation . . . . .	302
Percent . . . . .	302
Percent recovery . . . . .	302
pH . . . . .	303
Access to phac . . . . .	303
PHAGE . . . . .	304
PHAGE - notes . . . . .	304
pH class . . . . .	304
Phenol chloroform . . . . .	305
Pseudomonas virus phi6 . . . . .	305
phi6 spike target . . . . .	305

## Table of contents

Contact phone . . . . .	306
Total phosphorous . . . . .	306
Total Phosphates . . . . .	306
PHRED quality score . . . . .	307
Physical property . . . . .	307
Physical class . . . . .	308
Primary key . . . . .	308
PMMoV- and flow-normalized mean . . . . .	308
PMMoV-normalized mean . . . . .	309
Population . . . . .	309
Post-Grit depreciated . . . . .	310
Polygon ID . . . . .	310
Polygon table . . . . .	310
Polygons table column order . . . . .	311
Polygon table required headers . . . . .	311
Polygon Population . . . . .	311
Pooled . . . . .	312
Type of date for case reporting depreciated . . . . .	312
Case reporting date set . . . . .	313
Population equivalents . . . . .	313
Population group . . . . .	313
Population Served . . . . .	314
Population unit set . . . . .	314
Population or sample set . . . . .	314
Population or site set . . . . .	315
Population specimen set . . . . .	315
Percent positive . . . . .	316
parts per million . . . . .	316
PMMoV-CP . . . . .	316
Percent positivity rate . . . . .	317
Percent primary sludge . . . . .	317
Precipitation class . . . . .	317
Precipitation unit set . . . . .	318
Pretreatment . . . . .	318



## *Table of contents*

Genetic primer . . . . .	319
Genetic primer set . . . . .	319
Private sector . . . . .	319
Processing group . . . . .	320
Program decription tables . . . . .	320
promega automated tna kit . . . . .	321
promega ht tna kit . . . . .	321
promega manual tna kit . . . . .	321
promega wastewater large volume tna capture kit . . . . .	322
Proportion of total . . . . .	322
Proportion of variant in sample . . . . .	322
Protocol ID . . . . .	323
Protocol ID container . . . . .	323
Protocol ID object . . . . .	324
Protocol ID subject . . . . .	324
Protocol relationships table . . . . .	325
Protocol relationships table column order . . . . .	325
Protocol Relationship table required headers . . . . .	326
Protocol Relationships set . . . . .	326
Protocols table . . . . .	326
Protocols table column order . . . . .	327
Protocols table required headers . . . . .	327
Protocol steps table . . . . .	327
Protocol steps table column order . . . . .	328
Protocol steps table required headers . . . . .	328
Protocol table set . . . . .	329
Protocol version . . . . .	329
Access to prov ha . . . . .	329
Provisional report . . . . .	330
Primary clarifier sludge . . . . .	330
Pumping station . . . . .	331
Post-grit . . . . .	331
Pretreatment description - depreciated . . . . .	331
Number of positive tests . . . . .	332

## Table of contents

Public health agency . . . . .	332
Access to public . . . . .	332
Puro virus . . . . .	333
Puro virus spike target . . . . .	333
Purpose . . . . .	334
Purpose set . . . . .	334
q19e omicron-variant gene target { #q19e } . . . . .	334
q493r omicron-variant gene target { #q493r } . . . . .	335
q498r omicron-variant gene target { #q498r } . . . . .	335
q954h omicron-variant gene target { #q954h } . . . . .	336
Quailty assurance method . . . . .	336
Quality concerns . . . . .	336
qiagen allprep dna/rna kit . . . . .	337
qiagen digital PCR . . . . .	337
qiagen ez1 virus mini kit v2.0 . . . . .	337
qiagen allprep powerfecal dna/rna kit . . . . .	338
qiagen allprep powerviral dna/rna kit . . . . .	338
qiagen powerwater kit . . . . .	339
qiagen qiaamp buffers with epoch columns . . . . .	339
qiagen rneasy kit . . . . .	339
qiagen rneasy powermicrobiome kit . . . . .	340
Quantitative PCR . . . . .	340
Qualitative . . . . .	340
Quality control . . . . .	341
Quality flag . . . . .	341
Quality report ID . . . . .	342
Quality indicators . . . . .	342
Quality indicator sets . . . . .	342
Quality reports table . . . . .	343
Quality reports table column order . . . . .	343
Quality report table required headers . . . . .	343
Quality set . . . . .	344
Quantitative . . . . .	344
R squared . . . . .	345

## *Table of contents*

r203m delta-variant gene target . . . . .	345
Raindance digital PCR . . . . .	345
Rainy . . . . .	346
Random sequencing selection method . . . . .	346
Ratio . . . . .	346
Raw wastewater . . . . .	347
Raw sewage at site . . . . .	347
Raw sewage downstream from a site . . . . .	348
Raw sewage upstream from a site . . . . .	348
IP2 rdrp sars-cov-2 gene target . . . . .	348
IP4 rdrp sars-cov-2 gene target . . . . .	349
Date sample recieved . . . . .	349
Recovered patients . . . . .	350
Reference link . . . . .	350
Regular . . . . .	350
Regular reports table set . . . . .	351
Relative humidity . . . . .	351
Relative humidity unit set . . . . .	352
Representative grab sample . . . . .	352
Replicate Type set . . . . .	352
replicate number . . . . .	353
Primary reporting authority . . . . .	353
Secondary reporting authority . . . . .	354
Reportable . . . . .	355
Report date . . . . .	355
Reporter ID depreciated . . . . .	355
Reporter table depreciated . . . . .	356
Replicate Type . . . . .	356
Resuspend COSCa filter collection . . . . .	357
Results tables . . . . .	357
Retention pond . . . . .	357
River, natural water body . . . . .	358
Role of contact . . . . .	358
Rate per 100,000 . . . . .	358

## Table of contents

Raw post-pasteurized wastewater . . . . .	359
Respiratory syncytial virus . . . . .	359
s2083i omicron-variant gene target { #s2083i } . . . . .	360
s371l omicron-variant gene target { #s371l } . . . . .	360
s373p omicron-variant gene target { #s373p } . . . . .	360
s375f omicron-variant gene target { #s375f } . . . . .	361
s477n omicron-variant gene target { #s477n } . . . . .	361
Sample . . . . .	362
Sample material . . . . .	362
Sample ID . . . . .	362
Sample ID object . . . . .	363
Sample ID subject . . . . .	363
Sample material set . . . . .	364
Sample quality set . . . . .	364
Sample relationships table . . . . .	364
Sample relationships table column order . . . . .	365
Sample relationships table required headers . . . . .	365
Sample relationship . . . . .	366
Sample relationships set . . . . .	366
Sample report table . . . . .	367
Sample shed . . . . .	367
Samples table column order . . . . .	368
Sample table required headers . . . . .	368
Collection other depreciated . . . . .	368
SARS-CoV-2 . . . . .	369
Sample specimen set . . . . .	369
Sparse coverage . . . . .	370
Secondary clarifier effluent depreciated . . . . .	370
Standard curve frequency . . . . .	370
School . . . . .	371
Sequencing script version set . . . . .	371
Genetic sequencing script version . . . . .	371
Secondary clarifier sludge depreciated . . . . .	372
Standard deviation . . . . .	372

## Table of contents

Normalized standard deviation . . . . .	373
Sea, natural water body . . . . .	373
See unit (aggregation scales) . . . . .	373
See unit (data type) . . . . .	374
See unit (value) . . . . .	374
Secondary clarifier effluent . . . . .	375
Access to self . . . . .	375
Date sample was sent . . . . .	375
Septic tank wastewater . . . . .	376
Septic tank . . . . .	376
Sequencing Layout . . . . .	376
Sequencing Layout set . . . . .	377
Sequencing quality set . . . . .	377
Sequencing selection method . . . . .	378
Sequencing selection method set . . . . .	378
Sequencing Strategy . . . . .	378
Sequencing Strategy set . . . . .	379
Genetic sequences class . . . . .	379
Serial dilution . . . . .	379
Sewer Sediments Depreciated . . . . .	380
Set ID . . . . .	380
Sets look-up table . . . . .	381
Sets table column order . . . . .	381
Sets table required headers . . . . .	381
Settled solids . . . . .	382
Set type . . . . .	382
Set Value . . . . .	382
Severity indicator . . . . .	383
Severity set . . . . .	383
Sewer network file link depreciated . . . . .	384
S sars-cov-2 gene target . . . . .	384
Sampleshed set . . . . .	384
Ship . . . . .	385
Shipped on ice . . . . .	385

## Table of contents

Short names . . . . .	385
Site . . . . .	386
Single . . . . .	386
Single Layout . . . . .	387
Site or sample specimen set . . . . .	387
Site specimen set . . . . .	387
Site ID default . . . . .	388
Site features group . . . . .	388
Site ID . . . . .	388
Site measure ID . . . . .	389
Sites table . . . . .	389
Sites table column order . . . . .	390
Sites table required headers . . . . .	390
Site Type . . . . .	390
Site set . . . . .	391
Skimmed milk flocculation . . . . .	391
slope . . . . .	391
Sewer network file link depreciated 2 . . . . .	392
Snowy . . . . .	392
Solid fraction . . . . .	393
Solid seperation . . . . .	393
Solid separation set . . . . .	393
Source Protocol ID . . . . .	394
Protocol step source ID . . . . .	394
Specific humidity . . . . .	395
Specific humidity unit set . . . . .	395
Specifies . . . . .	395
Specimen . . . . .	396
Specimens . . . . .	396
Specimen sets . . . . .	397
Speed class . . . . .	397
Spike matrix and recovery . . . . .	397
Spike material . . . . .	398
Spike material set . . . . .	398

## *Table of contents*

Recovery efficiency spike target . . . . .	398
Recovery efficiency spike target set . . . . .	399
Sample spilled . . . . .	399
Secondary clarifier sludge . . . . .	400
Social services shelter . . . . .	400
Stabilization pond . . . . .	400
Standard concentrations class . . . . .	401
Standard curve class . . . . .	401
Departments, states, or provinces . . . . .	401
State, Province, or Region . . . . .	402
Status . . . . .	402
Status set . . . . .	403
Standard concentration unit set . . . . .	403
Storage temp . . . . .	403
Protocol Step ID . . . . .	404
Step ID Object . . . . .	404
Step ID Subject . . . . .	405
Method step parent ID . . . . .	405
Protocol step version . . . . .	406
Sewer network file blob . . . . .	406
Storage time . . . . .	407
Sub-variant or lineage . . . . .	407
Summary . . . . .	407
Summary worksheet . . . . .	408
Sunny . . . . .	408
Surface compartment . . . . .	409
Other surface . . . . .	409
Surface compartment set . . . . .	409
Surface and water compartment set . . . . .	410
Surface swab . . . . .	410
Sewage truck . . . . .	410
Sewer sediment . . . . .	411
Sewer catchment area . . . . .	411
Synthetic sample . . . . .	411

## Table of contents

t19r delta-variant gene target . . . . .	412
t3646a delta-variant gene target . . . . .	412
t547k omicron-variant gene target { #t547k } . . . . .	413
t9i omicron-variant gene target { #t9i } . . . . .	413
Tables . . . . .	413
Table column set . . . . .	414
TaqPath N sars-cov-2 gene target . . . . .	414
TaqPath S sars-cov-2 gene target . . . . .	415
Sample temperature . . . . .	415
Temperature class . . . . .	415
Temperature unit set . . . . .	416
Nucleic acid template volume . . . . .	416
Airport terminal . . . . .	416
Test date . . . . .	417
Number of tests performed . . . . .	417
Testing . . . . .	417
thermo magmax microbiome ultra nucleic acid isolation kit	418
Time class . . . . .	418
Time proportional sample . . . . .	419
Time unit set . . . . .	419
Total Kjeldahl Nitrogen . . . . .	419
Total Nitrogen . . . . .	420
Time Proportional 24hr sample . . . . .	420
Translation look-up table . . . . .	421
Translation table column order . . . . .	421
Translation table required headers . . . . .	421
trizol, zymo mag beads w/ zymo clean and concentrator . .	422
TRUE . . . . .	422
Total solids concentration . . . . .	422
Total suspended solids . . . . .	423
Concentration of total suspended solids . . . . .	423
Turbidity . . . . .	424
Turbidity class . . . . .	424
Turbidity unit set . . . . .	424



## Table of contents

Tube weight empty . . . . .	425
Tube weight full . . . . .	425
Type other depreciate . . . . .	426
Type other depreciate2 . . . . .	426
University campus . . . . .	426
Undisclosed . . . . .	427
Unique sample . . . . .	427
Unit . . . . .	427
Unitless measure . . . . .	428
Unitless unit set . . . . .	428
Units . . . . .	429
Unit set . . . . .	429
Unit sets . . . . .	429
Ultracentrifugation . . . . .	430
Upper limit of a 95% confidence interval . . . . .	430
Upstream sites . . . . .	431
Micro-Siemens per centimetre . . . . .	431
U site measure ID . . . . .	432
v2930l delta-variant gene target . . . . .	432
Validation study . . . . .	432
Value . . . . .	433
Variable character data type . . . . .	433
Frequency of variants detected . . . . .	433
Variants class . . . . .	434
Population with 1 dose of vaccine . . . . .	434
Population with 2 doses of vaccine . . . . .	434
Population with 3 doses of vaccine . . . . .	435
ODM V1 category . . . . .	435
ODM V1 location . . . . .	436
ODM V1 table . . . . .	436
ODM version 1 to 2 changes . . . . .	436
ODM V1 variable . . . . .	437
Miscellaneous viruses group . . . . .	437
Size in volume . . . . .	438

## Table of contents

Volume proportional sample . . . . .	438
Volume unit set . . . . .	438
Volatile suspended solids . . . . .	439
Volatile suspended solids - ignition . . . . .	439
Water compartment . . . . .	440
Water depreciated . . . . .	440
Water compartment set . . . . .	440
Wastewater temperature . . . . .	441
Weather . . . . .	441
Weather class . . . . .	442
Weather set . . . . .	442
Whole genome sequencing . . . . .	442
WHO nomenclature . . . . .	443
Wide 95% interval . . . . .	443
Wide name table . . . . .	443
Wind Speed . . . . .	444
Wind speed unit set . . . . .	444
Measure identification (wide table) . . . . .	445
Sample stored incorrectly . . . . .	445
Sample stored at wrong temperature . . . . .	445
World Sphere (W-SPHERE) . . . . .	446
World Sphere (W-SPHERE) notes . . . . .	446
Wastewater treatment plant . . . . .	446
Back-up wastewater treatment site . . . . .	447
Wastewater treatment plant designed capacity . . . . .	447
Industrial wastewater treatment plant . . . . .	448
Municipal wastewater treatment plant for combined sewage . . . . .	448
Municipal wastewater treatment plant for sanitary dewage only . . . . .	448
y505h omicron-variant gene target { #y505h } . . . . .	449
Years . . . . .	449
zymo environ water rna kit/ zymo environ water rna kit (cat. r2042) . . . . .	449
zymo quick-rna fungal/bacterial miniprep #r2014 . . . . .	450

<b>Sets</b>	<b>451</b>
Aggregations . . . . .	451
Aggregation scales . . . . .	453
Aggregation sets . . . . .	454
Boolean aggregation set . . . . .	454
Linear scale aggregation set . . . . .	454
Logarithmic scale aggregation set . . . . .	456
Aggregation set not applicable . . . . .	457
Other aggregation set . . . . .	457
Attributes . . . . .	459
Classes . . . . .	475
Compartments . . . . .	478
Compartment sets . . . . .	478
Air compartment set . . . . .	478
Air and surface compartment set . . . . .	479
Air and water compartment set . . . . .	479
Any compartment set . . . . .	479
Human compartment set . . . . .	480
Compartment set not applicable . . . . .	480
Surface compartment set . . . . .	481
Surface and water compartment set . . . . .	481
Water compartment set . . . . .	481
Data types . . . . .	482
Domains . . . . .	483
Groups . . . . .	483
Measures . . . . .	485
Methods . . . . .	499
Missingness . . . . .	502
Missingness sets . . . . .	502
General missingness set . . . . .	502
Not reported, Not applicable missing set . . . . .	503
Measure, method, or attribute sets . . . . .	503
Boolean value set . . . . .	504
Sample collection set . . . . .	504

## Table of contents

Nucleic Acid Extraction set . . . . .	505
Sample fraction set . . . . .	508
Geographic set . . . . .	508
Inhibition set . . . . .	509
Instrument set . . . . .	509
Concentration method set . . . . .	510
Organization level set . . . . .	511
Organization sector set . . . . .	511
Organization type set . . . . .	513
Sample Origin set . . . . .	513
Outbreak set . . . . .	514
PCR Method set . . . . .	514
Genetic primer set . . . . .	515
Protocol Relationships set . . . . .	515
Purpose set . . . . .	516
Replicate Type set . . . . .	517
Sample material set . . . . .	517
Sample relationships set . . . . .	519
Sequencing script version set . . . . .	520
Sequencing Layout set . . . . .	520
Sequencing selection method set . . . . .	521
Sequencing Strategy set . . . . .	521
Severity set . . . . .	522
Sampled set . . . . .	522
Site set . . . . .	524
Solid separation set . . . . .	526
Spike material set . . . . .	528
Recovery efficiency spike target set . . . . .	529
Status set . . . . .	530
Table column set . . . . .	531
Weather set . . . . .	531
Nomenclatures . . . . .	532
Quality indicators . . . . .	533

## Table of contents

Quality indicator sets . . . . .	535
Generic quality flag set . . . . .	535
Measures quality set . . . . .	536
PCR quality set . . . . .	538
Sample quality set . . . . .	539
Sequencing quality set . . . . .	540
Specimens . . . . .	541
Specimen sets . . . . .	541
Any specimen set . . . . .	542
Specimen set not applicable . . . . .	542
Population or sample set . . . . .	542
Population or site set . . . . .	543
Population specimen set . . . . .	543
Sample specimen set . . . . .	543
Site or sample specimen set . . . . .	544
Site specimen set . . . . .	544
Tables . . . . .	544
Units . . . . .	547
Unit sets . . . . .	553
Absolute humidity unit set . . . . .	553
Allele unit set . . . . .	553
Bacteria unit set . . . . .	554
Capacity unit set . . . . .	555
Conductivity unit set . . . . .	555
Dissolved gas concentration unit set . . . . .	555
Volume flow rate unit set . . . . .	556
Genetics unit set . . . . .	556
Unit set not applicable . . . . .	557
Population unit set . . . . .	557
Precipitation unit set . . . . .	560
Relative humidity unit set . . . . .	560
Specific humidity unit set . . . . .	560
Standard concentration unit set . . . . .	561
Temperature unit set . . . . .	561

## Table of contents

Time unit set . . . . .	561
Turbidity unit set . . . . .	562
Unitless unit set . . . . .	562
Volume unit set . . . . .	562
Wind speed unit set . . . . .	563
<b>Tables</b>	<b>565</b>
Table types . . . . .	565
Header roles . . . . .	566
Mandatory, optional, mandatoryIf . . . . .	567
Table list . . . . .	567
Address table . . . . .	568
Contact table . . . . .	569
Dataset table . . . . .	570
Instrument table . . . . .	571
Language Look-up table . . . . .	572
Measure report table . . . . .	574
Measure set report table . . . . .	575
Organization table . . . . .	575
Parts Look-up table . . . . .	576
Polygon table . . . . .	585
Protocol relationships table . . . . .	586
Protocols table . . . . .	587
Protocol steps table . . . . .	587
Quality reports table . . . . .	588
Sample relationships table . . . . .	589
Sample report table . . . . .	589
Sets look-up table . . . . .	591
Sites table . . . . .	592
Translation look-up table . . . . .	594

# Introduction

Facilitating the Collection and Sharing of High-Quality, Interoperable Environmental Surveillance Data: A Community Open Science Project.

The Public Health and Environmental Surveillance Open Data Model (PHES-ODM or ODM) is an open-source data model and set of tools aimed at promoting global collaboration and use of environment and public health data. The ODM model facilitates interoperable environmental surveillance and research by improving quality reporting data, enhancing data management, and supporting data provenance and sharing.

This documentation is intended for those who want to understand how the ODM model works, its organizational structure, and how to use it effectively for their program. It is also a useful resource for those who currently use a different data dictionary and wish to share their data with a program that uses the ODM. If you need to share your data with another program that uses a different data dictionary, this documentation can help you compare and create a common cross-walk between dictionaries. The ODM starts as a conceptual model that represents real-world processes through data elements and data relationships, which are common to all environmental and public health surveillance systems.

## Introduction

### How to use the documentation

There are three document sections, each with a different purpose.<sup>1</sup>

*Getting to know the ODM* is oriented to understanding the ODM. This section explains the ODM, its structure, and how the model was designed and developed.

*How to use the ODM* are step-by-step guides to help you use different aspects of the ODM such as report templates.

*Reference* is a description of each part of the ODM. It serves as a reference for the other sections, and the definitive record of each part, table and set – along with their attributes.

### Future documentation

Tutorials and videos are being develop. Tutorials will help newcomers get started. They will be lessons on how to:

- Describe a protocol using protocol tables.
- Make wide names and report templates using wide names.

### Quick start

You can get to know the ODM by imaging how to record a polymerase chain reaction (PCR) test result for SARS-CoV-2 from a wastewater sample.



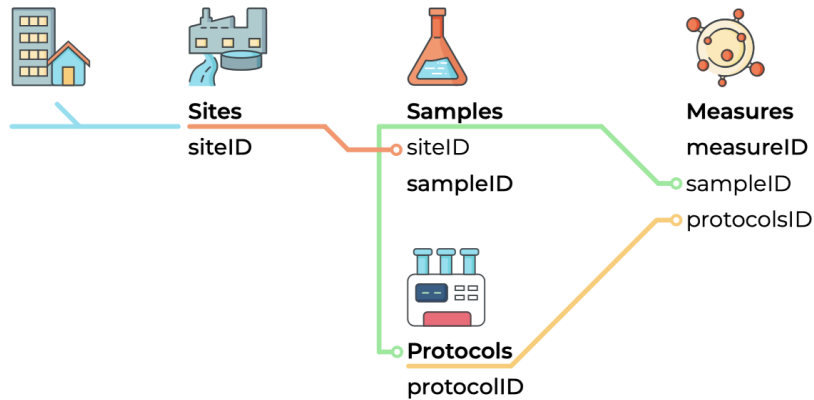


Figure 1.: Figure 1 - Key ODM tables for recording data

## 1. Get oriented to the ODM tables where you record results

The Sample report table ([samples](#)) and the Measure report table ([measures](#)) are where you record information about samples and measures.

## 2. View mandatory and optional data fields in the tables reference guide

You can view mandatory and optional data field here: ([samples](#)) and ([measures](#)). ‘Mandatory’ means they are fields are needed to ensure interoperability.

---

<sup>1</sup>David Laing and Divio’s Grand Unified Theory of Documentation.

💡 What are ODM parts and how to find them?

In the ODM, tables are an example of a part. A part name can be identified by its text style like **this**. The part identifier often follows the part in parenthesis, with a link to the part in the reference section. So, **Sample report table** is the part name, and **(samples)** is the part ID and link to the documentation for that part.

You can find out more about parts on the **reference guide section**.

### 3. Try entering example data in ODM Excel templates

Keep in mind, ODM templates are only examples of how to use the ODM dictionary to record data. Templates are available at [OSF.io](https://osf.io). The 'How to use the ODM' section describes how to enter information into tables.

#### Storing sample data in an ODM template

A **sample** (**sampleID**) is defined as a representative volume of wastewater (or other forms of water or liquid), air, or surface area taken from a site. The sample template stores one sample per row. The **Sample report table** has seven mandatory fields that are listed in the [reference[(tables.qmd#samples)]] for the table.

<https://vimeo.com/802349692>

#### Storing measure data in an ODM template

A **measure** (**measure**) is an observation or measurement of any substance, including biological, physical, or chemical substances, obtained from a specimen such including a site, sample, person, or population. Each measure is stored in the **Measures table** template as a separate row, following

the “long” table format, which is the primary method for storing measures. For example, if you recorded PCR results for two SARS-CoV-2 regions, covN1 and covN2, you would record each measurement on a separate line. Alternatively, you can use a “wide” table format to store multiple measures in a single row or create tables that combine both long and wide headers. The [European Union airport template](#) is a hybrid template that exemplifies this (found in the “Airports” folder).

(Video)

## 4. Next steps

In addition to recording measures from samples, you can also record measures for a specific site, such as wastewater flow rate (**flowRate**), or the population served by the site, such as the Covid-19 hospitalization rate for a wastewater treatment plant’s watershed or municipality. **Figure 2** illustrates the these three types of measurements: **sample**, **site**, and **population**.

The “who, where, and why” of these measurements is stored in contact tables, while the “how,” which refers to the measurement protocol or method, is stored in the protocols tables.

## Getting help

We hope that the documentation serves its purpose and that you find it useful in figuring out how to best use the ODM and its suite of tools. If you do encounter any issues or questions that do not seem to have an easy answer, please [create an issue on our GitHub repository](#) or consult [our Discourse page](#).

## Introduction

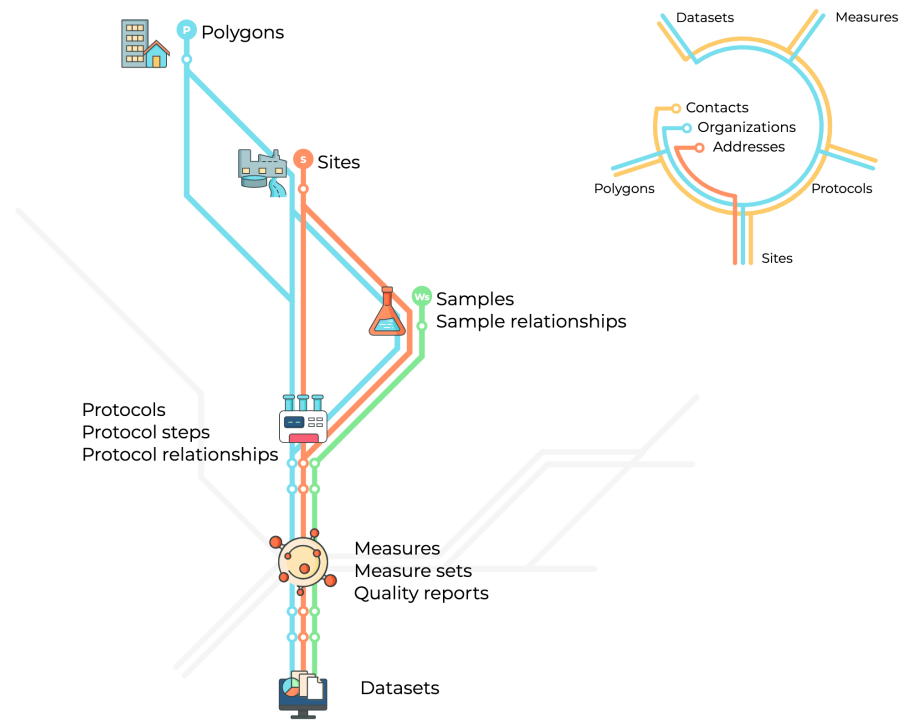


Figure 2.: **Figure 2 - ODM tables and 'subway' lines for storing measures**

# Background

The ODM is designed to support a broad range of users in the field of environmental surveillance, including wastewater laboratories, municipalities, public health agencies, researchers, and citizen scientists. Its goal is to provide a comprehensive and extensible approach to data collection and management across the lifecycle of environmental surveillance, from sample collection and analysis to public reporting.

The ODM dictionary includes provisions for a wide range of biological, chemical, and physical properties, such as antimicrobial resistance, drugs, and toxins, as well as metadata for laboratory protocols that may affect measurement consistency across laboratories. The ODM supports laboratory information and management systems (LIMS) with measure to describe ensure data quality control and provenance.

To support the open science principle of FAIR data (Findable, Accessible, Interoperable, and Reusable), the ODM strives to make its data easily discoverable, accessible, and usable by all stakeholders.<sup>2</sup> It also adopts an open-source approach, allowing anyone to inspect, modify, and enhance the codebase in a transparent and collaborative manner on platforms like GitHub.

While the ODM is a complex dictionary, it includes tools to support its use, such as data validation, input templates, and SQL database definitions for data storage. Additionally, it supports collaborations among different organizations seeking to share and combine samples and measurements. As an open model, third parties can extend the model, such as

---

<sup>2</sup>[FAIR Principles](#).

## *Background*

the European Union Digital European Exchange Platform (EU4S-DEEP) data templates for wastewater surveillance at airports, European Union [Digital European Exchange Platform \(EU4S-DEEP\)](#) data templates for wastewater surveillance at airports, the [CETO Epidemiologic platform](#), and [Ottawa Automatic Data Pipeline](#) to analyse qPCR data and transform it to ODM format.

Overall, the ODM aims to support the evolving field of environmental surveillance and science by providing a standardized, extensible approach to data collection and management.

# Getting to know the ODM

## What are “Parts” and “Part Types”?

Within the ODM, every component or element of the model and the dictionary is called a “part”. Parts are grouped into “part types”.

Because the term “parts” refers to every component of the ODM, “part types” are a way to differentiate between parts which have different functions and structures. The three most important part types are:

- **Measures:** A measurement or observation of any substance including a biological, physical or chemical substance.
- **Methods:** A procedure for collecting a sample or performing a measure.
- **Attributes:** A description of the who, where, when, and why of environmental surveillance.

See the [parts reference document](#) for more details.

There are additional part types to support the dictionary including:

- Aggregations
- Aggregation scales
- Categories
- Classes
- Compartments
- Dictionary support
- Domains

## *Getting to know the ODM*

- Groups
- Missingness
- Nomenclature
- Quality indicators
- Specimens
- Tables
- Units

For information and details about all the part types, please see the [parts reference document](#).

## **“Sets” and the rationale behind sets**

“Sets” are a way of grouping together different possible categorical inputs within the ODM. The purpose behind sets is to group options together so that users only need to check a few options from a drop-down menu, rather than scroll through a long list. Sets are also designed so that a single part can be used in multiple sets, which avoids the need to create multiple versions of this part for these different use contexts. For example, if you’re taking a measure of concentration, that measure will likely populate the unit choice drop-down list with units from the “standard concentration unit set”. Units in this set include Milligrams per litre, parts per million, and Percent Primary Sludge. Similarly, if one were measuring the amount of oxygen in a wastewater sample they would be offered units from the “dissolved gas unit set”. The units in this set include parts per million, and Milligrams per litre. You see here how Milligrams per litre is used twice across the sets, but exists still as a single part in the parts list. Unit sets are only one type of set, with the others being:

- Aggregation sets
- Compartment sets
- Quality sets
- Specimen sets



## *The “what” and “why” of Specimen IDs*

Details about these sets are their similar - but unique - applications can be found in the [parts reference document](#). Importantly, “category sets” are not considered a “set” like these others. See the section below for an explanation of this difference.

### **Why category sets are treated differently**

One of the reasons why “sets” are set up and organized the way that they are, is to allow for the re-use of parts in multiple sets. Category sets are, however, an exception to this rule because the categories that make up a category set are used in only one set. Furthermore, the general sets are needed for almost every measure or method (which require unit, aggregation, quality, and compartment information), while category sets are used only in specific circumstances for specific fields. These are things such as collection metadata (example: Sample collection category set), dictionary metadata and model architecture (example: Data Type Category Set), or more detailed types of certain methods (example: Nucleic Acid Extraction Category Set). Category sets are also a distinct part type, and more information about them can be found in the [parts reference document](#).

## **The “what” and “why” of Specimen IDs**

Specimen IDs indicate the level at which a measure is being done. This can be: a site measure, ie. a measure at a site such as temperature or weather; a sample measure, ie. a laboratory measurement on a sample, such as gene copies of SARS-CoV-2 per mL; a person measure, ie. a measure of something at the level of an individual person, such as a blood pressure reading; or a population measure, ie. an aggregate measure of a population, such as the number of confirmed cases of a given illness. While there is currently nothing in version 2.0 of the ODM with uses the person specimen ID explicitly, it has been included to allow for the possibility of storing individual-level data in a future version. The reason

## *Getting to know the ODM*

specimen IDs were created was so that there could be a single manner in which measures and methods are recorded, regardless of the level at which they were performed, while still maintaining the possibility to collect site, sample, and population measures as a distinct types of metadata.

## **The “what” and “why” of Groups and Classes**

Groups and classes, similar to sets, are ways of grouping together different measures within the ODM. Given that the ODM aims to be as robust as possible and has a very long list of possible measures, groups and classes were designed to give shorter lists of measures in the drop down lists by specifying details about the kind of measure that a user is recording. Groups and classes can work together to further specify what kinds of measures are being reported. For example, the group `sarsCov2` contains many measures, but by specifying that the class is an `allele` or `variant`, the list of possible measures is pared down. Alternatively, class can be said to be non-applicable, paring down the measures in the `sarsCov2` group to only be unspecified measures of the quantity of the virus.

## **Tables and table types within the ODM**

Within the ODM there are three types of tables: program description tables, results tables, and look-up tables. These table types exist to differentiate the function of these tables and to highlight these differences to users. The different tables take different types of inputs and maintenance from users, so understanding the differences can be important.

## *Measures, Methods, and Attributes: Key parts*

### **Program description tables**

Program description tables (represented in yellow in the ERD) are tables used to record metadata on the organizations, locations, methods, and appurtenance. These tables help to describe surveillance and testing programs, and are intended to be updated infrequently.

### **Results tables**

Results tables (represented in blue in the ERD) are the tables used to record details on samples and measures. These tables record the main outcomes data and are updated daily, if not more frequently.

### **Look-up tables**

Look-up tables (represented in green in the ERD) are the tables that are pre-programmed and pre-populated in the ODM. These hold information on sets, all parts, languages, and translation abilities. These are only updated by the ODM team in version updates.

## **Measures, Methods, and Attributes: Key parts**

While there are many part types, there are three main part types users should be most familiar with: measures, methods, and attributes. These three have parallels with the three table types, and the differences and details of these parts are useful to understand.

## Measures

Measures are actually types of measures that can be performed. These can range from temperature to the number of gene copies in a sample. The measure, or `measureID`, can be selected from a drop down in the templates and it specifies the kind of measure you intend to record. The actual value of the measure is then recorded in the `value` field of the `measures` table, with units and aggregation specified in the `unitID` and `aggregationID` fields.

## Methods

Similar to measures, methods are types of methods that can be performed to accomplish a measurement. These can be diverse, ranging from incubation, qPCR, or nucleic acid extraction. The method itself (`methodID`) is selected from a drop down in the templates, specifying in general terms the kind of method the user wishes to record. From there, the `value` field of the `methodSteps` table can be populated by one of the inputs from the category set associated with that `methodID`. This provides a higher level of detail for a given method. For example, the `methodID` might be `solidSep` for solid separation of a sample. The value field might then be populated with `cent` for centrifugation, indicating more details about how the sample settling was done.

## Attributes

Attributes are the largest category of part type, as these refer to any most of the fields in the ODM. Attributes are fields for metadata within the ODM and range greatly in the use. They comprise everything from collection dates, to sampling period, to names.

## **Data quality and reportability**

Within the ODM there is a `qualityFlag` field present in both the `samples` and `measures` tables. This field serves to highlight whether or not there is a quality issues with the sample or the measure. The quality flag also allows a user to specify to type of quality issue. This is managed through the use of quality sets, which are the sets that contain the possible quality flags for a given measure or for samples. The idea is that this provides data on any issues with a sample and an indication of the nature of that issue. Having data about the nature and presence of a quality issue is often not sufficient for decision makers who are trying to use and interpret the data. As such, there is also a `reportable` field with is a Boolean indicator of whether or not data can or should be reported or included in final reports and decisions.

## **Time periods for samples and measures**

For measures, there is a field `aDateStart` and `aDateEnd` which specify the date and time that an analysis was begun and finished. This allows for the recording of greater detail around timelines for especially long, multi-day analyses. For shorter analyses, which will likely make up the bulk of reported measures, the same date can input in both fields. The idea is to have the reporting tables for measures be as robust as possible to allow for various kinds of timelines.

For samples, there is `col1DT`, `col1DTStart`, and `col1DTEnd`. The first field is for the collection date and time of a single grab sample, so start and end are not necessary and the other two fields can be left blank. For composite or pooled sample, the start and end date and time for collection is crucial information to know. When these two fields are populated, the `col1DT` field can be left blank.

## Dates within the ODM

There are a number of date fields within the ODM which all serve different purposes. Collection datetime (`collDT`) is the date a sample was collected, used only for grab samples. This field is left blank if the collection datetime start and end fields (`collDTstart` and `collDTend`) have been populated instead. Inversely, collection datetime start and end fields should be left blank if the collection datetime field has been populated. Similarly, analysis datetime start and analysis datetime end (`aDateStart` and `aDateEnd`) are used to report the date and or timeline of an analysis for a measure.

Date fields that are more related to data processing and laboratory infrastructure are: the last edited date (`lastEdited`) which indicates the last time a table, or a measure or sample details, were last edited or updated; the sent date (`sentDate`), or date that a sample was sent to the lab from the field; the received date (`recDate`), or the date the sample was received in the lab; and the report date (`repDate`), or the date that the analysis results or measures were reported. These give a greater indication of how up to date data is, but also on the speed and efficiency of the pipeline between sampling and reported results. Dates should be reported in day/month/year format to accommodate the most popular global convention.

## Translation and language capabilities

The default language of the ODM is English, but French translations of all descriptive elements of the data model dictionary are also available. As additional nation states and partners adopt the ODM, we anticipate that these fields will be translated into other languages as well. The translation capacities are managed through the language look-up table (`languageLUs`), the translation look-up table (`translationLUs`), and the

## *Questions and online community*

parts table (**partsLUs**). When a translation for a given part is not available, the dictionary will default to the English term. The language look-up table stores linguistic and classification codes for spoken human languages, with the most recent ISO639 code being the language ID (**languageID**). In the translation table, the language ID is paired with every part ID (**partID**), along with the label (**partLabel**), description (**partDesc**), and instructions (**partInstr**) translated to that language. The part IDs are linked to the full parts list which otherwise contains metadata that is coded in variables and requires no further translation.

## **Questions and online community**

If any users have additional questions or issues with the ODM, we invite them to check out our [Discourse Page](#) for discussion boards and community support. For larger issues, and to ask the ODM team to add additional fields or variables into the model, we encourage users to visit the project's [GitHub repository](#) and to create an issue there so that a team member can respond.





# How to use the ODM

## How-To guides

### 1) How to use templates

ODM Excel report templates provide you with an easy way to enter your wastewater and other environmental data into the relevant PHES-ODM tables (more information about the tables can be found in the [getting-to-know](#) section). The templates also serve as an interactive way to get to know the ODM and can be found at the OSF.io [PHES-ODM reference file folder](#).

The guides below will walk you through each of the report templates. In these guides, “field” refers to a column in the template, and “entry” refers to a row of information that you entered. The guides also provide definitions and explanations for some terms; more complete information can be found in the Reference Guide - [Parts document](#). If you have any questions or comments, you can post them on our [Discourse forum](#).

As a starting point:

- **Sample report** and **Measure report** tables are used for day-to-day reporting. You can record information about a sample in the **Sample report** table. Measures (or measurements) are recorded in the **Measure report** table. A measure is “measurement or observation of any substance including a biological, physical or chemical substance”.

## *How to use the ODM*

- There are three optional tables that support the reporting of samples and measures:
  - **Sample relationships** is used only when you have samples that are pooled or split.
  - **Measure set report** can be used to link measures together.
  - **Quality reports** is used for detailed quality assurance and control reporting (you can, and should, record a quality flag attribute for each measure or sample in the **Measure report** and **Sample report** tables).
- Typically, there is a one time initial setup where you will need to enter information into the **Sites**, **Address**, **Organization**, and **Contact** tables.
  - **Sites** is mandatory and records information about where testing is performed.
  - **Address**, **Organization**, and **Contact** provide the contact information for sites and entities such as laboratories.
- There are optional supporting tables, such as **Protocols** and **Instrument**, where you can use the templates to record information about how samples are taken and how measures are reported. You only need to complete these tables once and then update them as needed. **Protocol steps** and **Protocol relationships** tables are used alongside the **Protocols** table. Other supporting tables include **Polygon**, which stores information about the sample shed, and **Dataset**, which stores information about the data custodian and owner of the data.

The templates contain four main types of fields; in these how-to guides they are colour-coded for instructional purposes:

### 1) How to use templates

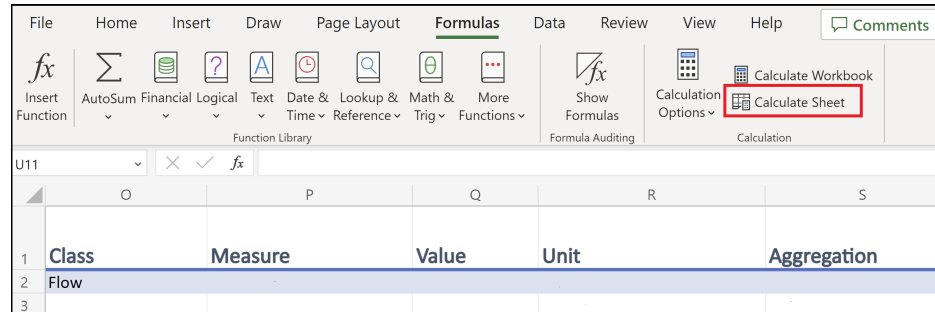
- **Identifier and unique identifier (red):** In these fields you will create a value that will be used to identify something. For instance, **Sample ID** is used to identify each unique sample. An identifier can be repeated between entries, while an unique identifier cannot. There is usually only one unique identifier per template, and they correspond to the name of the template. For example, **Measure ID** for the **Measure report** template, and **Contact ID** for the **Contact** template.
- **Drop-down and conditional drop-down menus (green):** These fields have a drop-down menu which contain the values that you can either select **or** type in. In conditional drop-down menus, the values depend on what you entered in a previous field.
- **Date fields (purple):** Dates are entered in these fields and must be in the form of the [ISO 8601](#) format: yyyy-mm-dd. All date fields also support entries for hours, minutes, and seconds: 2022-01-01T06:11:54 and 2022-01-01T06:11:54+13:30
- **Free form fields (blue):** In these fields, you can enter your data in any format that you wish. Any restrictions will be specified in the relevant sections. Keep in mind, different measures may have different data types that cannot be validated in Excel. The data type of a measure can be checked in the reference list for the measure. For example, the data type for **Sample temperature** is a real number.

## Conditional menus

Conditional menus use the FILTER function (which is present in Excel 2019 and later) and are only functional in the first three rows of their respective templates. In addition, the auto-calculation has been disabled. Thus, you will need to press the “Calculate Sheet” button, which is in the “Formulas” tab after entering the value in the field upon which the conditional menu is based upon; this button is outlined in red in the image

## How to use the ODM

below (the image is for Excel Online). For example, for the **Measure** conditional menu in the **Measure report** template, you would select a value in the **Class** field, press “Calculate Sheet” and then the correct values will show up in the menu of the **Measure** field.



All of this was done because, in an online environment (such as Excel Online), the code for the conditional menus work can cause the templates to run very slowly. You can reactivate the auto-calculation if you wish. For further information about how to expand these menus to additional rows and other aspects of the templates, see [Notes regarding templates](#).

## 2) How to report Measures and Measure sets

In this guide you will learn how to record data in the **Measure report** (or **measures** Excel tab) and **Measure set report** (or **measureSets** tab) templates. In the **Measure report** template, each row represents a measure. Along the same lines, in the **Measure set report** template, each entry represents a collection or set of measures.

You can find additional information regarding terms and the colour-coding of columns at the beginning of this document ([How-To guides](#)) and the Reference Guide - [Parts document](#).

## Quick Start

Below you will find the mandatory fields for the **Measure report** and **Measure set report** templates. You will also find definitions of these fields and examples of entries of data. A more detailed description of some of the key concepts can be found in the following section, Detailed description.

### Measure report template

#### 1. Mandatory fields

- **Report ID:** Unique identifier for the **Measure report** template. Each value represents a measure.
- **Sample ID:** Identifier for the sample that is associated with each measure.
- **Site ID:** Identifier for the location where a sample was taken.
- **Analysis Date End:** Date the measure was completed.
- **Measure:** A measurement or observation of any substance including a biological, physical or chemical substances.
- **Value:** Value of the measure.
- **Unit:** Units of a value.
- **Aggregation:** Statistical measure that the measure represents (for example “mean”).
- **Specimen:** Substance or thing upon which the observation was made. Specimens include **Population**, **Sample**, and **Site**. This field is only mandatory if there is more than one specimen type that is collected in the dataset.

How to use the ODM

## 2. Examples

*Image will be added*

## Measure Sets Template

### 1. Mandatory fields

- **Report set ID:** Unique identifier for the **Measure set report** template. Each value represents a group of related measures.

### 3. Examples

*Image will be added.*

## Detailed description

### Measures template

#### 1. Columns A to H

	A	B	C	D	E	F	G
1	Report ID	Protocol ID	Sample ID	Purpose	Polygon ID	Site ID	Dataset ID
2							
3							

#### i) Columns A-C, and E-H

- These are identifier fields.
- **Report ID** (column A) is the unique identifier for this template, and it cannot be repeated. You can think of each **Report ID** as representing a unique measure. The field can be any combination of letters or words up to 30 characters.

### Detailed description

- You can repeat the other fields between entries (if needed). For instance, if you enter two different measures from the same sample, then the **Sample ID** (column C) will be the same.
- You may have already created these identifiers in another template. For instance, you may have created **Sample ID** in the **Sample report** template.

#### ii) Column D

- **Purpose** has a drop-down menu. If you are unsure what to put, select **Regular**.

## 2. Columns I to M

	I	J	K	L	M
1	Analysis date start	Analysis date end	Report Date	Specimen	Fraction analyzed
2					
3					

#### i) Columns I to K

- These are date fields where you can enter the dates associated with your measure in the format yyyy-mm-dd. Including hours and minutes is optional, but all date-entries use the ISO 8601 format. 2022-01-01T06:11:54 or 2022-01-01T06:11:54+13:30

#### ii) Columns L and M

- **Specimen** and **Fraction analyzed** have drop-down menus. In general both fields are optional, but both are recommended (see next point for the exception).
- **Specimen** is mandatory when the data you are entering has more than one type of specimen. When there is only one specimen, the **Dataset** table records the specimen type. For example, if your **Measure report** table includes only

## How to use the ODM

wastewater sample measures, you can indicate this information in the **Dataset** table.

- **Fraction analyzed** applies only for water and wastewater samples. You should record the fraction for all samples if the compartment type is water or wastewater.

### 3. Columns N to S

	N	O	P	Q	R	S
1	Group	Class	Measure	Value	Unit	Aggregation
2						
3						

#### i) Columns N and O

- **Group** and **Class** help organize the **Measure** field by making specific measures easier to find (see the example in the next section). Both fields have a drop-down menu and are optional.
- Leave these fields **blank** if you do not use them.

#### ii) Column P

- **Measure** is where you select what is being measured. A measure in ODM is a “measurement or observation of any substance including a biological, physical or chemical substance”.
- **Measure** has a conditional drop-down menu. If you chose to enter in a **Class** (column O), the drop down menu will contain the **Measures** found in that **Class**. As mentioned, you can also enter a value into **Group** to help organize everything. If you did not enter a value in column O, the menu will contain all possible measures.
- For example, to find the allele measures for SARS-CoV-2 you can start by selecting **SARS-CoV-2** in the **Group** column. Next, you select **Alleles** in the **Class** field. Then, in the



### Detailed description

drop-down menu of the **Measure** field, you will see all the possible measures that contain SARS-CoV-2 allele regions.

	N	O	P	Q
	Group	Class	Measure	Value
1				
2	SARS-CoV-2	Alleles		
3			BRSV-N	
4			SARS-CoV-2-E	
5			SARS-CoV-2-N1	
6			SARS-CoV-2-N2	
7			SARS-CoV-2-N3	
8			SARS-CoV-2-RdRp	
9			crAssphage-N	
10			PMMoV-CP	

#### iii) Column Q

- **Value** is where you enter the value of your measure. For instance, if you recorded an **Environmental temperature** of 20 °C, you would enter “20”.
- Note: While the value you enter into this field can be of any data type, each measure is associated with a specific one. Data types for each measure can be found in the reference documentation. For example, the data type for **Environmental temperature** can be found [here](#).

#### iv) Column R

- **Unit** is where you enter the unit of your measure. This is a conditional drop-down menu field that lists all units that are valid for what was entered in the **Measure** field. For example, if selected **Environmental temperature** in the **Measure** field, the only unit displayed is **Celsius**.

#### v) Column S

- **Aggregations** is where you enter the aggregation of your value using a drop-down menu. For instance, does your

## How to use the ODM

value represent a mean, median, etc.

- What appears in this menu list depends on what you entered in the **Unit** field (column R).

### 4. Columns T to AB

	T	U	V	W	X	Y	Z	AA	AB
1	Nomenclature	Index	Measure license	Reportable	Organization ID	Contact ID	Reference link	Last edited	Notes
2									
3									

#### i) Columns U, V, Z and AB

- These are free-form fields.
- **Index** (column U) is used if you have multiple entries with the same values in most of the other fields; an example is when you make replicates of measures. If this is the case you can enter “1”, “2”, etc. in this field to differentiate them.
- **Measure license** (column V) refers to the access and use licensing of the measure that you are entering.

#### ii) Column T and W

- These are fields which contain drop-down menus.
- **Reportable** (column W) is where you can indicate if the measure should not be used for regular reporting due to quality concerns. You can record more details of the quality concerns in the **Quality reports** template.

#### iii) Column X and Y

- These are identifier fields that are used to indicate the organization and contact person associated with the entry.

#### iv) Column AA

- **Last edited** is where you can indicate the date when the entry was last updated. This field is used when you modify an entry after your initial recording. Leave this field blank if the entry was entered with no updates.

## Measure set report template

### 1. Columns A to G

	A	B	C	D	E	F	G
1	Report set ID	Protocol ID	Name	Organization ID	Contact ID	Last edited	Notes
2							
3							

#### i) Columns A, B, D and E

- These are identifier fields.
- **Report Set ID** (column A) is the unique identifier for this template, and cannot be repeated between entries. In essence, each value of **Report set ID** represents a unique measure set. This field can be any combination of letters or words up to 30 characters.
- For the rest, you can repeat the identifier between entries (if needed). For instance, if you are entering two different measure sets that came from the same organization, then the **Organization ID** (column D) will be the same.
- You may have already created these identifiers in another template. For instance you may have created **Organization ID** in the **Organization** template.

#### Columns C and G

- These are free form fields in which you can enter the indicated information. **Name** (column C) refers to the name that you have given to the measure set.

#### ii) Column F

## *How to use the ODM*

- **Last edited** is a date field in which you can enter the date when the entry was last updated. This field is used when you modify an entry after your initial recording. Leave this field blank if the entry was entered with no updates.

You have now entered your data in the **Measure report** and **Measure set report** templates, congratulations!

### **3) How to report samples and sample relationships:**

In this guide you will learn how to enter information about samples and sample relationships into their respective templates. In the **Sample report** (or **samples** tab) template, each entry represents a sample. A sample is the wastewater that you collected so that measures can be made. Along the same lines, each entry in the **Sample relationships** (or **sampleRelationships**) template represents an interaction (or relationship) between two samples in the form “subject - relationship - object”. So, to specify that Sample A is a field sample replicate of Sample B, you would enter **Sample ID of A - Field sample replicate - Sample ID of B**.

You can find additional information regarding terms and the colour-coding of columns at the beginning of this document ([How-To guides](#)) and the Reference Guide - Parts document.

### **Quick Start**

Below you will find the fields that are mandatory for the **Sample report** and **Sample relationships** templates. You will also find definitions of these fields and examples of entries of data. A more detailed description of some of the key concepts can be found in the following section, Detailed Description.

## Samples Template

### 1. Mandatory fields

- **Sample ID:** Unique identifier for the **Sample report** template. Each value represents a sample.
- **Site ID:** Identifier for the location where a sample was taken.
- **Sample material:** Type of material that the sample is made of.
- **Sample collection type:** Method used to collect the sample.
- **Collection period:** The time period over which the sample was collected, in hours.
- **Collection number:** The number of subsamples that were combined to create the sample. Use NA for continuous, proportional or passive sampling.
- **Collection date time:** The date, time and time zone the sample was taken.

### 2. Examples

*Image will be added*

## Sample Relationships Template

### 1. Mandatory fields

- **Sample ID object:** The object (or one of the samples) of a relationship between two samples. This will always be a **Sample ID** that was previously created in the **Sample report** template.
- **Relationship:** Describes the relationship between two samples.

## How to use the ODM

- **Sample ID subject:** The subject (or one of the samples) of a relationship between two samples. This will always be a **Sample ID** that was previously created in the **Sample report** template.

## 2. Examples

*Image will be added*

## Detailed Description

### Sample report template

#### 1. Columns A to G

	A	B	C	D	E	F	G
1	Sample ID	Protocol ID	Organization ID	Contact ID	Site ID	Purpose	Sample material
2							
3							

#### i) Columns A to E:

- These are identifier fields.
- **Sample ID** (column A) is the unique identifier for this template and cannot be repeated between entries. You can think of each **Sample ID** value as representing a unique sample. This field can be any combination of letters or words up to 30 characters.
- For the rest of the fields, you can repeat values between entries. For instance, if you are entering two different samples from the same site, then the **Site ID** (column E) will be the same.

## Detailed Description

- You may have already created these identifiers in another template. For instance you may have created **Site ID** in the **Sites** template.

### ii) Columns F to G:

- These are fields that contain drop-down menus where you can enter information regarding the **Purpose** (column F) and **Sample material** (column G) of your sample.

## 2. Columns H to O

	H	I	J	K	L	M	N	O
1	Dataset ID	Sample origin	Replicate Type	Sample collection type	Collection period	Collection number	Collection number and period	Pooled
2								
3								

### i) Columns H:

- **Dataset ID** is an identifier field for the dataset that your sample is associated with.

### ii) Columns I to K, O:

- These fields contain drop-down menus and are related to various characteristics of your sample.
- **Sample collection type** (column K) refers to the collection technique you used to obtain the sample.
- **Pooled** (column O) refers to whether or not the sample that you are entering is made up of multiple child samples.

### iii) Columns L to N:

- These are free form fields.
- **Collection period** (column L) refers to the number of hours that you took to collect the sample.
- **Collection number** (column M) refers to the number of subsamples that were used to create Sample that you are entering.
- **Collection number and period** (column N) is a combination of the previous two fields.

## How to use the ODM

### 3. Columns P to W

	P	Q	R	S	T	U	V	W
1	Collection date time	Collection date time start	Collection date time end	Date sample was sent	Date sample recieved	Reportable	Last edited	Notes
2								
3								

#### i) Columns P to T, V:

- These are date fields that are related to your sample. These dates will be in the format yyyy-mm-dd. Including hours and minutes is optional, but all date-entries use the ISO 8601 format. 2022-01-01T06:11:54 or 2022-01-01T06:11:54+13:30.
- **Last edited** is where you can enter the date when the entry was last updated. This field is used when you modify an entry after your initial recording. Leave this field blank if the entry was entered with no updates.

#### ii) Column U and W:

- **Reportable** (column U) is a drop-down menu field where you can indicate if the sample should not be used for regular reporting due to quality concerns. You can record more details of the quality concerns in the **Quality reports** table.
- **Notes** (column W) is a free form field where you can indicate anything of interest.

## Sample relationships template

### 1. Columns A to E

#### i) Columns A and C:

- These are identifier fields.



### Detailed Description

	A	B	C	D	E
1	<b>Sample ID Subject</b>	<b>Relationship</b>	<b>Sample ID Object</b>	<b>Last Edited</b>	<b>Notes</b>
2					
3					

- Both of these identifiers are **Sample ID** values and represent samples. You would have created them previously in the **Sample report** template. Neither of them are unique identifiers and, thus, can be repeated between entries.

#### ii) Columns B:

- **Relationship** is a drop-down menu field where you can select the type of relationship between two samples. For instance, if Sample B was a child of Sample A, you would put the **Sample ID** of Sample A in the **Sample ID subject** field (column A), and the **Sample ID** of Sample B in **Sample ID object** field (column C). Then you would chose **Child relationship** from the menu in this column.

#### iii) Columns D and E:

- These are a date field (column D) and a free form field (column E) where you can enter in the indicated information.
- **Last edited** (column D) is where you can enter in the date when the entry was last updated. This field is used when you modify an entry after your initial recording. Leave this field blank if the entry was entered with no updates.

You have now entered your data in the **Sample report** and **Sample relationships** templates, congratulations!

## **4) How to report protocols, protocol steps and protocol relationships:**

In this guide you will learn how to enter protocols, protocol steps and protocol relationships into their respective templates. A protocol is “A procedure for collecting a sample or performing a measure”. Each entry in the **Protocols** (or **protocols**) template represents a unique protocol. A protocol is made up of protocol steps. In the **Protocol steps** (or **protocolSteps**) template, each entry is one of these steps. Finally, protocols and protocol steps can be linked to each other. Each entry in the **Protocol relationships** (or **protocolRelationships**) template represents one of these relationships in the form, “subject - relationship - object”. So, for example, if you want to specify that Protocol step A needs to be done before Protocol step B, you would enter the **Protocol step ID** of A - **Is Before** - **Protocol Step ID** of B.

You can find additional information regarding terms and the colour-coding of columns at the beginning of this guide ([How-To guides](#)) and the Reference Guide - Parts document.

### **Quick Start**

Below you will find the fields that are mandatory for the **Protocols**, **Protocol steps** and **Protocol relationships** templates. You will also find definitions of these fields and examples of entries of data. A more detailed description of some of the key concepts can be found in the following section, Detailed Description.

#### **Protocol steps template**

##### **1. Mandatory fields**

- **Protocol Step ID:** The unique identifier for the **protocol steps** template. Each value represents a protocol step.
- **Measure:** A measurement or observation of any substance including a biological, physical or chemical substance.
- **Method:** A procedure for collecting a sample or performing a measure.
- **Value:** Value of the entry. This is only mandatory if the entry is a measure.
- **Aggregation:** Statistical measures used to report a measure (for example, “mean”). This is only mandatory if the entry is a measure.
- **Unit:** The units of the value. This is only mandatory if the entry is a measure.

## 2. Examples

*Image will be added*

## Protocols template

### 1. Mandatory fields

- **Protocol ID:** The unique identifier for the **Protocols** template. Each value represents a protocol.

### 2. Examples

*Image will be added*

## **Protocol relationships template**

### **1. Mandatory fields**

- **Protocol ID container:** The unique identifier for the **Protocol relationships** template. Each value represents a protocol, and the step(s) and other protocol(s) that make it up. This identifier should also be a **Protocol ID** that was created using the **Protocols** template.
- **Relationship:** Describes the relationship between the subject and object.
- **Protocol ID subject:** Identifier of the subject of a relationship between a protocol, and a protocol step or protocol. This is only mandatory if the subject is a protocol.
- **Protocol step ID subject:** Identifier of the subject of a relationship between a protocol step, and a protocol step or protocol. This is only mandatory if the subject is a protocol step.
- **Protocol ID object:** Identifier of the object of a relationship between a protocol, and a protocol step or protocol. This is only mandatory if the object is a protocol.
- **Protocol ID step object:** Identifier of the object of a relationship between a protocol step, and a protocol step or protocol. This is only mandatory if the object is a protocol step.

### **2. Examples**

*Image will be added*

## Detailed Description

### Protocol steps template

#### 1. Columns A to G

	A	B	C	D	E	F	G
1	Protocol Step ID	Method	Measure	Summary	Protocol step source ID	Protocol Step Version	Reference link
2							
3							

##### i) Column A and E:

- These are identifier fields.
- **Protocol step ID** (column A) is the unique identifier field for this template and cannot be repeated between entries. You can think of each **Protocol Step ID** value as representing a unique protocol step. This field can be any combination of letters or words up to 30 characters.
- **Protocol step source** (column E) specifies the protocol step that you used as a basis for the given protocol step (it will be a previous **Protocol step ID**).

##### ii) Columns B to C:

- These are fields with drop-down menus.
- You only need to enter a value into **Method** (column B) or **Measure** (column C). The former is for when you are entering a method as a protocol step. The latter is when you are entering a measure as a protocol step. Leave the other field **blank**.

##### iii) Columns D, F and G:

- These are free form fields.
- **Summary** (column D) is a short description of the protocol step that you are entering.

## How to use the ODM

- **Protocol step version** (column F) specifies the version of a given protocol step.

### 2. Columns H to O

	H	I	J	K	L	M	N	O
1	Organization ID	Contact ID	Instrument ID	Value	Unit	Aggregation	Last Edited	Notes
2								
3								

#### i) Columns H to J:

- These are identifier fields.
- You can repeat values between entries. For instance, if you are entering two different protocol steps from the same organization, then the **Organization ID** field (column H) will be the same.

#### ii) Column K:

- **Value** is a free form field where, if the protocol step is a measure, you can enter its value.

#### iii) Columns L and M:

- These fields contain conditional drop-down menu fields.
- **Unit** (column L) depends on what you entered in **Measure** (column C). This field is only applicable if the protocol step is a measure.
- **Aggregation** (column M) depends on what you entered in **Unit** (column L). This field is only applicable if the protocol step is a measure.

#### iv) Columns N and O:

- These are a date field (column N) and a free form field (column O) where you can enter in the indicated information.
- **Last edited** (column N) is where you can enter the date when the entry was last updated. This field is used when you modify an entry after your initial recording. Leave this field blank if the measure was entered with no updates.

## Detailed Description

This date will be in the format yyyy-mm-dd. Including hours and minutes is optional, but all date-entries use the ISO 8601 format. 2022-01-01T06:11:54 or 2022-01-01T06:11:54+13:30.

### Protocols template

#### 1. Columns A to F

	A	B	C	D	E	F
	Source					
1	Protocol ID	Protocol ID	Dataset ID	Name	Summary	Reference link
2						
3						

##### i) Columns A to C:

- These are identifier fields.
- **Protocol ID** (column B) is the unique identifier for this template, and cannot be repeated between entries. In essence, each value of **Protocol ID** represents a unique protocol. This field can be any combination of letters or words up to 30 characters.
- For **Dataset ID**(column C), you can repeat between entries (if needed). For instance, if you are entering two different protocols from the same dataset, then the **Dataset ID** will be the same.
- You may have already created the **Dataset ID** values in the **Dataset** template.
- **Source Protocol ID** (column A) is where you can enter the **Protocol ID** of the protocol that served as the basis for the protocol that is currently being entered.

##### ii) Columns D to F:

## How to use the ODM

- These are free form fields in which you can enter the indicated information.
- **Name** (column D) refers to the name that you have decided to give your protocol.

### 2. Columns G to K

G	H	I	J	K
<b>Organization ID    Contact ID</b>		<b>Protocol Version</b>	<b>Last Edited</b>	<b>Notes</b>

#### i) Columns G, H:

- These are identifier fields. You can repeat values between entries.

#### ii) Columns I, K:

- These are free form fields.
- **Protocol version** (column I) is where you can indicate the version of the protocol that you are entering.

#### iii) Columns J:

- **Last edited** is a date field where you can enter the date when the entry was last updated. This field is used when you modify an entry after your initial recording. Leave this field blank if the measure was entered with no updates.

## Protocol relationships template

### 1. Columns A to H

#### i) Columns A to C, E and F:

- These are identifier fields.



## Detailed Description

	A	B	C	D	E	F	G	H
1	Protocol ID Container	Protocol ID Object	Step ID Object	Relationship	Protocol ID Subject	Step ID Subject	Last Edited	Notes
2								
3								

- All of these identifiers are either **Protocol ID** values or **Protocol Step ID** values, and represent protocols and protocol steps, respectively. This includes **Protocol ID Container** (column A), which is a **Protocol ID** that contains the relationships that you are entering in this template. Note that none of these fields are unique identifiers and, thus, they can be repeated between entries.
- You should only enter a value for one of the two **object** columns (column B and C); this depends on whether the object of the relationship that you are entering is a protocol or a protocol step. The same is true for the two **subject** columns (column E and F).
- An example will be given in point (ii) below.

### ii) Columns D:

- **Relationship** contains a drop-down menu; it is where you can select the type of relationship that is being entered.
- For example, pretend you wanted to enter a relationship stating that Protocol step A takes place before Protocol step B in a particular protocol container. You would enter the relevant identifiers in the **Step ID Object** field (column B) and the **Step ID subject** field (column F). You would then select **Is Before** from the **Relationship** field. Finally, to identify this relationship, you would enter in the identifier in the **Protocol ID Container** field (column A)

### iii) Columns G and H:

### *How to use the ODM*

- These are a date field (column G) and a free form field (column H) where you can enter in the indicated information.
- **Last edited** (column G) is where you can enter the date when the entry was last updated. This field is used when you modify an entry after your initial recording. Leave this field blank if the measure was entered with no updates.

You have now entered your data in the **Protocol steps**, **Protocols** and **Protocol relationships** templates, congratulations!

## **5) How to report metadata**

In this guide you will learn how to enter in the metadata of your wastewater data through a series of templates. Each entry in a template will usually represents what is found in the title of the template. For instance, in the **Organizations** template each row will represent an organization. In the context of the PHES-ODM, metadata is anything that gives general information about the data that you are entering and is not found in the templates related to measures, protocols and samples.

You can find additional information regarding terms and the colour-coding of columns at the beginning of this guide (**How-To guides**) and the Reference Guide - Parts document.

### **Quick Start**

Below you will find the fields that are mandatory for the metadata-related templates. You will also find definitions of these fields and examples of entries of data. A more detailed description of some of the key concepts can be found in the following section, Detailed Description.

## Address (or addresses) template

### 1. Mandatory fields

- **Address ID:** The unique identifier for the **Address** template. Each value represents an address.
- **Dataset ID:** The identifier of the dataset that stores information for measures, samples and other reporting tables.
- **Address line 1:** Line 1 (the street name, number and direction) for a given address of a site or organization.
- **City:** The city where a site or organization is located; part of the address.
- **State, province or region:** The state, province, or region where a site or organization is located; part of the address.
- **Country:** The country where a site or organization is located; part of the address.

### 2. Examples

*Images will be added*

## Contact (or contacts) template

### 1. Mandatory fields

- **Contact ID:** The unique identifier for the **Contact** template. Each value represents a contact person.
- **Organization ID:** An identifier for the organization to which the contact person is affiliated.
- **Email:** Contact e-mail address.

*How to use the ODM*

## 2. Examples

*Images will be added*

### **Dataset (or datasets) template**

#### 1. Mandatory fields

- **Dataset ID:** A unique identifier for the **Dataset** template. Each value represents a dataset.
- **License:** The license of the dataset.
- **Data custodian:** The data custodian of the database. This is represented by an **Organization ID** and would have been created in the **Organization** template.

#### 2. Examples

*Images will be added*

### **Instrument (or instruments) Template**

#### 1. Mandatory fields

- **Instrument ID:** The unique identifier for the **Instrument** template. Each value represents an instrument.
- **Dataset ID:** The identifier of the dataset that stores information for measures, samples and other reporting tables.
- **Model:** Model number or version of the instrument.
- **Instrument type:** The type of instrument used to perform the measurement.

## 2. Examples

*Images will be added*

### Organization (or organizations) template

#### 1. Mandatory fields

- **Organization ID:** The unique identifier for the **Organization** template. Each value represents an organization to which the reporter is affiliated.
- **Address ID:** An identifier for the address of the organization.

#### 2. Examples

*Images will be added*

### Polygon (or polygons) template

#### 1. Mandatory fields

- **Polygon ID:** The unique identifier for the **Polygon** template. Each value represents a polygon.
- **Type of geography:** Type of geography that is represented by the polygon.
- **Well-known text:** Well-known text of the polygon.
- **European Petroleum Survey Group Coordinates:** A code that specifies a given geospatial area.

#### 2. Examples

*Images will be added*

## **Quality reports (or qualityReports) template**

### **1. Mandatory fields**

- **Quality report ID:** The unique identifier for the **Quality reports** template. Each value represents a quality issue that you wish to report.
- **Report ID:** An identifier for a measure. This is only mandatory if the entry is about a measure.
- **Sample ID:** An identifier for a sample. This is only mandatory if the entry is about a sample.
- **Report set ID:** An identifier that links together a group of related measures. This is only mandatory if the entry is related to a measure set.
- **Quality flag:** A field for reporting any quality concerns for a sample or measure.

### **2. Examples**

*Images will be added*

## **Sites (or sites) template**

### **1. Mandatory fields**

- **Site ID:** The unique identifier for the **Sites** template. Each value represents the site where a wastewater sample was taken.
- **Site type:** Type of site where a sample was taken.
- **Sample shed:** A geographic area, physical space, or structure. A sample is taken from a sample shed for a representative measurement of a substance.
- **Contact ID:** An identifier for a given contact person.
- **Latitude:** Latitude in decimal coordinates of the site.
- **Longitude:** Longitude in decimal coordinates of the site.

## Detailed Description

- **European Petroleum Survey Group Coordinates:** A code that specifies a given geospatial area.

### 2. Examples

*Images will be added*

## Detailed Description

### Address template

#### 1. Columns A to E

	A	B	C	D	E
1	Address ID	Dataset ID	Address Line 1	Address Line 2	City
2					
3					

#### i) Columns A and B:

- These are identifier fields.
- **Address ID** (column A) is the unique identifier for this template, and cannot be repeated between entries. You can think of each **Address ID** value as representing a unique address. This field can be any combination of letters or words up to 30 characters.
- For **Dataset ID** (column B), you can repeat the value between entries (if needed). For instance, if you are entering two different addresses from the same dataset, then this column will be the same.

## How to use the ODM

- You may have already created the **Dataset ID** in the **Dataset** template.

### ii) Columns C to E:

- These are free form fields in which you can enter various information about the address.

## 2. Columns F to J

	F	G	H	I	J
1	State, Province, or Region	Postal or Zip Code	Country	Last Edited	Notes
2					
3					

### i) Columns F to J:

- Most of these are free form fields where you can enter the indicated information about the address.
- **Last edited** (column I) is a date field where you can enter the date when the entry was last updated. This field is used when you modify an entry after your initial recording. Leave this field blank if the measure was entered with no updates.

This date will be in the format yyyy-mm-dd. Including hours and minutes is optional, but all date-entries use the ISO 8601 format. 2022-01-01T06:11:54 or 2022-01-01T06:11:54+13:30.

## Contact template

### 1. Columns A to E



### Detailed Description

	A	B	C	D	E
1	Contact ID	Dataset ID	Organization ID	First name of contact	Last Name of Contact
2					
3					

#### i) Columns A to C:

- These are identifier fields.
- **Contact ID** (column A) is the unique identifier for this template, and cannot be repeated between entries. You can think of each **Contact ID** value as representing a unique contact person. This field can be any combination of letters or words up to 30 characters.
- For the rest of the fields, you can repeat the values between entries (if needed). For instance, if you are entering two different contacts that came from the same organization, then the **Organization ID** (column C) will be the same.
- You may have already created these Identifiers in another template. For instance you may have created **Organization ID** in the **Organization** template.

#### ii) Columns D and E:

- These are free form fields in which you can enter the name of the contact.

## 2. Columns F to J

#### i) Columns F to J:

- Most of these fields are free form in which you can enter various information regarding the contact.

## How to use the ODM

	F	G	H	I	J
1	Contact email	Contact phone	Role of Contact	Last Edited	Notes
2					
3					

- **Last Edited** (column I) is a date field where you can enter the date when the entry was last updated. This field is used when you modify an entry after your initial recording. Leave this field blank if the measure was entered with no updates.

## Dataset template

### 1. Columns A to G

	A	B	C	D	E	F	G
1	Parent Dataset ID	Dataset ID	Dataset Creation Date	Name	License	Description	Reference link
2							
3							

#### i) Columns A and B:

- These are identifier fields.
- **Dataset ID** (column B) is the unique identifier for this template, and cannot be repeated between entries. You can think of each value of **Dataset ID** as representing a unique dataset. This field can be any combination of letters or words up to 30 characters.
- For **Parent dataset ID** (column A), you can repeat the value between entries (if needed). For instance, if you are entering two different datasets that came from the same

## Detailed Description

parent dataset, then the **Parent dataset ID** will be the same.

### ii) Column C

- **Dataset creation date** is a date field where you can enter the date that the dataset was created.

### iii) Columns D to G:

- These are free form fields in which you can enter various information related to the dataset.

## 2. Columns H to N

	H	I	J	K	L	M	N
1	Language ID	Funder Contact ID	Custody Contact ID	Funding agency ID	Data custodian ID	Last edited	Notes
2							
3							

### i) Columns H to L:

- These are identifier fields.
- For information regarding funders, you can enter their **Funder Contact ID** (which is a **Contact ID** created in the **Contact** template) and **Funding Agency** (which is a **Organization ID** created in the **Organization** template) in columns I and K.
- For information regarding Data Custodians, you can enter their **Custody Contact ID** (which is a **Contact ID** created in the **Contact** template) and **Data Custodian ID** (which is a **Organization ID** created in the **Organization** template) in columns J and L.

### ii) Columns M and N:

- These are a date field (column M) and a free form field (column N) where you can enter in the indicated information.

## How to use the ODM

- **Last edited** (column M) is the date when the entry was updated. This field is used when you modify an entry after your initial recording. Leave this field blank if the measure was entered with no updates.

### Instrument template

#### 1. Columns A to G

	A	B	C	D	E	F	G
1	<b>Instrument ID</b>	<b>Dataset ID</b>	<b>Name</b>	<b>Model</b>	<b>Manufacturer</b>	<b>Contact ID</b>	<b>Organization ID</b>
2							
3							

##### i) Columns A, B, F and G:

- These are identifier fields.
- **Instrument ID** (column A) is the unique identifier for this template, and cannot be repeated between entries. In essence, you can think of each **Instrument ID** value as representing a unique instrument. This field can be any combination of letters or words up to 30 characters.
- For the rest of the columns, you can repeat the value between entries (if needed). For instance, if you are entering two different instruments from the same dataset, then **Dataset ID** column will be the same.
- You may have already created some of the identifiers in other templates. For instance, you may have already created **Dataset ID** in the **Datasets** template.

##### ii) Columns C to E

- These are free form fields where you can enter the **Name** (column C), **Model** (column D) and **Manufacturer** (column E) of the instrument.

## Detailed Description

### 2. Columns H to N

	H	I	J	K	L	M	N
1	Description	Reference link	Instrument Type	Describe other instrument type, if applicable	Index	Last Edited	Notes
2							
3							

#### i) Columns H, I, L to N:

- Most of these fields are free form in which you can enter relevant information regarding your instrument
- You can use **Index** (column L) to differentiate two entries of data that are the same in the other fields.
- **Last Edited** (column M) is a date field where you can indicate the date when the entry was updated. This field is used when you modify an entry after your initial recording. Leave this field blank if the measure was entered with no updates.

#### ii) Columns J and K:

- For **Instrument type** (column J), you can select from the drop-down menu the type of instrument. If you do not see your instrument, you can enter **Other instrument**.
- If you entered **Other instrument** in the **Instrument type** field, you can use the **Describe other instrument type, if applicable** field (column K) to describe your instrument.

## Organization template

### 1. Columns A to E

	A	B	C	D	E
1	Organization ID	Name	Description	Dataset ID	Address ID
2					
3					

## How to use the ODM

### i) Columns A, D and E:

- These are identifier fields.
- **Organization ID** (column A) is the unique identifier for this template, and cannot be repeated between entries. You can think of each value of **Organization ID** as representing a unique organization. This field can be any combination of letters or words up to 30 characters.
- For the rest of the columns, you can repeat the value between entries (if needed). For instance, if you are entering two different organizations with the same address, then the **Address ID** will be the same.
- You may have already created some of the identifiers in other templates. For instance, you may have already created the **Address ID** in the **Address** template.

### ii) Columns B and C:

- These columns are free form fields in which you can enter additional information regarding the organization.

## 2. Columns F to J

F	G	H	I	J
Organization type	Organization level	Organization sector	Last edited	Notes

### i) Columns F to H:

- These are fields with drop-down menus where you can select various characteristics of the organization that you are entering.

### ii) Columns I and J:

- These are a date field (column I) and a free form field (column J) where you can enter in the indicated information.
- **Last edited** (column I) is the date when the entry was updated. This field is used when you modify an entry after

## Detailed Description

your initial recording. Leave this field blank if the measure was entered with no updates.

### Polygon template

#### 1. Columns A to G

	A	B	C	D	E	F	G
1	Polygon ID	Dataset ID	Name	Description	Polygon Population	Type of geography	European Petroleum Survey Group Coordinates
2							
3							

##### i) Columns A and B:

- These are identifier fields.
- **Polygon ID** (column A) is the unique identifier for this template, and cannot be repeated between entries. A polygon is something that describes the geometry of a geographic area. You can think of each value of **Polygon ID** as representing a unique polygon. This field can be any combination of letters or words up to 30 characters.
- For **Dataset ID** (column B), you can repeat the value between entries (if needed). For instance, if you are entering two different polygons from the same dataset, then this column will have the same value.
- You may have already created the **Dataset ID** in the **Dataset** template.

##### ii) Columns C to E, G:

- These are free form fields in which you can enter additional information regarding the Polygon.
- **Name** (column C) is the name of the polygon.
- **European Petroleum Survey Group Coordinates** (column G) is a coordinate system that can be used to identify where a polygon is.

## How to use the ODM

### iii) Columns F:

- For **Type of geography** (column F) of the polygon, you can select one of the values from the drop-down menu.

## 2. Columns H to N

	H	I	J	K	L	M	N
1	Well-known text	File Location of Polygon	Reference link	Organization ID	Contact ID	Last Edited	Notes
2							
3							

### i) Columns H to J, M and N:

- These are free form fields and a date field in which you can enter relevant information regarding the polygon.
- **Well-known text** (column H) refers to the text markup language that can be used to represent the polygon.
- **Last edited** (column M) is a date field where you can enter the date when the entry was last updated. This field is used when you modify an entry after your initial recording. Leave this field blank if the measure was entered with no updates.

### ii) Columns K and L:

- These are identifier fields in which the **Organization ID** and the **Contact ID** associated with the polygon are entered.

## Quality reports template

### 1. Columns A to H

	A	B	C	D	E	F	G	H
1	Quality Report ID	Report ID	Sample ID	Report Set ID	Quality Flag	Severity indicator	Last Edited	Notes
2								
3								



i) Columns A to D:

- These are identifier fields.
- **Quality report ID** (column A) is the unique identifier for this template, and cannot be repeated between entries. You can think of each value of **Quality Report ID** as representing a unique quality issue that you want to report. This field can be any combination of letters or words up to 30 characters.
- For the rest of the columns, you can repeat the value between entries (if needed). For instance, if you are entering two different quality reports for the same sample, then the **Sample ID** column will be the same.
- You may have already created some of the identifiers in other templates. For instance, you may have already created the **Sample ID** in the **Sample report** template.

ii) Columns E and F:

- **Quality flag** (column E) is a drop-down menu field where you can select the type of quality issue that you would like to enter.
- **Severity indicator** (column F) is also a drop-down menu field where you can indicate the severity of the quality flag.

iii) Columns G and H:

- These are a free form field and a date field in which you can enter the indicated information.
- **Last edited** (column M) is a date field where you can enter the date when the entry was last updated. This field is used when you modify an entry after your initial recording. Leave this field blank if the measure was entered with no updates.

## Sites template

### 1. Columns A to F

	A	B	C	D	E	F
1	Parent Site ID	Site ID	Dataset ID	Polygon ID	Site Type	Sample shed
2						
3						

#### i) Columns A to D:

- These are identifier fields.
- **Site ID** (column B) is the unique identifier for this template, and cannot be repeated between entries. You can think of each value of **Site ID** as representing a unique site. This field can be any combination of letters or words up to 30 characters.
- For the rest of the columns, you can repeat the value between entries (if needed). For instance, if you are entering two different sites that are found in the same polygon, then the **Polygon ID** values will be the same.
- **Parent site ID** (column A) refers to the site that is parent to the site that is being entered. For example if the site that is being entered is a room in a facility, then the **Parent site ID** would refer to the facility.

#### ii) Columns E and F:

- These are drop-down menu fields in which you can specify the **Site Type** (column E) and the type of **Sample shed** (column F).

### 2. Columns G to M

	G	H	I	J	K	L	M
1	Address ID	Organization ID	Contact ID	Name	Description	Primary reporting authority ID	Secondary reporting authority ID
2							
3							

## Detailed Description

i) Columns G to I, L and M:

- These are identifier fields that you can use to record additional information about the site. **Primary reporting authority ID** (column L) and **Secondary reporting authority ID** (column M) are **Organization** IDs that you would have created using the **Organization** template.

ii) Columns J and K:

- These are all free form fields in which you can enter in relevant information about the site.

### 3. Columns N to S

	N	O	P	Q	R	S
	Population Served	Latitude	Longitude	European Petroleum Survey Group Coordinates	Last Edited	Notes
1						
2						
3						

i) Columns N to S:

- These are free form fields and a date field where you can enter in additional information about the Site.
- **European Petroleum Survey Group Coordinates** (column Q) is a coordinate system that can be used to identify where your site is.
- **Last Edited** (column S) is a date field where you can enter the date when the entry was last updated. This field is used when you modify an entry after your initial recording. Leave this field blank if the measure was entered with no updates.

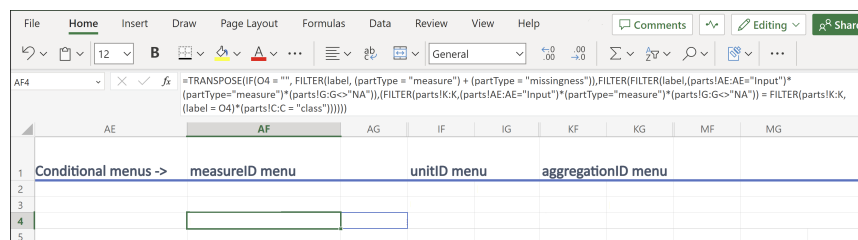
You have now entered in your metadata, congratulations!

## Notes regarding templates

### Templates with conditional menus (Measure report and Protocol steps)

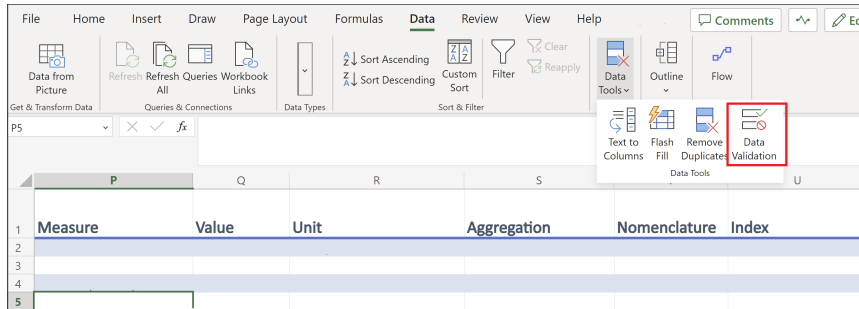
#### Adding more conditional menus

- The code to determine the entries for the conditional menus are found to the right of the main template. Unlike the main template, the rows containing the code will not be alternating in colour.
- The code is only present for the first three rows. If you want to use conditional menus for additional rows, you will need to copy the code to these rows as well as create the menus in the desired cells. As an example, pretend that you wanted to add a **Measure** field conditional menu to row 5 in the **Measure report** template. The first thing you would do is copy the code from AF4 to AF5 (see below, all images in this example are from Excel Online).

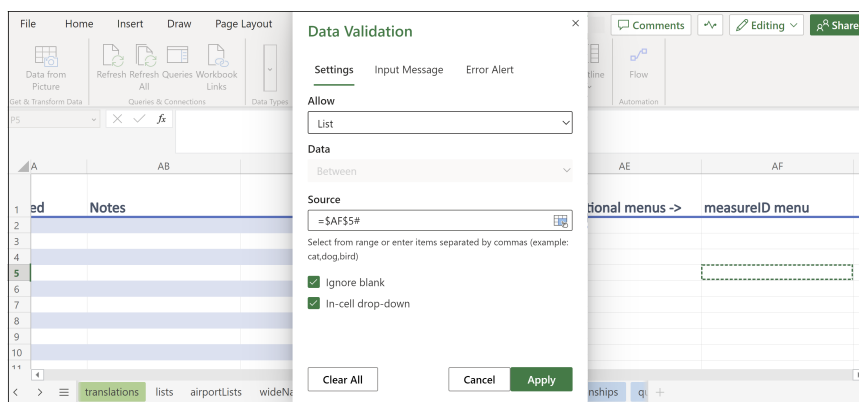


- Then, to create the new menu, you would go to P5 (which is where the new conditional menu will be located). You would select “Data validation”, which is under “Data Tools” in the “Data” tab (it is outlined in red in the image below).

## Notes regarding templates



- Finally, you would select “List” from the “Allow” menu and then enter the following text “=\$AF\$5#” under “Source”. The column and row indicators (“AF” and “5”, in this example) match up with where you copied the new code (“AF5”).



For additional menus, repeat the above steps. Adding conditional menus in an online environment (such as Excel Online) may slow down the templates considerably.

### **Troubleshooting conditional menus**

- The conditional menus work by searching the `partLabels` column in the `parts` table that is included with the templates.
- If you obtained an error with these menus check if any changes were made to the `parts` table.

### **Templates with menus (all templates other than the Measure sets, Protocols, Contact, Address and Dataset templates)**

#### **Part IDs**

- In the main parts of each of the templates, labels are used in the menus.
- If you wish to have the part IDs of these values, they are located to the right of the main template and, if applicable, the code for the conditional menus. Unlike the main template, the rows containing the part IDs will not be alternating in colour.
- The part IDs are present in the first 100 rows of each of the templates.

### **Troubleshooting menus (not including conditional menus)**

- The menus are based on what is found in the `lists` tab that is included with the templates.
- If you obtained an error with these menus check if any changes were made to the `lists` tab.

**Part I.**

**Reference guide**





The reference guide is a technical description of the ODM **parts**. There are three sections to the reference guide.

- **parts** – Parts are the smallest way of describing anything in the ODM. An analogy to parts of a car can be used to illustrate this point. If you own a car, your garage can access a parts list that contains every part of your car, right down to every nut and bolt. There are over 900 parts, all listed in alphabetical order. Each part has up to 60 different attributes such as the part name and description.
- **tables** - The ODM database model has 21 tables in its full relational database. The full model is commonly referred to as “long” tables as it stores data with one measurement per row. The most important tables are the ‘report’ tables that are used for daily reporting of measures and samples.
- **sets** - Sets are lists or collections of parts. You can think of sets as the elements of drop down lists or categories.

💡 Did you know that each part ID has its own URL?

Every part, table, and set has its own URL, that is created using the partID. partIDs are usually parentheses that follow a part, table, or set name.

For example, ‘airport’ is a sample shed category which would appear as: **Airport** ([airport](#)). The permanent link to the airport partID is, <https://docs.phes-odm.org/parts.html#airport>. Airport also is listed in the **Sampleshed** category set ([shedCatSet](#)).



# Parts

Dictionary 2.0.0.

Parts are the smallest way of describing anything in the ODM. An analogy to parts of a car can be used to illustrate this point. If you own a car, your garage can access a parts list that contains every part of your car, right down to every nut and bolt. Similarly, the ODM has a **part ID** ([partID](#)) and **part description** ([partDescription](#)) for every measure, method, and attribute. There are also **part IDs** for **units**, **aggregations**, and other **parts**. The part list is presented below.

💡 Did you know you can identify part IDs by their specific naming format?

Each part ID starts with a lowercase character and contains no special characters. Parts have less than 12 characters, while part types such as units and aggregations have a maximum of seven characters. The unique construction of part IDs serves several purposes in addition to generating valid URLs. Users can create wide table variable names (headers) using part IDs that are valid in all open software languages. ODM supports a standard method of generating wide variable names by concatenating partIDs with an underscore, `_`. For this reason, some part types have a limit of seven characters to ensure the total length of wide names remains less than 35 characters, which is the character limit length of some statistical language software. The wide variable naming method will be added to the documentation.

## Parts

### **a1306s delta-variant gene target**

(a1306s). a1306s delta-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **a1918v delta-variant gene target**

(a1918v). a1918v delta-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **a2710t omicron-variant gene target**

(a2710t). a2710t omicron-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA

*Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### **a63t omicron-variant gene target**

(a63t). a63t omicron-variant gene target *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### **a67v omicron-variant gene target**

(a67v). a67v omicron-variant gene target *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Atline Analyzer

(aas). Atline analyzer with sampler. An atline analyzer with sampler. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### Absolute humidity

(absHum). A measure of the total mass of water vapour present in the air per volume of air. *Part Type:* measurements *Domain:* phy *Speciment ID:* siSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* siteFeat *Class:* humid *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* absHumidUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Absolute humidity unit set

(absHumidUnitSet). Unit set for absolute humidity measurements. *Part Type:* unitSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* absHumidUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:*

0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Academic institution

(academ). The category of organization type used for academic institutions or research groups. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Number of active cases

(acti). Number of active cases. *Part Type*: units *Domain*: bio *Speciment ID*: poSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: integer *Missingness Set*: NA *Minimum Value*: 0 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

### Active

(active). Indicator that a part is in current use. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*:

## Parts

naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA  
*Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA  
*Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active.  
First released: 2.0.0. Last updated: 2.0.0.

## Analysis date

(aDate). Date the measurement was performed in the lab. *Part Type*: attributes  
*Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet  
*Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA  
*Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA  
*Reference Link*: NA *Data Type*: datetime *Missingness Set*: genMissingnessSet  
*Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30  
*Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Analysis date end

(aDateEnd). Date the measurement or analysis was completed. *Part Type*: attributes  
*Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet  
*Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA  
*Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA  
*Reference Link*: NA *Data Type*: datetime *Missingness Set*: genMissingnessSet  
*Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30  
*Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Analysis date start

(aDateStart). Date the measurement or analysis was started. *Part Type*: attributes  
*Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet  
*Group*: naGroup *Class*: naClass *Nomenclature*:



*ture: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: datetime Missingness Set: genMissingnessSet Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 1.0.0. Last updated: 2.0.0.*

## Address Line 1

(addL1). Line 1 (the street name, number and direction) for a given address. *Part Type: attributes Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: genMissingnessSet Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Address Line 2

(addL2). Line 2 (the unit number) for a given address. *Part Type: attributes Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: genMissingnessSet Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Parts

### Address table

(addresses). The table that contains information about addresses. Addresses can be recorded for sites, organizations or contacts (individuals). The Sites, Organizations, and Contacts tables include a link to the addresses table through Address ID. *Part Type:* table *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* programDescr *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Addresses table column order

(addressesOrder). Specifies the order of the columns in the Addresses table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 1 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Address table required headers

(addressesRequired). Specifies the columns required in a Addresses table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:*

naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Address ID

(addressID). A unique identifier for an address. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Administrative regions

(admRegLevel). Administrative regions *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: ISCU *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: nrNAMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Air filter

(afu). Air filter as part of filtration or circulating unit. Typically the unit would have a fan or blower. *Part Type*: categories *Domain*: naDomain *Speciment ID*: saSpecimenSet *Compartment Set*: airCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Aggregation scale

(aggragationScale). A scale used for an aggregation. Only applicable for measures and units. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 12 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Aggregation

(aggregation). Statistical measures used to report a measure. Each aggregation has a corresponding value. The default aggregation is 'single', which corresponds to a single measurement. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature

*Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 12 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Aggregations

(aggregations). Statistical measures used to report a measure. Each measure reported as a number should be reported with an aggregation. The default aggregation is ‘single’, which corresponds to a single measurement. *Part Type:* partType *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Aggregation scales

(aggregationScales). The scale of an aggregation set. Aggregation scales include quantitative and qualitative. *Part Type:* partType *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Aggregation set

(aggregationSet). The aggregation set for a unit. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 12 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Aggregation sets

(aggregationSets). Sets of aggregations. Examples of aggregation sets include logarithm, linear and boolean. *Part Type:* partType *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 15 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Air compartment

(air). A measure or observation made from a substance in the air. *Part Type:* compartmentSets *Domain:* allDo *Speciment ID:* anySpecimenSet *Compartment Set:* airCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:*

NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 1 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Air compartment set

(airCompartmentSet). A compartment set for measures and methods in the air compartment. *Part Type*: compartmentSets *Domain*: allDo *Speciment ID*: anySpecimenSet *Compartment Set*: airCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 15 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Airplane

(airpln). Airplane sample shed category type *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Airport

(airport). Airport sample shed category type *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*:

## Parts

naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Airport lists worksheet

(airportLists). Parts lists used to generate airport and airplane data entry templates. *Part Type*: dictionarySupport *Domain*: naDomain *Speciment ID*: saSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Air and surface compartment set

(airSurfaceCompartmentSet). A compartment set for measures and methods in the air or surface compartments. *Part Type*: compartmentSets *Domain*: allDo *Speciment ID*: anySpecimenSet *Compartment Set*: airSurfaceCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 15 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.



## Environmental temperature

(airTemp). Environmental temperature. *Part Type:* measurements *Domain:* phy *Speciment ID:* siSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* siteFeat *Class:* temperature *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* temperatureUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Air and water compartment set

(airWaterCompartmentSet). A compartment set for measures and methods in the air or water compartments. *Part Type:* compartmentSets *Domain:* allDo *Speciment ID:* anySpecimenSet *Compartment Set:* airWaterCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 15 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Alias deprecated

(aliasDep). ID of an assay that is the same or similar. A comma separated list. Deprecated as of version 2, please avoid use. Use notes instead. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set*

## Parts

*ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: genMissingnessSet Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 10 Part Status: **deprecated**.* First released: 1.0.0. Last updated: 2.0.0.

## Alias ID deprecated

(aliasIDDep). Alias id ID of an assay that is the same or similar. a comma separated list. *Part Type: attributes Domain: naDomain Specimen ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: genMissingnessSet Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 10 Part Status: **deprecated**.* First released: 1.0.0. Last updated: 2.0.0.

## All domains

(allDo). Domain that specifies that it could apply to all domains; biological, chemical, and physical. *Part Type: domains Domain: allDo Specimen ID: anySpecimenSet Compartment Set: anyCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 15 Part Status: active.* First released: 2.0.0. Last updated: 2.0.0.

## Alleles class

(allele). Measures and methods related to alleles. *Part Type:* classes *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* allele *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Allele unit set

(alleleUnitSet). Unit set for alleles. *Part Type:* unitSets *Domain:* naDomain *Speciment ID:* siSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* alleleUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Access to all org

(allOrgs). If this is 'no', this data will not be available to any partner organization. If missing, data will be available to the all organizations. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* boolean *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum*

## Parts

*Length:* 1 *Part Status:* **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

## Aloh3 precipitation

(aloh3). Aloh3 precipitation *Part Type:* categories *Domain:* che *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Assay method id default deprecated

(amDefDep). Used as default when a new measurement is created for this lab. See ID in AssayMethod table. Deprecated as of version 2, please avoid use. Specify in type, or contact the PHES-ODM research team to add your specific item via a github issue (<https://github.com/Big-Life-Lab/PHES-ODM/issues>), or at phesd\_odm@ohri.ca *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

## Amicon ultrafiltration

(amiconUf). Amicon ultrafiltration *Part Type*: categories *Domain*: che *Speciment ID*: naSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: procGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Amicon filter, extract with MP96

(amiMP96). Nucleaic acid extraction, usually used for the liquid fraction of a wastewater sample, using amicon filtration and using an MP96 for final extraction. *Part Type*: categories *Domain*: bio *Speciment ID*: naSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: procGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 10 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Amplicon sequencing

(amp). Specifies the amplicon strategy for genetic sequencing *Part Type*: categories *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum*

## Parts

*Value:* NA *Minimum Length:* 0 *Maximum Length:* 10 *Part Status:* active.  
First released: 2.0.0. Last updated: 2.0.0.

## AND Boolean aggregation

(andBoo). “AND” aggregation. If all values in the aggregation is “TRUE” then the AND aggregation is also “TRUE”. If all values in the aggregation is “FALSE” then the AND aggregation is also “TRUE”. *Part Type:* aggregations *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Any compartment set

(anyCompartmentSet). A compartment set for measures and methods in any compartment. *Part Type:* compartmentSets *Domain:* allDo *Speciment ID:* anySpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 15 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Any specimen set

(anySpecimenSet). A specimen set that includes any specimen. *Part Type:* specimenSets *Domain:* naDomain *Speciment ID:* anySpecimenSet

*Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass  
*Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Area proportional sample

(areaPr). An area proportional sample. Used for surface testing. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* surfaceCompartmentSet *Group:* colGrp *Class:* naClass  
*Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Arrival temperature

(arTemp). The temperature of a sample upon arrival at the laboratory for analysis. *Part Type:* measurements *Domain:* phy *Speciment ID:* siSaSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* miscMeas *Class:* temperature *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* temperatureUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Parts

### Use of the articV3 primer

(articV3). Initial implementation of an ARTIC bioinformatics platform for nanopore sequencing of nCoV2019 novel coronavirus; Artic Foundation v3 primer. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Use of the articV4 primer

(articV4). Artic V4 sequencing primer for VOCs and VOIs. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Assay ID

(asID). Links with the AssayMethod used to perform the analysis. Use instrument.ID for measures that are not viral measures. Deprecated as of version 2, please avoid use. Refer to methodID instead. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA



*Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Attributes

(attributes). Attributes describe the who, where, when, and why of environmental surveillance. There are attributes for domain, specimen, compartment, or table. Attributes are one of the three main components or ways to report environment surveillance data. The other two components are measures and methods. *Part Type:* partType *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Bacteria Class

(bacteria). Measures and methods relating to bacteria. *Part Type:* classes *Domain:* bio *Speciment ID:* anySpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* bacteria *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* bacteriaUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Bacteria unit set

(bacteriaUnitSet). Unit set for bacteria-related measurements. *Part Type:* unitSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* bacteriaUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Miscellaneous bacteria group

(bactMisc). A group of measures/methods related to miscellaneous bacteria. The miscallenous bacteria are often have only one measure or method. When a bacteria has many measures, they will be given their own groupID in updated dictionary versions. *Part Type:* groups *Domain:* bio *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* bact-Misc *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Bead beating, extract with MP96

(bbMP96). Nucleaic acid extraction, usually used for solid fraction of a wastewater sample, using bead beating and using an MP96 for final extraction. *Part Type:* categories *Domain:* bio *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:*

NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 10 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## bcov

(bcov). Measure of the amount of bovine coronavirus. *Part Type*: measurements *Domain*: bio *Specimen ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: virusMisc *Class*: allele *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## bcov culture spike target

(bcovCul). Cultured bovine coronavirus is used as the recovery efficiency control target. *Part Type*: categories *Domain*: bio *Specimen ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### **bcov vaccine spike target**

(bcovVac). The bovine coronavirus vaccine is used as the recovery efficiency control target. *Part Type*: categories *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **Beef extract flocculation**

(beeExtractFloc). Beef extract flocculation. *Part Type*: categories *Domain*: che *Speciment ID*: naSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: procGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **Is Before**

(before). Specifies that the object step or protocol occurs before the subject step or protocol in the overall protocol container. Use only for protocolRelationships table relationshipID. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar

*Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Beta

(beta). B.1.351 *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* variant *Nomenclature:* who *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Biologic

(bio). A living organism or biological substance. *Part Type:* domains *Domain:* bio *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Digital droplet emulsification PCR

(bioRadDdpcr). Describes a PCR analysis done using BioRad's digital droplet emulsification PCR technology. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet

## Parts

*Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Binary Large Object (BLOB) data type

(blob). The data type for Binary Large Object (BLOB) data. Only used for the dictionary entries of parts. *Part Type:* dataTypes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 15 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Breadth of coverage ( $\geq 5\times$ depth)

(boc). Positions with read depth greater or equal to 5. Report as percentage of positions. *Part Type:* units *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* 100 *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## 5-Day carbonaceous kiochemical oxygen demand

(bod5c). The quantity of oxygen utilized for the biochemical degradation of organic matter under standard laboratory procedures in five (5) days in the presence of a nitrification inhibitor, expressed in milligrams per litre (mg/l). *Part Type:* measurements *Domain:* bio *Speciment ID:* siSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* miscMeas *Class:* standardConc *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* stdConcentrationUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* <https://doi.org/10.1002/wer.1541> *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.1.0. Last updated: 2.0.0.

## 5-day total biochemical oxygen demand

(bod5t). 5 day total biochemical oxygen demand. *Part Type:* measurements *Domain:* bio *Speciment ID:* siSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* miscMeas *Class:* standardConc *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* stdConcentrationUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* <https://doi.org/10.1002/wer.1541> *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.1.0. Last updated: 2.0.0.

## Boolean data type

(boolean). The data type for boolean/binary data. Encoded as 'TRUE' or 'FALSE' *Part Type:* dataTypes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup

## Parts

*Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 15 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Boolean aggregation set

(booleanAggrSet). Aggreagation set for boolean. *Part Type:* aggregationSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Boolean value set

(booleanSet). Set that contains the valid possible values for a boolean measure (TRUE or FALSE). *Part Type:* mmaSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* booleanSet *Unit Set:* NA *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.



## Bovine respiratory syncytial virus group

(brsv). Bovine respiratory syncytial virus. *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: virusMisc *Class*: allele *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## brsv culture spike target

(brsvCul). Cultured bovine respiratory syncytial virus (BRSV) is used as the recovery efficiency control target. *Part Type*: categories *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## BRSV-N

(brsvN). bovine respiratory syncytial virus capsid protein gene region *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: virusMisc *Class*: allele *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*:

## Parts

NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

### brsv vaccine spike target

(brsvVac). The bovine respiratory syncytial virus (BRSV) vaccine is used as the recovery efficiency control target. *Part Type*: categories *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Branch sewer pipeline

(bSwrPpl). Specifies a site type that is collection pipe that run lateral to other municipal sewer lines, allowing drainage into the main sewer. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Building cleanout

(buildCO). Specifies a site type that is a capped pipe that connects to a building's main sewer line. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Capacity class

(capacity). Measures and methods relating to capacity. *Part Type:* classes *Domain:* phy *Speciment ID:* siSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* capacity *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* capacityUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Capacity unit set

(capacityUnitSet). Unit set for capacity measurements. *Part Type:* unit-Sets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* capacityUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum*

## Parts

*Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Case report date

(caRepDate). Date that the numbers were reported publicly. Typically, reported data and this measure is most commonly reported and used. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

## Categorical data type

(categorical). The data type for categorical data. Only used for the dictionary entries of parts. *Part Type:* dataTypes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 15 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Categories

(categories). A discrete list of values that can be reported for a measure, method or attribute. A use-case example of categories would be how they are used to record the site where a measure is taken (partID = geoType).

For the geoType attribute there are different type of sites where samples can be taken: a wastewater treatment plant, airplane holding tank, wastewater pumping station, etc. Each of these site types is recorded as a category that can be identified in categorySetID = sTypeCatSets *Part Type*: part-Type *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Long-term acute care hospital

(ccc). Acute care hospitals, or complex contuing care, that provide care for patients with average length of stay longer than 25 days. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Child day care

(cdc). Child day care facility. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum*

## Parts

*Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Degrees Celcius

(cel). Degrees Celsius. *Part Type:* units *Domain:* phy *Speciment ID:* siSaSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* NA *Minimum Value:* -60 *Maximum Value:* 100 *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.1.0. Last updated: 2.0.0.

## Centrifugation

(cent). Describes solid separation from a wastewater sample via centrifugation. Likely connected to other method steps prior to analysis. *Part Type:* categories *Domain:* allDo *Speciment ID:* saSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Centricon ultrafiltration

(centriconUf). Centricon ultrafiltration. *Part Type:* categories *Domain:* che *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet

*Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Ceres nanotrap

(ceres). Ceres nanotrap. *Part Type: categories Domain: che Speciment ID: naSpecimenSet Compartment Set: waterCompartmentSet Group: proc-Grp Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## CFU per 100 ml

(cfu). Colony forming units per 100 ml of filtered sample. *Part Type: units Domain: bio Speciment ID: saSpecimenSet Compartment Set: anyCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: quantAggScale Quality Set: NA Reference Link: NA Data Type: float Missingness Set: NA Minimum Value: 0 Maximum Value: NA Minimum Length: NA Maximum Length: NA Part Status: active. First released: 1.1.0. Last updated: 2.0.0.*

## Changes column

(changes). A column for recording the changes from a previous version. Use this column as a short-hand change log for dictionary development.

## Parts

*Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Chemical

(che). A chemical compound. *Part Type:* domains *Domain:* che *Speciment ID:* anySpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Chemagic viral dna/rna 300 kit

(chemVir). Nucleic acid extraction performed using the chemagic viral dna/rna 300 kit. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.



## Child relationship

(child). Indicated that this is a sample generated from (an)other sample(s) either because of pooling or sub-sampling. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## City

(city). The city where a site or organization is located; part of the address. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Clarified sample

(clari). Clarified sample. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: procGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum*

## Parts

*Length: 0 Maximum Length: 30 Part Status: active. First released: 1.0.0. Last updated: 2.0.0.*

## Class

(class). A unique identifier for a class, which is akin to a sub-group; it's a way of grouping parts within a given group. A group can have one or more classes to describe different parts of the class. Currently, class is only used for biologics. For example, SARS-CoV-2 is a group of measures with the following classes of allele, variant, mutation, sequence, and protein. *Part Type: attributes Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: categorical Missingness Set: genMissingnessSet Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Classes

(classes). A class is a collection of one or more related measures or methods within a group. A group can have one more more classes to describe different parts or the class. *Part Type: partType Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: categorical Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Cloudy

(cloudy). Qualitative category for the weather measure, specifying an overcast day with no rain. *Part Type:* categories *Domain:* phy *Specimen ID:* siSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* siteFeat *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Centimetres

(cm). Unit part for the SI unit of centimetres. *Part Type:* units *Domain:* phy *Specimen ID:* siSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Carbon Dioxide

(co2). A measure of an amount or concentraion of carbon dioxide. *Part Type:* measurements *Domain:* che *Specimen ID:* siSaSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* miscMeas *Class:* gas *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* dissGasUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:*

## Parts

seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Chemical Oxygen Demand

(cod). Chemical oxygen demand. *Part Type*: measurements *Domain*: che *Speciment ID*: siSaSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: miscMeas *Class*: standardConc *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: stdConcentrationUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Collection group

(colGrp). A group of measurement-like attributes related to sample collection. *Part Type*: groups *Domain*: allDo *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Collection date time

(collDT). For grab samples this is the date, time and timezone the sample was taken. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup

*Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* datetime *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### Collection date time end

(collDTEnd). For integrated time average samples this is the date, time and timezone the sample was finished being taken. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* datetime *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### Collection date time start

(collDTStart). For integrated time averaged samples this is the date, time and timezone the sample was started being taken. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* datetime *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Parts

### Sample collection set

(collectSet). Methods for collection samples. Sample collection methods include water, air, and surface. See the attribute ‘Compartment set’ of the sample collection method. *Part Type*: mmaSets *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: collectSet *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Collection number

(collNum). The number of subsamples that were combined to create the sample. Use NA for continuous, proportional or passive sampling. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: integer *Missingness Set*: genMissingnessSet *Minimum Value*: 1 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Collection number and period

(collNumPer). Composite collection number.period. This a composite measure that combines ‘collection period’ (collPer) and ‘collection number’ (collNum). Collection number and period can be used to reduce the

number of table headings during data collection. In data storage, 'collNum' and 'collPeriod' should be transformed to 'collPer' and 'collNum'. For Grab sample, Surface swab, or Area proportional sample just enter 1

In case of Composite, Flow-proportional collection, the number of subsamples followed by a dot, followed by the period of the sampling, in hours. For example, for 4 composite subsamples covering a 8 hours period, the entry would be 4.2 For time-proportional 24 subsamples collected every hour, the entry would be 24.1 For volume-proportional, the entry for 24 subsamples collected over 24 hours should be 24.24, in this case the period part of the entry should be understood as the total collection time instead of the periodicity of the collection.

For a COSCA ball or Moore swab collecting for 24 hours, the entry would be 1.24 *Part Type:* attributes *Domain:* naDomain *Speciment ID:* saSpecimenSet *Compartment Set:* naCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* 1:1 *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 6 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Collection period

(collPer). Collection period. The time period over which the sample was collected, in hours. Alternatively, use collectionStart and collectionEnd. Examples: 1 hour, 6 hours, 24 hours *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* genMissingnessSet *Minimum Value:* 1 *Maximum Value:*

## Parts

NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active.  
First released: 2.0.0. Last updated: 2.0.0.

## Sample collection type

(collType). The type of collection. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: collectSet *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 12 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Co-located sample

(colocated). Second or multiples samples collected at same location but different time (water, air) or at a nearby location (soil, sediment). Sent blind to laboratory. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Column name depreciated

(columnNameDep). Name for the column Depreciated in ODM version 2. Look-up tables are now incoprated into parts and sets. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment*



*Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

### Composite sample - archival

(comp). A composite sample, usually generated by an autosampler. This is intended for use in updating and mapping archival data into the newest version of the ODM. Generally, autosamplers do time or flow-proportional sampling, and so those collection methods should be used instead. This is only for composite/autosampler samples where these additional details have not yet been specified. Use *collectionPeriod* to describe how many hours the sample was taken, and *collectionNum* to record the number of samples. *Part Type:* categories *Domain:* naDomain *Speciment ID:* saSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### Composite grab sample of 3

(comp3). A grab-composite sample composed of 3 separate grab samples. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference*

## Parts

*Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

### Composite grab sample of 3 depreciate

(comp3dep). A grab-composite sample composed of 3 separate grab samples. Deprecated in version 2, please do not use. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

### Composite 3hr grab sample

(comp3h). A 3-hour composite with 3 grab samples each taken once per hour, generally manually performed. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

### Composite 3hr grab sample depreciate

(comp3hdep). A 3-hour composite with 3 grab samples each taken once per hour, generally manually performed. Deprecated in version 2, please

do not use. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

### Composite 8hr grab sample deprecated

(comp8h). An 8-hour composite with 8 grab samples each taken once per hour, generally manually performed. Deprecated in version 2, please do not use. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

### Composite 8hr grab sample deprecated

(comp8hDep). A 8-hour composite with 8 grab samples each taken once per hour, generally manually performed. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:*

## Parts

NA *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Compartment

(compartment). The attribute identifying the substance from which where a sample was taken. For more information, see `partID = compartment`. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Compartments

(compartments). The substance from which a sample was taken. For example, wastewater has component of “water”. Compartments are attributes of measures, methods, units, and aggregations. *Part Type*: part-Type *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Compartment sets

(compartmentSets). Sets of compartments. Compartment sets are used to identify when a measure can be recorded for more than one compartment. For example, SARS-CoV-2 can be measured in people (humans), water, surface, or air. *Part Type*: partType *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 15 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Sample concentrate

(conc). Sample concentrate. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Confirmed Cases Case report date

(conCase). Date that the numbers were reported publicly for a confirmed case. Typically, reported data and this measure is most commonly reported and used. *Part Type*: units *Domain*: bio *Speciment ID*: poSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*:

## Parts

*naClass Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* dateTime *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Is concurrent to

(concurrent). Specifies that the object step or protocol occurs at the same time as the subject step or protocol in the overall protocol container. Use only for protocolRelationships table relationshipID. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Water conductivity

(cond). Measurement of conductivity of sample or site. *Part Type:* measurements *Domain:* phy *Speciment ID:* siSaSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* siteFeat *Class:* conductivity *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* conductivityUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Conductivity class

(conductivity). Measures and methods related to conductivity. *Part Type:* classes *Domain:* phy *Speciment ID:* siSaSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* naGroup *Class:* conductivity *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* conductivityUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Conductivity unit set

(conductivityUnitSet). Unit set related to conductivity measurements. *Part Type:* unitSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* conductivityUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Number of confirmed cases

(conf). Number of confirmed cases. *Part Type:* units *Domain:* bio *Speciment ID:* poSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA

## Parts

*Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Confirmed cases episode date

(confEp). Episode date is the earliest of onset, test or reported date for a confirmed case. *Part Type:* units *Domain:* bio *Speciment ID:* poSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* dateTime *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Confirmed Cases Onset date

(confOn). Earliest that symptoms were reported for a confirmed case. This data is often not known and reported. In lieu, episode is used. *Part Type:* units *Domain:* bio *Speciment ID:* poSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* dateTime *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Contact ID

(contactID). A unique identifier for a given contact person. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:*



naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Contact name

(contactName). Contact person or group, for the lab. Depreciated in ODM version 2. see 'name' *Part Type*: attributes *Domain*: naDomain *Specimen ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 100 *Part Status*: **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Contact table

(contacts). The table that contains information about a contact; a person who is the contact of a site or laboratory. adapt from version 1 documentation *Part Type*: tables *Domain*: naDomain *Specimen ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: programDescr *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Contacts table column order

(contactsOrder). Specifies the order of the columns in a Contacts table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 1 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Contact table required headers

(contactsRequired). Specifies the columns required in a Contacts table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Contact table set

(contactTableSet). Tables are where measures, methods and attributes are recorded. Tables represent the main entities of the environmental surveillance. *Part Type:* dictSets *Domain:* naDomain *Speciment ID:* saSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:*

NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Confirmed cases test date

(conTest). Date that the covid-19 test was performed for a confirmed case. *Part Type*: units *Domain*: bio *Speciment ID*: poSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: dateTime *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Cphd ID

(corFcil). Correctional facility *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## COSCa ball

(cosca). COSCa passive sampling device. Use collectionPeriod to describe how many hours the ball was used to collect the sample *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment*

## Parts

*Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* <https://pubs.rsc.org/en/content/articlelanding/2021/ew/d1ew00207d> *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Country

(country). The country where a site or organization is located; part of the address. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Countries or sovereign states

(countryLevel). Countries or sovereign states *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* ISCU *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* nrNAMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Districts, counties, regions

(countyLevel). Districts, counties, regions *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: ISCU *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: nrNAMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Covid-19

(cov). Covid-19 infection. Any form of Covid-19 human infetion - including testing for Covid-19, symptomatic Covid-19, asymptomatic Covid-19, hospitalized Covid-19, long-Covid-19, etc. If needed, define the specific form Covid-19 with units. See populationUnits. *Part Type*: measurements *Domain*: bio *Speciment ID*: poSpecimenSet *Compartment Set*: humanCompartmentSet *Group*: sarsCov2 *Class*: disease *Nomenclature*: ICD *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: populationUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## SARS-CoV-2 measure

(cov2Me). Measure the amount of SARS-CoV-2 virus. This measure should only be used if there is no other SARS-CoV-2 measure. See groupID = sarsCov2. Use a note to describe the specific measure used. *Part*

## Parts

*Type:* measurements *Domain:* bio *Speciment ID:* anySpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* allele *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### **SARS-CoV-2-B.1.1.7**

(covB117). Variant B.1.1.7 of the SARS-CoV-2 virus. *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* variant *Nomenclature:* pangolin *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.1.0. Last updated: 2.0.0.

### **SARS-CoV-2-B.1.351**

(covB135). Variant B.1.351 of the SARS-CoV-2 virus. *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* variant *Nomenclature:* pangolin *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.1.0. Last updated: 2.0.0.

**SARS-CoV-2-E**

(covE). SARS-CoV-2 E gene. *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: allele *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

**SARS-CoV-2-N1**

(covN1). SARS-CoV-2 nucleocapsid gene, allele 1. *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: allele *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

**SARS-CoV-2-N2**

(covN2). SARS-CoV-2 nucleocapsid gene, allele 2. *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: allele *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingness-

## Parts

Set *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

### SARS-CoV-2-N3

(covN3). SARS-CoV-2 nucleocapsid gene, allele 3. *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: allele *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

### SARS-CoV-2-P.1

(covP1). Variant P.1 of the SARS-CoV-2 virus. *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: variant *Nomenclature*: pangolin *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.1.0. Last updated: 2.0.0.

### SARS-CoV-2-RdRp

(covRdrp). SARS-CoV-2 RdRp gene. *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet



*Group:* sarsCov2 *Class:* allele *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Covid-19 population measurement date

(cphDate). date of reporting for covid-19 measure. Depreciated in ODM version 2. The measure identification is now measureReportID with report dates as for any measure report. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Cphd ID

(cphid). Unique identifier for the table. Depreciated in ODM version 2. The measure identification is now measureReportID. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## crAssphage-N

(cra). crAssphage virus capsid protein gene region *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: virusMisc *Class*: allele *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Crosswalk table set

(crosswalkTableSet). Tables used to translate to and from other environmental dictionaries and models. *Part Type*: dictSets *Domain*: naDomain *Speciment ID*: saSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Cycle threshold or quantification cycle (Ct or Cq)

(ct). Cycle thresholds in a PCR assay. *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: standardCurve *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: genMissingnessSet *Minimum Value*: 0

*Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Cumulative count

(cuCo). Units for describing a population measure of a cumulative count of cases of a given disease. Unit for a population or disease measure to explain population-level clinical effects. *Part Type:* units *Domain:* bio *Speciment ID:* poSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Custody Contact ID

(custodyCont). A unique identifier for data custodians. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Data custodian ID

(custodyID). The data custodian of a database. Use Organization ID to populate this field, and the organizations table to describe contact

## Parts

information and other details for the data custodian. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### **d377y delta-variant gene target**

(d377y). d377y delta-variant gene target. *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### **d3g omicron-variant gene target { #d3g }**

(d3g ). d3g omicron-variant gene target. *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

**d63g delta-variant gene target**

(d63g). d63g delta-variant gene target. *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

**d796y omicron-variant gene target { #d796y }**

(d796y ). d796y omicron-variant gene target. *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

**d950n delta-variant gene target**

(d950n). d950n delta-variant gene target. *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:*

## Parts

NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Daily count

(daiCo). Units for describing a population measure of a daily count of new cases of a given disease. Unit for a population or disease measure to explain population-level clinical effects. *Part Type*: units *Domain*: bio *Speciment ID*: poSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: integer *Missingness Set*: NA *Minimum Value*: 0 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Dataset creation date

(datasetDate). Specifies the date a given dataset was created. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: datetime *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Dataset ID

(datasetID). The name of the dataset that stores information for MeasureReport, SampleReport and other reporting tables. Where possible, datasetID name should correspond the original data custodian responsible for generating environmental data. (suggestion for a default name convention.) *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Dataset table

(datasets). A report table for capturing details about data's parental data set and data custodians. Supplying attribution for data collectors. *Part Type:* tables *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* programDescr *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Datasets table column order

(datasetsOrder). Specifies the order of the columns in a Datasets table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:*

## Parts

*naClass Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 1 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Dataset table required headers

(datasetsRequired). Specifies the columns required in a Datasets table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Data types

(dataTypes). The data type for a part. Data types used in the ODM include: varchar, boolean, float, category, date, time, datetime, url, email. *dataType* corresponds to the entry or cell within a data table, most commonly within a report table. If the data entry has a unit, then the *dataType* corresponds to the unit and the *data* refers to 'unit'. If the data entry is a category, then the *data* refers to 'category'. All categories are varchar. Otherwise the *data* is identified within the part entry. TBA: *dataType* for dictionary. *Part Type:* partType *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature



*Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 12 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Date

(date). Date date on which the assayMethod was created or updated (for version update). *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* datetime *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

## Datetime data type

(datetime). The data type for date and time data. Only used for the dictionary entries of parts. *Part Type:* dataTypes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 15 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

Parts

## Days

(days). A unit for indicating a length of time in days. *Part Type*: units *Domain*: allDo *Speciment ID*: anySpecimenSet *Compartment Set*: anyCompartmentSet *Group*: miscMeas *Class*: time *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: timeUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: integer *Missingness Set*: NA *Minimum Value*: 0 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## ddcov\_e sars-cov-2 gene target

(ddcovE). ddcov\_e sars-cov-2 gene target. *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## ddcov\_n sars-cov-2 gene target { #ddcovN }

(ddcovN ). ddcov\_n sars-cov-2 gene target. *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*:

NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Deaths

(death). Units for describing a population measure of patients who have died from a given cause. Unit for a population or disease measure to explain population-level clinical effects. *Part Type*: units *Domain*: bio *Speciment ID*: poSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: integer *Missingness Set*: NA *Minimum Value*: 0 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## del143/145

(del143). 143 or 145 deletion omicron-variant gene target. *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## del 157/158

(del157). 157 or 158 deletion delta-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*:

## Parts

anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **del2084/2084**

(del2084). 2084 or 2084 deletion omicron-variant gene target. *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **del212/212**

(del212). 212 or 212 deletion omicron-variant gene target. *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

**del3674/3676**

(del3674). 3674 or 3676 deletion omicron-variant gene target. *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

**del69/70**

(del6970). 69 or 70 deletion omicron-variant gene target. *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

**Delta**

(delta). B.1.617.2 *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* variant *Nomenclature:* who *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness*

## Parts

*Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Deprecated

(deprecated). Indicator to say that a part is no longer in current use in the model. See partID = status *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Derived sample

(derived). Specifies a sample that is derrived or made from another sample or material. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Description

(descr). A detailed description as an attirbute for describing results or program elements. A description of the part that serves a clear presentation

of the part to a wide audience including technical and not technical staff. A description should allow any person who generates environment surveillance data to know how to identify how to record their data elements in the ODM. *partReference* can be used to further describe a part. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 200 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Description of change

(descrChange). A description of change in a part from the previous version. *Part Type*: tableSupport *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Desk or counter

(desk). Desk, table, countertop or other flat working surface. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: surfaceCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA

## Parts

*Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Dewatered solids

(deso). Dewatered solids. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Detected

(det). Substance detected or not detected. TRUE = detected, FALSE = not detected *Part Type:* units *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* booleanSet *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* boolean *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* 1 *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.1.0. Last updated: 2.0.0.

## Access to details deprecated

(detailsDep). More details on the existing confidentiality requirements of this measurement. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:*



naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: booleanSet *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: boolean *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 1 *Part Status*: **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

## Development

(development). Indicator that a part is under development use. See partID = status *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Dictionary reference table set

(dictionaryRefTableSet). Reference or look-up tables. For example, the parts table describe all elements of the ODM, including tables, table headers, measures, methods, categories, and units. sets are collections of parts. For example, units can be grouped together in a unitSet. languages and translations support translations. *Part Type*: dictSets *Domain*: naDomain *Speciment ID*: saSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum*

## Parts

*Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Additional dictionary sheets

(dictionarySupport). Additional sheets for the Excel version of the ODM dictionary. Sheets or tabs for the ODM Excel dictionary include: all ERD tables (look-up tables and data entry tables) and additional supportig tables. *Part Type:* partType *Domain:* naDomain *Speciment ID:* saSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 15 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Dictionary set type

(dictSet). Sets used to describe and group dictionary tables. *Part Type:* dictSets *Domain:* naDomain *Speciment ID:* saSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Dilution factor

(dilFact). Specifies the extent to which a sample or aliquot was diluted prior to analysis. Dilution factor is reported as a unitless measure, where

a value of 10 indicates a 10:1 dilution. *Part Type:* measurements *Domain:* allDo *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* dilution *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* unitlessUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* genMissingnessSet *Minimum Value:* 1 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Point dillutions

(dillute). Exact concentration or dillutions for generating a standard curve. *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* dilution *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Dilution Class

(dilution). Measures and methods relating to dilutions. *Part Type:* classes *Domain:* phy *Speciment ID:* siSaSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* dilution *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* unitlessUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Diseases (human) class

(disease). Measure and methods related to disease or infection in humans. *Part Type:* classes *Domain:* bio *Specimen ID:* poSpecimenSet *Compartment Set:* humanCompartmentSet *Group:* naGroup *Class:* disease *Nomenclature:* ICD *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* populationUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Dissolved gas concentration unit set

(dissGasUnitSet). Unit set for carbon dioxide concentrations measurements in water or air. *Part Type:* unitSets *Domain:* naDomain *Specimen ID:* naSpecimenSet *Compartment Set:* airWaterCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* dissGasUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Depth of coverage

(doc). The sequencing read depth. Used to interpret the confidence in a presence or amount of a variant. *Part Type:* units *Domain:* bio *Specimen ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* integer

*Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* 100 *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Domain

(domain). Domain is the highest level of describing of a measure. The domain ID that corresponds to a given part. Mostly applicable for measures, methods, units, and aggregations. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Domains

(domains). There are three domain types: biologic (i.e. Covid-19, chemical (i.e. nitrogen), physical measure (temperature). *Part Type:* part-Type *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Higher education dormitory or residential building

(dorm). Higher education dormitory or residential building *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### e156g delta-variant gene target

(e156g). e156g delta-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### e484a omicron-variant gene target { #e484a }

(e484a ). e484a omicron-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*:

NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Escherichia coli

(ecoli). Concentration of bacteria that are passed through the faecal excrement of humans, livestock and wildlife *Part Type*: measurements *Domain*: bio *Speciment ID*: siSaSpecimenSet *Compartment Set*: surfaceWaterCompartmentSet *Group*: bactMisc *Class*: bacteria *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: bacteriaUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Education

(education). A measure or sample taken for education or training. Use this purpose, for example, when teaching how to use the PHES-ODM. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Efficiency

(efficient). The efficiency reported for a standard curve. *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*:

## Parts

anyCompartmentSet *Group*: procGrp *Class*: standardCurve *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Contact email

(email). Contact e-mail address, for the lab. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 100 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## European Nucleotide Association

(ena). ENA header *Part Type*: crosswalkTableSet *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.



## European Nucleotide Association (ENA) - notes

(enaNotes). ENA notes *Part Type*: crosswalkTableSet *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Rainfall

(envRnF). Rainfall, i.e. amount of precipitation in the form of rain. *Part Type*: measurements *Domain*: phy *Speciment ID*: siSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: siteFeat *Class*: precipitation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: precipitationUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Ground snow depth

(envSnwD). Total depth of snow on the ground. *Part Type*: measurements *Domain*: phy *Speciment ID*: siSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: siteFeat *Class*: precipitation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: precipitationUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum*

## Parts

*Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Snowfall

(envSnwF). Snowfall, i.e. amount of precipitation in the form of snow. *Part Type*: measurements *Domain*: phy *Speciment ID*: siSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: siteFeat *Class*: precipitation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: precipitationUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Episode date

(epiDate). Episode date is the earliest of onset, test or reported date. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: NA *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

## ERD table set

(erdTableSet). All tables listed in the Entity Relationship Diagram. The full ODM model is commonly referred to as “long” tables as it stores data with one measurement per row. *Part Type*: dictSets *Domain*: naDomain *Speciment ID*: saSpecimenSet *Compartment Set*: naCompartmentSet

*Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sarbecovirus-specific E sars-cov-2 gene target

(eSarbec). Sarbecovirus-specific E sars-cov-2 gene target *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Estimated frequency of reads

(estFreqReads). Estimated frequency of reads in a sequencing assay *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* sequence *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Estuary, natural water body

(estuary). Estuary, natural water body *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

### Experiment Failed

(expFail). PCR experiment failed. No value reported. Value should be blank for a measure with this qualityFlag value. *Part Type*: qualityIndicators *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### 4s method

(extract4s). Nucleic acid extraction performed using the 4s method. *Part Type*: categories *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: <https://www.protocols.io/view/v-4-direct-wastewater-rna-capture-and-purification-bpdfmi3n> *Data Type*: varchar *Missingness Set*: NA *Minimum*

*Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Nucleic acid extraction method

(extraction). Description of the nucleic acid extraction method. Description of the method used to extract the sample *Part Type:* methods *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* pcr *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* extractSet *Unit Set:* unitlessUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 100 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Nucleic Acid Extraction set

(extractSet). set used for storing all the valid category values for the nucleic acid extraction method. *Part Type:* mmaSets *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* extractSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Extraction volume of sample

(exvol). Extraction volume of sample. Size of the sample that is analyzed. *Part Type:* measurements *Domain:* phy *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* physical

## Parts

*Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* volumeUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Fecal matter

(faeces). Fecal matter. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## FALSE

(false). Boolean data type = FALSE Use these values and their set for any boolean measure or attribute. Use only “FALSE” (case sensitive) *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* boolean *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 5 *Maximum Length:* 5 *Part Status:* active. First released: 1.1.0. Last updated: 2.0.0.

## Field sample

(field). Specifies a sample taken from the field; directly collected from an area for testing. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Field sample replicate

(fieldReplicate). A sample divided into two or more homogeneous parts. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## File location of polygon

(fileLocation). The location of the file containing the geometry of the polygon. File path specified, or a URL *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* blob *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum*

## Parts

*Value:* NA *Minimum Length:* 0 *Maximum Length:* 65535 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Filtration

(filt). Describes solid separation from a wastewater sample via filtration. Proceeds further concentration or analysis of the liquid filtrate. *Part Type:* categories *Domain:* allDo *Speciment ID:* saSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## First Nation

(fiNa). Used to categorize a sampleshed that is a First Nation, or on reserve lands. Likely for internal use only, Indigenous data can and should not be shared without explicit consent of the nation in quesiton. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 10 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## First name of contact

(firstName). Specifies the first name of a given contact. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment*



*Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## First released version

(firstReleased). The version in which a part was first released *Part Type:* partSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Foreign key

(fK). Foreign key for a table. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### AI - Inhibition present but addressed

(flagAI). The original sample was inhibited; however, the inhibition has been addressed through dilution. The reported concentration estimate is the updated result after addressing inhibition. *Part Type:* qualityIndicators *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### B - Trace levels of contamination

(flagB). Analytical result may be subject to “trace” levels of contamination; the target analyte was also detected in negative controls on the same run as the sample. *Part Type:* qualityIndicators *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### FI - Inhibition present and unaddressed

(flagFI). The original sample was inhibited; however, the inhibition has not been successfully addressed. Therefore, no concentration estimate has been reported. *Part Type:* qualityIndicators *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup

*Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## J - Weak signal extrapolation

(flagJ). Analytical result falls below the lowest concentration of the experiment-specific standard curve but above the y-intercept value; the reported value is based on the extrapolation of the standard curve in the non-linear region. *Part Type:* qualityIndicators *Domain:* bio *Specimen ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## ND - Non-detect

(flagND). No amplification occurred in the reaction; non-detect. For the value of a non-detected measure, report the actual value even if it is below the limit of detection. The flag here ensures that it's recorded as a non-detect regardless. In instances where the original data doesn't record a value, but only has the flag, please populate the value field with either a 0 if dealing with variant percentages, and a 1 for all other purposes to further indicate a null result. *Part Type:* qualityIndicators *Domain:* naDomain *Specimen ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature

## Parts

*Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## UJ - Trace signal extrapolation

(flagUJ). Observed quantitation cycle is greater than the experiment-specific standard curve intercept value but evidence of clear amplification was present (i.e., “trace” signal observed); the reported value is based on the extrapolation of the standard curve in the non-linear region. *Part Type: qualityIndicators Domain: bio Speciment ID: saSpecimenSet Compartment Set: anyCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## UQ - Unquantifiable

(flagUQ). Unquantifiable, Ct value exceeds the maximum value of the standard curve. There was a detect, but we cannot quantify it with certainty. *Part Type: qualityIndicators Domain: bio Speciment ID: saSpecimenSet Compartment Set: anyCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Float data type

(float). The data type for float data. Only used for the dictionary entries of parts. *Part Type*: dataTypes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 15 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Flow-normalized mean

(floMean). Mean measure normalized to wastewater flow. Mostly used for reporting specific alleles (N1, N2, E, etc.) *Part Type*: aggregations *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Floor

(floor). Floor of a building or room. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: surfaceCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar

## Parts

*Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Flow rate

(floRate). Wastewater volumetric flow rate at the sample collection location over the 24-hr period during which the sample was collected. If only an instantaneous flow measurement is available, it may be reported in units of million gallons per day. *Part Type:* measurements *Domain:* phy *Speciment ID:* siSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* siteFeat *Class:* flow *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* flowUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Flow class

(flow). Measures and methods related to flow. *Part Type:* classes *Domain:* phy *Speciment ID:* siSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* naGroup *Class:* flow *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* flowUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Flow proportional 24hr sample depreciated

(flow24hDep). A flow proportional 24-hour composite sample generally collected by an autosampler. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Flow proportional sample

(flowPr). A flow proportional composite sample generally collected by an autosampler. Use collectionPeriod to describe how many hours the sample was taken. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Volume flow rate unit set

(flowUnitSet). Unit set for volume flow measurements. *Part Type:* unit-Sets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* flowUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference*

## Parts

*Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Flow volume

(flowVol). Volume of influent. *Part Type:* measurements *Domain:* phy *Speciment ID:* siSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* siteFeat *Class:* flow *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* flowUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Influenza virus measure

(flu). General influenza virus measure This measure should only be used if there is no other influenza virus measure. See groupID = virusMisc. Use a note to describe the specific measure used. *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* virusMisc *Class:* allele *Nomenclature:* naNomenclature *Ontology Reference:* [http://purl.obolibrary.org/obo/MONDO\\_0005812](http://purl.obolibrary.org/obo/MONDO_0005812) *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.



**Influenza virus A1**

(fluA1). Influenza virus A1 type *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: virusMisc *Class*: allele *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

**influenza virus A2**

(fluA2). influenza virus A2 type *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: virusMisc *Class*: allele *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

**Influenza virus B**

(fluB). Influenza virus B type *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: virusMisc *Class*: allele *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*:

## Parts

seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Fluidigm digital PCR

(fluidPcr). Describes a PCR analysis done using FluidIGM's digital PCR technology. *Part Type*: categories *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Foggy

(foggy). Qualitative category for the weather measure, specifying a foggy or hazy day. *Part Type*: categories *Domain*: phy *Speciment ID*: siSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: siteFeat *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Fraction analyzed

(fraction). Fraction of the sample that is analyzed. *Part Type:* attributes  
*Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:*  
 naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:*  
 naNomenclature *Ontology Reference:* NA *Category Set ID:* fractionSet  
*Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference*  
*Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet  
*Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maxi-*  
*imum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated:  
 2.0.0.

## Sample fraction set

(fractionSet). set for the fraction of the sample (solid, liquid, etc.).  
*Part Type:* mmaSets *Domain:* naDomain *Speciment ID:* naSpecimenSet  
*Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass  
*Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set*  
*ID:* fractionSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality*  
*Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:*  
 NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0  
*Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last  
 updated: 2.0.0.

## Freyja Script

(freyja). Freyja Script for sequencing. *Part Type:* categories *Domain:*  
 bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet  
*Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology*  
*Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation*  
*Scale:* NA *Quality Set:* NA *Reference Link:* [https://github.com/andersen-](https://github.com/andersen-lab/Freyja)  
[lab/Freyja](https://github.com/andersen-lab/Freyja) *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA

## Parts

*Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## F-Specific RNA bacteriophages

(frna). A measure for amount of F-Specific RNA bacteriophages. *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* virusMisc *Class:* allele *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## F-Specific RNA bacteriophages, G2

(frnaG2). A measure for amount of G2 F-Specific RNA bacteriophages. *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* virusMisc *Class:* allele *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sample frozen

(frozen). Sample was frozen before analysis or processing *Part Type:* qualityIndicators *Domain:* naDomain *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomen-*

*clature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Field sample temperature

(fst). Temperature that the sample is stored at while it is being sampled. This field is mainly relevant for composite samples which are either kept at ambient temperature or refrigerated while being sampled. *Part Type: measurements Domain: phy Specimen ID: saSpecimenSet Compartment Set: anyCompartmentSet Group: procGrp Class: temperature Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: temperatureUnitSet Aggregation Scale: seeUnitAggScale Quality Set: NA Reference Link: NA Data Type: float Missingness Set: genMissingnessSet Minimum Value: seeUnitVal Maximum Value: seeUnitVal Minimum Length: NA Maximum Length: NA Part Status: active. First released: 1.0.0. Last updated: 2.0.0.*

## Full dictionary sheets set

(fullDictionarySheetSet). Worksheets in the full Excel dictionary. The full dictionary is 'ODM\_full-dictionary.xlsx *Part Type: dictSets Domain: naDomain Specimen ID: saSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: NA Maximum Length: NA Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Parts

### Funder Contact ID

(funderCont). A unique identifier for funders. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Funding agency ID

(funderID). The funding agency of the dataset. Use Organization ID to populate this field, and the organizations table to describe contact information and other details for the funding agency. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### g215c delta-variant gene target

(g215c). g215c delta-variant gene target *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:*

NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **g339d omicron-variant gene target { #g339d }**

(g339d ). g339d omicron-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **g496s omicron-variant gene target { #g496s }**

(g496s ). g496s omicron-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### **g662s delta-variant gene target**

(g662s). g662s delta-variant gene target *Part Type*: measurements *Domain*: bio *Specimen ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## **Gamma**

(gam). P.1 *Part Type*: measurements *Domain*: bio *Specimen ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: variant *Nomenclature*: who *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## **Gas class**

(gas). Measures and methods relating to gas and gases. *Part Type*: classes *Domain*: che *Specimen ID*: siSaSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: gas *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: dissGasUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum*



*Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Gene copies per copy of crAssphage

(gcCrA). Gene or variant copies per copy of crAssphage. *Part Type:* units *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### gene copies per day per 100,000

(gcD100). The unit for measures reflecting the gene copies per day per 100,000 people in the population. *Part Type:* units *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* virusMisc *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Gene copies per gram solids

(gCGS). Gene or variant copies per gram solids. *Part Type:* units *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature

## Parts

*Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### Gene copies per L

(gcL). Gene or variant copies per litre. *Part Type:* units *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### Gene copies per mL

(gcML). Gene or variant copies per millilitre of solution. *Part Type:* units *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### Gene copies per PMMoV copy

(gcPpmov). Gene or variant copies per copy of PMMoV. *Part Type:* units *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* waterCom-

partmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: integer *Missingness Set*: NA *Minimum Value*: 0 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Genetics unit set

(geneticUnitSet). Unit set for genetic-related measurements. *Part Type*: unitSets *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## General missingness set

(genMissingnessSet). The general set for missingness values. *Part Type*: missingnessSets *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Generic quality flag set

(genQualitySet). A quality set to specify any generic quality concerns about a measure or sample. *Part Type:* qualityIndSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### European Petroleum Survey Group Coordinates

(geoEPSG). The unique EPSG code specifying a given geospatial area. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* miscAttr *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Latitude

(geoLat). Geographical location, latitude in decimal coordinates, ie.: (45.424721) *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* miscAttr *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* genMissingnessSet *Minimum Value:* -90 *Maximum Value:* 90 *Minimum*

*Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Longitude

(geoLong). Geographical location, longitude in decimal coordinates, ie.: (-75.695000) *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: miscAttr *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: genMissingnessSet *Minimum Value*: -180 *Maximum Value*: 180 *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Type of geography

(geoType). Type of geography that is represented by the polygon. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: geoTypeSet *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Geographic set

(geoTypeSet). set for different type of geographic components. *Part Type*: mmaSets *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomen-*

## Parts

*clature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: geo-TypeSet *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Well-known text

(geoWKT). Well-known text of the polygon *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 63 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Gram per cubic metre

(gm3). Density unit. Used for absolute humidity and other measures. *Part Type*: units *Domain*: allDo *Speciment ID*: anySpecimenSet *Compartment Set*: airCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: NA *Minimum Value*: 0 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Geometric mean

(gmN). Geometric mean. *Part Type*: aggregations *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet

*Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Government agency

(govt). The category of organization type used for government agencies, programs, or crown-owned bodies. *Part Type:* categories *Domain:* naDomain *Specimen ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 10 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Grams

(grams). A unit of mass or weight. *Part Type:* units *Domain:* phy *Specimen ID:* siSaSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Gravity settling

(graSet). Describes solid separation from a wastewater sample where the sample material is allowed to settle by gravity, and then separated. *Part Type:* categories *Domain:* allDo *Speciment ID:* saSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Grab sample

(grb). A single large representative grab sample. If the sample was collected over a series of hours or is a composite sammples, please use partID = comp *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### Gromstole 1.0 Script

(gromstole). Gromstole 1.0 Script for sequencing. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:*



<https://github.com/PoonLab/gromstole> *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Group

(group). Unique identifier for a group of measures. Mostly applicable for measures, methods, units, and aggregations. A collection of related measures. For example, SARS-CoV-2 is a group. Within the SARS-CoV-2 group, there are measure classes that include RNA alleles (N1, N2, E, etc.), mutations, (E484K0), an entire sequence, viral proteins, etc. Currently groups are used for measures only. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Groups

(groups). A collection of related measures. Used primary to group measurements and methods, this helps pare down the drop down list for a given measurement or *Part Type:* partType *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA

## Parts

*Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Header

(header). Header for a table. Also known as a table variable or entity relationship 'attribute'. Header is the top row or the variable name in a table. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Health administration or planning agency

(healthAdm). Health administrative or planning organization. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Heat inactivated sars-cov-2 virus spike target

(heatInacSARS). Heat inactivated SARS-CoV-2 virus is used as the recovery efficiency control target. *Part Type:* categories *Domain:* bio *Speciment*

*ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### hep g armored rna

(hepGRna). Measure of the amount Hepatitis G Armored RNA. *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* virusMisc *Class:* allele *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### hep g armored rna spike target

(hepGRnaMat). Hepatitis G armored RNA is used as the recovery efficiency control target. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### High severity

(high). Indicates a very severe quality issue, likely meaning the data should not be reported. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Sewer Network Health Region

(hlthReg). Health region served by the sewer network *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### Hand Measurement

(hma). Handheld measurement analyzer. A handheld measurement analyzer. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA

*Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Hollow fiber dead end ultrafiltration

(hollowFiberUF). Hollow fiber dead end ultrafiltration *Part Type:* categories *Domain:* che *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## General Hospital Admissions

(hosa). Hospital admissions or patients newly admitted to hospital. *Part Type:* units *Domain:* bio *Speciment ID:* poSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Hospital Census

(hosc). Hospital census or the number of people admitted with an ailment. *Part Type:* units *Domain:* bio *Speciment ID:* poSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:*

## Parts

naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: integer *Missingness Set*: NA *Minimum Value*: 0 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Hospital

(hosptl). Hospital *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Holding tank wastewater depreciated

(hoTaWa). Wastewater from a holding tank, such as from an airplane or ship Deprecated in version 2, please do not use. Duplicate of the sampleMat categories - refer to those. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: NA *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Hours

(hours). A unit for indicating a length of time in hours. *Part Type:* units *Domain:* allDo *Speciment ID:* anySpecimenSet *Compartment Set:* anyCompartmentSet *Group:* miscMeas *Class:* time *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Holding tank wastewater

(htSam). Wastewater sampled from a holding tank, such as from an airplane or ship *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Holding tank

(htSite). Holding tank *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum*

## Parts

*Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Human compartment

(hum). A measure or observation made about a human. *Part Type:* compartments *Domain:* bio *Speciment ID:* anySpecimenSet *Compartment Set:* humanCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 1 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Human compartment set

(humanCompartmentSet). A compartment set for measures and methods in the human compartment. *Part Type:* compartmentSets *Domain:* bio *Speciment ID:* anySpecimenSet *Compartment Set:* humanCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 15 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Humidity class

(humid). Measures and methods related to humidity. *Part Type:* classes *Domain:* phy *Speciment ID:* siSpecimenSet *Compartment Set:* airCompartmentSet *Group:* naGroup *Class:* humid *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet



*Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA  
*Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA  
*Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active.  
 First released: 2.0.0. Last updated: 2.0.0.

### **i1566v omicron-variant gene target { #i1566v }**

(i1566v ). i1566v omicron-variant gene target *Part Type:* measurements  
*Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet  
*Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA  
*Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale  
*Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet  
*Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal  
*Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### **i3758v omicron-variant gene target { #i3758v }**

(i3758v ). i3758v omicron-variant gene target *Part Type:* measurements  
*Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet  
*Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA  
*Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale  
*Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet  
*Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal  
*Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### i82t delta-variant gene target

(i82t). i82t delta-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### International Classification of Diseases

(icd). Classification system for diseases in humans. *Part Type*: nomenclatures *Domain*: bio *Speciment ID*: poSpecimenSet *Compartment Set*: humanCompartmentSet *Group*: naGroup *Class*: disease *Nomenclature*: ICD *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Intensive care unit patients

(icu). Units for describing a population measure of patients who are in intensive care due to a given cause. Unit for a population or disease measure to explain population-level clinical effects. *Part Type*: units *Domain*: bio *Speciment ID*: poSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*:

integer *Missingness Set*: NA *Minimum Value*: 0 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Index

(index). Index number in case the measurement was taken multiple times. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 50 *Part Status*: active. First released: 1.1.0. Last updated: 2.0.0.

## Inhibition set

(inhibitionSet). Category set for inhibition methods. *Part Type*: mmaSets *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: pcr *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: inhibitionSet *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Inhibition measure

(inhibMe). Parameter to report whether or not inhibition was detected in the sample. Detected = TRUE, not detected = FALSE. *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment*

## Parts

*Set:* anyCompartmentSet *Group:* miscMeas *Class:* sequence *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* booleanUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.1.0. Last updated: 2.0.0.

## Inhibition method

(inhibMeth). Description of the method used to evaluate molecular inhibition. Description of the inhibition parameters. *Part Type:* methods *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* measGrp *Class:* pcr *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* inhibitionSet *Unit Set:* unitlessUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 100 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Innovaprep ultrafiltration

(innovaprepUF). Innovaprep ultrafiltration *Part Type:* categories *Domain:* che *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Input

(input). Input for a table. Indicates if a part can be used in a table. “Input” is used to indicate if a part can be used as an entry in a table (something with partType = table). For example, covN1 is a specific measure that can be entered in the measureID field of the measures table. Therefore, covN1 is has a value “input” in the measures column in the parts list. ODM users can generate their own custom template by modifying using the value “input” for only the parts that are applicable for their program. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Instrument ID

(instrumentID). A unique identifier for an instrument. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 10 *Part Status:* active. First released: 1.1.0. Last updated: 2.0.0.

## Instrument table

(instruments). The table that contains information about instruments. adapt from version 1 documentation *Part Type:* tables *Domain:* naDomain

## Parts

*Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet  
*Group:* naGroup *Class:* programDescr *Nomenclature:* naNomenclature  
*Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet  
*Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:*  
varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA  
*Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First  
released: 1.0.0. Last updated: 2.0.0.

## Instruments table column order

(instrumentsOrder). Specifies the order of the columns in the Instru-  
ments table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:*  
naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup  
*Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA  
*Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality*  
*Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA  
*Minimum Value:* 1 *Maximum Value:* NA *Minimum Length:* NA *Maxi-*  
*imum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated:  
2.0.0.

## Instrutment table required headers

(instrumentsRequired). Specifies the columns required in the Instruments  
table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:*  
naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup  
*Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:*  
NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA  
*Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness*  
*Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:*  
0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last  
updated: 2.0.0.

## Other instrument

(instrumentTypeOther). Type of instrument other than those included in the PHES-ODM. An other type of measurement instrument. Add description to notes. See documentation for how to request new instruments added to the dictionary. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Instrument Type

(insType). Type of instrument used to perform the measurement. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* insTypeSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Describe other instrument type, if applicable

(insTypeOth). Description of the instrument in case it is not listed in instrumentType. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA

## Parts

*Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 100 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Instrument set

(insTypeSet). List of instruments that are used for measures and methods  
*Part Type:* mmaSets *Domain:* naDomain *Speciment ID:* naSpecimenSet  
*Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass  
*Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* insTypeSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Integer data type

(integer). The data type for integers. Only used for the dictionary entries of parts. *Part Type:* dataTypes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 15 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.



## Intercept

(inter). Intercept value of the calibration curve. Used for storing calibration curve information, potentially also applicable for other curve types. *Part Type*: measurements *Domain*: allDo *Speciment ID*: siSaSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: standard-Curve *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Combined ip2 and ip4 sars-cov-2 gene target

(ip2ip4). Combined ip2 and ip4 sars-cov-2 gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## ISO639-1

(iso6391). The first part of the ISO 639 series of international standards for language codes. Part 1 covers the registration of two-letter codes. There are 183 two-letter codes registered as of June 2021. The registered codes cover the world's major languages. Part of the metadata for a languageID. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet

## Parts

*Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass  
*Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA  
*Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## ISO639-2B

(iso6392B). A set of international standards that lists short codes for language names. These ISO639-2 are the three-letter codes defined in part two (ISO 639-2) of the standard, including the corresponding two-letter (ISO 639-1) codes where they exist. The ‘B’ specifies the bibliographic code (B code). Part of the metadata for a languageID. *Part Type:* attributes *Domain:* naDomain *Specimen ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## ISO639-2T

(iso6392T). A set of international standards that lists short codes for language names. These ISO639-2 are the three-letter codes defined in part two (ISO 639-2) of the standard, including the corresponding two-letter (ISO 639-1) codes where they exist. The ‘T’ specifies the terminological code (T code). Part of the metadata for a languageID. *Part Type:*

attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### ISO639-3

(iso6393). A set of international standards that lists short codes for language names. ISO 639-3 extends the ISO 639-2 alpha-3 codes with an aim to cover all known natural languages. Part of the metedata for a languageID. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### ISO639-6

(iso6396). A set of international standards that lists short codes for language names. ISO 639-6 builds off ISO639-3 with the use of four-letter codes, and allowing users to differentiate between variants of languages and language families, such as histroical vs. revived versions of languages. Part of the metedata for a languageID. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature

## Parts

*Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### **k856r omicron-variant gene target { #k856r }**

(k856r ). k856r omicron-variant gene target *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### **Kilogram per second**

(kgS). Kilograms per second. *Part Type:* units *Domain:* phy *Speciment ID:* siSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

**Kilolitres**

(kl). Kilolitres of volume *Part Type*: units *Domain*: phy *Speciment ID*: siSaSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

**Litres**

(l). Litres of volume *Part Type*: units *Domain*: phy *Speciment ID*: siSaSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

**I452r delta-variant gene target**

(I452r). I452r delta-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum*

## Parts

*Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### **I981f omicron-variant gene target { #I981f }**

(I981f ). I981f omicron-variant gene target *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## **Laboratory**

(lab). Laboratory for environmental testing. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## **Lab ID default depricated**

(labDefDep). Used as default when a new sample is created by this reporter. See ID in Lab table. Deprecated as of version 2, no defaults please specify. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:*

naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 10 *Part Status*: **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

## Laboratory duplicate

(labDuplicate). Second (time or more) processing and analysis of sample. Usually for general chemistry or metals analyses. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Lab ID

(labID). Unique identifier for a laboratory. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 10 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Parts

### Lagoon system

(lagoon). Lagoon system for extensive wastewater treatment *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### Lake, natural water body

(lake). Lake, natural water body *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### Lambda

(lambda). C.37 *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* variant *Nomenclature:* who *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.



## Language ID

(lang). Language code for translation purposes. Specifies the language for each translation, other than the default English. Follow the ISO639-3 codes for now. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Language family

(langFam). Specifies the language family of a given language for translation and language tracking purposes. Part of the metedata for a languageID. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Language name

(langName). Specifies the name of the language in roman alphabet characters for translation and language tracking purposes. Part of the metedata for a languageID. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup

## Parts

*Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Language Look-up table

(languages). Look up table for all languages, used to give structure to the translation table. *Part Type:* tables *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* lookup *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Language table column order

(languagesOrder). Specifies the order of the columns in the Languages table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 1 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Language table required headers

(languagesRequired). Required headers in the Languages table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Last edited

(lastEdited). The date the entry was last updated. Use lastEdited if an entry is updated. Leave lastEdited blank or 'NA' for the first entry. Updates can include additions or revisions of the entry for any reason. For example, a wastewater measure was repeated later with an improved method. You can revise the entry by updating the value and then adding the date the new measure was performed to 'lastEdited'. To ensure data provenance, the best practice in this example is to generate a new entry with the same measureID as the original measureID. The original and new measures are kept in the database with a date in the 'lastEdited' field for the new entry but not the original one. Some databases may choose a delete-and-replace approach where the original entry is deleted and replaced by a new entry. In this approach, the 'lastEdited' field indicates the delete and replace occurred. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* datetime *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Parts

### Last name of contact

(lastName). Specifies the last name of a given contact. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Last updated version

(lastUpdated). The version in which the part was last updated. Any change to the part of list will result in a change in the lastUpdated field to the dictionary version where the update occurred. *Part Type:* partSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### LaTeX expression

(latExp). LaTeX expression used to generate formulas, symbols, etc. Mainly relevant for units. *Part Type:* partSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation*

*Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 20 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Low breadth of coverage

(IBC). The percentage of the genome covered by reads (the breadth) is low. *Part Type: qualityIndicators Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Laboratory control sample duplicate

(lcsd). Known amounts of an analyte or representative compounds are added to a second “clean” matrix (lab water or clean sand) in laboratory. Duplicate of LCS *Part Type: categories Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Parts

### Low depth of coverage

(IDC). Poor coverage, specifically an insufficient number of reads or too many sequencing reads that are mapped incorrectly. *Part Type:* qualityIndicators *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Leaked sample

(leaked). Sample leaked, some volume and material was lost. *Part Type:* qualityIndicators *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Link

(li). Link to an external reference that describes the geometry of the polygon. Deprecated as of version 2, please avoid use. Use referenceLink instead. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:*

NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 100 *Part Status*: **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## License

(license). The license of a dataset. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Linear scale aggregation set

(linearAggrSet). The aggregation set that contains all aggregations that exist on the linear scale. *Part Type*: aggregationSets *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Liquid fraction

(liq). Liquid fraction of a sample. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet

## Parts

mentSet Group: naGroup Class: naClass Nomenclature: naNomenclature  
Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet  
Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type:  
varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA  
Minimum Length: 0 Maximum Length: 30 Part Status: active. First  
released: 1.0.0. Last updated: 2.0.0.

## List worksheet

(lists). Parts lists for template dropdowns and other documentation.  
Sheets or tabs for the ODM Excel dictionary include: all ERD tables  
(look-up tables and data entry tables) and additional supportig ta-  
bles. Part Type: dictionarySupport Domain: naDomain Speciment ID:  
saSpecimenSet Compartment Set: naCompartmentSet Group: naGroup  
Class: naClass Nomenclature: naNomenclature Ontology Reference: NA  
Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality  
Set: NA Reference Link: NA Data Type: varchar Missingness Set:  
NA Minimum Value: NA Maximum Value: NA Minimum Length: NA  
Maximum Length: NA Part Status: active. First released: 2.0.0. Last  
updated: 2.0.0.

## List set

(listSet). PartTypes that contain categories, sets, or lists. Used to gener-  
ate documentation. Part Type: miscSet Domain: naDomain Speciment  
ID: naSpecimenSet Compartment Set: airCompartmentSet Group: na-  
Group Class: naClass Nomenclature: naNomenclature Ontology Refer-  
ence: NA Category Set ID: NA Unit Set: windSpeedUnitSet Aggregation  
Scale: quantAggScale Quality Set: NA Reference Link: NA Data Type:  
varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA  
Minimum Length: 0 Maximum Length: 30 Part Status: active. First re-  
leased: 2.0.0. Last updated: 2.0.0.



## Access to local ha

(localHA). If this is 'no', the, data will not be available to local health authorities. If missing, data will be available to local health authorities. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: booleanSet *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: boolean *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 1 *Part Status*: **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

## Limit of detection (LOD)

(lod). Limit of detection. Limit of detection (LOD) for this method, if one exists. *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: pcr *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.1.0. Last updated: 2.0.0.

## Limit of detection (LOD) - sewage

(lodSewa). Limit of detection for sewage samples. Limit of detection (LOD) for sewage *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: procGrp *Class*: pcr *Nomenclature*: naNomenclature *Ontology Reference*: NA

## Parts

*Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Logarithmic scale aggregation set

(logAggrSet). The aggregation set that contains all aggregations that exist on the logarithmic scale (rather than linear or qualitative). *Part Type:* aggregationSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Dictionary tables

(lookup). Tables to describe and support the ODM dictionary. These tables hold information on sets, all parts, and support multiple languages and translations. The tables are updated by the ODM development team when a new ODM version is created. *Part Type:* classes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* lookup *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Limit of quantification (LOQ)

(loq). Loq Limit of quantification (LOQ) for this method if one exists. *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: pcr *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.1.0. Last updated: 2.0.0.

## Low severity

(low). A marker for low severity *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Lower limit of a 95% confidence interval

(lowerCI95). Specifies the the lower limit of a 95% confidence interval. Should typically be linked to an upper limit, and some indication of data spread (ie. standard deviation), and a mean/median measure. *Part Type*: aggregations *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*:

## Parts

NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Low-volume sample

(lowVol). Sample is low-volume, but was run regardless. *Part Type*: qualityIndicators *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Long-term care facility

(ltcf). A residential healthcare facility that provides 24-medical care. These are also called skilled nursing facilities. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

### Long-term care - assisted living or retirement home

(ltcfAl). A residential facility that provides assistance with daily care but generally does not provide skilled nursing care. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment*

*Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Other long-term care

(ltcfO). Other residential facilities that provide daily and/or medical care, but are not defined as nursing home/skilled nursing facilities or assisted living facilities. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Life technologies digital PCR

(ltDpccr). Describes a PCR analysis done using Life Technologies' digital PCR technology. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Lysis buffer

(lysi). Lysis buffer. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Cubic metres per day

(m3D). Cubic metres per day. *Part Type:* units *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.1.0. Last updated: 2.0.0.

### Cubic metres per hour

(m3H). Cubic metres per hour. *Part Type:* units *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.1.0. Last updated: 2.0.0.

## Cubic metres per second

(m3S). Cubic metre per second. *Part Type:* units *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Manufacturer

(manufacturer). Manufacturer of an instrument. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 100 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Mate pair layout

(mateLay). Specifies the mate pair layout for a sequencing method. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Maximum length

(maxLength). The maximum length of the value of a part or measure. *Part Type:* partSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Maximum value

(maxVal). Highest value in a range of values for a measure. *Part Type:* aggregations *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Maximum value part support

(maxValue). The maximum value of a part. *Part Type:* partSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.



## Arithmetic mean

(me). Arithmetic mean. *Part Type:* aggregations *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Measurement group

(measGrp). A group of measures that cannot be otherwise categorized. *Part Type:* groups *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Other Measure

(measOth). Other measure, not otherwise specified in measures. Add description to categoryOther. *Part Type:* measurements *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:*

## Parts

NA *Part Status*: **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

## Measures quality set

(measQualitySet). A quality set for any measure, includes all the quality flag options for any measure. Used as an “any quality set” for measures, but excludes the sample quality flags to avoid confusion and data entry errors. *Part Type*: qualityIndSets *Domain*: naDomain *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Measure

(measure). A measurement or observation of any substance including a biological, physical or chemical substance. An measurement is recorded from a specimen (i.e. a site, sample, person or population). Measures are organized into groups and classes (sub-groups). *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 12 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Measures

(measurements). The attribute to describe a part type of measures. All measures have ‘partType’ = “measure”. *Part Type*: partType *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Report ID

(measureRepID). Unique identifier for a measurement. Report IDs cannot be repeated. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Measure report table

(measures). The table that contains information and details about a given measure adapt from version 1 documentation *Part Type*: tables *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: results *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar

## Parts

*Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Measure set report table

(measureSets). The table that identifies sets of measures. Examples of measure sets include a set of replicates, dilutions (used to generate a Ct curve) or variants that are identified in a single sample. *Part Type:* tables *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* results *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Measure sets table column order

(measureSetsOrder). Specifies the order of the columns in a Measure Sets table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 1 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Measure Set table required headers

(measureSetsRequired). Specifies the columns required in a Measure Sets table. *Part Type*: tableSupport *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Measures table column order

(measuresOrder). Specifies the order of the columns in a Measures table. *Part Type*: tableSupport *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: integer *Missingness Set*: NA *Minimum Value*: 1 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Measures table required headers

(measuresRequired). Specifies the columns required in a Measures table. *Part Type*: tableSupport *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA

## Parts

*Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Report set ID

(measureSetRepID). Unique identifier that links together a group of related measures. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Median

(med). Median. *Part Type:* aggregations *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Normalized arithmetic mean

(menr). Arithmetic mean, normalized. *Part Type:* aggregations *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature

*Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Other Measure Description

(meOthDe). Description of other measure (measOtherDesc). *Part Type:* measurements *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 60 *Part Status:* **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

## Measure license

(measureLic). Specifies the access and use licensing for a given single measurement. Populated by partID = licenseID *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

*Parts*

## **Method**

(method). A procedure for collecting a sample or performing a measure. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 10 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## **Concentration method**

(methodConc). Description of the method to concentrate a wastewater sample. Description of the method used to concentrate the sample *Part Type:* methods *Domain:* allDo *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* methodConcSet *Unit Set:* unitlessUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 100 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## **Concentration method set**

(methodConcSet). A set a concentration methods. *Part Type:* mmaSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:*



NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Methods

(methods). Procedures or steps for collecting samples or performing measures. For example, ‘methodExtract’ is a method that describes the how a sample was extracted. *Part Type*: partType *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Membrane filtration with acidification and mgcl2

(mfAcidmgcl2). Membrane filtration with acidification and mgcl2 *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **Membrane filtration with acidification and mgcl2, membrane recombined with separated solids**

(mfAcidmgcl2SS). Membrane filtration with acidification and mgcl2, membrane recombined with separated solids *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### **Membrane filtration with addition of mgcl2**

(mfMgcl2). Membrane filtration with addition of mgcl2 *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### **Membrane filtration with mgcl2 and separated solids**

(mfMgcl2SS). Membrane filtration with addition of mgcl2, membrane recombined with separated solids *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation*

*Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## **Membrane filtration with no amendment**

(mfNoAmend). Membrane filtration with no amendment *Part Type: categories Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## **Membrane filtration with no amendment, membrane recombined with separated solids**

(mfNoAmendSS). Membrane filtration with no amendment, membrane recombined with separated solids *Part Type: categories Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

### **Membrane filtration with sample acidification**

(mfSampleAcid). Membrane filtration with sample acidification *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### **Membrane filtration with sample acidification, membrane recombined with separated solids**

(mfSampleAcidSS). Membrane filtration with sample acidification, membrane recombined with separated solids *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### **Millions of gallons per day (MG/D)**

(mgd). A unit for measuring of design capacity for wastewater treatment plants, represented as millions of gallons per day. Also can be used to measure flow. *Part Type:* units *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:*

NA *Reference Link*: NA *Data Type*: float *Missingness Set*: NA *Minimum Value*: 0 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Milligrams per litre

(mgL). Milligrams per litre. *Part Type*: units *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: NA *Minimum Value*: 0 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.1.0. Last updated: 2.0.0.

## Murine Hepatitis Virus

(mhv). A measure for amount of murine hepatitis viurs. *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: virusMisc *Class*: allele *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Multiple issues

(mI). Multiple issues have arisen in the sequencing process. When using the ‘multiple issues’ quality flag, please specify the issues and details in

## Parts

the notes section. *Part Type*: qualityIndicators *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Mid-level severity

(mid). A marker for med-level severity, where there are some concerns. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Minimum length

(minLength). The maximum value of measure. *Part Type*: partSupport *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: integer *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Minutes

(minutes). A unit for indicating a length of time in minutes. *Part Type:* units *Domain:* allDo *Speciment ID:* anySpecimenSet *Compartment Set:* anyCompartmentSet *Group:* miscMeas *Class:* time *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Minimum value

(minVal). Lowest value in a range of values for a measure. *Part Type:* aggregations *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Minimum value part support

(minValue). The minimum value of part. *Part Type:* partSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Miscellaneous attribute group

(miscAttr). A group of miscellaneous measurement-like attributes. Examples of these would be longitude and latitude, or EPSG coordinates. *Part Type*: groups *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Miscellaneous measure group

(miscMeas). A group of measures that cannot be otherwise categorized. *Part Type*: groups *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Missingness

(missingness). The part type for missingness values. Only used for the dictionary entries of parts. *Part Type*: partType *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum*



*Length: 0 Maximum Length: 15 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Missingness sets

(missingnessSets). Missingness sets for measures, methods or attributes. Inputted data into an ODM field may have missing data. The missingness set lists valid missing categories for the measure, method, or attribute. *Part Type: partType Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: anyCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: categorical Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 15 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Mixed/homogenized sample

(mix). Mixed or homogenized sample or fraction analyzed. *Part Type: categories Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 1.0.0. Last updated: 2.0.0.*

## Millilitres

(ml). Millilitres of volume *Part Type: units Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group:*

## Parts

naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Megalitres per day (ML/d)

(mld). Megalitres per day. *Part Type*: units *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: NA *Minimum Value*: 0 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Millimetres

(mm). Unit part for the SI unit of millimetres. *Part Type*: units *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: NA *Minimum Value*: 0 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.1.0. Last updated: 2.0.0.

## Measure, method, or attribute

(mmaSet). The set for a measure, method, or attribute. Only applicable for categorical fields, and the categories that populate them. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 12 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Measure, method, or attribute sets

(mmaSets). A set of categories. For example, site type has a list of different sites, such as a wastewater treatment plant, a septic tank, or a pumping station. Only used for the dictionary entries of parts. *Part Type:* part-Type *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 15 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Model

(model). Model number or version of the instrument. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA

## Parts

*Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 100 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Months

(months). A unit for indicating a length of time in months. *Part Type:* units *Domain:* allDo *Speciment ID:* anySpecimenSet *Compartment Set:* anyCompartmentSet *Group:* miscMeas *Class:* time *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Moore swab passive sample

(moorSw). Moore swab passive sample. Use collectionPeriod to describe how many hours the Moore swab was used to collect the sample *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Metres per second

(ms). metres per second. *Part Type:* units *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:*

naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: NA *Minimum Value*: 0 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## ms2 coliphage

(ms2Col). Measure of the amount of ms2 coliphage. *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: virusMisc *Class*: allele *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## ms2 coliphage spike target

(ms2ColMat). ms2 coliphage is used as the recovery efficiency control target. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Matrix spike duplicate

(msd). A known amounts of an analyte or representative compounds are added in the laboratory to a second aliquot of the sample used for matrix spike. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Moore swab passive sample depreciated

(mspsDep). Moore swab passive sample. Deprecated in version 2, please do not use. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

### Major sewer pipeline

(mSwrPpl). Major sewer pipeline *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:*

varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA  
*Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First  
 released: 1.0.0. Last updated: 2.0.0.

## Mu

(mu). B.1.621 *Part Type*: measurements *Domain*: bio *Speciment ID*:  
 saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2  
*Class*: variant *Nomenclature*: naNomenclature *Ontology Reference*: NA  
*Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeU-  
 nitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnit-  
 Data *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal  
*Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*:  
 NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## murine coronavirus

(muCo). Measure of the amount of murine coronavirus. *Part Type*:  
 measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment*  
*Set*: anyCompartmentSet *Group*: virusMisc *Class*: allele *Nomenclature*:  
 naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit*  
*Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA  
*Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMiss-  
 ingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal  
*Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First  
 released: 2.0.0. Last updated: 2.0.0.

## murine coronavirus spike target

(muCoMat). Murine coronavirus is used as the recovery efficiency con-  
 trol target. *Part Type*: categories *Domain*: naDomain *Speciment ID*:  
 naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup

## Parts

*Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Multiple fraction

(mul). Multiple fractions were analyzed separately and aggregated together post-analysis. This fractionID is intended for use for archival data and should not be used for newly added new moving forward (2022). Please also specify in the notes section which fractions were used for the multiple fractions (ex. solid and liquid) to avoid loss of information. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Multiple Purpose

(multiple). A measure or sample taken for multiple purposes, not easily captured by the other purpose categories. Useful for parent samples where various subsamples will have different purposes/ *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum*



*Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active.  
First released: 2.0.0. Last updated: 2.0.0.

## Municipalities or communes

(municipalLevel). Municipalities or communes *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* ISCU *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* nrNAMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Municipality

(municip). A complete municipality, this specifies an entire metropolitan area, either a city, town, etc. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Mutations class

(mutation). Measures and methods related to mutations. *Part Type:* classes *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit*

## Parts

*Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA  
*Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## N sars-cov-2 gene target

(n). N sars-cov-2 gene target *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* allele *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Combined N1 and N2 sars-cov-2 gene target

(n1n2). Combined N1 and N2 sars-cov-2 gene target *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

**n211i omicron-variant gene target { #n211i }**

(n211i ). n211i omicron-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

**n679k omicron-variant gene target { #n679k }**

(n679k ). n679k omicron-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

**n856k omicron-variant gene target { #n856k }**

(n856k ). n856k omicron-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*:

## Parts

NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## **n969k omicron-variant gene target { #n969k }**

(n969k ). n969k omicron-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## **Not applicable**

(NA). The field for which the expected value is not a property of the described object. Missing value indicator for missing data with no explanation. *Part Type*: missingness *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

**Aggregation not applicable**

(naAggr). Not applicable for aggregations. Used for parts for which an aggregation value is not applicable or appropriate. *Part Type:* aggregations *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

**Aggregation scale not applicable**

(naAggrScale). Not application for aggregation sets. Used for parts for which an aggregation scale value is not applicable or appropriate. *Part Type:* aggregationScales *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

**Aggregation set not applicable**

(naAggrSet). Not application for aggregation sets. Used for parts for which an aggregation set value is not applicable or appropriate. *Part Type:* aggregationSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:*

## Parts

NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Class not applicable

(naClass). Class is not applicable. Use this for all parts that don't have classes (most non-measure or method parts) *Part Type*: classes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Compartment not applicable

(naCompartment). Compartment not applicable. *Part Type*: compartments *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 13 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Compartment set not applicable

(naCompartmentSet). Compartment not applicable. *Part Type*: compartmentSets *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment*

*ment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 13 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Domain not applicable

(naDomain). Not applicable. Use ‘not applicable’ when there is no domain for the part *Part Type:* domains *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Group not applicable

(naGroup). Used when there is no group; ie. group is not applicable. Use ‘not applicable’ when there is no group for the part *Part Type:* groups *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Name

(name). Name of a domain, specimen, group, class, attribute, unit, nomenclature or other entity. Name of any entity. Use a prefix to distinguish names from different report tables. See fully specified name (FSN) list. i.e. Si-name = Site name, Po-name = Polygon name, Or-name = Organization name, Me-name = Method-name. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Not a number

(nan). The outcome of a measurement is not a valid number (plus or minus infinity, error, ...) Missing values indicator for when a numeric value is expected but not given. *Part Type:* missingness *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### Nomenclature not applicable

(naNomenclature). Not applicable. Use 'not applicable' when there is no nomenclature for the part *Part Type:* nomenclatures *Domain:* naDomain



*Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet  
*Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology*  
*Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation*  
*Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Miss-*  
*ingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum*  
*Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0.  
 Last updated: 2.0.0.

### **Specimen not applicable**

(naSpecimen). Non applicable specimen. Use ‘not applicable’ when there is no specimen/set for the part *Part Type:* specimenSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### **Specimen set not applicable**

(naSpecimenSet). A specimen set for when specimen/specimen set is not applicable. Use ‘not applicable’ when there is no specimen/set for the part *Part Type:* compartmentSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Native Name

(natName). The native name of the language, i.e. what the language is called by its speakers. Part of the metadata for a languageID. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Unit not applicable

(naUnit). Not applicable for units. *Part Type:* units *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Unit set not applicable

(naUnitSet). Not applicable for unit sets. *Part Type:* unitSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar

*Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## National Center for Biotechnology Information

(ncbi). NCBI header *Part Type:* crosswalkTableSet *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## NCBI - notes

(ncbiNotes). NCBI notes *Part Type:* crosswalkTableSet *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Neighbourhood

(neigh). A municipal neighbourhood, this specifies a sub-section of a larger municipality. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA

## Parts

*Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Local administrative units or neighborhoods

(neighborLevel). Local administrative units or neighborhoods *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* ISCU *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* nrNAMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Population of newly vaccinated persons

(newVax). Population of newly vaccinated persons *Part Type:* units *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## NextClade nomenclature

(nextclade). Specifies variant or genetic nomenclature as set out by NextClade. *Part Type:* nomenclatures *Domain:* naDomain *Speciment ID:*

naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup  
*Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*:  
 NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA  
*Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness*  
*Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*:  
 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last  
 updated: 2.0.0.

### Normalized geometric mean

(ngmn). Geometric mean, normalized. *Part Type*: aggregations *Domain*:  
 naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet  
*Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature  
*Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggre-*  
*gation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar  
*Missingness Set*: NA *Minimum Value*: seeUnitVal *Maximum Value*: seeU-  
 nitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active.  
 First released: 1.0.0. Last updated: 2.0.0.

### Ammonium Nitrogen

(nH4N). Ammonium nitrogen concentration, as N. *Part Type*: measure-  
 ments *Domain*: che *Speciment ID*: siSaSpecimenSet *Compartment Set*:  
 waterCompartmentSet *Group*: miscMeas *Class*: standardConc *Nomencla-*  
*ture*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit*  
*Set*: stdConcentrationUnitSet *Aggregation Scale*: seeUnitAggScale *Qual-*  
*ity Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*:  
 genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeU-  
 nitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active.  
 First released: 1.0.0. Last updated: 2.0.0.

## Parts

### **niid\_2019-ncov\_n sars-cov-2 gene target**

(niid19). niid\_2019-ncov\_n sars-cov-2 gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **No quality concerns**

(noConcern). A flag to indicate there is are no quality concern about the measure or sample. *Part Type*: qualityIndicators *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: 1 *Maximum Value*: 1 *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

### **Sample not labelled**

(noLabel). Sample had no label *Part Type*: qualityIndicators *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar

*Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## No liquid concentration, liquid recombined with separated solids

(noliquid). No liquid concentration, liquid recombined with separated solids *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Nomenclature

(nomenclature). A classification system to report the measure class. Only applicable to variants, mutations, and diseases. Currently only used for class = variant, mutation, or disease. Valid options are currently restricted to 'NextClade', 'Pangolin', 'WHO', or 'ICD'. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Nomenclatures

(nomenclatures). A classification system to report the measure class. See *partID = nomenclatureID*. *Part Type*: partType *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### NORMAN

(norman). NORMAN header *Part Type*: crosswalkTableSet *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### NORMAN - notes

(normanNote). Norman notes *Part Type*: crosswalkTableSet *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar



*Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Norovirus G1

(norog1). Norovirus genogroup 1 *Part Type:* measurements *Domain:* bio *Specimen ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* virusMisc *Class:* allele *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Norovirus G2

(norog2). Norovirus genogroup 2 *Part Type:* measurements *Domain:* bio *Specimen ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* virusMisc *Class:* allele *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Notes

(notes). A note used to describe details that are not captured in other attributes There is no recommended structure of a note. Use notes as

## Parts

needed. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 200 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Sample missing time stamp

(noTime). Sample is missing the autosampler time; incomplete metadata on collection. *Part Type*: qualityIndicators *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Not reported

(nr). A value could have been recorded, however, it was not. Missing value indicator for data that is absent because it was not reported. *Part Type*: missingness *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

**Not reported, Not applicable missing set**

(nrNAMissingnessSet). Not reported, Not applicable missing set. *Part Type:* missingnessSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

**Sarbecovirus-specific N sars-cov-2 gene target**

(nSarbec). Sarbecovirus-specific N sars-cov-2 gene target *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* allele *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

**Nephelometric turbidity unit**

(ntu). Nephelometric Turbidity Units, a unit used in the measurement of turbidity (see “turbidity” under measureIDs). Nephelometric turbidity units (NTU) are based on white light (400–680nm) and 90° incident angle. *Part Type:* units *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference*

## Parts

*Link:* <https://www.sciencedirect.com/topics/engineering/nephelometric-turbidity-unit> *Data Type:* float *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Nuclisens automated magnetic bead extraction kit

(nucAuto). Nucleic acid extraction performed using the nuclisens automated magnetic bead extraction kit. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Nuclisens manual magnetic bead extraction kit

(nucManu). Nucleic acid extraction performed using the nuclisens manual magnetic bead extraction kit. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

**Null**

(null). A logical representation of a statement that is neither TRUE nor FALSE. Missing value indicator when the value is neither TRUE nor FALSE. *Part Type:* missingness *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

**National Wastewater Surveillance System**

(nwss). NWSS header *Part Type:* crosswalkTableSet *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

**NWSS - notes**

(nwssNotes). NWSS notes *Part Type:* crosswalkTableSet *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA

## Parts

*Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## NWSS - process

(nwssProcess). NWSS process *Part Type: crosswalkTableSet Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Water

(nww). Non-wastewater, coming from any kind of water body *Part Type: categories Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 1.0.0. Last updated: 2.0.0.*

## coronavirus OC43

(oc43). Measure of the amount of coronavirus OC43. *Part Type: measurements Domain: bio Speciment ID: saSpecimenSet Compartment Set: anyCompartmentSet Group: sarsCov2 Class: allele Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: geneticUnitSet Aggregation Scale: seeUnitAggScale Quality Set: NA Refer-*

*ence Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingness-Set *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **oc43 spike target**

(oc43Mat). Human coronavirus OC43 is used as the recovery efficiency control target. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **Ocean, natural water body**

(ocean). Ocean, natural water body *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

### **Other Collection deprecated**

(oColDep). Other type of collection method. Add description to collectionOther. Deprecated as of version 2, please avoid use. Specify in type,

## Parts

or contact the PHES-ODM research team to add your specific item via a github issue (<https://github.com/Big-Life-Lab/PHES-ODM/issues>), or at `phesd_odm@ohri.ca` *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Lab Analysis

(ola). Offline laboratory analysis. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Omicron BA.1

(omicr1). Omicron B.1.1.529 *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* variant *Nomenclature:* who *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.



## Omicron BA.2

(omicr2). Omicron BA.2 *Part Type*: measurements *Domain*: bio *Specimen ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: variant *Nomenclature*: who *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Omicron BA.2.75

(omicr275). Omicron BA.2.75 *Part Type*: measurements *Domain*: bio *Specimen ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: variant *Nomenclature*: who *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Omicron BA.4

(omicr4). Omicron BA.4 *Part Type*: measurements *Domain*: bio *Specimen ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: variant *Nomenclature*: who *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Omicron BA.5

(omicr5). Omicron BA.5 *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: variant *Nomenclature*: who *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Onset date

(onsDate). Earliest that symptoms were reported for this case. This data is often not known and reported. In lieu, episode is used. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: NA *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

### Online Sensor

(onse). Online sensor An online sensor *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar

*Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Ontology reference

(ontologyRef). Ontology reference for a part. This field contains a link to an existing ontology reference for the part. ODM content spans several existing ontologies. ODM does not strive to generate a new ontology, rather ODM seeks to harmonize and extend dictionaries for application in environmental and public health surveillance. *Part Type:* part-Support *Domain:* naDomain *Specimen ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 200 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Orthophosphates

(ophos). Ortho-phosphate concentration. *Part Type:* measurements *Domain:* che *Specimen ID:* siSaSpecimenSet *Compartment Set:* water-CompartmentSet *Group:* miscMeas *Class:* standardConc *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* stdConcentrationUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Other residential building

(orb). Individual residential buildings or institutions not captured in other categories *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## OR Boolean aggregation

(orBoo). “OR” aggregation. If any value in the aggregation is “TRUE” then the OR aggregation is also “TRUE”. If all values in the aggregation is “FALSE” then the OR aggregation is also “FALSE”. *Part Type*: aggregations *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## ORF1a sars-cov-2 gene target

(orf1a). ORF1a sars-cov-2 gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: allele *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data*

*Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### **ORF1ab sars-cov-2 gene target**

(orf1ab). ORF1ab sars-cov-2 gene target *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* allele *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### **ORF1b sars-cov-2 gene target**

(orf1b). ORF1b sars-cov-2 gene target *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* allele *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Organization ID

(organizationID). A unique identifier for the organization to which the reporter is affiliated. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 100 *Part Status:* active. First released: 1.1.0. Last updated: 2.0.0.

## Organization table

(organizations). The table that contains information about a laboratory. adapt from version 1 documentation *Part Type:* tables *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* programDescr *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Organizations table column order

(organizationsOrder). Specifies the order of the columns in a Organizations table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA

*Minimum Value: 1 Maximum Value: NA Minimum Length: NA Maximum Length: NA Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Organization table required headers

(organizationsRequired). Specifies the columns required in a Organizations table. *Part Type: tableSupport Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Organization level

(orgLevel). The geographic level of an organization. There are six levels based on International Standard Classification of Administrative Units (ISCU). *Part Type: attributes Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: orgLevelSet Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: categorical Missingness Set: nrNAMissingnessSet Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Organization level set

(orgLevelSet). Categories of organization levels. *Part Type:* mmaSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 10 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Organization sector

(orgSector). The sector of an organization *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* orgSectorSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* nrNAMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Organization sector set

(orgSectorSet). Categories of organization sectors. *Part Type:* mmaSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 10 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.



## Organization Type

(orgType). Specifies the type or purpose of a given organization. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* orgTypeSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* nr-NAMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Organization type set

(orgTypeSet). The set for storing organization types. *Part Type:* mmaSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 10 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sample origin

(origin). An attribute of a sample specifying the origin. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum*

## Parts

*Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sample Origin set

(originSet). The set for storing the valid categorical values of sample origin. *Part Type:* mmaSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Other Collection depreciated

(otco). Other type of collection method. Add description to collectionOther. Deprecated as of version 2, please avoid use. Specify in type, or contact the PHES-ODM research team to add your specific item via a github issue (<https://github.com/Big-Life-Lab/PHES-ODM/issues>), or at phesd\_odm@ohri.ca *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Other aggregation scale

(othAgg). Specifies an aggregation scale that can't be described as either "qualitative" or "quantitative". *Part Type:* aggregationScales *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Other

(other). Other Other category. A categorical response for several variables in version 1. Also accompanied by a free text field. Depreciated in version 2, with common text fields added as new categories in version 2.0.0 *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 2.0.0. Last updated: 2.0.0.

## Other aggregation set

(otherAggrSet). Aggregation set used for unitless measures. *Part Type:* aggregationSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:*

## Parts

NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Other aggregation deprecated

(otherDep). Other aggregation method. Add description to aggregationOther Deprecated as of version 2, please avoid use. Specify in type, or contact the PHES-ODM research team to add your specific item via a github issue (<https://github.com/Big-Life-Lab/PHES-ODM/issues>), or at phesd\_odm@ohri.ca *Part Type*: aggregations *Domain*: naDomain *Specimen ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

## Access to other prov deprecated

(otherProvDep). If this is ‘no’, this data will not be available to other data providers not listed before. If missing, data will be available to other data providers not listed before *Part Type*: attributes *Domain*: naDomain *Specimen ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: booleanSet *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: boolean *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 1 *Part Status*: **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

## Other report table set

(otherReportTableSet). Additional tables that form the full data model.  
*Part Type:* dictSets *Domain:* naDomain *Speciment ID:* saSpecimenSet  
*Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass  
*Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:*  
 NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference*  
*Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA  
*Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part*  
*Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Variants Other

(otherV). Used for reporting variants detected for which a specific measureID doesn't already exist. The ODM team will periodically migrate collected responses in this category into set measureIDs. Please write in an official name for the new variant that was detected, and specify which nomenclature you're using with the nomenclatureID. *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* variant *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Other Site - sample deprecated

(otsisaDep). Other type of site. Add description to typeOther. Deprecated as of version 2, please avoid use. Specify in type, or contact the PHES-ODM research team to add your specific item via a github

## Parts

issue (<https://github.com/Big-Life-Lab/PHES-ODM/issues>), or at phesd\_odm@ohri.ca *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Other Site - Site depreciated

(otsisiDep). Other site type. Add description to typeOther *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Other Unit depricated

(otunDep). Other measurement of viral copies or wastewater treatment plant parameter. Add description to UnitOther. Deprecated as of version 2, please avoid use. Specify in type, or contact the PHES-ODM research team to add your specific item via a github issue (<https://github.com/Big-Life-Lab/PHES-ODM/issues>), or at phesd\_odm@ohri.ca *Part Type:* units *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference*

*Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Outbreak

(outb). Measure to indicate outbreak status. Given that when outbreaks occur, full data on case counts may not be available or completely accurate, using this measure indicates that case counts may be approximate. The datetime for the measure helps indicate that start and end periods for an outbreak. *Part Type:* measurements *Domain:* bio *Speciment ID:* poSpecimenSet *Compartment Set:* humanCompartmentSet *Group:* miscMeas *Class:* outbreak *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* outbreakSet *Unit Set:* unitlessUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Outbreak End

(outbEnd). Indicates an outbreak has ended. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Outbreak - on-going

(outbOngoing). Indicates an outbreak is on-going. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Outbreak class

(outbreak). Measures and methods relating to public health outbreaks. *Part Type:* classes *Domain:* bio *Speciment ID:* poSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* outbreak *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* unitlessUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Outbreak set

(outbreakSet). set for the valid values of the outbreak measure. *Part Type:* mmaSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* outbreakSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum*



*Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Outbreak start

(outbStart). Indicates an outbreak began. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## p100l delta-variant gene target

(p100l). p100l delta-variant gene target *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## p2046l delta-variant gene target

(p2046l). p2046l delta-variant gene target *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnit-

## Parts

*Set Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **p2287s delta-variant gene target**

(p2287s). p2287s delta-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Set Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **p3395h omicron-variant gene target { #p3395h }**

(p3395h ). p3395h omicron-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Set Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

**p681r delta-variant gene target**

(p681r). p681r delta-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

**Paired Layout**

(pairLay). Specifies the paired layout for a sequencing method *Part Type*: categories *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

**Pangolin nomenclature**

(pangolin). Specifies variant or genetic nomenclature as set out by the Phylogenetic Assignment of Named Global Outbreak Lineages (Pangolin). *Part Type*: nomenclatures *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA

## Parts

*Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Parent dataset ID

(parDatasetID). The datasetID that is a parent to another datasetID. *Part Type: attributes Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: genMissingnessSet Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Parent sample ID

(parent). If this sample has been pooled into one big sample for analysis this indicates the sample of the larger pooled sample. *Part Type: attributes Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: genMissingnessSet Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: **deprecated**. First released: 1.1.0. Last updated: 2.0.0.*

## Parent Site ID

(parSiteID). The siteID that is a parent to another siteID; usually the sub-site will be contained in the parentSite. An example would be surface test-

ing in a LTC facility. The LTC facility would be the parentSiteID, and the various rooms/surfaces would be the sub-sites, or child-sites. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Part description

(partDesc). The description of the part. Provides description of the part, used for translation. *Part Type:* partSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Part identifier

(partID). The unique identify of any entity within the dictionary. Every entity in the ODM has a partID. The partID must be unique with no duplicates. partIDs are short. partIDs that are constructed by different part attributes can be up to 28 characters (check max), but each part attribute should be 1 to 5 characters. partIDs are machine readable, but a knowledgeable user can understand what they represent. partID are used, for example, as a header in an Excel input table. Numbers are allowed but there are no other special characters other than ‘.’ ‘ ‘ is a reserved character

## Parts

that is used to generate a partID using a component or table attributes. A partID for a subComponent is automatically generated using attributes of a component. For example, the partID for the component ‘SARS-CoV-2’ is ‘covid’. ‘Covid’ can have many subComponents including different groups (Covid-19-al, Covid-19-va, covid-pr (allele, variant or protein) or units and aggregations (i.e. covid-al-N1-mean-cpl representing covid allele N1, mean observation of viral copies per litre of effluent). A similar approach to naming subComponent is used for naming parts in a reportTable. *Part Type:* partSupport *Domain:* naDomain *Specimen ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 28 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Part instruction

(partInstr). Additional notes and instructions on how a part is used and/or defined. *Part Type:* partSupport *Domain:* naDomain *Specimen ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 200 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Label

(partLabel). A human readable label of a part. Typically, a part label has no acronyms (every word is spelled out). Equivalent to a LOINC com-

mon name. *Part Type:* partSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts Look-up table

(parts). Look up table containing all parts in of the data model. Contains all parts, including self-referential parts. *Part Type:* tables *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* lookup *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts table column order

(partsOrder). Order of headers in the Parts table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Parts table required headers

(partsRequired). Required headers in the Parts table. *Part Type*: table-Support *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Part types

(partType). Part types describe the purpose or use of the part. Enivornment data has three main part types: measure (i.e. covN1 viral measures, wasteawater flow rate, temperature), method (e.g. how the measure was taken), and attribute (such as a site name). See description of each of the part types within categorySetID = partTypeCatSets. *Part Type*: part-Type *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 15 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Primary Clarifier Effluent deprecated

(pceDep). Effluent obtained after primary clarifiers. Deprecated in version 2, please do not use. Duplicate of the sampleMat categories - refer to those. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: colGrp *Class*: naClass



*Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Postal or Zip Code

(pCode). The zip code or postal code for a given address, specifying a specific geographic area. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## qPCR Class

(pcr). Measures and methods relating to qPCR. *Part Type:* classes *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* pcr *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## PCR method

(pcrmeth). Description of the PCR method. Description of the PCR method used *Part Type*: methods *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: measGrp *Class*: pcr *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: pcrSet *Unit Set*: unitlessUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 100 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## PCR quality set

(pcrQualitySet). Quality set for PCR measures. *Part Type*: qualityIndSets *Domain*: naDomain *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## PCR sequencingsSelection method

(pcrSeq). Specifies the PCR selection method for sequencing, ie. that a pre-determined primer was used. Primer should be specified if this is selected. *Part Type*: categories *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA

*Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## PCR Method set

(pcrSet). The set capturing containing all of the valid methods for the PCR methodID. *Part Type:* mmaSets *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* pcrSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Primary Clarifier Sludge depreciated

(pcs). Sludge produced by primary clarifiers. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Primary clarifier effluent

(pEfflu). Effluent obtained after primary clarifiers *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:*

## Parts

naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA  
*Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active.  
First released: 1.0.0. Last updated: 2.0.0.

## Polyethyleneglycol (PEG) precipitation

(peg). Peg precipitation *Part Type*: categories *Domain*: che *Speciment ID*: naSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: proc-Grp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Percent

(perc). Percentage. *Part Type*: units *Domain*: allDo *Speciment ID*: anySpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: NA *Minimum Value*: 0 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Percent recovery

(percRec). Percent of the surrogate recovery for a recovery efficiency control assay. Use this for reporting the results of any recovery control assay. *Part Type*: units *Domain*: naDomain *Speciment ID*: saSpecimenSet

*Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass  
*Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:*  
 NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Refer-*  
*ence Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:*  
 NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 100 *Part*  
*Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## pH

(ph). pH measurement *Part Type:* measurements *Domain:* phy *Speci-*  
*ment ID:* siSaSpecimenSet *Compartment Set:* anyCompartmentSet *Group:*  
 miscMeas *Class:* pHClass *Nomenclature:* naNomenclature *Ontology Ref-*  
*erence:* NA *Category Set ID:* NA *Unit Set:* unitlessUnitSet *Aggregation*  
*Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:*  
 float *Missingness Set:* genMissingnessSet *Minimum Value:* 1 *Maximum*  
*Value:* 14 *Minimum Length:* NA *Maximum Length:* NA *Part Status:* ac-  
 tive. First released: 1.1.0. Last updated: 2.0.0.

## Access to phac

(phac). If this is 'no', the data will not be available to employees of the Pub-  
 lic Health Agency of Canada - PHAC. If missing, data will be available to  
 employees of the Public Health Agency of Canada - PHAC. *Part Type:* at-  
 tributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment*  
*Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:*  
 naNomenclature *Ontology Reference:* NA *Category Set ID:* booleanSet  
*Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference*  
*Link:* NA *Data Type:* boolean *Missingness Set:* genMissingnessSet *Min-*  
*imum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum*  
*Length:* 1 *Part Status:* **depreciated**. First released: 1.0.0. Last updated:  
 2.0.0.

## Parts

### PHAGE

(phage). PHAGE header *Part Type*: crosswalkTableSet *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### PHAGE - notes

(phageNotes). PHAGE notes *Part Type*: crosswalkTableSet *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### pH class

(pHClass). Measures and methods relating to pH. *Part Type*: classes *Domain*: che *Speciment ID*: siSaSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: pHClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: unitlessUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Phenol chloroform

(phenCl). Nucleic acid extraction performed using phenol chloroform. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Pseudomonas virus phi6

(phi6). Measure of the amount of pseudomonas virus phi6. *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* virusMisc *Class:* allele *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## phi6 spike target

(phi6Mat). Pseudomonas virus phi6is used as the recovery efficiency control target. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA

## Parts

*Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Contact phone

(phone). Contact phone number, for the lab. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 10 *Maximum Length:* 12 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Total phosphorous

(phos). Total phosphorous *Part Type:* measurements *Domain:* phy *Speciment ID:* siSaSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* miscMeas *Class:* standardConc *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* stdConcentrationUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.1.0. Last updated: 2.0.0.

## Total Phosphates

(phostot). Total phosphates *Part Type:* measurements *Domain:* phy *Speciment ID:* siSaSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* miscMeas *Class:* standardConc *Nomenclature:* naNomenclature



*Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* stdConcentrationUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.1.0. Last updated: 2.0.0.

## PHRED quality score

(phred). PHRED Quality Score For Sequencing *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* sequence *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Physical property

(phy). A physical property or object not characterized by life or chemistry. *Part Type:* domains *Domain:* phy *Speciment ID:* anySpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Physical class

(physical). Measures and methods related to generic physical properties. *Part Type*: classes *Domain*: phy *Speciment ID*: siSaSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: physical *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: volumeUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Primary key

(pK). Primary key for a table. All report tables have a primary key. Each row in a report table has unique identifier recorded in the primary key. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### PMMoV- and flow-normalized mean

(pmFloMean). Mean measure normalized to amount of PMMoV and wastewater flow. Mostly used for reporting specific alleles (N1, N2, E, etc.) *Part Type*: aggregations *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: quantAggScale

*Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## PMMoV-normalized mean

(pmmovNorm). Mean measure normalized to amount of PMMoV. Mostly used for reporting specific alleles (N1, N2, E, etc.) *Part Type:* aggregations *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Population

(po). An measure or observation for a geographic area or population. Examples include human compartment measures such as case numbers, hospitalization rates for diseases or surface or air compartment measures such as snow coverage or ambient temperature. *Part Type:* specimens *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Parts

### Post-Grit deprecated

(pogr). Raw wastewater after a treatment plant's headworks. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

### Polygon ID

(polygonID). Unique identifier for the polygon. A polygon is a geographic are representing the capment area of an environmental sample. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 10 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### Polygon table

(polygons). The table that contains information about the geometry of a geographic area. *Part Type:* tables *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* programDescr *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:*

0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

### Polygons table column order

(polygonsOrder). Specifies the order of the columns in a Polygons table. *Part Type*: tableSupport *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: integer *Missingness Set*: NA *Minimum Value*: 1 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Polygon table required headers

(polygonsRequired). Specifies the columns required in a Polygons table. *Part Type*: tableSupport *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Polygon Population

(polyPop). An attribute of a polygon, which specifies the population of that polygon. A rough estimate of the number of human residents. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet

## Parts

*Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass  
*Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* genMissingnessSet  
*Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Pooled

(pooled). Is this a pooled sample, and therefore composed of multiple child samples obtained at different sites *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature  
*Ontology Reference:* NA *Category Set ID:* booleanSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* boolean *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Type of date for case reporting deprecated

(popDateTypeDep). Type of date used for confirmed cases. Typically, report or episode are reported. Onset and test date is not usually reported within aggregate data. *Part Type:* attributes *Domain:* bio *Speciment ID:* poSpecimenSet *Compartment Set:* humanCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* methodConcSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

## Case reporting date set

(popDateTypeSet). set for the date of case reporting. *Part Type:* mmaSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* popDateTypeSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

## Population equivalents

(popEq). A unit for measuring of design capacity for wastewater treatment plants, represented as the approximate amount of water a single person would use. *Part Type:* units *Domain:* phy *Speciment ID:* siSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Population group

(popGrp). A group of measures/methods related to population-level factors. Examples might be case numbers, hospitalization rates, etc. *Part Type:* groups *Domain:* allDo *Speciment ID:* poSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* popGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference*

## Parts

*Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Population Served

(popServ). An attribute of a site, which specifies the population of/population served by a given site. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Population unit set

(populationUnitSet). Unit set for hospital-related measurements. *Part Type:* unitSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* humanCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* populationUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Population or sample set

(poSaSpecimenSet). A specimen set that inculdes population or sample specimen. *Part Type:* specimenSets *Domain:* naDomain *Speciment*



*ID:* poSaSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Population or site set

(poSiSpecimenSet). A specimen set that includes population or site specimen. *Part Type:* specimenSets *Domain:* naDomain *Speciment ID:* poSiSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Population specimen set

(poSpecimenSet). A specimen set that includes only a population specimen. *Part Type:* specimenSets *Domain:* naDomain *Speciment ID:* poSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Percent positive

(pp). Percent positive of sample measures. Can use for Moore swabs, etc. *Part Type:* units *Domain:* bio *Speciment ID:* siSaSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* 100 *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### parts per million

(ppm). Parts per million. *Part Type:* units *Domain:* phy *Speciment ID:* siSaSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### PMMoV-CP

(ppmv). Pepper mild mottle virus capsid protein gene region *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* virusMisc *Class:* allele *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Min-*

*imum Length: NA Maximum Length: NA Part Status: active. First released: 1.0.0. Last updated: 2.0.0.*

## Percent positivity rate

(pprt). Percent positivity rate of tests conducted within a day in a given region. *Part Type: units Domain: bio Speciment ID: poSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: float Missingness Set: NA Minimum Value: 0 Maximum Value: NA Minimum Length: NA Maximum Length: NA Part Status: active. First released: 1.0.0. Last updated: 2.0.0.*

## Percent primary sludge

(pps). Percentage of total solids, for primary sludge. *Part Type: units Domain: phy Speciment ID: siSaSpecimenSet Compartment Set: waterCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: quantAggScale Quality Set: NA Reference Link: NA Data Type: float Missingness Set: NA Minimum Value: 0 Maximum Value: 100 Minimum Length: NA Maximum Length: NA Part Status: active. First released: 1.0.0. Last updated: 2.0.0.*

## Precipitation class

(precipitation). Measures and methods related to precipitation. *Part Type: classes Domain: phy Speciment ID: siSpecimenSet Compartment Set: anyCompartmentSet Group: naGroup Class: precipitation Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: precipitationUnitSet Aggregation Scale: seeUnitAggScale Quality Set: NA*

## Parts

*Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Precipitation unit set

(precipitationUnitSet). Unit set for percipitation measurements. *Part Type:* unitSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* precipitationUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Pretreatment

(pretreat). Was the sample chemically treated in anyway with the addition of stabilizers or other Pretrement method can be describe using a method. See methodID. *Part Type:* methods *Domain:* allDo *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* booleanSet *Unit Set:* unitlessUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 1 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Genetic primer

(primer). Method ID used for indicating the primer used for a PCR or sequencing assay. *Part Type*: methods *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: measGrp *Class*: sequence *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: primerSet *Unit Set*: unitlessUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Genetic primer set

(primerSet). The set for genetic primers used in sequencing or PCR assays. *Part Type*: mmaSets *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: primerSet *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Private sector

(priv). The category of organization type used for private sector or non-profit groups that are not otherwise captured by the academic category. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference*

## Parts

*Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 10 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Processing group

(procGrp). A group of measures/methods related to processing samples for analysis. *Part Type:* groups *Domain:* allDo *Speciment ID:* siSaSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Program decription tables

(programDescr). Tables used to describe surveillance and testing programs. Program description tables record metadata on the organizations, locations, and protocols. Information include the name, location, and other contact information. These tables are usually completed once and they are updated only when contact information changes. *Part Type:* classes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* programDescr *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

**promega automated tna kit**

(promAuto). Nucleic acid extraction performed using the promega automated tna kit. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

**promega ht tna kit**

(promHt). Nucleic acid extraction performed using the promega ht tna kit. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

**promega manual tna kit**

(promManu). Nucleic acid extraction performed using the promega manual tna kit. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA

## Parts

*Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### **promega wastewater large volume tna capture kit**

(promWW). Nucleic acid extraction performed using the promega wastewater large volume tna capture kit. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### **Proportion of total**

(prop). Proportion as a percent of total. *Part Type:* units *Domain:* naDomain *Speciment ID:* anySpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* 100 *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### **Proportion of variant in sample**

(propV). Proportion of a variant as percent of total variants. *Part Type:* units *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:*



naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: NA *Minimum Value*: 0 *Maximum Value*: 100 *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.1.0. Last updated: 2.0.0.

## Protocol ID

(protocolID). A unique identifier for a given protocol. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Protocol ID container

(protocolIDContainer). Unique identifier for the protocol and the steps and other protocols that make it up. Protocol ID Container in populated by a protocolID (partID = protocolID) *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 15 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Protocol ID object

(protocolIDObj). The object of the relationship between one protocol and another protocol or step, within a given protocol ID container. Populate this field using Protocol ID (partID = protocolID). Together with ‘protocolIDSub’ or ‘stepIDSub’ and ‘relationshipID’, the protocol relationship is defined as: [protocolIDSubject or stepIDSubject] [relationshipID] [protocolIDObject or stepIDObject]. Ex: stepIDSubject precedes protocolIDObject. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Protocol ID subject

(protocolIDSub). The subject of the relationship between one protocol and another protocol or step, within a given protocol ID container. Populate this field using Protocol ID (partID = protocolID). Together with ‘protocolIDObj’ or ‘stepIDObj’ and ‘relationshipID’ the row of ‘protocolRelationships’ should say: [protocolIDSubject or stepIDSubject] [relationshipID] [protocolIDObject or stepIDObject]. Ex: stepIDSubject precedes protocolIDObject. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Protocol relationships table

(protocolRelationships). The table that contains the organizational information and details (such as order) about a given protocol, recorded as a series of protocol steps (protocolSteps). Protocols are a group of related protocol steps. For example a protocol step can describe a sample concentration, extraction, inhibition or a measurement. Protocols can include both methodID (a procedure) and measureIDs (a measure). An example of a method is centrifugation; where the centrifugation rotation speed is described as a measure. *Part Type:* tables *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* programDescr *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Protocol relationships table column order

(protocolRelationshipsOrder). Specifies the order of the columns in the Protocol Organization table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 1 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Protocol Relationship table required headers

(protocolRelationshipsRequired). Specifies the columns required in the Protocol Organization table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Protocol Relationships set

(protocolRelSet). set for valid values of relationshipID in the protocolRelationships table. Use only for protocolRelationships table relationshipID. *Part Type:* mmaSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* protocolRelSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Protocols table

(protocols). The table for protocols. *Part Type:* tables *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* programDescr *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA

*Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Protocols table column order

(protocolsOrder). Specifies the order of the columns in the Protocols table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 1 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Protocols table required headers

(protocolsRequired). Specifies the columns required in the Protocols table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Protocol steps table

(protocolSteps). The table for collecting metadata on individual steps in a protocol, methodological process, or assay. *Part Type:* tables *Domain:*

## Parts

*naDomain Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* programDescr *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Protocol steps table column order

(protocolStepsOrder). Specifies the order of the columns in a Protocol Steps table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 1 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Protocol steps table required headers

(protocolStepsRequired). Specifies the columns required in a Protocol Steps table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Protocol table set

(protocolTableSet). Tables holding information on the methods used for sample collection or measurement. *Part Type:* dictSets *Domain:* naDomain *Speciment ID:* saSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Protocol version

(protocolVersion). Specifies the version of a method set. Version of the method set. Semantic versioning is recommended. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* genMissingnessSet *Minimum Value:* 1 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Access to prov ha

(provHA). If this is 'no', this data will not be available to provincial health authorities. If missing, data will be available to provincial health authorities. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:*

## Parts

*naClass Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* booleanSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* boolean *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 1 *Part Status:* **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

## Provisional report

(provisional). A provisional or interm report. Use for measurement that are not yet finalized. Typically this purpose is not publicly reported. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Primary clarifier sludge

(pSludge). Sludge produced by primary clarifiers *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* water-CompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.



## Pumping station

(pStat). Pumping station *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Post-grit

(pstGrit). Raw wastewater after a treatment plant's headworks (post grit or removal of large solids at a treatment plant but prior to a primary clarifier) *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Pretreatment description - depreciated

(ptDescDep). If preTreatment then describe the treatment that was performed. Depreciated in version 2, please do not use. Use pretreatment methodID and specify further in summary and/or notes, if necessary. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set*

## Parts

*ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 255 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Number of positive tests

(ptot). Number of positive tests conducted within a day in a given region. *Part Type:* units *Domain:* bio *Speciment ID:* poSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Public healith agency

(pubHealth). Public health agency. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Access to public

(public). If this is 'no', this data will not be available to the public. If missing, data will be available to the public. *Part Type:* attributes *Domain:*

naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: booleanSet *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: boolean *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 1 *Part Status*: **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

## Puro virus

(puro). Measure of the amount of puro virus. *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: virusMisc *Class*: allele *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Puro virus spike target

(puroMat). Puro Virus is used as the recovery efficiency control target. *Part Type*: categories *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Purpose

(purpose). The reason the measure or sample was taken. See allowed categories: report, quality control, validation study, test *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: purposeSet *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Purpose set

(purposeSet). Purpose set for a sample or measure. *Part Type*: mmaSets *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: purposeSet *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### q19e omicron-variant gene target { #q19e }

(q19e ). q19e omicron-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*:

NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **q493r omicron-variant gene target { #q493r }**

(q493r ). q493r omicron-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **q498r omicron-variant gene target { #q498r }**

(q498r ). q498r omicron-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### q954h omicron-variant gene target { #q954h }

(q954h). q954h omicron-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Quaility assurance method

(qaqc). Quality assurance and quality control method. Description of the quality control steps taken *Part Type*: methods *Domain*: allDo *Speciment ID*: anySpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 100 *Part Status*: **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

### Quality concerns

(qf1). A flag to indicate there is a quality concern, not otherwise specified. *Part Type*: qualityIndicators *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA

*Minimum Value: 0 Maximum Value: 0 Minimum Length: NA Maximum Length: NA Part Status: active. First released: 1.0.0. Last updated: 2.0.0.*

### **qiagen allprep dna/rna kit**

(qgDNARNA). Nucleic acid extraction performed using the qiagen allprep dna/rna kit. *Part Type: categories Domain: bio Speciment ID: saSpecimenSet Compartment Set: anyCompartmentSet Group: procGrp Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

### **qiagen digital PCR**

(qgDpcr). Describes a PCR analysis done using Qiagen's digital PCR technology. *Part Type: categories Domain: bio Speciment ID: saSpecimenSet Compartment Set: anyCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

### **qiagen ez1 virus mini kit v2.0**

(qgEz1). Nucleic acid extraction performed using the qiagen ez1 virus mini kit v2.0. *Part Type: categories Domain: bio Speciment ID: saSpecimenSet Compartment Set: anyCompartmentSet Group: procGrp Class: naClass*

## Parts

*Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### qiagen allprep powerfecal dna/rna kit

(qgPwrFecal). Nucleic acid extraction performed using the qiagen allprep powerfecal dna/rna kit. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### qiagen allprep powerviral dna/rna kit

(qgPwrViral). Nucleic acid extraction performed using the qiagen allprep powerviral dna/rna kit. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.



**qiagen powerwater kit**

(qgPwrWtr). Nucleic acid extraction performed using the qiagen powerwater kit. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

**qiagen qiaamp buffers with epoch columns**

(qgQiAmp). Nucleic acid extraction performed using the qiagen qiaamp buffers with epoch columns. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

**qiagen rneasy kit**

(qgRneasy). Nucleic acid extraction performed using the qiagen rneasy kit. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA

## Parts

*Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### qiagen rneasy powermicrobiome kit

(qgRneasyPwr). Nucleic acid extraction performed using the qiagen rneasy powermicrobiome kit. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Quantitative PCR

(qpcr). Real-time PCR, also called ‘quantAggScale’ PCR *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Qualitative

(qualAggScale). The qualitative aggregation scale. *Part Type:* aggregationScales *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA

*Unit Set:* naUnitSet *Aggregation Scale:* qualAggScale *Quality Set:* NA  
*Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Quality control

(qualityControl). A measure or sample taken for the purpose of quality control. Measures with this category are take to assess quality control. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Quality flag

(qualityFlag). A field for reporting any quality concerns - of lack thereof - for a sample or measure. Types of quality flag vary on context; please see the qulaityFlagSet to be confirm. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Quality report ID

(qualityID). A unique identifier for a given quality report. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Quality indicators

(qualityIndicators). A measure of the quality of a reported value or sample. Only used for the dictionary entries of parts. *Part Type:* part-Type *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 15 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Quality indicator sets

(qualityIndSets). Sets of quality indicators or measures. For example, PCR have a quality measure set. *Part Type:* partType *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:*

NA *Minimum Length*: 0 *Maximum Length*: 15 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Quality reports table

(qualityReports). The table for recording the various quality metrics and indicators for samples and measures. *Part Type*: tables *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: results *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Quality repots table column order

(qualityReportsOrder). Specifies the order of the columns in the Quality Reports table. *Part Type*: tableSupport *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: integer *Missingness Set*: NA *Minimum Value*: 1 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Quality report table required headers

(qualityReportsRequired). Specifies the columns required in the Quality Reports table. *Part Type*: tableSupport *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*:

## Parts

naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Quality set

(qualitySetID). The quality set that corresponds to a given part. Only applicable for samples and measures. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Quantitative

(quantAggScale). The “quantAggScale” aggregation scale. *Part Type*: aggregationScales *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

**R squared**

(r2). R-squared value of the calibration curve. Used for storing calibration curve information, potentially also applicable for other curve types. *Part Type*: measurements *Domain*: allDo *Speciment ID*: siSaSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: standard-Curve *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

**r203m delta-variant gene target**

(r203m). r203m delta-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

**Raindance digital PCR**

(rainDpcr). Describes a PCR analysis done using Raindance's digital PCR technology. *Part Type*: categories *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality*

## Parts

*Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Rainy

(rainy). Qualitative category for the weather measure, specifying a rainy day. *Part Type:* categories *Domain:* phy *Speciment ID:* siSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* siteFeat *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Random sequencing selection method

(ranSeq). Specifies the random selection method for sequencing No primer set should be used if this is selected. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Ratio

(ratio). Ratio (unitless) Report as a real number or fration. i.e 10:2 ratio is reported as 5. The specifics of the ratio (the numerator and the demonina-



tor) are described in the measure. *Part Type*: units *Domain*: naDomain *Speciment ID*: anySpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: NA *Minimum Value*: 0 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Raw wastewater

(raws). Raw wastes water sample *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: procGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Raw sewage at site

(rawWW). Wastewater without any form of treatment *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Parts

### Raw sewage downstream from a site

(rawWWdown). Downstream from a site. See `partType = rawWWup`.  
*Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet  
*Compartment Set*: waterCompartmentSet *Group*: naGroup *Class*: naClass  
*Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*:  
NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference*  
*Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA  
*Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part*  
*Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Raw sewage upstream from a site

(rawWWup). Upstream from a site. Used when there is not direct access to a site's wastewater inconjuction with downstream sample. For example, if the site is a long-term care home, but ther is not access to the building or property cleanout. Use two sameple, one sample upstream and one sample downstream. *Part Type*: categories *Domain*: naDomain  
*Speciment ID*: naSpecimenSet *Compartment Set*: waterCompartmentSet  
*Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology*  
*Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation*  
*Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Miss-*  
*ingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum*  
*Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0.  
Last updated: 2.0.0.

### IP2 rdrp sars-cov-2 gene target

(rdrpIP2). IP2 rdrp sars-cov-2 gene target *Part Type*: measurements *Do-*  
*main*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet  
*Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature  
*Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnit-

*Set Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## IP4 rdrp sars-cov-2 gene target

(rdrpIP4). IP4 rdrp sars-cov-2 gene target *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Set Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Date sample recieved

(recDate). The date the sample was received at the laboratory for analysis. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Set Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* datetime *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Recovered patients

(recov). Units for describing a population measure of patients who have recovered from a given disease. Unit for a population or disease measure to explain population-level clinical effects. *Part Type*: units *Domain*: bio *Speciment ID*: poSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: integer *Missingness Set*: NA *Minimum Value*: 0 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Reference link

(refLink). Link to the reference material for a part. May link to literature on a method, measure, etc. Link to standard operating procedure for a measure or part. Part reference is a reference to a technical document that describes the part in detail. The reference could be a URL, DOI, or reference to a technical report. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 255 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

### Regular

(regular). A measure or sample taken for surveillance or epidemiology. A 'regular' measure is the default. Missing data will be recoded to this pur-

pose. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Regular reports table set

(regularReportTableSet). Tables used for daily reporting of new measurements and information on sample collection. *Part Type*: dictSets *Domain*: naDomain *Speciment ID*: saSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Relative humidity

(relHum). The unit of relative humidity, or the air-water mixture. The ratio of the partial pressure of water vapor in the mixture to the equilibrium vapor pressure of water over a flat surface. of pure water at a given temperature. *Part Type*: measurements *Domain*: phy *Speciment ID*: siSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: siteFeat *Class*: humid *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: relHumidUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal

## Parts

*Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Relative humidity unit set

(relHumidUnitSet). Unit set for relative humidity measurements. *Part Type:* unitSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* relHumidUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Representative grab sample

(repGrab). A single large representative grab sample. Deprecated in version 2, please do not use. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Replicate Type set

(replicateSet). The set for storing valid categorical values of replicate type. *Part Type:* mmaSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass

*Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* replicateSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## replicate number

(repNum). The replicate number for a Ct or Cq value - used for specifying out a protocol standard curve. Only applies and used for aggregated standard curves, or curves that are used across multiple plates. Otherwise, these details can be captured in a measure report and specified by measure index. *Part Type:* measurements *Domain:* bio *Specimen ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* standardCurve *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Primary reporting authority

(repOrg1). The primary or most responsible authority for routine surveillance reports or findings, or where the site is located. Use the 'organizations' table to describe attributes such as the name and address of the organization. Use 'orgType', 'orgLevel' and 'orgSector' to describe additional attributes. For example, whether the organization is a government agency ('orgType'), local ('orgLevel'), or public health ('orgSector'). If the attributes are not specified, the default is version 1.1.0 'publicHealthDepartment' defined as 'The public health department or region where the

## Parts

site is located. See also ‘healthReg’ if there is a separate regional health care delivery authority.’ *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.1.0. Last updated: 2.0.0.

## Secondary reporting authority

(repOrg2). The secondary, additional or alternative authority for routine surveillance reports or findings, or where the site is located. Use the ‘organizations’ table to describe attributes such as the name and address of the organization. Use ‘orgType’, ‘orgLevel’ and ‘orgSector’ to describe additional attributes. For example, whether the organization is a government agency (‘orgType’), local (‘orgLevel’), or public health (‘orgSector’). If the attributes are not specified, the default is version 1.1.0 ‘healthRegion’, The health planning authority where is site is located. defined as ‘The public health department or region where the site is located.’ *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.1.0. Last updated: 2.0.0.



## Reportable

(reportable). Flag for whether a measure is reportable or not, based on confidence in the measure and methods applied. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* booleanSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* boolean *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 10 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Report date

(reportDate). The date a measure was reported. This date is the first date the laboratory or entity reported the measure findings to the public health or other entity who ordered the measure or is responsible for action. Use the analyses end date if the measure is part of a research study or other purpose that does not have a reporting entity. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* datetime *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Reporter ID deprecated

(reporterIDDep). Unique identifier for the person or organization that is reporting the data. *Part Type:* attributes *Domain:* naDomain *Speci-*

## Parts

*ment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **deprecated**. First released: 1.1.0. Last updated: 2.0.0.

## Reporter table deprecated

(reportersDep). The table that contains information about a reporter of a sample, method, measure, or attribute. *Part Type:* tables *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

## Replicate Type

(repType). Attribute of a sample, specifying whether the sample is unique, or a replicate. And if it is a replicate, what type of replicate is it? *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* replicateSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Resuspend COSCa filter collection

(resCosca). Nucleic acid extraction via resuspension of a sample collected using the COSCa ball method. See `partID = cosca` for additional details. *Part Type*: categories *Domain*: bio *Speciment ID*: naSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: procGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 10 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Results tables

(results). Tables used to record samples, measures and quality reports. These tables are updated whenever a new sample is taken or a measure is reported. Quality reports are used to report quality assurance and quality control for samples and measures. *Part Type*: classes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: results *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Retention pond

(retPond). Retention pond *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation*

## Parts

*Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 1.0.0. Last updated: 2.0.0.*

## River, natural water body

(river). River, natural water body *Part Type: categories Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: waterCompartmentSet Group: colGrp Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 1.0.0. Last updated: 2.0.0.*

## Role of contact

(role). Specifies the organizational role of a given contact. *Part Type: attributes Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: genMissingnessSet Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Rate per 100,000

(rP100). Units for describing a population measure of a rate of case incidence per 100,000 people of a given disease. Unit for a population or disease measure to explain population-level clinical effects. *Part Type:*

units *Domain:* bio *Speciment ID:* poSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Raw post-pasteurized wastewater

(rppw). Raw wastewater sample post-pasteurization *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Respiratory syncytial virus

(rsv). Respiratory syncytial virus. *Part Type:* measurements *Domain:* bio *Speciment ID:* poSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* virusMisc *Class:* allele *Nomenclature:* naNomenclature *Ontology Reference:* [http://purl.obolibrary.org/obo/NCIT\\_C14267](http://purl.obolibrary.org/obo/NCIT_C14267) *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

**s2083i omicron-variant gene target { #s2083i }**

(s2083i ). s2083i omicron-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

**s371l omicron-variant gene target { #s371l }**

(s371l ). s371l omicron-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

**s373p omicron-variant gene target { #s373p }**

(s373p ). s373p omicron-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*:

NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **s375f omicron-variant gene target { #s375f }**

(s375f ). s375f omicron-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **s477n omicron-variant gene target { #s477n }**

(s477n ). s477n omicron-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Sample

(sa). A measure made on a compartment or property from a sample of a substance. *Part Type:* specimens *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Sample material

(saMaterial). Type of sample. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* sampleMatSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### Sample ID

(sampleID). Unique identifier for a sample. Suggestion:siteID-date-index. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet



*Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 1.1.0. Last updated: 2.0.0.*

## Sample ID object

(sampleIDObject). Populated by ‘sampleID’ - this specifies the object of a sample relationship. Use ‘sampleID’ for this field. Together with ‘sampleIDSub’ and ‘relationshipID’ the row of the ‘sampleRelationships’ should say: [sampleIDSubject] is a[relationshipID] of [sampleIDObject]  
*Part Type: attributes Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: genMissingnessSet Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Sample ID subject

(sampleIDSubject). Populated by ‘sampleID’ - this specifies the subject of a sample relationship. Use ‘sampleID’ for this field. Together with ‘sampleIDSub’ and ‘relationshipID’ the row of the ‘sampleRelationships’ should say: [sampleIDSubject] is a[relationshipID] of [sampleIDObject]  
*Part Type: attributes Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: genMissingnessSet*

## Parts

*Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sample material set

(sampleMatSet). set for the types of material that can be found in a sample. *Part Type:* mmaSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* sampleMatSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sample quality set

(sampleQualitySet). Quality set for a sample. *Part Type:* qualityIndSets *Domain:* naDomain *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sample relationships table

(sampleRelationships). Table for recording the relationships between samples. Samples can be pooled or split. The sample relationships table

holds information on parent-child relationships between samples, and allow for tracking sample lineage for single and pooled samples. *Part Type:* tables *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* results *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Sample relationships table column order

(sampleRelationshipsOrder). Specifies the order of the columns in a Sample Relationships table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 1 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Sample relationships table required headers

(sampleRelationshipsRequired). Specifies the columns required in a Sample Relationships table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum*

## Parts

*Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Sample relationship

(sampleRelID). Attribute for specifying the relationship between a sample subject and object. Together with 'sampleIDSubject' and 'sampleRelID', a row of the 'sampleRelationships' should say: [sampleIDSubject] is a [sampleID] of [sampleIDObject] *Part Type: attributes Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: sampleRelSet, protocolRelSet Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: genMissingnessSet Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Sample relationships set

(sampleRelSet). set for valid values of relationshipID in the sampleRelationships table. Use only for sampleRelationships table relationshipID. *Part Type: mmaSets Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: anyCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: sampleRelSet Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: categorical Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Sample report table

(samples). The table that contains information about a sample. A sample is defined as a representative volume of wastewater (or other forms of water or liquid), air, or surface area taken from a site. Samples can be combined, split, stored and reused. The ‘Sample relationships’ (sampleRelationships) is used to describe the relationships between samples. *Part Type:* tables *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* results *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Sample shed

(sampleShed). A geographic area, physical space, or structure. A sample is taken from a sampleshed for a representative measurement of a substance(s). Examples: Airplane, Long-term care home, Neighbourhood, University campus, Municipality *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* shedSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Samples table column order

(samplesOrder). Specifies the order of the columns in a Samples table. *Part Type*: tableSupport *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: integer *Missingness Set*: NA *Minimum Value*: 1 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Sample table required headers

(samplesRequired). Specifies the columns required in a Samples table. *Part Type*: tableSupport *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Collection other depreciated

(sampleTypeOther). Description for other type of method not listed in collection. depreciated. *Part Type*: methods *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness*

*Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 100 *Part Status:* **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

## SARS-CoV-2

(sarsCov2). A group of measures/methods related to the SARS-CoV-2 virus. SARS-CoV-2 measures have the following classes: proteins, alleles, variants, mutations, diseases. *Part Type:* groups *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* [http://purl.obolibrary.org/obo/NCIT\\_C169076](http://purl.obolibrary.org/obo/NCIT_C169076) *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sample specimen set

(saSpecimenSet). A specimen set that includes only a sample specimen. *Part Type:* specimenSets *Domain:* naDomain *Speciment ID:* saSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Sparse coverage

(sC). Sequencing shows sparse coverage, ie. numerical breadth of coverage shows as adequate but coverage plots reveal missing genome pieces. If there are multiple issues to flag, use the multiple issues flag and explain the details in the notes section. *Part Type:* qualityIndicators *Domain:* naDomain *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Secondary clarifier effluent depreciated

(sce). Effluent obtained after secondary clarifiers. Deprecated in version 2, please do not use. Duplicate of the sampleMat categories - refer to those. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

### Standard curve frequency

(scf). A method for specifying the frequency over which a standard curve (or 'Master Curve') is used. *Part Type:* methods *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* pcr *Nomenclature:* naNomenclature *Ontology Reference:* NA



*Category Set ID:* NA *Unit Set:* timeUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## School

(school). A school serving students in the kindergarten to 12th grade range *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Sequencing script version set

(scriptSet). The set for script versions *Part Type:* mmaSets *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* scriptSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* NA *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Genetic sequencing script version

(scriptVersion). Used to specify the script or script version used to extract summary information (i.e. coverage and mutation frequency statis-

## Parts

tics, etc.) from the sequencing output. *Part Type*: methods *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: sequence *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: scriptSet *Unit Set*: unitlessUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Secondary clarifier sludge depreciated

(scsDep). Sludge produced by secondary clarifiers. Deprecated in version 2, please do not use. Duplicate of the sampleMat categories - refer to those. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: NA *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Standard deviation

(sd). Standard deviation. *Part Type*: aggregations *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Normalized standard deviation

(sdn). Standard deviation, normalized. *Part Type*: aggregations *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Sea, natural water body

(sea). Sea, natural water body *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## See unit (aggregation scales)

(seeUnitAggScale). A value for aggregation scale to be used when the aggregation scale depends on that specified in the parts list entry for the unit. When you encounter this value, see the unit being used for that entry and follow that aggregation scale entry. *Part Type*: aggregation-Scales *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA

## Parts

*Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### See unit (data type)

(seeUnitData). The data type entry when the data type for a given entry is specified by the unit used. Only used for measures, which is where the data type entry is used to validate the entry in the value field. For these cases, however, the data type is more dependant on the unit than the measure, and so this entry directs users to consult the data type of the unit. *Part Type:* dataTypes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 15 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### See unit (value)

(seeUnitVal). A value for maximum or minimum value in the dictionary, use when the maximum or minimum value is determined by the unit. Used for measures when the constraints on maximum and minimum value are specified by the unit, not the measure. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Secondary clarifier effluent

(sEfflu). Effluent obtained after secondary clarifiers *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Access to self

(self). If this is 'no', this data will not be shown on the portal when this reporter logs in. If missing, data will be available to this reporter. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: booleanSet *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: boolean *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 1 *Part Status*: **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

## Date sample was sent

(sentDate). The date the sample was sent for analyses at a laboratory. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: datetime *Missingness Set*: genMissingnessSet

## Parts

*Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Septic tank wastewater

(septage). Wastewater from within a septic tank *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### Septic tank

(septTnk). Septic tank *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### Sequencing Layout

(seqLay). The layout of genetic material used in sequencing. *Part Type:* methods *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* sequence *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* seqLaySet

*Unit Set:* unitlessUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sequencing Layout set

(seqLaySet). The set for the layout of genetic material used in sequencing *Part Type:* mmaSets *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* seqLaySet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* NA *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sequencing quality set

(seqQualitySet). Quality set for sequencing measures *Part Type:* qualityIndSets *Domain:* naDomain *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sequencing selection method

(seqSel). The primer sequence selection method used in sequencing. *Part Type:* methods *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* sequence *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* seqSelSet *Unit Set:* unitlessUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sequencing selection method set

(seqSelSet). The set for the selection method used in sequencing *Part Type:* mmaSets *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* seqSelSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* NA *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sequencing Strategy

(seqStrat). The sequencing strategy used for an analysis. *Part Type:* methods *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* sequence *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* seqStratSet *Unit Set:* unitlessUnitSet *Aggregation Scale:* NA *Quality Set:* NA



*Reference Link*: NA *Data Type*: categorical *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Sequencing Strategy set

(seqStratSet). The set for the sequencing strategy used for an analysis *Part Type*: mmaSets *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: seqStratSet *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: NA *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Genetic sequences class

(sequence). Measures and methods related to genetic sequencing. *Part Type*: classes *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: sequence *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Serial dilution

(serialDilution). The serial dilution method for assessing inhibition. *Part Type*: categories *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment*

## Parts

*Set:* anyCompartmentSet *Group:* procGrp *Class:* dilution *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sewer Sediments Depreciated

(seseDep). Sediments obtained in sewer. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Set ID

(setID). The unique identifier of a value set. A set is a group of units, attributes, categories, specimens, or compartments that can be used for a measure, method or attribute. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 28 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sets look-up table

(sets). Look up table for all sets, managing how categorical inputs for various methods and attributes are grouped together. This table manages many-to-many relationships and category recycling within the ODM. *Part Type:* table *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* lookup *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sets table column order

(setsOrder). Specifies the order of the columns in the Sets table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 1 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sets table required headers

(setsRequired). Required headers in the Sets table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum*

## Parts

*Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active.  
First released: 2.0.0. Last updated: 2.0.0.

## Settled solids

(settsol). Amount of settled solids from a wastewater sample. May be a volume or a weight, see the unitID for a given measure row for details on a given sample. *Part Type:* measurements *Domain:* phy *Speciment ID:* saSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* proc-Grp *Class:* physical *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* volumeUnitSet *Aggregation Scale:* see-UnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* genMissingnessSet *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active.  
First released: 2.0.0. Last updated: 2.0.0.

## Set type

(setType). The type of set. i.e. quality set, aggregation set, unit set *Part Type:* partSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Set Value

(setValue). The partID for the set value or category. Populated by any part where partType = aggregationSet, compartmentSet, qualitySet, specimenSet, or unitSet *Part Type:* attributes *Domain:* naDomain *Speciment*

*ID: naSpecimenSet Compartment Set: waterCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: NA Missingness Set: genMissingnessSet Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Severity indicator

(severity). An indicator of the severity or seriousness of a quality flag. *Part Type: attributes Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: sevSet Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: genMissingnessSet Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Severity set

(sevSet). A set for severity indicators. *Part Type: mmaSets Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: naCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: sevSet Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 2.0.0. Last updated: 2.0.0.*

## Parts

### Sewer network file link deprecated

(sewerNetworkFileBLOB). Link to a file that has any detailed information about the sewer network associated with the site (any format). *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

### S sars-cov-2 gene target

(sGene). S sars-cov-2 gene target *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* allele *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Sampled set

(shedSet). The set for all valid values of sampled. *Part Type:* mmaSets *Domain:* naDomain *Speciment ID:* siSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:*

NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Ship

(ship). A cruise ship or other ship. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Shipped on ice

(shipOnIce). Was the sample kept cool while being shipped to the lab *Part Type*: methods *Domain*: allDo *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: booleanSet *Unit Set*: unitlessUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 1 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Short names

(shortName). Shortened names for tables and other important parts for use in wide names. *Part Type*: partSupport *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*:

## Parts

naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Site

(si). A measure made on a compartment or property at a site. An example is the wastewater flow rate, taken at a wastewater treatment plant. *Part Type*: specimens *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Single

(sin). A value that is not an aggregate measurement (ie. not a mean, median, max or any other) and can be a replicate value. *Part Type*: aggregations *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.



## Single Layout

(sinLay). Specifies the single layout for a sequencing method *Part Type*: categories *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Site or sample specimen set

(siSaSpecimenSet). A specimen set that inculdes site or sample specimen. *Part Type*: specimenSets *Domain*: naDomain *Speciment ID*: siSaSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Site specimen set

(siSpecimenSet). A specimen set that inculdes only a site specimen. *Part Type*: specimenSets *Domain*: naDomain *Speciment ID*: siSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum*

## Parts

*Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Site ID default

(siteDef). Used as default when a new sample is created by this reporter. See ID in Site table. Deprecated in version 2, please do not use. Just populate standard SiteID. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

## Site features group

(siteFeat). A group of environmental measures/methods and those pertaining to the features of a site. *Part Type:* groups *Domain:* allDo *Speciment ID:* siSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* siteFeat *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Site ID

(siteID). Unique identifier for the location where a sample was taken. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet

*Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass  
*Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet  
*Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Site measure ID

(siteMeasureID). Unique identifier for wide table only. Use when all measures are performed on a single sample. Depreciate in version 2. *siteMeasures Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Sites table

(sites). The table that contains information about a site; the location where an environmental sample was taken. The site of an environmental sample. Information in the site table does not regularly change. Consider using the MeasureReport table if the information changes often. *Part Type:* tables *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* programDescr *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA

## Parts

*Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Sites table column order

(sitesOrder). Specifies the order of the columns in a Sites table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 1 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sites table required headers

(sitesRequired). Specifies the columns required in a Sites table. *Part Type:* tableSupport *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Site Type

(siteType). Type of site or institution where sample was taken. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* siteTypeSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA

*Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Site set

(siteTypeSet). set for the type of sampling site. *Part Type:* mmaSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* siteTypeSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Skimmed milk flocculation

(skimMilkFloc). Skimmed milk flocculation *Part Type:* categories *Domain:* che *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## slope

(slope). Slope value of the calibration curve. Used for storing calibration curve information, potentially also applicable for other curve types. *Part Type:* measurements *Domain:* allDo *Speciment ID:* siSaSpecimenSet

## Parts

*Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* standard-Curve *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sewer network file link deprecated 2

(snfl). Link to a file that has any detailed information about the sewer network associated with the site (any format). Depreciate in version 2. This attribute has been changed to referenceLink. Use po\_referenceLink to specify polygon link to sewer network file. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

## Snowy

(snowy). Qualitative category for the weather measure, specifying a snowy day. *Part Type:* categories *Domain:* phy *Speciment ID:* siSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* siteFeat *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Solid fraction

(sol). Solid fraction of a sample. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Solid seperation

(solidSep). Process used to separate solid and liquid phases of the sample. Solid seperation is used either prior to or in the absence of the concentration method specified in ‘methodConc’. *Part Type:* methods *Domain:* allDo *Speciment ID:* saSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* solidSeparationSet *Unit Set:* unitlessUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Solid separation set

(solidSeparationSet). set for the separation of solids. *Part Type:* mmaSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* solidSeparationSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA

## Parts

*Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Source Protocol ID

(sourceProtocol). A protocol that served as a basis for another protocol. This may be due to version changes, or a referencing a protocol that was later adapted. Populate with protocolID. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Protocol step source ID

(sourceStep). Specifies the protocol step which serves as a basis for a given protocol step. Populate with a protocol step ID (stepID). *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.



## Specific humidity

(specHum). Measure for specific humidity, the unit is the ratio of the mass of water vapour and the mass of total air. *Part Type:* measurements *Domain:* phy *Speciment ID:* siSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* siteFeat *Class:* humid *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* specHumidUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Specific humidity unit set

(specHumidUnitSet). Unit set for specific humidity. *Part Type:* unitSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* specHumidUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Specifies

(specifies). Specifies that the object step or protocol occurs specifies details for the subject step or protocol in the overall protocol container. Use only for protocolRelationships table relationshipID. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:*

## Parts

naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Specimen

(specimen). The substance or thing upon which the observation was made. Specimens include: site, sample, person and population. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 12 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Specimens

(specimens). Measures or observations are taken from three types of substances: populations (humans or geographic areas), samples, sites. See `partID = specimentID` *Part Type*: partType *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Specimen sets

(specimenSets). Sets of specimens. Specimen sets are used when a measure or attribute can be recorded for more than one specimen. *Part Type:* partType *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 15 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Speed class

(speed). Measures and methods relating to speed. *Part Type:* classes *Domain:* phy *Speciment ID:* siSaSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* speed *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* windSpeedUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Spike matrix and recovery

(spike). The spike matrix and recovery method for assessing inhibition. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* pcr *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA

## Parts

*Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Spike material

(spikeMat). Material into which the recovery efficiency control target is spiked. *Part Type:* methods *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* spikeMatSet *Unit Set:* unitlessUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 4 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### Spike material set

(spikeMatSet). set for spikeMat (aterial into which the recovery efficiency control target is spiked). *Part Type:* mmaSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* spikeMatSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Recovery efficiency spike target

(spikeTarget). Method specifying the recovery efficiency control target. This matches on to the the spike material method ID. Should typically be indexed as a step proceeding the spikeMaterial methodID step. *Part*

*Type:* methods *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* spikeTargetSet *Unit Set:* unitlessUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Recovery efficiency spike target set

(spikeTargetSet). The set capturing containing all of the valid categories for the recovery efficiency control (or spike) target. *Part Type:* mmaSets *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* spikeTargetSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Sample spilled

(spill). Sample contents spilled from container. *Part Type:* qualityIndicators *Domain:* naDomain *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Secondary clarifier sludge

(sSludge). Sludge produced by secondary clarifiers *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

### Social services shelter

(sss). Other type of social services shelter *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Stabilization pond

(stabPnd). Specifies a site type which is a pond designed and built for wastewater treatment to reduce the organic content and remove pathogens from wastewater. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*:

NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Standard concentrations class

(standardConc). Measures and methods relating to standard concentrations. *Part Type*: classes *Domain*: phy *Specimen ID*: siSaSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: standardConc *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: stdConcentrationUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Standard curve class

(standardCurve). Measures and methods relating to generating or recording a standard curve. *Part Type*: classes *Domain*: bio *Specimen ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: standardCurve *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Departments, states, or provinces

(stateProvLevel). Departments, states, or provinces *Part Type*: attributes *Domain*: naDomain *Specimen ID*: naSpecimenSet *Compartment Set*: na-

## Parts

CompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: ISCU  
*Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*:  
varchar *Missingness Set*: nrNAMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*:  
active. First released: 2.0.0. Last updated: 2.0.0.

## State, Province, or Region

(stateProvReg). The state, province, or region where a site or organization is located; part of the address. *Part Type*: attributes *Domain*:  
naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature  
*Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*:  
varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*:  
active. First released: 1.0.0. Last updated: 2.0.0.

## Status

(status). Whether the part is still active and can be used in the most current ODM version. Values are 'active' or 'inactive'. The status of the part or list. 'active' means the part is used in the dictionary version. 'inactive' means the part has been retired and not longer used in the version. *Part Type*: partSupport *Domain*: naDomain *Speciment ID*:  
naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA  
*Category Set ID*: statusSet *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*:



NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

### Status set

(statusSet). A set for partID = Status to indicate whether a part is in current use or not. *Part Type*: mmaSets *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Standard concentration unit set

(stdConcentrationUnitSet). Unit set for concentration measurements. *Part Type*: unitSets *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: stdConcentrationUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Storage temp

(sTemp). Temperature that the sample is stored at in Celsius. *Part Type*: measurements *Domain*: phy *Speciment ID*: saSpecimenSet *Compartment*

## Parts

*Set:* anyCompartmentSet *Group:* procGrp *Class:* temperature *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* temperatureUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Protocol Step ID

(stepID). The unique identifier for a specific protocol step. Protocol Steps are the component parts of a larger protocols, the latter being linked to specific measure reports. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Step ID Object

(stepIDObj). The object of the relationship between one protocol step and another step or protocol, within a given protocol ID container. Populate this field using Protocol Step ID (partID = stepID). Together with 'protocolIDSub' or 'stepIDSub' and 'relationshipID' the row of 'protocolRelationships' should say: [protocolIDSubject or stepIDSubject] [relationshipID] [protocolIDObject or stepIDObject]. Ex: stepIDSubject precedes protocolIDObject. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA

*Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* genMissingnessSet *Minimum Value:* 1 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Step ID Subject

(stepIDSub). The subject of the relationship between one protocol step and another step or protocol, within a given protocol ID container. Populate this field using Protocol ID (partID = stepID). Together with ‘protocolIDSub’ or ‘stepIDSub’ and ‘relationshipID’ the row of ‘protocolRelationships’ should say: [protocolIDSubject or stepIDSubject] [relationshipID] [protocolIDObject or stepIDObject]. Ex: stepIDSubject precedes protocolIDObject. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Method step parent ID

(stepProvenanceID). A method step that served as a basis for another method step. This may be due to version changes, or a referencing a method set that was later adapted. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data*

## Parts

*Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Protocol step version

(stepVer). Specifies the version of a given protocol step. Version of the method step. Semantic versioning is recommended. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 50 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Sewer network file blob

(storTempDef). A file blob that has any detailed information about the sewer network associated with the site (any format). Deprecated in version 2, please do not use. Refer to WKT and EPSG instead. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* blob *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 65535 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Storage time

(stoTim). Length of time that a sample was in storage. *Part Type*: measurements *Domain*: allDo *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: time *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: timeUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Sub-variant or lineage

(subVar). A unit used to report a specific genetic lineage, or to specify that a reported variant is a sub-variant of another. Combine in a measure report if necessary. *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: virusMisc *Class*: variant *Nomenclature*: pangolin *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Summary

(summ). Short description of the assay and how it is different from the other assay methods. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*:

## Parts

NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 255 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Summary worksheet

(summary). Summary sheet of the dictionary.xlsx file. The summary sheet contains versioning and changelog. *Part Type*: dictionarySupport *Domain*: naDomain *Speciment ID*: saSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Sunny

(sunny). Qualitative category for the weather measure, specifying a clear and sunny day. *Part Type*: categories *Domain*: phy *Speciment ID*: siSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: siteFeat *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Surface compartment

(surf). A measure or observation made from a substance on a surface. *Part Type:* compartments *Domain:* allDo *Speciment ID:* anySpecimenSet *Compartment Set:* surfaceCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 1 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Other surface

(surface). Surface other than floor or desk. See also categories for floor and desk. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* surfaceCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Surface compartment set

(surfaceCompartmentSet). A compartment set for measures and methods in the surface compartment. *Part Type:* compartmentSets *Domain:* allDo *Speciment ID:* anySpecimenSet *Compartment Set:* surfaceCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar

## Parts

*Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 15 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Surface and water compartment set

(surfaceWaterCompartmentSet). A compartment set for measures and methods in the surface or water compartments. *Part Type:* compartmentSets *Domain:* allDo *Speciment ID:* anySpecimenSet *Compartment Set:* surfaceWaterCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 15 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Surface swab

(surfSw). Surface swab. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* surfaceCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sewage truck

(swgTrck). Sewage truck *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology*



*Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Sewer sediment

(swrSed). Sediments obtained in sewer *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Sewer catchment area

(swrSet). Sewer catchment area. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Synthetic sample

(synthetic). Specifies a synthetic, or artificially derived sample. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet

## Parts

*Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass  
*Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA  
*Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### **t19r delta-variant gene target**

(t19r). t19r delta-variant gene target *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### **t3646a delta-variant gene target**

(t3646a). t3646a delta-variant gene target *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

**t547k omicron-variant gene target { #t547k }**

(t547k ). t547k omicron-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

**t9i omicron-variant gene target { #t9i }**

(t9i ). t9i omicron-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

**Tables**

(tables). Tables are where measures, methods and attributes are recorded. Tables represent the main entities of the environmental surveillance. There An example of a table is ‘site’ a collection of attributes such as site name and address to describe where environment samples are taken. PHES-ODM has report tables, but users can create their own tables as well. *Part Type*: partType *Domain*: naDomain *Speciment ID*: naSpecimenSet

## Parts

*Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass  
*Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:*  
NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference*  
*Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:*  
NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part*  
*Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Table column set

(tableSet). The set for valid inputs in table columns. These categories are used in the parts list for columns named after tables to indicate the position and function of a given part in the entity relationship diagram of the data model. *Part Type:* mmaSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* tableSet *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### TaqPath N sars-cov-2 gene target

(taqpatN). TaqPath N sars-cov-2 gene target *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* sarsCov2 *Class:* mutation *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* geneticUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## TaqPath S sars-cov-2 gene target

(taqpatS). TaqPath N sars-cov-2 gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Sample temperature

(temp). Temperature of the sample measured in degrees Celcius *Part Type*: measurements *Domain*: phy *Speciment ID*: siSaSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: miscMeas *Class*: temperature *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: temperatureUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Temperature class

(temperature). Measures and methods related to temperatures. *Part Type*: classes *Domain*: phy *Speciment ID*: siSaSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: temperature *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: temperatureUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum*

## Parts

*Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Temperature unit set

(temperatureUnitSet). Unit set for temperature measurements. *Part Type:* unitSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* temperatureUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Nucleic acid template volume

(tempVol). The volume of DNA or RNA template used for PCR. *Part Type:* measurements *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* physical *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* volumeUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Airport terminal

(terminal). Airport terminal sample shed category type *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:*

naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Test date

(tesDate). Date that the covid-19 test was performed. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: NA *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Number of tests performed

(test). Number of tests performed. *Part Type*: units *Domain*: bio *Speciment ID*: poSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: integer *Missingness Set*: NA *Minimum Value*: 0 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Testing

(testing). A measure or sample taken to test a new method. These measures are typically used for internal lab uses and not reported to exter-

## Parts

nal partners. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## thermo magmax microbiome ultra nucleic acid isolation kit

(thermMag). Nucleic acid extraction performed using the thermo magmax microbiome ultra nucleic acid isolation kit. *Part Type*: categories *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Time class

(time). Measures and methods relating to time. *Part Type*: classes *Domain*: allDo *Speciment ID*: siSaSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: time *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: timeUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.



## Time proportional sample

(timePr). A time proportional composite sample generally collected by an autosampler. Use collectionPeriod to describe how many hours the sample was taken. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Time unit set

(timeUnitSet). The unit set for measures of time. *Part Type:* unitSets *Domain:* allDo *Speciment ID:* anySpecimenSet *Compartment Set:* anyCompartmentSet *Group:* miscMeas *Class:* time *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* timeUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Total Kjeldahl Nitrogen

(tkn). A measure of Total Kjeldahl Nitrogen; ie. the sum of nitrogen bound in organic substances, nitrogen in ammonia (NH<sub>3</sub>-N) and in ammonium (NH<sub>4</sub><sup>+</sup>-N) in the chemical analysis of soil, water, or waste water. *Part Type:* measurements *Domain:* che *Speciment ID:* siSaSpecimenSet

## Parts

*Compartment Set:* waterCompartmentSet *Group:* miscMeas *Class:* standardConc *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* stdConcentrationUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Total Nitrogen

(tn). Total nitrogen concentration, as N. *Part Type:* measurements *Domain:* che *Speciment ID:* siSaSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* miscMeas *Class:* standardConc *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* stdConcentrationUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Time Proportional 24hr sample

(tp24s). A time proportional 24-hour composite sample generally collected by an autosampler. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* col-Grp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Translation look-up table

(translations). Look up table for translations of the description, label, and instruction for all parts. The default language if a translation is not specified is English. *Part Type*: tableSupport *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: lookup *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Translation table column order

(translationsOrder). Specifies the order of the columns in the Translation table. *Part Type*: tableSupport *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: integer *Missingness Set*: NA *Minimum Value*: 1 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Translation table required headers

(translationsRequired). Required headers in the Translations table. *Part Type*: tableSupport *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference*

## Parts

*Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## trizol, zymo mag beads w/ zymo clean and concentrator

(trizol). Nucleic acid extraction performed using the trizol, zymo mag beads w/ zymo clean and concentrator method. *Part Type:* categories *Domain:* bio *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## TRUE

(true). Boolean data type = TRUE Use only “TRUE” (case sensitive) *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* boolean *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 4 *Maximum Length:* 4 *Part Status:* active. First released: 1.1.0. Last updated: 2.0.0.

## Total solids concentration

(ts). Total solids concentration *Part Type:* measurements *Domain:* che *Speciment ID:* siSaSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* miscMeas *Class:* standardConc *Nomenclature:* naNomenclature

*Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* stdConcentrationUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Total suspended solids

(tss). Total suspended solids *Part Type:* measurements *Domain:* che *Speciment ID:* siSaSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* miscMeas *Class:* standardConc *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* stdConcentrationUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Concentration of total suspended solids

(tssConc). Total suspended solids concentration of the wastewater. *Part Type:* measurements *Domain:* phy *Speciment ID:* siSaSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* miscMeas *Class:* standardConc *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* stdConcentrationUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Parts

### Turbidity

(turb). A measure for the turbidity of water, or a liquid sample, quantifying the relative clarity or opacity of a liquid. Highly indicative of water quality. *Part Type:* measurements *Domain:* phy *Speciment ID:* siSaSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* miscMeas *Class:* turbidity *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* turbidityUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

### Turbidity class

(turbidity). Measures and methods relating to water and wastewater turbidity. *Part Type:* classes *Domain:* che *Speciment ID:* siSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* turbidity *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* turbidityUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Turbidity unit set

(turbidityUnitSet). Unit set for turbidity measurements. *Part Type:* unitSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:*

turbidityUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Tube weight empty

(tWeighE). The weight of the tube used for analysis while empty. *Part Type*: measurements *Domain*: phy *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: physical *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: volumeUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: integer *Missingness Set*: genMissingnessSet *Minimum Value*: 0 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Tube weight full

(tWeighF). The weight of the tube used for analysis while full of analyte. *Part Type*: measurements *Domain*: phy *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: physical *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: volumeUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: integer *Missingness Set*: genMissingnessSet *Minimum Value*: 0 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Type other depreciate

(tyOtDep). Description for other type of sample not listed in *Part Type*: methods *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 100 *Part Status*: **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

### Type other depreciate2

(tyOtDep2). Description of the site when the site is not listed. See site-Type. *Part Type*: attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 100 *Part Status*: **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

### University campus

(uCampus). Universityor college campus - comprising an entire campus or part of a campus. See also 'Higher Education Domitory'. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum*



*Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active.  
First released: 1.1.0. Last updated: 2.0.0.

## Undisclosed

(undisc). A value has been recorded, however it was not included in the dataset. Missing value indicator for data that has not been shared or disclosed with outside parties. *Part Type:* missingness *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Unique sample

(unique). A unique sample, not duplicated. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Unit

(unit). The units of a measurement. Different units that are used to describe measurement values. Units are combined into UnitSetIDs. Please requests new units by creating an issue in the ODM repository. *Part Type:*

## Parts

attributes *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Unitless measure

(unitless). A unit for unitless measures, like pH. *Part Type*: units *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: float *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Unitless unit set

(unitlessUnitSet). Unit set for measurements that does not have units. *Part Type*: unitSets *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: unitlessUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: categorical *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Units

(units). The unit of the measurement. Every measurement must have a unit. Meaning, ‘units’ are a mandatory field whenever a measurement is recorded. *Part Type:* partType *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Unit set

(unitSet). An idenfication of a set of units that can be used for a measure or method. *Part Type:* attributes *Domain:* che *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* procGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Unit sets

(unitSets). Sets of units. Contains units that are associated with part types such as measures. Sets are lists of input values. Each input value within a set is a part (has a partID) that can be reused between sets. For example, a set A could contain the values of ‘yes’ and ‘no’; and set B could contain the values of ‘yes’, ‘no’, and ‘maybe.’ partTypes with sets include aggregations, compartments, missingness, quality flags, specimens,

## Parts

and units. Measures with categories and dataTypes have their own specific sets (catSetID) because their input values are unique and are not reused. *Part Type:* partType *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* categorical *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 15 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Ultracentrifugation

(untracent). Ultracentrifugation Should typically be linked to a lower limit, and some indication of data spread (ie. standard deviation), and a mean/median measure. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* quantAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Upper limit of a 95% confidence interval

(upperCI95). Specifies the the upper limit of a 95% confidence interval. A catch-all category for upstream wastewater sampling sites, including major sewer pipelines and pumping stations. *Part Type:* aggregations *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:*

*varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 1.0.0. Last updated: 2.0.0.*

## Upstream sites

(upstream). A general site type for upstream wastewater sampling sites. *Part Type: categories Domain: phy Speciment ID: siSaSpecimenSet Compartment Set: anyCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: quantAggScale Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: NA Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 30 Part Status: active. First released: 1.1.0. Last updated: 2.0.0.*

## Micro-Siemens per centimetre

(uSCm). Micro-siemens per centimetre. Deprecated in version 2, please do not use. MeasureID will be associated with site, with site specified as the specimen as well. *Part Type: units Domain: naDomain Speciment ID: naSpecimenSet Compartment Set: waterCompartmentSet Group: naGroup Class: naClass Nomenclature: naNomenclature Ontology Reference: NA Category Set ID: NA Unit Set: naUnitSet Aggregation Scale: NA Quality Set: NA Reference Link: NA Data Type: varchar Missingness Set: genMissingnessSet Minimum Value: NA Maximum Value: NA Minimum Length: 0 Maximum Length: 12 Part Status: **depreciated**. First released: 1.0.0. Last updated: 2.0.0.*

## Parts

### U site measure ID

(uSiteMeasureID). Unique identifier for each measurement for a site. *Part Type*: attributes *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### v2930l delta-variant gene target

(v2930l). v2930l delta-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Validation study

(validationStudy). A measure or sample taken for a validation study. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*:

0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Value

(value). Value of a measure, observation or attribute. Only used for the dictionary entries of parts. *Part Type*: attributes *Domain*: naDomain *Specimen ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 15 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Variable character data type

(varchar). The data type for variable character data. Measured by sequencing. *Part Type*: dataTypes *Domain*: bio *Specimen ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: integer *Missingness Set*: NA *Minimum Value*: 0 *Maximum Value*: 100 *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Frequency of variants detected

(varFreq). A description of the frequency of a variants detected. *Part Type*: units *Domain*: bio *Specimen ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: variant *Nomenclature*:

## Parts

naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Variants class

(variant). Measures and methods relating to variants. *Part Type*: classes *Domain*: bio *Speciment ID*: poSaSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: variant *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Population with 1 dose of vaccine

(vax1). A measure of the population with a single dose of vaccine. *Part Type*: units *Domain*: bio *Speciment ID*: poSpecimenSet *Compartment Set*: naCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: integer *Missingness Set*: NA *Minimum Value*: 0 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Population with 2 doses of vaccine

(vax2). Population with 2 doses of vaccine *Part Type*: units *Domain*: bio *Speciment ID*: poSpecimenSet *Compartment Set*: naCompartmentSet



*Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* integer *Missingness Set:* NA *Minimum Value:* 0 *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Population with 3 doses of vaccine

(vax3). Population with 3 doses of vaccine *Part Type:* units *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## ODM V1 category

(version1Category). ODM V1 category *Part Type:* crosswalkTableSet *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### ODM V1 location

(version1Location). ODM V1 location *Part Type:* crosswalkTableSet *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### ODM V1 table

(version1Table). ODM V1 table *Part Type:* crosswalkTableSet *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### ODM version 1 to 2 changes

(version1to2Changes). Changes for part between ODM v1 and V2 *Part Type:* crosswalkTableSet *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0

*Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## ODM V1 variable

(version1Variable). ODM V1 variable *Part Type:* crosswalkTableSet *Domain:* bio *Speciment ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* virusMisc *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Miscellaneous viruses group

(virusMisc). A group of measures/methods related to miscellaneous viruses. The miscallenous viruses are often measured for normalization or standardization and have only one measure or method. When a virus has many measures, they will be given their own groupID in updated dictionary versions. *Part Type:* groups *Domain:* phy *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* measGrp *Class:* physical *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* volumeUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Parts

### Size in volume

(vol). Total volume of water or sludge sampled. Used for water or air testing *Part Type*: measurements *Domain*: phy *Speciment ID*: saSpecimenSet *Compartment Set*: airWaterCompartmentSet *Group*: colGrp *Class*: physical *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: volumeUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Volume proportional sample

(volPr). A volume proportional sample generally collected by an autosampler. *Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: naGroup *Class*: naClass *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### Volume unit set

(volumeUnitSet). Unit set of volume measurements. *Part Type*: unitSets *Domain*: che *Speciment ID*: siSaSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: miscMeas *Class*: standardConc *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: stdConcentrationUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*:

NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## **Volatile suspended solids**

(vss). Volatile suspended solids *Part Type*: measurements *Domain*: phy *Speciment ID*: saSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: measGrp *Class*: standardConc *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: stdConcentrationUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: seeUnitData *Missingness Set*: genMissingnessSet *Minimum Value*: seeUnitVal *Maximum Value*: seeUnitVal *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## **Volatile suspended solids - ignition**

(vssIg). A water quality measure, captured by via the loss on ignition of the mass of measured total suspended solids. This ignition generally takes place in an oven at a temperature of 550 °C to 600 °C. It represents the amount of volatile matter present in the solid fraction of the measured solution. *Part Type*: measurements *Domain*: allDo *Speciment ID*: anySpecimenSet *Compartment Set*: waterCompartmentSet *Group*: measGrp *Class*: standardConc *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: stdConcentrationUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 1 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Water compartment

(wat). A measure or observation made from a substance in the water, including wastewater. *Part Type:* compartments *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* NA *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **deprecated**. First released: 1.0.0. Last updated: 2.0.0.

### Water depreciated

(water). Non-wastewater, coming from any kind of water body. *Part Type:* categories *Domain:* allDo *Speciment ID:* anySpecimenSet *Compartment Set:* waterCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 15 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Water compartment set

(waterCompartmentSet). A compartment set for measures and methods in the water compartment. *Part Type:* compartmentSets *Domain:* phy *Speciment ID:* siSaSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* miscMeas *Class:* temperature *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* temperatureUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum*

*Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA  
*Maximum Length:* NA *Part Status:* active. First released: 1.0.0. Last  
 updated: 2.0.0.

## Wastewater temperature

(watTemp). Temperature of the wastewater. *Part Type:* measure-  
 ments *Domain:* phy *Speciment ID:* siSpecimenSet *Compartment Set:*  
 anyCompartmentSet *Group:* siteFeat *Class:* weather *Nomenclature:*  
 naNomenclature *Ontology Reference:* NA *Category Set ID:* weathSet  
*Unit Set:* temperatureUnitSet *Aggregation Scale:* seeUnitAggScale  
*Quality Set:* NA *Reference Link:* NA *Data Type:* float *Missingness Set:*  
 genMissingnessSet *Minimum Value:* 0 *Maximum Value:* 40 *Minimum*  
*Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0.  
 Last updated: 2.0.0.

## Weather

(weath). A measure for weather captured through qualitative categories;  
 part of a larger suite of weather measures that may be useful when col-  
 lecting samples from outdoor sources. *Part Type:* measurements *Domain:*  
 phy *Speciment ID:* siSpecimenSet *Compartment Set:* anyCompartmentSet  
*Group:* siteFeat *Class:* weather *Nomenclature:* naNomenclature *Ontology*  
*Reference:* NA *Category Set ID:* weathSet *Unit Set:* unitlessUnitSet *Aggre-*  
*gation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data*  
*Type:* categorical *Missingness Set:* genMissingnessSet *Minimum Value:*  
 NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part*  
*Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Parts

### Weather class

(weather). Measures and methods relating to weather. *Part Type:* classes *Domain:* allDo *Specimen ID:* siSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* weather *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* unitlessUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Weather set

(weathSet). A set of the valid qualitative categories for the qualitative weather measure. *Part Type:* mmaSets *Domain:* bio *Specimen ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* NA *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

### Whole genome sequencing

(wgs). Specifies the whole genome sequencing (WGS) strategy for genetic sequencing *Part Type:* categories *Domain:* bio *Specimen ID:* naSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA



*Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## WHO nomenclature

(who). Specifies variant or genetic nomenclature as set out by the World Health Organization. If there are multiple issues to flag, use the multiple issues flag and explain the details in the notes section. *Part Type:* nomenclatures *Domain:* naDomain *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Wide 95% interval

(wI). The 95% interval is too wide, low confidence in results. *Part Type:* qualityIndicators *Domain:* naDomain *Speciment ID:* saSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Wide name table

(wideNames). The table for wide names. *Part Type:* tables *Domain:* phy *Speciment ID:* siSpecimenSet *Compartment Set:* anyCompartmentSet

## Parts

*Group:* siteFeat *Class:* speed *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* windSpeedUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* seeUnitData *Missingness Set:* genMissingnessSet *Minimum Value:* seeUnitVal *Maximum Value:* seeUnitVal *Minimum Length:* NA *Maximum Length:* NA *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Wind Speed

(wind). A measure for wind speed; part of a larger suite of weather measures that may be useful when collecting samples from outdoor sources. *Part Type:* measurements *Domain:* phy *Speciment ID:* siSpecimenSet *Compartment Set:* airCompartmentSet *Group:* siteFeat *Class:* speed *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* windSpeedUnitSet *Aggregation Scale:* seeUnitAggScale *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Wind speed unit set

(windSpeedUnitSet). Unit set for wind speed measurements. *Part Type:* unitSets *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* genMissingnessSet *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* **depreciated**. First released: 1.0.0. Last updated: 2.0.0.

## Measure identification (wide table)

(wMeasureID). Unique identifier for wide table only. Use when all measures are performed on a single sample at the same time and same laboratory. Suggestion: siteID\_sampleID\_LabID\_reportDate\_ID. *Part Type:* attributes *Domain:* naDomain *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sample stored incorrectly

(wrongStorage). Sample was stored inappropriately. *Part Type:* qualityIndicators *Domain:* naDomain *Speciment ID:* saSpecimenSet *Compartment Set:* anyCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## Sample stored at wrong temperature

(wrongTemp). Sample was stored at an inappropriate temperature. *Part Type:* qualityIndicators *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA

## Parts

*Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## World Sphere (W-SPHERE)

(wSphere). World Sphere header *Part Type:* crosswalkTableSet *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* naCompartmentSet *Group:* naGroup *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 2.0.0. Last updated: 2.0.0.

## World Sphere (W-SPHERE) notes

(wSphereNotes). W-Sphere notes *Part Type:* crosswalkTableSet *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:* naNomenclature *Ontology Reference:* NA *Category Set ID:* NA *Unit Set:* naUnitSet *Aggregation Scale:* NA *Quality Set:* NA *Reference Link:* NA *Data Type:* varchar *Missingness Set:* NA *Minimum Value:* NA *Maximum Value:* NA *Minimum Length:* 0 *Maximum Length:* 30 *Part Status:* active. First released: 1.0.0. Last updated: 2.0.0.

## Wastewater treatment plant

(wwtp). A general site type for wastewater treatment plants. Used as a catch-all category for industrial or municipal wastewater treatment plants that carry combined or sanitary sewage, or lagoons. *Part Type:* categories *Domain:* naDomain *Speciment ID:* naSpecimenSet *Compartment Set:* waterCompartmentSet *Group:* colGrp *Class:* naClass *Nomenclature:*

naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Back-up wastewater treatment site

(wwtpBack). Indicates a wastewater treatment plant where multiple labs are or were sampling, and where secondary samples are being taken taken. Maps to units of either million gallons per day, or population equivalents. *Part Type*: categories *Domain*: phy *Speciment ID*: siSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: siteFeat *Class*: capacity *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

## Wastewater treatment plant designed capacity

(wwtpCap). A measure for the designed capacity of a wastewater treatment plant, in terms of how much water it was designed to be able to hold and process. *Part Type*: measurements *Domain*: phy *Speciment ID*: siSpecimenSet *Compartment Set*: waterCompartmentSet *Group*: col-Grp *Class*: capacity *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: capacityUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 1.0.0. Last updated: 2.0.0.

## Parts

### Industrial wastewater treatment plant

(wwtpInd). Industrial wastewater treatment plant *Part Type*: categories  
*Domain*: naDomain *Speciment ID*: naSpecimenSet *Compartment Set*:  
waterCompartmentSet *Group*: colGrp *Class*: naClass *Nomenclature*:  
naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*:  
naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference Link*: NA  
*Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA *Maximum*  
*Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active.  
First released: 1.0.0. Last updated: 2.0.0.

### Municipal wastewater treatment plant for combined sewage

(wwtpMuC). Municipal wastewater treatment plant for combined sewage  
*Part Type*: categories *Domain*: naDomain *Speciment ID*: naSpecimenSet  
*Compartment Set*: waterCompartmentSet *Group*: colGrp *Class*: naClass  
*Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*:  
NA *Unit Set*: naUnitSet *Aggregation Scale*: NA *Quality Set*: NA *Reference*  
*Link*: NA *Data Type*: varchar *Missingness Set*: NA *Minimum Value*: NA  
*Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part*  
*Status*: active. First released: 1.0.0. Last updated: 2.0.0.

### Municipal wastewater treatment plant for sanitary dewage only

(wwtpMuS). Municipal wastewater treatment plant for sanitary sewage  
only *Part Type*: categories *Domain*: bio *Speciment ID*: saSpecimenSet  
*Compartment Set*: anyCompartmentSet *Group*: sarsCov2 *Class*: mutation  
*Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*:  
NA *Unit Set*: naUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*:  
NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMiss-  
ingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*:

0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **y505h omicron-variant gene target { #y505h }**

(y505h). y505h omicron-variant gene target *Part Type*: measurements *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: geneticUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **Years**

(years). A unit for indicating a length of time in years. *Part Type*: units *Domain*: allDo *Speciment ID*: anySpecimenSet *Compartment Set*: anyCompartmentSet *Group*: miscMeas *Class*: time *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: quantAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: integer *Missingness Set*: NA *Minimum Value*: 0 *Maximum Value*: NA *Minimum Length*: NA *Maximum Length*: NA *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **zymo environ water rna kit/ zymo environ water rna kit (cat. r2042)**

(zymoEnv). Nucleic acid extraction performed using the zymo environ water rna kit/ zymo environ water rna kit (cat. r2042). *Part Type*: categories *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*:

## Parts

anyCompartmentSet *Group*: procGrp *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.

### **zymo quick-rna fungal/bacterial miniprep #r2014**

(zymoQuick). Nucleic acid extraction performed using the zymo quick-rna fungal/bacterial miniprep #r2014 kit. *Part Type*: categories *Domain*: bio *Speciment ID*: saSpecimenSet *Compartment Set*: anyCompartmentSet *Group*: procGrp *Class*: mutation *Nomenclature*: naNomenclature *Ontology Reference*: NA *Category Set ID*: NA *Unit Set*: naUnitSet *Aggregation Scale*: seeUnitAggScale *Quality Set*: NA *Reference Link*: NA *Data Type*: varchar *Missingness Set*: genMissingnessSet *Minimum Value*: NA *Maximum Value*: NA *Minimum Length*: 0 *Maximum Length*: 30 *Part Status*: active. First released: 2.0.0. Last updated: 2.0.0.



# Sets

Dictionary 2.0.0.

Sets are lists of categories and other parts. For example, `Collection category set` ([collectionCatSet](#)) contains a list of the different collection types including: `Moore swab`, `Grab sample`, `Flow proportional sample`, etc.

Sets can have parts that are reused. For example, there are different quality measures for sample collection (e.g. `Sample not collected`), PCR measures (`Inhibition preset`), and sequencing measures (`Low depth of coverage`), but all quality sets share the `No quality concerns` indicator.

## Aggregations

(aggregations). Statistical measures used to report a measure. Each measure reported as a number should be reported with an aggregation. The default aggregation is `single`, which corresponds to a single measurement.

**AND Boolean aggregation** (`andBoo`). “AND” aggregation. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Flow-normalized mean** (`floMean`). Mean measure normalized to wastewater flow. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Geometric mean** (gmn). Geometric mean. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Lower limit of a 95% confidence interval** (lowerCI95). Specifies the the lower limit of a 95% confidence interval. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Maximum value** (maxVal). Highest value in a range of values for a measure. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Arithmetic mean** (me). Arithmetic mean. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Median** (med). Median. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Normalized arithmetic mean** (menr). Arithmetic mean, normalized. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Minimum value** (minVal). Lowest value in a range of values for a measure. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Aggregation not applicable** (naAggr). Not applicable for aggregations. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Normalized geometric mean** (ngmn). Geometric mean, normalized. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**OR Boolean aggregation** (orBoo). “OR” aggregation. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Other aggregation deprecated** (otherDep). Other aggregation method. Add description to aggregationOther Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**PMMoV- and flow-normalized mean** (pmFloMean). Mean measure normalized to amount of PMMoV and wastewater flow. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**PMMoV-normalized mean** (pmmovNorm). Mean measure normalized to amount of PMMoV. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Standard deviation** (sd). Standard deviation. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Normalized standard deviation** (sdn). Standard deviation, normalized. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Single** (sin). A value that is not an aggregate measurement (ie. not a mean, median, max or any other) and can be a replicate value. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Upper limit of a 95% confidence interval** (upperCI95). Specifies the the upper limit of a 95% confidence interval. Status: active. First released: 1.0.0. Last updated: 2.0.0.

## **Aggregation scales**

(aggregationScales). The scale of an aggregation set. Aggregation scales include quantitative and qualitative.

**Aggregation scale not applicable** (naAggrScale). Not application for aggregation sets. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Other aggregation scale** (othAgg). Specifies an aggregation scale that can't be described as either "qualitative" or "quantitative". Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Qualitative** (qualAggScale). The qualitative aggregation scale. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Quantitative** (quantAggScale). The “quantAggScale” aggregation scale. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**See unit (aggregation scales)** (seeUnitAggScale). A value for aggregation scale to be used when the aggregation scale depends on that specified in the parts list entry for the unit. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Aggregation sets**

(aggregationSets). Sets of aggregations. Examples of aggregation sets include logarithm, linear and boolean.

### **Boolean aggregation set**

(booleanAggrSet)Aggreagation set for boolean. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**AND Boolean aggregation** (andBoo). “AND” aggregation. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**OR Boolean aggregation** (orBoo). “OR” aggregation. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Single** (sin). A value that is not an aggregate measurement (ie. not a mean, median, max or any other) and can be a replicate value. Status: active. First released: 1.0.0. Last updated: 2.0.0.

### **Linear scale aggregation set**

(linearAggrSet)The aggregation set that contains all aggregations that exist on the linear scale. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Flow-normalized mean** (floMean). Mean measure normalized to wastewater flow. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Lower limit of a 95% confidence interval** (lowerCI95). Specifies the the lower limit of a 95% confidence interval. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Maximum value** (maxVal). Highest value in a range of values for a measure. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Arithmetic mean** (me). Arithmetic mean. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Median** (med). Median. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Normalized arithmetic mean** (menr). Arithmetic mean, normalized. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Minimum value** (minVal). Lowest value in a range of values for a measure. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**PMMoV- and flow-normalized mean** (pmFloMean). Mean measure normalized to amount of PMMoV and wastewater flow. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**PMMoV-normalized mean** (pmmovNorm). Mean measure normalized to amount of PMMoV. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Standard deviation** (sd). Standard deviation. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Normalized standard deviation** (sdn). Standard deviation, normalized. Status: active. First released: 1.0.0. Last updated: 2.0.0.

## *Sets*

**Single** (sin). A value that is not an aggregate measurement (ie. not a mean, median, max or any other) and can be a replicate value. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Upper limit of a 95% confidence interval** (upperCI95). Specifies the the upper limit of a 95% confidence interval. Status: active. First released: 1.0.0. Last updated: 2.0.0.

## **Logarithmic scale aggregation set**

(logAggrSet)The aggregation set that contains all aggregations that exist on the logarithmic scale (rather than linear or qualitative). Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Flow-normalized mean** (floMean). Mean measure normalized to wastewater flow. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Geometric mean** (gm). Geometric mean. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Lower limit of a 95% confidence interval** (lowerCI95). Specifies the the lower limit of a 95% confidence interval. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Maximum value** (maxVal). Highest value in a range of values for a measure. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Minimum value** (minVal). Lowest value in a range of values for a measure. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Normalized geometric mean** (ngm). Geometric mean, normalized. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**PMMoV- and flow-normalized mean** (pmFloMean). Mean measure normalized to amount of PMMoV and wastewater flow. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**PMMoV-normalized mean** (pmmovNorm). Mean measure normalized to amount of PMMoV. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Single** (sin). A value that is not an aggregate measurement (ie. not a mean, median, max or any other) and can be a replicate value. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Upper limit of a 95% confidence interval** (upperCI95). Specifies the the upper limit of a 95% confidence interval. Status: active. First released: 1.0.0. Last updated: 2.0.0.

### **Aggregation set not applicable**

(naAggrSet)Not application for aggregation sets. Used for parts for which an aggregation set value is not applicable or appropriate. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Aggregation not applicable** (naAggr). Not applicable for aggregations. Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Other aggregation set**

(otherAggrSet)Aggregation set used for unitless measures. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Flow-normalized mean** (floMean). Mean measure normalized to wastewater flow. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Geometric mean** (gmn). Geometric mean. Status: active. First released: 1.0.0. Last updated: 2.0.0.

## *Sets*

**Lower limit of a 95% confidence interval** (lowerCI95). Specifies the the lower limit of a 95% confidence interval. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Maximum value** (maxVal). Highest value in a range of values for a measure. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Arithmetic mean** (me). Arithmetic mean. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Median** (med). Median. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Normalized arithmetic mean** (menr). Arithmetic mean, normalized. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Minimum value** (minVal). Lowest value in a range of values for a measure. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Aggregation not applicable** (naAggr). Not applicable for aggregations. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Normalized geometric mean** (ngmn). Geometric mean, normalized. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Standard deviation** (sd). Standard deviation. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Normalized standard deviation** (sdn). Standard deviation, normalized. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Single** (sin). A value that is not an aggregate measurement (ie. not a mean, median, max or any other) and can be a replicate value. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Upper limit of a 95% confidence interval** (upperCI95). Specifies the the upper limit of a 95% confidence interval. Status: active. First released: 1.0.0. Last updated: 2.0.0.



## Attributes

(attributes). Attributes describe the who, where, when, and why of environmental surveillance. There are attributes for domain, specimen, compartment, or table. Attributes are one of the three main components or ways to report environment surveillance data. The other two components are measures and methods.

**Analysis date** (aDate). Date the measurement was performed in the lab. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Analysis date end** (aDateEnd). Date the measurement or analysis was completed. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Analysis date start** (aDateStart). Date the measurement or analysis was started. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Address Line 1** (addL1). Line 1 (the street name, number and direction) for a given address. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Address Line 2** (addL2). Line 2 (the unit number) for a given address. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Address ID** (addressID). A unique identifier for an address. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Administrative regions** (admRegLevel). Administrative regions Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Aggregation scale** (aggregationScale). A scale used for an aggregation. Only applicable for measures and units. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Aggregation** (aggregation). Statistical measures used to report a measure. Each aggregation has a corresponding value. Status: active. First released: 1.0.0. Last updated: 2.0.0.

## *Sets*

**Aggregation set** (aggregationSet). The aggregation set for a unit. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Alias depreciated** (aliasDep). ID of an assay that is the same or similar. A comma separated list. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Alias ID depreciated** (aliasIDDep). Alias id Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Access to all org** (allOrgs). If this is 'no', this data will not be available to any partner organization. If missing, data will be available to the all organizations. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Assay method id default depreciated** (amDefDep). Used as default when a new measurement is created for this lab. See ID in AssayMethod table. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Assay ID** (asID). Links with the AssayMethod used to perform the analysis. Use instrument.ID for measures that are not viral measures. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**City** (city). The city where a site or organization is located; part of the address. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Class** (class). A unique identifier for a class, which is akin to a sub-group; it's a way of grouping parts within a given group. A group can have one or more classes to describe different parts of the class. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Collection date time** (collDT). For grab samples this is the date, time and timezone the sample was taken. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Collection date time end** (collDTEnd). For integrated time average samples this is the date, time and timezone the sample was finished being taken. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Collection date time start** (collDTStart). For integrated time averaged samples this is the date, time and timezone the sample was started being taken. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Collection number** (collNum). The number of subsamples that were combined to create the sample. Use NA for continuous, proportional or passive sampling. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Collection number and period** (collNumPer). Composite collection number.period. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Collection period** (collPer). Collection period. The time period over which the sample was collected, in hours. Alternatively, use collectionStart and collectionEnd. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sample collection type** (collType). The type of collection. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Column name depreciated** (columnNameDep). Name for the column Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Compartment** (compartment). The attribute identifying the substance from which where a sample was taken. For more information, see partID = compartment. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Contact ID** (contactID). A unique identifier for a given contact person. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Contact name** (contactName). Contact person or group, for the lab. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Country** (country). The country where a site or organization is located; part of the address. Status: active. First released: 1.0.0. Last updated: 2.0.0.

## *Sets*

**Countries or sovereign states** (countryLevel). Countries or sovereign states Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Districts, counties, regions** (countyLevel). Districts, counties, regions Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Covid-19 population measurement date** (cphDate). date of reporting for covid-19 measure. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Cphd ID** (cphid). Unique identifier for the table. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Custody Contact ID** (custodyCont). A unique identifier for data custodians. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Data custodian ID** (custodyID). The data custodian of a database. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Dataset creation date** (datasetDate). Specifies the date a given dataset was created. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Dataset ID** (datasetID). The name of the dataset that stores information for MeasureReport, SampleReport and other reporting tables. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Date** (date). Date Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Description** (descr). A detailed description as an attribute for describing results or program elements. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Access to details deprecated** (detailsDep). More details on the existing confidentiality requirements of this measurement. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Domain** (domain). Domain is the highest level of describing of a measure. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Attributes*

**Contact email** (email). Contact e-mail address, for the lab. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**File location of polygon** (fileLocation). The location of the file containing the geometry of the polygon. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**First name of contact** (firstName). Specifies the first name of a given contact. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Fraction analyzed** (fraction). Fraction of the sample that is analyzed. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Funder Contact ID** (funderCont). A unique identifier for funders. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Funding agency ID** (funderID). The funding agency of the dataset. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**European Petroleum Survey Group Coordinates** (geoEPSG). The unique EPSG code specifying a given geospatial area. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Latitude** (geoLat). Geographical location, latitude in decimal coordinates, ie.: (45.424721) Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Longitude** (geoLong). Geographical location, longitude in decimal coordinates, ie.: (-75.695000) Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Type of geography** (geoType). Type of geography that is represented by the polygon. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Well-known text** (geoWKT). Well-known text of the polygon Status: active. First released: 1.0.0. Last updated: 2.0.0.

## *Sets*

**Group** (group). Unique identifier for a group of measures. Mostly applicable for measures, methods, units, and aggregations. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Index** (index). Index number in case the measurement was taken multiple times. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Instrument ID** (instrumentID). A unique identifier for an instrument. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Instrument Type** (insType). Type of instrument used to perform the measurement. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Describe other instrument type, if applicable** (insTypeOth). Description of the instrument in case it is not listed in instrumentType. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**ISO639-1** (iso6391). The first part of the ISO 639 series of international standards for language codes. Part 1 covers the registration of two-letter codes. There are 183 two-letter codes registered as of June 2021. The registered codes cover the world's major languages. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**ISO639-2B** (iso6392B). A set of international standards that lists short codes for language names. These ISO639-2 are the three-letter codes defined in part two (ISO 639-2) of the standard, including the corresponding two-letter (ISO 639-1) codes where they exist. The 'B' specifies the bibliographic code (B code). Status: active. First released: 2.0.0. Last updated: 2.0.0.

**ISO639-2T** (iso6392T). A set of international standards that lists short codes for language names. These ISO639-2 are the three-letter codes defined in part two (ISO 639-2) of the standard, including the corresponding two-letter (ISO 639-1) codes where they exist. The 'T' specifies the terminological code (T code). Status: active. First released: 2.0.0. Last updated: 2.0.0.

**ISO639-3** (iso6393). A set of international standards that lists short codes for language names. ISO 639-3 extends the ISO 639-2 alpha-3 codes with an aim to cover all known natural languages. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**ISO639-6** (iso6396). A set of international standards that lists short codes for language names. ISO 639-6 builds off ISO639-3 with the use of four-letter codes, and allowing users to differentiate between variants of languages and language families, such as historical vs. revived versions of languages. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Lab ID default deprecated** (labDefDep). Used as default when a new sample is created by this reporter. See ID in Lab table. Status: deprecated. First released: 1.0.0. Last updated: 2.0.0.

**Lab ID** (labID). Unique identifier for a laboratory. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Language ID** (lang). Language code for translation purposes. Specifies the language for each translation, other than the default English. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Language family** (langFam). Specifies the language family of a given language for translation and language tracking purposes. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Language name** (langName). Specifies the name of the language in roman alphabet characters for translation and language tracking purposes. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Last edited** (lastEdited). The date the entry was last updated. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Last name of contact** (lastName). Specifies the last name of a given contact. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Link** (li). Link to an external reference that describes the geometry of the polygon. Status: deprecated. First released: 1.0.0. Last updated: 2.0.0.

**License** (license). The license of a dataset. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Access to local ha** (localHA). If this is 'no', the data will not be available to local health authorities. If missing, data will be available to local health authorities. Status: deprecated. First released: 1.0.0. Last updated: 2.0.0.

**Manufacturer** (manufacturer). Manufacturer of an instrument. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Measure** (measure). A measurement or observation of any substance including a biological, physical or chemical substance. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Report ID** (measureRepID). Unique identifier for a measurement. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Report set ID** (measureSetRepID). Unique identifier that links together a group of related measures. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Measure license** (measureLic). Specifies the access and use licensing for a given single measurement. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Method** (method). A procedure for collecting a sample or performing a measure. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Measure, method, or attribute** (mmaSet). The set for a measure, method, or attribute. Only applicable for categorical fields, and the categories that populate them. Status: active. First released: 2.0.0. Last updated: 2.0.0.



**Model** (model). Model number or version of the instrument. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Municipalities or communes** (municipalLevel). Municipalities or communes Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Name** (name). Name of a domain, specimen, group, class, attribute, unit, nomenclature or other entity. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Native Name** (natName). The native name of the language, i.e. what the language is called by its speakers. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Local administrative units or neighborhoods** (neighborLevel). Local administrative units or neighborhoods Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Nomenclature** (nomenclature). A classification system to report the measure class. Only applicable to variants, mutations, and diseases. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Notes** (notes). A note used to describe details that are not captured in other attributes Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Organization ID** (organizationID). A unique identifier for the organization to which the reporter is affiliated. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Organization level** (orgLevel). The geographic level of an organization. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Organization sector** (orgSector). The sector of an organization Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Organization Type** (orgType). Specifies the type or purpose of a given organization. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Sample origin** (origin). An attribute of a sample specifying the origin. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Access to other prov deprecated** (otherProvDep). If this is 'no', this data will not be available to other data providers not listed before. If missing, data will be available to other data providers not listed before. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Parent dataset ID** (parDatasetID). The datasetID that is a parent to another datasetID. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Parent sample ID** (parent). If this sample has been pooled into one big sample for analysis this indicates the sample of the larger pooled sample. Status: depreciated. First released: 1.1.0. Last updated: 2.0.0.

**Parent Site ID** (parSiteID). The siteID that is a parent to another siteID; usually the sub-site will be contained in the parentSite. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Postal or Zip Code** (pCode). The zip code or postal code for a given address, specifying a specific geographic area. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Access to phac** (phac). If this is 'no', the data will not be available to employees of the Public Health Agency of Canada - PHAC. If missing, data will be available to employees of the Public Health Agency of Canada - PHAC. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Contact phone** (phone). Contact phone number, for the lab. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Polygon ID** (polygonID). Unique identifier for the polygon. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Polygon Population** (polyPop). An attribute of a polygon, which specifies the population of that polygon. A rough estimate of the number of

human residents. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Pooled** (pooled). Is this a pooled sample, and therefore composed of multiple child samples obtained at different sites Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Type of date for case reporting depreciated** (popDateTypeDep). Type of date used for confirmed cases. Typically, report or episode are reported. Onset and test date is not usually reported within aggregate data. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Population Served** (popServ). An attribute of a site, which specifies the population of/population served by a given site. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Protocol ID** (protocolID). A unique identifier for a given protocol. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Protocol ID container** (protocolIDContainer). Unique identifier for the protocol and the steps and other protocols that make it up. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Protocol ID object** (protocolIDObj). The object of the relationship between one protocol and another protocol or step, within a given protocol ID container. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Protocol ID subject** (protocolIDSub). The subject of the relationship between one protocol and another protocol or step, within a given protocol ID container. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Protocol version** (protocolVersion). Specifies the version of a method set. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Access to prov ha** (provHA). If this is 'no', this data will not be available to provincial health authorities. If missing, data will be available to provincial health authorities. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

## *Sets*

**Pretreatment description - depreciated** (ptDescDep). If preTreatment then describe the treatment that was performed. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Access to public** (public). If this is 'no', this data will not be available to the public. If missing, data will be available to the public. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Purpose** (purpose). The reason the measure or sample was taken. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Quality flag** (qualityFlag). A field for reporting any quality concerns - of lack thereof - for a sample or measure. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Quality report ID** (qualityID). A unique identifier for a given quality report. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Quality set** (qualitySetID). The quality set that corresponds to a given part. Only applicable for samples and measures. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Date sample recieved** (recDate). The date the sample was received at the laboratory for analysis. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Reference link** (refLink). Link to the reference material for a part. May link to literature on a method, measure, etc. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Primary reporting authority** (repOrg1). The primary or most responsible authority for routine surveillance reports or findings, or where the site is located. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Secondary reporting authority** (repOrg2). The secondary, additional or alternative authority for routine surveillance reports or findings, or where the site is located. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Reportable** (reportable). Flag for whether a measure is reportable or not, based on confidence in the measure and methods applied. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Report date** (reportDate). The date a measure was reported. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Reporter ID depreciated** (reporterIDDep). Unique identifier for the person or organization that is reporting the data. Status: depreciated. First released: 1.1.0. Last updated: 2.0.0.

**Replicate Type** (repType). Attribute of a sample, specifying whether the sample is unique, or a replicate. And if it is a replicate, what type of replicate is it? Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Role of contact** (role). Specifies the organizational role of a given contact. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sample material** (saMaterial). Type of sample. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Sample ID** (sampleID). Unique identifier for a sample. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Sample ID object** (sampleIDObject). Populated by **sampleID** - this specifies the object of a sample relationship. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sample ID subject** (sampleIDSubject). Populated by **sampleID** - this specifies the subject of a sample relationship. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sample relationship** (sampleRelID). Attribute for specifying the relationship between a sample subject and object. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Sample shed** (sampleShed). A geographic area, physical space, or structure. A sample is taken from a sampleShed for a representative measurement of a substance(s). Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Access to self** (self). If this is 'no', this data will not be shown on the portal when this reporter logs in. If missing, data will be available to this reporter. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Date sample was sent** (sentDate). The date the sample was sent for analyses at a laboratory. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Set ID** (setID). The unique identifier of a value set. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Set Value** (setValue). The partID for the set value or category. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Severity indicator** (severity). An indicator of the severity or seriousness of a quality flag. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sewer network file link depreciated** (sewerNetworkFileBLOB). Link to a file that has any detailed information about the sewer network associated with the site (any format). Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Site ID default** (siteDef). Used as default when a new sample is created by this reporter. See ID in Site table. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Site ID** (siteID). Unique identifier for the location where a sample was taken. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Site measure ID** (siteMeasureID). Unique identifier for wide table only. Use when all measures are performed on a single sample. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Site Type** (siteType). Type of site or institution where sample was taken. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Sewer network file link depreciated 2** (snfl). Link to a file that has any detailed information about the sewer network associated with the site (any format). Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Source Protocol ID** (sourceProtocol). A protocol that served as a basis for another protocol. This may be due to version changes, or a referencing a protocol that was later adapted. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Protocol step source ID** (sourceStep). Specifies the protocol step which serves as a basis for a given protocol step. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Specimen** (specimen). The substance or thing upon which the observation was made. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Departments, states, or provinces** (stateProvLevel). Departments, states, or provinces Status: active. First released: 2.0.0. Last updated: 2.0.0.

**State, Province, or Region** (stateProvReg). The state, province, or region where a site or organization is located; part of the address. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Protocol Step ID** (stepID). The unique identifier for a specific protocol step. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Step ID Object** (stepIDObj). The object of the relationship between one protocol step and another step or protocol, within a given protocol ID container. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Step ID Subject** (stepIDSub). The subject of the relationship between one protocol step and another step or protocol, within a given protocol ID container. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Method step parent ID** (stepProvenanceID). A method step that served as a basis for another method step. This may be due to version changes, or a referencing a method set that was later adapted. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Protocol step version** (stepVer). Specifies the version of a given protocol step. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Sewer network file blob** (storTempDef). A file blob that has any detailed information about the sewer network associated with the site (any format). Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Summary** (summ). Short description of the assay and how it is different from the other assay methods. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Type other depreciate2** (tyOtDep2). Description of the site when the site is not listed. See siteType. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Unit** (unit). The units of a measurement. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Unit set** (unitSet). An identification of a set of units that can be used for a measure or method. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**U site measure ID** (uSiteMeasureID). Unique identifier for each measurement for a site. Status: active. First released: 2.0.0. Last updated: 2.0.0.



**Value** (value). Value of a measure, observation or attribute. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Measure identification (wide table)** (wMeasureID). Unique identifier for wide table only. Use when all measures are performed on a single sample at the same time and same laboratory. Suggestion: siteID\_sampleID\_LabID\_reportDate\_ID. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## Classes

(classes). A class is a collection of one or more related measures or methods within a group. A group can have one more more classes to describe different parts or the class.

**Alleles class** (allele). Measures and methods related to alleles. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Bacteria Class** (bacteria). Measures and methods relating to bacteria. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Capacity class** (capacity). Measures and methods relating to capacity. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Conductivity class** (conductivity). Measures and methods related to conductivity. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Dilution Class** (dilution). Measures and methods relating to dilutions. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Diseases (human) class** (disease). Measure and methods related to disease or infection in humans. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Flow class** (flow). Measures and methods related to flow. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Gas class** (gas). Measures and methods relating to gas and gases. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Humidity class** (humid). Measures and methods related to humidity. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Dictionary tables** (lookup). Tables to describe and support the ODM dictionary. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Mutations class** (mutation). Measures and methods related to mutations. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Class not applicable** (naClass). Class is not applicable. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Outbreak class** (outbreak). Measures and methods relating to public health outbreaks. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**qPCR Class** (pcr). Measures and methods relating to qPCR. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**pH class** (pHClass). Measures and methods relating to pH. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Physical class** (physical). Measures and methods related to generic physical properties. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Precipitation class** (precipitation). Measures and methods related to precipitation. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Program decription tables** (programDescr). Tables used to describe surveillance and testing programs. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Results tables** (results). Tables used to record samples, measures and quality reports. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Genetic sequences class** (sequence). Measures and methods related to genetic sequencing. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Speed class** (speed). Measures and methods relating to speed. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Standard concentrations class** (standardConc). Measures and methods relating to standard concentrations. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Standard curve class** (standardCurve). Measures and methods relating to generating or recording a standard curve. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Temperature class** (temperature). Measures and methods related to temperatures. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Time class** (time). Measures and methods relating to time. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Turbidity class** (turbidity). Measures and methods relating to water and wastewater turbidity. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Variants class** (variant). Measures and methods relating to variants. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Weather class** (weather). Measures and methods relating to weather. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## Compartments

(compartments). The substance from which a sample was taken. For example, wastewater has component of “water”. Compartments are attributes of measures, methods, units, and aggregations.

**Human compartment** (hum). A measure or observation made about a human. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Compartment not applicable** (naCompartment). Compartment not applicable. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Surface compartment** (surf). A measure or observation made from a substance on a surface. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Water compartment** (wat). A measure or observation made from a substance in the water, including wastewater. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

## Compartment sets

(compartmentSets). Sets of compartments. Compartment sets are used to identify when a measure can be recorded for more than one compartment. For example, SARS-CoV-2 can be measured in people (humans), water, surface, or air.

### Air compartment set

(airCompartmentSet)A compartment set for measures and methods in the air compartment. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Air compartment** (air). A measure or observation made from a substance in the air. Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Air and surface compartment set**

(airSurfaceCompartmentSet)A compartment set for measures and methods in the air or surface compartments. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Air compartment** (air). A measure or observation made from a substance in the air. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Surface compartment** (surf). A measure or observation made from a substance on a surface. Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Air and water compartment set**

(airWaterCompartmentSet)A compartment set for measures and methods in the air or water compartments. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Air compartment** (air). A measure or observation made from a substance in the air. Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Any compartment set**

(anyCompartmentSet)A compartment set for measures and methods in any compartment. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Air compartment** (air). A measure or observation made from a substance in the air. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Surface compartment** (surf). A measure or observation made from a substance on a surface. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Water compartment** (wat). A measure or observation made from a substance in the water, including wastewater. Status: deprecated. First released: 1.0.0. Last updated: 2.0.0.

## **Human compartment set**

(humanCompartmentSet)A compartment set for measures and methods in the human compartment. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Human compartment** (hum). A measure or observation made about a human. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Compartment set not applicable**

(naCompartmentSet)Compartment not applicable. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Compartment not applicable** (naCompartment). Compartment not applicable. Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Surface compartment set**

(surfaceCompartmentSet)A compartment set for measures and methods in the surface compartment. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Surface compartment** (surf). A measure or observation made from a substance on a surface. Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Surface and water compartment set**

(surfaceWaterCompartmentSet)A compartment set for measures and methods in the surface or water compartments. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Surface compartment** (surf). A measure or observation made from a substance on a surface. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Water compartment** (wat). A measure or observation made from a substance in the water, including wastewater. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

### **Water compartment set**

(waterCompartmentSet)A compartment set for measures and methods in the water compartment. Status: active. First Released: 1.0.0. Last updated: 2.0.0.

**Water compartment** (wat). A measure or observation made from a substance in the water, including wastewater. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

## Data types

(dataTypes). The data type for a part. Data types used in the ODM include: varchar, boolean, float, category, date, time, datetime, url, email. dataType corresponds to the entry or cell within a data table, most commonly within a report table. If the data entry has a unit, then the dataType corresponds to the unit and the dataType refers to 'unit'. If the data entry is a category, then the dataType refers to 'category'. All categories are varchar. Otherwise the dataType is identified within the part entry. TBA: dataType for dictionary.

**Binary Large Object (BLOB) data type** (blob). The data type for Binary Large Object (BLOB) data. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Boolean data type** (boolean). The data type for boolean/binary data. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Categorical data type** (categorical). The data type for categorical data. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Datetime data type** (datetime). The data type for date and time data. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Float data type** (float). The data type for float data. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Integer data type** (integer). The data type for integers. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**See unit (data type)** (seeUnitData). The data type entry when the data type for a given entry is specified by the unit used. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Variable character data type** (varchar). The data type for variable character data. Status: active. First released: 2.0.0. Last updated: 2.0.0.



## Domains

(domains). There are three domain types: biologic (i.e. Covid-19, chemical (i.e. nitrogen), physical measure (temperature).

**All domains** (allDo). Domain that specifies that it could apply to all domains; biological, chemical, and physical. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Biologic** (bio). A living organism or biological substance. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Chemical** (che). A chemical compound. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Domain not applicable** (naDomain). Not applicable. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Physical property** (phy). A physical property or object not characterized by life or chemistry. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## Groups

(groups). A collection of related measures. Used primarily to group measurements and methods, this helps pare down the drop down list for a given measurement or

**Miscellaneous bacteria group** (bactMisc). A group of measures/methods related to miscellaneous bacteria. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Collection group** (colGrp). A group of measurement-like attributes related to sample collection. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Measurement group** (measGrp). A group of measures that cannot be otherwise categorized. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Miscellaneous attribute group** (miscAttr). A group of miscellaneous measurement-like attributes. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Miscellaneous measure group** (miscMeas). A group of measures that cannot be otherwise categorized. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Group not applicable** (naGroup). Used when there is no group; ie. group is not applicable. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Population group** (popGrp). A group of measures/methods related to population-level factors. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Processing group** (procGrp). A group of measures/methods related to processing samples for analysis. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**SARS-CoV-2** (sarsCov2). A group of measures/methods related to the SARS-CoV-2 virus. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Site features group** (siteFeat). A group of environmental measures/methods and those pertaining to the features of a site. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Miscellaneous viruses group** (virusMisc). A group of measures/methods related to miscellaneous viruses. Status: active. First released: 1.0.0. Last updated: 2.0.0.

## Measures

(measurements). The attribute to describe a part type of measures. All measures have `partType` = “measure”.

**a1306s delta-variant gene target** (a1306s). a1306s delta-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**a1918v delta-variant gene target** (a1918v). a1918v delta-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**a2710t omicron-variant gene target** (a2710t). a2710t omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**a63t omicron-variant gene target** (a63t). a63t omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**a67v omicron-variant gene target** (a67v). a67v omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Absolute humidity** (absHum). A measure of the total mass of water vapour present in the air per volume of air. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Environmental temperature** (airTemp). Environmental temperature. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Arrival temperature** (arTemp). The temperature of a sample upon arrival at the laboratory for analysis. Status: active. First released: 1.0.0. Last updated: 2.0.0.

## *Sets*

**bcov** (bcov). Measure of the amount of bovine coronavirus. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Beta** (beta). B.1.351 Status: active. First released: 2.0.0. Last updated: 2.0.0.

**5-Day carbonaceous biochemical oxygen demand** (bod5c). The quantity of oxygen utilized for the biochemical degradation of organic matter under standard laboratory procedures in five (5) days in the presence of a nitrification inhibitor, expressed in milligrams per litre (mg/l). Status: active. First released: 1.1.0. Last updated: 2.0.0.

**5-day total biochemical oxygen demand** (bod5t). 5 day total biochemical oxygen demand. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Bovine respiratory syncytial virus group** (brsv). Bovine respiratory syncytial virus. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**BRSV-N** (brsvN). bovine respiratory syncytial virus capsid protein gene region Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Carbon Dioxide** (co2). A measure of an amount or concentraion of carbon dioxide. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Chemical Oxygen Demand** (cod). Chemical oxygen demand. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Water conductivity** (cond). Measurement of conductivity of sample or site. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Covid-19** (cov). Covid-19 infection. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**SARS-CoV-2 measure** (cov2Me). Measure the amount of SARS-CoV-2 virus. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**SARS-CoV-2-B.1.1.7** (covB117). Variant B.1.1.7 of the SARS-CoV-2 virus. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**SARS-CoV-2-B.1.351** (covB135). Variant B.1.351 of the SARS-CoV-2 virus. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**SARS-CoV-2-E** (covE). SARS-CoV-2 E gene. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**SARS-CoV-2-N1** (covN1). SARS-CoV-2 nucleocapsid gene, allele 1. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**SARS-CoV-2-N2** (covN2). SARS-CoV-2 nucleocapsid gene, allele 2. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**SARS-CoV-2-N3** (covN3). SARS-CoV-2 nucleocapsid gene, allele 3. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**SARS-CoV-2-P.1** (covP1). Variant P.1 of the SARS-CoV-2 virus. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**SARS-CoV-2-RdRp** (covRdrp). SARS-CoV-2 RdRp gene. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**crAssphage-N** (cra). crAssphage virus capsid protein gene region Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Cycle threshold or quantification cycle (Ct or Cq)** (ct). Cycle thresholds in a PCR assay. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**d377y delta-variant gene target** (d377y). d377y delta-variant gene target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**d3g omicron-variant gene target** (d3g ). d3g omicron-variant gene target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**d63g delta-variant gene target** (d63g). d63g delta-variant gene target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**d796y omicron-variant gene target** (d796y ). d796y omicron-variant gene target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**d950n delta-variant gene target** (d950n). d950n delta-variant gene target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**ddcov\_e sars-cov-2 gene target** (ddcovE). ddcov\_e sars-cov-2 gene target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**ddcov\_n sars-cov-2 gene target** (ddcovN ). ddcov\_n sars-cov-2 gene target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**del143/145** (del143). 143 or 145 deletion omicron-variant gene target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**del 157/158** (del157). 157 or 158 deletion delta-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**del2084/2084** (del2084). 2084 or 2084 deletion omicron-variant gene target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**del212/212** (del212). 212 or 212 deletion omicron-variant gene target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**del3674/3676** (del3674). 3674 or 3676 deletion omicron-variant gene target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**del69/70** (del6970). 69 or 70 deletion omicron-variant gene target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Delta** (delta). B.1.617.2 Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Dilution factor** (dilFact). Specifies the extent to which a sample or aliquot was diluted prior to analysis. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Point dillutions** (dillute). Exact concentration or dillutions for generating a standard curve. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**e156g delta-variant gene target** (e156g). e156g delta-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**e484a omicron-variant gene target** (e484a ). e484a omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Escherichia coli** (ecoli). Concentration of bacteria that are passed through the faecal excrement of humans, livestock and wildlife Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Efficiency** (efficient). The efficiency reported for a standard curve. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Rainfall** (envRnF). Rainfall, i.e. amount of precipitation in the form of rain. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Ground snow depth** (envSnwD). Total depth of snow on the ground. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Snowfall** (envSnwF). Snowfall, i.e. amount of precipitation in the form of snow. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Sarbecovirus-specific E sars-cov-2 gene target** (eSarbec). Sarbecovirus-specific E sars-cov-2 gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Estimated frequency of reads** (estFreqReads). Estimated frequency of reads in a sequencing assay Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Extraction volume of sample** (exvol). Extraction volume of sample. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Flow rate** (floRate). Wastewater volumetric flow rate at the sample collection location over the 24-hr period during which the sample was collected. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Flow volume** (flowVol). Volume of influent. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Influenza virus measure** (flu). General influenza virus measure Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Influenza virus A1** (fluA1). Influenza virus A1 type Status: active. First released: 2.0.0. Last updated: 2.0.0.

**influenza virus A2** (fluA2). influenza virus A2 type Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Influenza virus B** (fluB). Influenza virus B type Status: active. First released: 2.0.0. Last updated: 2.0.0.

**F-Specific RNA bacteriophages** (frna). A measure for amount of F-Specific RNA bacteriophages. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**F-Specific RNA bacteriophages, G2** (frnaG2). A measure for amount of G2 F-Specific RNA bacteriophages. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Field sample temperature** (fst). Temperature that the sample is stored at while it is being sampled. This field is mainly relevant for composite samples which are either kept at ambient temperature or refrigerated while being sampled. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**g215c delta-variant gene target** (g215c). g215c delta-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**g339d omicron-variant gene target** (g339d ). g339d omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**g496s omicron-variant gene target** (g496s ). g496s omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**g662s delta-variant gene target** (g662s). g662s delta-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.



**Gamma** (gam). P.1 Status: active. First released: 2.0.0. Last updated: 2.0.0.

**hep g armored rna** (hepGRna). Measure of the amount Hepatitis G Armored RNA. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**i1566v omicron-variant gene target** (i1566v ). i1566v omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**i3758v omicron-variant gene target** (i3758v ). i3758v omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**i82t delta-variant gene target** (i82t). i82t delta-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Inhibition measure** (inhibMe). Parameter to report whether or not inhibition was detected in the sample. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Intercept** (inter). Intercept value of the calibration curve. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Combined ip2 and ip4 sars-cov-2 gene target** (ip2ip4). Combined ip2 and ip4 sars-cov-2 gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**k856r omicron-variant gene target** (k856r ). k856r omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**l452r delta-variant gene target** (l452r). l452r delta-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**l981f omicron-variant gene target** (l981f ). l981f omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Lambda** (lambda). C.37 Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Limit of detection (LOD)** (lod). Limit of detection. Status: active. First released: 1.1.0. Last updated: 2.0.0.

## *Sets*

**Limit of detection (LOD) - sewage** (lodSewa). Limit of detection for sewage samples. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Limit of quantification (LOQ)** (loq). Loq Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Other Measure** (measOth). Other measure, not otherwise specified in measures. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Other Measure Description** (meOthDe). Description of other measure (measOtherDesc). Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Murine Hepatitis Virus** (mhv). A measure for amount of murine hepatitis viurs. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**ms2 coliphage** (ms2Col). Measure of the amount of ms2 coliphage. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Mu** (mu). B.1.621 Status: active. First released: 2.0.0. Last updated: 2.0.0.

**murine coronavirus** (muCo). Measure of the amount of murine coronavirus. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**N sars-cov-2 gene target** (n). N sars-cov-2 gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Combined N1 and N2 sars-cov-2 gene target** (n1n2). Combined N1 and N2 sars-cov-2 gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**n211i omicron-variant gene target** (n211i ). n211i omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**n679k omicron-variant gene target** (n679k ). n679k omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**n856k omicron-variant gene target** (n856k ). n856k omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**n969k omicron-variant gene target** (n969k ). n969k omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Ammonium Nitrogen** (nH4N). Ammonium nitrogen concentration, as N. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**niid\_2019-ncov\_n sars-cov-2 gene target** (niid19). niid\_2019-ncov\_n sars-cov-2 gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Norovirus G1** (noroG1). Norovirus genogroup 1 Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Norovirus G2** (noroG2). Norovirus genogroup 2 Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sarbecovirus-specific N sars-cov-2 gene target** (nSarbec). Sarbecovirus-specific N sars-cov-2 gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**coronavirus OC43** (oc43). Measure of the amount of coronavirus OC43. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Omicron BA.1** (omicr1). Omicron B.1.1.529 Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Omicron BA.2** (omicr2). Omicron BA.2 Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Omicron BA.2.75** (omicr275). Omicron BA.2.75 Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Omicron BA.4** (omicr4). Omicron BA.4 Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Omicron BA.5** (omicr5). Omicron BA.5 Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Orthophosphates** (ophos). Ortho-phosphate concentration. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**ORF1a sars-cov-2 gene target** (orf1a). ORF1a sars-cov-2 gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**ORF1ab sars-cov-2 gene target** (orf1ab). ORF1ab sars-cov-2 gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**ORF1b sars-cov-2 gene target** (orf1b). ORF1b sars-cov-2 gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Variants Other** (otherV). Used for reporting variants detected for which a specific measureID doesn't already exist. The ODM team will periodically migrate collected responses in this category into set measureIDs. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Outbreak** (outb). Measure to indicate outbreak status. Given that when outbreaks occur, full data on case counts may not be available or completely accurate, using this measure indicates that case counts may be approximate. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**p100l delta-variant gene target** (p100l). p100l delta-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**p2046l delta-variant gene target** (p2046l). p2046l delta-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**p2287s delta-variant gene target** (p2287s). p2287s delta-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**p3395h omicron-variant gene target** (p3395h ). p3395h omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**p681r delta-variant gene target** (p681r). p681r delta-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**pH** (ph). pH measurement Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Pseudomonas virus phi6** (phi6). Measure of the amount of pseudomonas virus phi6. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Total phosphorous** (phos). Total phosphorous Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Total Phosphates** (phostot). Total phosphates Status: active. First released: 1.1.0. Last updated: 2.0.0.

**PHRED quality score** (phred). PHRED Quality Score For Sequencing Status: active. First released: 2.0.0. Last updated: 2.0.0.

**PMMoV-CP** (ppmv). Pepper mild mottle virus capsid protein gene region Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Puro virus** (puro). Measure of the amount of puro virus. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**q19e omicron-variant gene target** (q19e ). q19e omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**q493r omicron-variant gene target** (q493r ). q493r omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**q498r omicron-variant gene target** (q498r ). q498r omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**q954h omicron-variant gene target** (q954h ). q954h omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**R squared** (r2). R-squared value of the calibration curve. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**r203m delta-variant gene target** (r203m). r203m delta-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**IP2 rdrp sars-cov-2 gene target** (rdrpIP2). IP2 rdrp sars-cov-2 gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**IP4 rdrp sars-cov-2 gene target** (rdrpIP4). IP4 rdrp sars-cov-2 gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Relative humidity** (relHum). The unit of relative humidity, or the air-water mixture. The ratio of the partial pressure of water vapor in the mixture to the equilibrium vapor pressure of water over a flat surface. of pure water at a given temperature. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**replicate number** (repNum). The replicate number for a Ct or Cq value - used for specifying out a protocol standard curve. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Respiratory syncytial virus** (rsv). Respiratory syncytial virus. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**s2083i omicron-variant gene target** (s2083i ). s2083i omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**s371l omicron-variant gene target** (s371l ). s371l omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**s373p omicron-variant gene target** (s373p ). s373p omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**s375f omicron-variant gene target** (s375f ). s375f omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**s477n omicron-variant gene target** (s477n ). s477n omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Settled solids** (settsol). Amount of settled solids from a wastewater sample. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**S sars-cov-2 gene target** (sGene). S sars-cov-2 gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**slope** (slope). Slope value of the calibration curve. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Specific humidity** (specHum). Measure for specific humidity, the unit is the ratio of the mass of water vapour and the mass of total air. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Storage temp** (sTemp). Temperature that the sample is stored at in Celsius. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Storage time** (stoTim). Length of time that a sample was in storage. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sub-variant or lineage** (subVar). A unit used to report a specific genetic lineage, or to specify that a reported variant is a sub-variant of another. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**t19r delta-variant gene target** (t19r). t19r delta-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**t3646a delta-variant gene target** (t3646a). t3646a delta-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**t547k omicron-variant gene target** (t547k ). t547k omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**t9i omicron-variant gene target** (t9i ). t9i omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**TaqPath N sars-cov-2 gene target** (taqpatN). TaqPath N sars-cov-2 gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**TaqPath S sars-cov-2 gene target** (taqpatS). TaqPath N sars-cov-2 gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sample temperature** (temp). Temperature of the sample measured in degrees Celcius Status: active. First released: 1.0.0. Last updated: 2.0.0.

## *Sets*

**Nucleic acid template volume** (tempVol). The volume of DNA or RNA template used for PCR. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Total Kjeldahl Nitrogen** (tkn). A measure of Total Kjeldahl Nitrogen; ie. the sum of nitrogen bound in organic substances, nitrogen in ammonia (NH<sub>3</sub>-N) and in ammonium (NH<sub>4</sub><sup>+</sup>-N) in the chemical analysis of soil, water, or waste water. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Total Nitrogen** (tn). Total nitrogen concentration, as N. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Total solids concentration** (ts). Total solids concentration Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Total suspended solids** (tss). Total suspended solids Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Concentration of total suspended solids** (tssConc). Total suspended solids concentration of the wastewater. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Turbidity** (turb). A measure for the turbidity of water, or a liquid sample, quantifying the relative clarity or opacity of a liquid. Highly indicative of water quality. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Tube weight empty** (tWeighE). The weight of the tube used for analysis while empty. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Tube weight full** (tWeighF). The weight of the tube used for analysis while full of analyte. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**v2930l delta-variant gene target** (v2930l). v2930l delta-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Size in volume** (vol). Total volume of water or sludge sampled. Status: active. First released: 2.0.0. Last updated: 2.0.0.



**Volatile suspended solids** (vss). Volatile suspended solids Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Volatile suspended solids - ignition** (vssIg). A water quality measure, captured by via the loss on ignition of the mass of measured total suspended solids. This ignition generally takes place in an oven at a temperature of 550 °C to 600 °C. It represents the amount of volatile matter present in the solid fraction of the measured solution. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Wastewater temperature** (watTemp). Temperature of the wastewater. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Weather** (weath). A measure for weather captured through qualitative categories; part of a larger suite of weather measures that may be useful when collecting samples from outdoor sources. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Wind Speed** (wind). A measure for wind speed; part of a larger suite of weather measures that may be useful when collecting samples from outdoor sources. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Wastewater treatment plant designed capacity** (wwtpCap). A measure for the designed capacity of a wastewater treatment plant, in terms of how much water it was designed to be able to hold and process. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**y505h omicron-variant gene target** (y505h ). y505h omicron-variant gene target Status: active. First released: 2.0.0. Last updated: 2.0.0.

## Methods

(methods). Procedures or steps for collecting samples or performing measures. For example, `methodExtract` is a method that describes the how a sample was extracted.

## *Sets*

**Nucleic acid extraction method** (extraction). Description of the nucleic acid extraction method. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Inhibition method** (inhibMeth). Description of the method used to evaluate molecular inhibition. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Concentration method** (methodConc). Description of the method to concentrate a wastewater sample. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**PCR method** (pcrmeth). Description of the PCR method. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Pretreatment** (pretreat). Was the sample chemically treated in anyway with the addition of stabilizers or other Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Genetic primer** (primer). Method ID used for indicating the primer used for a PCR or sequencing assay. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Quaility assurance method** (qaqc). Quality assurance and quality control method. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Collection other depreciated** (sampleTypeOther). Description for other type of method not listed in collection. depreciated. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Standard curve frequency** (scf). A method for specifying the frequency over which a standard curve (or 'Master Curve') is used. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Genetic sequencing script version** (scriptVersion). Used to specify the script or script version used to extract summary information (i.e. coverage and mutation frequency statistics, etc.) from the sequencing output. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sequencing Layout** (seqLay). The layout of genetic material used in sequencing. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sequencing selection method** (seqSel). The primer sequence selection method used in sequencing. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sequencing Strategy** (seqStrat). The sequencing strategy used for an analysis. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Shipped on ice** (shipOnIce). Was the sample kept cool while being shipped to the lab Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Solid seperation** (solidSep). Process used to separate solid and liquid phases of the sample. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Spike material** (spikeMat). Material into which the recovery efficiency control target is spiked. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Recovery efficiency spike target** (spikeTarget). Method specifying the recovery efficiency control target. This matches on to the the spike material method ID. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Type other depreciate** (tyOtDep). Description for other type of sample not listed in Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

## Missingness

(missingness). The part type for missingness values. Only used for the dictionary entries of parts.

**Not applicable** (NA). The field for which the expected value is not a property of the described object. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Not a number** (nan). The outcome of a measurement is not a valid number (plus or minus infinity, error, ...) Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Not reported** (nr). A value could have been recorded, however, it was not. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Null** (null). A logical representation of a statement that is neither TRUE nor FALSE. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Undisclosed** (undisc). A value has been recorded, however it was not included in the dataset. Status: active. First released: 1.0.0. Last updated: 2.0.0.

## Missingness sets

(missingnessSets). Missingness sets for measures, methods or attributes. Inputted data into an ODM field may have missing data. The missingness set lists valid missing categories for the measure, method, or attribute.

### General missingness set

(genMissingnessSet)The general set for missingness values. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

### *Measure, method, or attribute sets*

**Not applicable** (NA). The field for which the expected value is not a property of the described object. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Not a number** (nan). The outcome of a measurement is not a valid number (plus or minus infinity, error, ...) Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Not reported** (nr). A value could have been recorded, however, it was not. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Null** (null). A logical representation of a statement that is neither TRUE nor FALSE. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Undisclosed** (undisc). A value has been recorded, however it was not included in the dataset. Status: active. First released: 1.0.0. Last updated: 2.0.0.

### **Not reported, Not applicable missing set**

(nrNAMissingnessSet)Not reported, Not applicable missing set. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Not applicable** (NA). The field for which the expected value is not a property of the described object. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Not reported** (nr). A value could have been recorded, however, it was not. Status: active. First released: 1.0.0. Last updated: 2.0.0.

### **Measure, method, or attribute sets**

(mmaSets). A set of categories. For example, site type has a list of different sites, such as a wastewater treatment plant, a septic tank, or a pumping station. Only used for the dictionary entries of parts.

### **Boolean value set**

(booleanSet)Set that contains the valid possible values for a boolean measure (TRUE or FALSE). Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**FALSE** (false). Boolean data type = FALSE Status: active. First released: 1.1.0. Last updated: 2.0.0.

**TRUE** (true). Boolean data type = TRUE Status: active. First released: 1.1.0. Last updated: 2.0.0.

### **Sample collection set**

(collectSet)Methods for collection samples. Sample collection methods include water, air, and surface. See the attribute **Compartment set** of the sample collection method. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Area proportional sample** (areaPr). An area proportional sample. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Composite sample - archival** (comp). A composite sample, usually generated by an autosampler. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**COSCa ball** (cosca). COSCa passive sampling device. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Flow proportional sample** (flowPr). A flow proportional composite sample generally collected by an autosampler. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Grab sample** (grb). A single large representative grab sample. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Moore swab passive sample** (moorSw). Moore swab passive sample. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Surface swab** (surfSw). Surface swab. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Time proportional sample** (timePr). A time proportional composite sample generally collected by an autosampler. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Volume proportional sample** (volPr). A volume proportional sample generally collected by an autosampler. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Nucleic Acid Extraction set**

(extractSet)set used for storing all the valid category values for the nucleic acid extraction method. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Amicon filter, extract with MP96** (amiMP96). Nucleic acid extraction, usually used for the liquid fraction of a wastewater sample, using amicon filtration and using an MP96 for final extraction. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Bead beating, extract with MP96** (bbMP96). Nucleic acid extraction, usually used for solid fraction of a wastewater sample, using bead beating and using an MP96 for final extraction. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Chemagic viral dna/rna 300 kit** (chemVir). Nucleic acid extraction performed using the chemagic viral dna/rna 300 kit. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**4s method** (extract4s). Nucleic acid extraction performed using the 4s method. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Nuclisens automated magnetic bead extraction kit** (nucAuto). Nucleic acid extraction performed using the nuclisens automated magnetic bead extraction kit. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Nuclisens manual magnetic bead extraction kit** (nucManu). Nucleic acid extraction performed using the nuclisens manual magnetic bead extraction kit. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Phenol chloroform** (phenCl). Nucleic acid extraction performed using phenol chloroform. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**promega automated tna kit** (promAuto). Nucleic acid extraction performed using the promega automated tna kit. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**promega ht tna kit** (promHt). Nucleic acid extraction performed using the promega ht tna kit. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**promega manual tna kit** (promManu). Nucleic acid extraction performed using the promega manual tna kit. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**promega wastewater large volume tna capture kit** (promWW). Nucleic acid extraction performed using the promega wastewater large volume tna capture kit. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**qiagen allprep dna/rna kit** (qgDNARNA). Nucleic acid extraction performed using the qiagen allprep dna/rna kit. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**qiagen ez1 virus mini kit v2.0** (qgEz1). Nucleic acid extraction performed using the qiagen ez1 virus mini kit v2.0. Status: active. First released: 2.0.0. Last updated: 2.0.0.



**qiagen allprep powerfecal dna/rna kit** (qgPwrFecal). Nucleic acid extraction performed using the qiagen allprep powerfecal dna/rna kit. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**qiagen allprep powerviral dna/rna kit** (qgPwrViral). Nucleic acid extraction performed using the qiagen allprep powerviral dna/rna kit. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**qiagen powerwater kit** (qgPwrWtr). Nucleic acid extraction performed using the qiagen powerwater kit. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**qiagen qiaamp buffers with epoch columns** (qgQiAmp). Nucleic acid extraction performed using the qiagen qiaamp buffers with epoch columns. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**qiagen rneasy kit** (qgRneasy). Nucleic acid extraction performed using the qiagen rneasy kit. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**qiagen rneasy powermicrobiome kit** (qgRneasyPwr). Nucleic acid extraction performed using the qiagen rneasy powermicrobiome kit. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Resuspend COSCa filter collection** (resCosca). Nucleic acid extraction via resuspension of a sample collected using the COSCa ball method. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**thermo magmax microbiome ultra nucleic acid isolation kit** (thermMag). Nucleic acid extraction performed using the thermo magmax microbiome ultra nucleic acid isolation kit. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**trizol, zymo mag beads w/ zymo clean and concentrator** (trizol). Nucleic acid extraction performed using the trizol, zymo mag beads w/ zymo clean and concentrator method. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## Sets

**zymo environ water rna kit/ zymo environ water rna kit (cat. r2042)** (zymoEnv). Nucleic acid extraction performed using the zymo environ water rna kit/ zymo environ water rna kit (cat. r2042). Status: active. First released: 2.0.0. Last updated: 2.0.0.

**zymo quick-rna fungal/bacterial miniprep #r2014** (zymoQuick). Nucleic acid extraction performed using the zymo quick-rna fungal/bacterial miniprep #r2014 kit. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## Sample fraction set

(fractionSet)set for the fraction of the sample (solid, liquid, etc.). Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Liquid fraction** (liq). Liquid fraction of a sample. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Mixed/homogenized sample** (mix). Mixed or homogenized sample or fraction analyzed. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Solid fraction** (sol). Solid fraction of a sample. Status: active. First released: 1.0.0. Last updated: 2.0.0.

## Geographic set

(geoTypeSet)set for different type of geographic components. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Sewer Network Health Region** (hlthReg). Health region served by the sewer network Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Sewer catchment area** (swrSet). Sewer catchment area. Status: active. First released: 1.0.0. Last updated: 2.0.0.

### **Inhibition set**

(inhibitionSet)Category set for inhibition methods. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Serial dilution** (serialDilution). The serial dilution method for assessing inhibition. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Spike matrix and recovery** (spike). The spike matrix and recovery method for assessing inhibition. Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Instrument set**

(insTypeSet)List of instruments that are used for measures and methods Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Atline Analyzer** (aas). Atline analyzer with sampler. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Hand Measurement** (hma). Handheld measurement analyzer. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Other instrument** (instrumentTypeOther). Type of instrument other than those included in the PHES-ODM. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Lab Analysis** (ola). Offline laboratory analysis. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Online Sensor** (onse). Online sensor Status: active. First released: 1.0.0. Last updated: 2.0.0.

## **Concentration method set**

(methodConcSet)A set a concentration methods. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Aloh3 precipitation** (aloh3). Aloh3 precipitation Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Amicon ultrafiltration** (amiconUf). Amicon ultrafiltration Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Beef extract flocculation** (beeExtractFloc). Beef extract flocculation. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Centricon ultrafiltration** (centriconUf). Centricon ultrafiltration. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Ceres nanotrap** (ceres). Ceres nanotrap. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Hollow fiber dead end ultrafiltration** (hollowFiberUF). Hollow fiber dead end ultrafiltration Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Innovaprep ultrafiltration** (innovaprepUF). Innovaprep ultrafiltration Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Polyethyleneglycol (PEG) precipitation** (peg). Peg precipitation Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Skimmed milk flocculation** (skimMilkFloc). Skimmed milk flocculation Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Ultracentrifugation** (untracent). Ultracentrifugation Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Organization level set**

(orgLevelSet)Categories of organization levels. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Administrative regions** (admRegLevel). Administrative regions Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Countries or sovereign states** (countryLevel). Countries or sovereign states Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Districts, counties, regions** (countyLevel). Districts, counties, regions Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Municipalities or communes** (municipalLevel). Municipalities or communes Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Local administrative units or neighborhoods** (neighborLevel). Local administrative units or neighborhoods Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Departments, states, or provinces** (stateProvLevel). Departments, states, or provinces Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Organization sector set**

(orgSectorSet)Categories of organization sectors. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Airport** (airport). Airport sample shed category type Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Long-term acute care hospital** (ccc). Acute care hospitals, or complex continuing care, that provide care for patients with average length of stay longer than 25 days. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Higher education dormitory or residential building** (dorm). Higher education dormitory or residential building Status: active. First released: 2.0.0. Last updated: 2.0.0.

**First Nation** (fiNa). Used to categorize a sampled that is a First Nation, or on reserve lands. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Health administration or planning agency** (healthAdm). Health administrative or planning organization. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Laboratory** (lab). Laboratory for environmental testing. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Long-term care facility** (ltcf). A residential healthcare facility that provides 24-medical care. These are also called skilled nursing facilities. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Long-term care - assisted living or retirement home** (ltcfAl). A residential facility that provides assistance with daily care but generally does not provide skilled nursing care. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Public health agency** (pubHealth). Public health agency. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**School** (school). A school serving students in the kindergarten to 12th grade range Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Social services shelter** (sss). Other type of social services shelter Status: active. First released: 2.0.0. Last updated: 2.0.0.

**University campus** (uCampus). University or college campus - comprising an entire campus or part of a campus. Status: active. First released: 1.1.0. Last updated: 2.0.0.

## **Organization type set**

(orgTypeSet)The set for storing organization types. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Academic institution** (academ). The category of organization type used for academic institutions or research groups. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Government agency** (govt). The category of organization type used for government agencies, programs, or crown-owned bodies. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Private sector** (priv). The category of organization type used for private sector or non-profit groups that are not otherwise captured by the academic category. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Sample Origin set**

(originSet)The set for storing the valid categorical values of sample origin. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Derived sample** (derived). Specifies a sample that is derrived or made from another sample or material. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Field sample** (field). Specifies a sample taken from the field; directly collected from an area for testing. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Synthetic sample** (synthetic). Specifies a synthetic, or artificially derived sample. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

### **Outbreak set**

(outbreakSet)set for the valid values of the outbreak measure. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Outbreak End** (outbEnd). Indicates an outbreak has ended. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Outbreak - on-going** (outbOngoing). Indicates an outbreak is on-going. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Outbreak start** (outbStart). Indicates an outbreak began. Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **PCR Method set**

(pcrSet)The set capturing containing all of the valid methods for the PCR methodID. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Digital droplet emulsification PCR** (bioRadDdpcr). Describes a PCR analysis done using BioRad's digital droplet emulsification PCR technology. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Fluidigm digital PCR** (fluiDpcr). Describes a PCR analysis done using Fluidigm's digital PCR technology. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Life technologies digital PCR** (ltDpcr). Describes a PCR analysis done using Life Technologies' digital PCR technology. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**qiagen digital PCR** (qgDpcr). Describes a PCR analysis done using Qiagen's digital PCR technology. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Quantitative PCR** (qpcr). Real-time PCR, also called 'quantAggScale' PCR Status: active. First released: 2.0.0. Last updated: 2.0.0.



**Raindance digital PCR** (rainDpcr). Describes a PCR analysis done using Raindance's digital PCR technology. Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Genetic primer set**

(primerSet)The set for genetic primers used in sequencing or PCR assays. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Use of the articV3 primer** (articV3). Initial implementation of an ARTIC bioinformatics platform for nanopore sequencing of nCoV2019 novel coronavirus; Artic Foundation v3 primer. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Use of the articV4 primer** (articV4). Artic V4 sequencing primer for VOCs and VOIs. Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Protocol Relationships set**

(protocolRelSet)set for valid values of relationshipID in the protocolRelationships table. Use only for protocolRelationships table relationshipID. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Is Before** (before). Specifies that the object step or protocol occurs before the subject step or protocol in the overall protocol container. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Is concurrent to** (concurrent). Specifies that the object step or protocol occurs at the same time as the subject step or protocol in the overall protocol container. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Specifies** (specifies). Specifies that the object step or protocol occurs specifies details for the subject step or protocol in the overall protocol container. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Purpose set**

(purposeSet)Purpose set for a sample or measure. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Education** (education). A measure or sample taken for education or training. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Multiple Purpose** (multiple). A measure or sample taken for multiple purposes, not easily captured by the other purpose categories. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Provisional report** (provisional). A provisional or interm report. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Quality control** (qualityControl). A measure or sample taken for the purpose of quality control. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Regular** (regular). A measure or sample taken for surveillance or epidemiology. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Testing** (testing). A measure or sample taken to test a new method. These measures are typically used for internal lab uses and not reported to external partners. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Validation study** (validationStudy). A measure or sample taken for a validation study. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Replicate Type set**

(replicateSet)The set for storing valid categorical values of replicate type. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Co-located sample** (colocated). Second or multiples samples collected at same location but different time (water, air) or at a nearby location (soil, sediment). Sent blind to laboratory. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Field sample replicate** (fieldReplicate). A sample divided into two or more homogeneous parts. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Laboratory duplicate** (labDuplicate). Second (time or more) processing and analysis of sample. Usually for general chemistry or metals analyses. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Laboratory control sample duplicate** (lcsd). Known amounts of an analyte or representative compounds are added to a second “clean” matrix (lab water or clean sand) in laboratory. Duplicate of LCS Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Matrix spike duplicate** (msd). A known amounts of an analyte or representative compounds are added in the laboratory to a second aliquot of the sample used for matrix spike. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Unique sample** (unique). A unique sample, not duplicated. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Sample material set**

(sampleMatSet)set for the types of material that can be found in a sample. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Air filter** (afu). Air filter as part of filtration or circulating unit. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Desk or counter** (desk). Desk, table, countertop or other flat working surface. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Fecal matter** (faeces). Fecal matter. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Floor** (floor). Floor of a building or room. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Holding tank wastewater** (htSam). Wastewater sampled from a holding tank, such as from an airplane or ship Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Water** (nww). Non-wastewater, coming from any kind of water body Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Primary clarifier effluent** (pEfflu). Effluent obtained after primary clarifiers Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Primary clarifier sludge** (pSludge). Sludge produced by primary clarifiers Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Post-grit** (pstGrit). Raw wastewater after a treatment plant's headworks (post grit or removal of large solids at a treatment plant but prior to a primary clarifier) Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Raw sewage at site** (rawWW). Wastewater without any form of treatment Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Raw sewage downstream from a site** (rawWWdown). Downstream from a site. See partType = rawWWup. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Raw sewage upstream from a site** (rawWWup). Upstream from a site. Used when there is not direct access to a site's wastewater conjunction

with downstream sample. For example, if the site is a long-term care home, but there is not access to the building or property cleanout. Use two samples, one sample upstream and one sample downstream. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Secondary clarifier effluent** (sEfflu). Effluent obtained after secondary clarifiers Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Septic tank wastewater** (septage). Wastewater from within a septic tank Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Secondary clarifier sludge** (sSludge). Sludge produced by secondary clarifiers Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Other surface** (surface). Surface other than floor or desk. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sewer sediment** (swrSed). Sediments obtained in sewer Status: active. First released: 1.0.0. Last updated: 2.0.0.

## **Sample relationships set**

(sampleRelSet)set for valid values of relationshipID in the sampleRelationships table. Use only for sampleRelationships table relationshipID. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Child relationship** (child). Indicated that this is a sample generated from (an)other sample(s) either because of pooling or sub-sampling. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Co-located sample** (colocated). Second or multiples samples collected at same location but different time (water, air) or at a nearby location (soil, sediment). Sent blind to laboratory. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Field sample replicate** (fieldReplicate). A sample divided into two or more homogeneous parts. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Laboratory duplicate** (labDuplicate). Second (time or more) processing and analysis of sample. Usually for general chemistry or metals analyses. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Laboratory control sample duplicate** (lcsd). Known amounts of an analyte or representative compounds are added to a second “clean” matrix (lab water or clean sand) in laboratory. Duplicate of LCS Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Matrix spike duplicate** (msd). A known amounts of an analyte or representative compounds are added in the laboratory to a second aliquot of the sample used for matrix spike. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Sequencing script version set**

(scriptSet)The set for script versions Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Freyja Script** (freyja). Freyja Script for sequencing. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Gromstole 1.0 Script** (gromstole). Gromstole 1.0 Script for sequencing. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Sequencing Layout set**

(seqLaySet)The set for the layout of genetic material used in sequencing Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Mate pair layout** (mateLay). Specifies the mate pair layout for a sequencing method. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Paired Layout** (pairLay). Specifies the paired layout for a sequencing method Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Single Layout** (sinLay). Specifies the single layout for a sequencing method Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Sequencing selection method set**

(seqSelSet)The set for the selection method used in sequencing Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**PCR sequencingsSelection method** (pcrSeq). Specifies the PCR selection method for sequencing, ie. that a pre-determined primer was used. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Random sequencing selection method** (ranSeq). Specifies the random selection method for sequencing Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Sequencing Strategy set**

(seqStratSet)The set for the sequencing strategy used for an analysis Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Amplicon sequencing** (amp). Specifies the amplicon strategy for genetic sequencing Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Whole genome sequencing** (wgs). Specifies the whole genome sequencing (WGS) strategy for genetic sequencing Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

### **Severity set**

(sevSet)A set for severity indicators. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**High severity** (high). Indicates a very sever quality issue, likely meaning the data should not be reported. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Low severity** (low). A marker for low severity Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Mid-level severity** (mid). A marker for med-level severity, where there are some concerns. Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Sampleshed set**

(shedSet)The set for all valid values of sampleshed. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Airplane** (airpln). Airplane sample shed category type Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Airport** (airport). Airport sample shed category type Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Long-term acute care hospital** (ccc). Acute care hospitals, or complex contuing care, that provide care for patients with average length of stay longer than 25 days. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Child day care** (cdc). Child day care facility. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Cphd ID** (corFcil). Correctional facility Status: active. First released: 1.0.0. Last updated: 2.0.0.



**Higher education dormitory or residential building** (dorm). Higher education dormitory or residential building Status: active. First released: 2.0.0. Last updated: 2.0.0.

**First Nation** (fiNa). Used to categorize a sampled that is a First Nation, or on reserve lands. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Hospital** (hosptl). Hospital Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Long-term care facility** (ltcf). A residential healthcare facility that provides 24-medical care. These are also called skilled nursing facilities. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Long-term care - assisted living or retirement home** (ltcfAl). A residential facility that provides assistance with daily care but generally does not provide skilled nursing care. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Other long-term care** (ltcfO). Other residential facilities that provide daily and/or medical care, but are not defined as nursing home/skilled nursing facilities or assisted living facilities. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Municipality** (municp). A complete municipality, this specifies an entire metropolitan area, either a city, town, etc. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Neighbourhood** (neigh). A municipal neighbourhood, this specifies a sub-section of a larger municipality. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Other residential building** (orb). Individual residential buildings or institutions not captured in other categories Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**School** (school). A school serving students in the kindergarten to 12th grade range Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Ship** (ship). A cruise ship or other ship. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Social services shelter** (sss). Other type of social services shelter Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Airport terminal** (terminal). Airport terminal sample shed category type Status: active. First released: 2.0.0. Last updated: 2.0.0.

**University campus** (uCampus). University or college campus - comprising an entire campus or part of a campus. Status: active. First released: 1.1.0. Last updated: 2.0.0.

## **Site set**

(siteTypeSet)set for the type of sampling site. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Branch sewer pipeline** (bSwrPpl). Specifies a site type that is collection pipe that run lateral to other municipal sewer lines, allowing drainage into the main sewer. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Building cleanout** (buildCO). Specifies a site type that is a capped pipe that connects to a building's main sewer line. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Estuary, natural water body** (estuary). Estuary, natural water body Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Holding tank** (htSite). Holding tank Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Lagoon system** (lagoon). Lagoon system for extensive wastewater treatment Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Lake, natural water body** (lake). Lake, natural water body Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Major sewer pipeline** (mSwrPpl). Major sewer pipeline Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Ocean, natural water body** (ocean). Ocean, natural water body Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Pumping station** (pStat). Pumping station Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Retention pond** (retPond). Retention pond Status: active. First released: 1.0.0. Last updated: 2.0.0.

**River, natural water body** (river). River, natural water body Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Sea, natural water body** (sea). Sea, natural water body Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Septic tank** (septTnk). Septic tank Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Stabilization pond** (stabPnd). Specifies a site type which is a pond designed and built for wastewater treatment to reduce the organic content and remove pathogens from wastewater. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Sewage truck** (swgTrck). Sewage truck Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Upstream sites** (upstream). A general site type for upstream wastewater sampling sites. Status: active. First released: 1.1.0. Last updated: 2.0.0.

## *Sets*

**Wastewater treatment plant** (wwtp). A general site type for wastewater treatment plants. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Back-up wastewater treatment site** (wwtpBack). Indicates a wastewater treatment plant where multiple labs are or were sampling, and where secondary samples are being taken. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Industrial wastewater treatment plant** (wwtpInd). Industrial wastewater treatment plant. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Municipal wastewater treatment plant for combined sewage** (wwtpMuC). Municipal wastewater treatment plant for combined sewage. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Municipal wastewater treatment plant for sanitary sewage only** (wwtpMuS). Municipal wastewater treatment plant for sanitary sewage only. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Solid separation set**

(solidSeparationSet)set for the separation of solids. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Centrifugation** (cent). Describes solid separation from a wastewater sample via centrifugation. Likely connected to other method steps prior to analysis. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Filtration** (filt). Describes solid separation from a wastewater sample via filtration. Proceeds further concentration or analysis of the liquid filtrate. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Gravity settling** (graSet). Describes solid separation from a wastewater sample where the sample material is allowed to settle by gravity, and then separated. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Membrane filtration with acidification and mgcl2** (mfAcidmgcl2). Membrane filtration with acidification and mgcl2 Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Membrane filtration with acidification and mgcl2, membrane recombined with separated solids** (mfAcidmgcl2SS). Membrane filtration with acidification and mgcl2, membrane recombined with separated solids Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Membrane filtration with addition of mgcl2** (mfMgcl2). Membrane filtration with addition of mgcl2 Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Membrane filtration with mgcl2 and separated solids** (mfMgcl2SS). Membrane filtration with addition of mgcl2, membrane recombined with separated solids Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Membrane filtration with no amendment** (mfNoAmend). Membrane filtration with no amendment Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Membrane filtration with no amendment, membrane recombined with separated solids** (mfNoAmendSS). Membrane filtration with no amendment, membrane recombined with separated solids Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Membrane filtration with sample acidification** (mfSampleAcid). Membrane filtration with sample acidification Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Membrane filtration with sample acidification, membrane recombined with separated solids** (mfSampleAcidSS). Membrane filtration with sample acidification, membrane recombined with separated solids Status: active. First released: 2.0.0. Last updated: 2.0.0.

**No liquid concentration, liquid recombined with separated solids** (noliquid). No liquid concentration, liquid recombined with separated solids Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Spike material set**

(spikeMatSet)set for spikeMat (aterial into which the recovery efficiency control target is spiked). Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Clarified sample** (clari). Clarified sample. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Sample concentrate** (conc). Sample concentrate. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Dewatered solids** (deso). Dewatered solids. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Lysis buffer** (lysi). Lysis buffer. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Raw wastewater** (raws). Raw wastes water sample Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Raw post-pasteurized wastewater** (rppw). Raw wastewater sample post-pasteurization Status: active. First released: 1.0.0. Last updated: 2.0.0.

## **Recovery efficiency spike target set**

(spikeTargetSet) The set capturing containing all of the valid categories for the recovery efficiency control (or spike) target. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**bcov culture spike target** (bcovCul). Cultured bovine coronavirus is used as the recovery efficiency control target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**bcov vaccine spike target** (bcovVac). The bovine coronavirus vaccine is used as the recovery efficiency control target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**brsv culture spike target** (brsvCul). Cultured bovine respiratory syncytial virus (BRSV) is used as the recovery efficiency control target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**brsv vaccine spike target** (brsvVac). The bovine respiratory syncytial virus (BRSV) vaccine is used as the recovery efficiency control target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Heat inactivated sars-cov-2 virus spike target** (heatInacSARS). Heat inactivated SARS-CoV-2 virus is used as the recovery efficiency control target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**hep g armored rna spike target** (hepGRnaMat). Hepatitis G armored RNA is used as the recovery efficiency control target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**ms2 coliphage spike target** (ms2ColMat). ms2 coliphage is used as the recovery efficiency control target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**murine coronavirus spike target** (muCoMat). Murine coronavirus is used as the recovery efficiency control target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**oc43 spike target** (oc43Mat). Human coronavirus OC43 is used as the recovery efficiency control target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**phi6 spike target** (phi6Mat). Pseudomonas virus phi6 is used as the recovery efficiency control target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Puro virus spike target** (puroMat). Puro Virus is used as the recovery efficiency control target. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Status set**

(statusSet) A set for partID = Status to indicate whether a part is in current use or not. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Active** (active). Indicator that a part is in current use. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Deprecated** (deprecated). Indicator to say that a part is no longer in current use in the model. See partID = status Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Development** (development). Indicator that a part is under development use. See partID = status Status: active. First released: 2.0.0. Last updated: 2.0.0.



## **Table column set**

(tableSet)The set for valid inputs in table columns. These categories are used in the parts list for columns named after tables to indicate the position and function of a given part in the entity relationship diagram of the data model. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Foreign key** (fK). Foreign key for a table. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Header** (header). Header for a table. Also known as a table variable or entity relationship ‘attribute’. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Input** (input). Input for a table. Indicates if a part can be used in a table. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Primary key** (pK). Primary key for a table. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Weather set**

(weathSet)A set of the valid qualitative categories for the qualitative weather measure. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Cloudy** (cloudy). Qualitative category for the weather measure, specifying an overcast day with no rain. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Foggy** (foggy). Qualitative category for the weather measure, specifying a foggy or hazy day. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Rainy** (rainy). Qualitative category for the weather measure, specifying a rainy day. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Snowy** (snowy). Qualitative category for the weather measure, specifying a snowy day. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sunny** (sunny). Qualitative category for the weather measure, specifying a clear and sunny day. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Nomenclatures**

(nomenclatures). A classification system to report the measure class. See `partID = nomenclatureID`.

**International Classification of Diseases** (icd). Classification system for diseases in humans. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Nomenclature not applicable** (naNomenclature). Not applicable. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**NextClade nomenclature** (nextclade). Specifies variant or genetic nomenclature as set out by NextClade. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Pangolin nomenclature** (pangolin). Specifies variant or genetic nomenclature as set out by the Phylogenetic Assignment of Named Global Outbreak Lineages (Pangolin). Status: active. First released: 2.0.0. Last updated: 2.0.0.

**WHO nomenclature** (who). Specifies variant or genetic nomenclature as set out by the World Health Organization. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## Quality indicators

(qualityIndicators). A measure of the quality of a reported value or sample. Only used for the dictionary entries of parts.

**Experiment Failed** (expFail). PCR experiment failed. No value reported. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**AI - Inhibition present but addressed** (flagAI). The original sample was inhibited; however, the inhibition has been addressed through dilution. The reported concentration estimate is the updated result after addressing inhibition. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**B - Trace levels of contamination** (flagB). Analytical result may be subject to “trace” levels of contamination; the target analyte was also detected in negative controls on the same run as the sample. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**FI - Inhibition present and unaddressed** (flagFI). The original sample was inhibited; however, the inhibition has not been successfully addressed. Therefore, no concentration estimate has been reported. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**J - Weak signal extrapolation** (flagJ). Analytical result falls below the lowest concentration of the experiment-specific standard curve but above the y-intercept value; the reported value is based on the extrapolation of the standard curve in the non-linear region. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**ND - Non-detect** (flagND). No amplification occurred in the reaction; non-detect. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**UJ - Trace signal extrapolation** (flagUJ). Observed quantitation cycle is greater than the experiment-specific standard curve intercept value but evidence of clear amplification was present (i.e., “trace” signal observed); the reported value is based on the extrapolation of the standard curve in

## *Sets*

the non-linear region. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**UQ - Unquantifiable** (flagUQ). Unquantifiable, Ct value exceeds the maximum value of the standard curve. There was a detect, but we cannot quantify it with certainty. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sample frozen** (frozen). Sample was frozen before analysis or processing. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Low breadth of coverage** (IBC). The percentage of the genome covered by reads (the breadth) is low. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Low depth of coverage** (IDC). Poor coverage, specifically an insufficient number of reads or too many sequencing reads that are mapped incorrectly. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Leaked sample** (leaked). Sample leaked, some volume and material was lost. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Low-volume sample** (lowVol). Sample is low-volume, but was run regardless. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Multiple issues** (mI). Multiple issues have arisen in the sequencing process. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**No quality concerns** (noConcern). A flag to indicate there are no quality concerns about the measure or sample. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Sample not labelled** (noLabel). Sample had no label. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sample missing time stamp** (noTime). Sample is missing the autosampler time; incomplete metadata on collection. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Quality indicator sets*

**Quality concerns** (qf1). A flag to indicate there is a quality concern, not otherwise specified. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Sparse coverage** (sC). Sequencing shows sparse coverage, ie. numerical breadth of coverage shows as adequate but coverage plots reveal missing genome pieces. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sample spilled** (spill). Sample contents spilled from container. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Wide 95% interval** (wI). The 95% interval is too wide, low confidence in results. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sample stored incorrectly** (wrongStorage). Sample was stored inappropriately. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sample stored at wrong temperature** (wrongTemp). Sample was stored at an inappropriate temperature. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Quality indicator sets**

(qualityIndSets). Sets of quality indicators or measures. For example, PCR have a quality measure set.

### **Generic quality flag set**

(genQualitySet) A quality set to specify any generic quality concerns about a measure or sample. Status: active. First Released: 1.0.0. Last updated: 2.0.0.

**Multiple issues** (mI). Multiple issues have arisen in the sequencing process. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**No quality concerns** (noConcern). A flag to indicate there is are no quality concern about the measure or sample. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Quality concerns** (qf1). A flag to indicate there is a quality concern, not otherwise sepcified. Status: active. First released: 1.0.0. Last updated: 2.0.0.

## **Measures quality set**

(measQualitySet)A quality set for any measure, includes all the quality flag options for any measure. Used as an “any quality set” for measures, but excludes the sample quality flags to avoid confusion and data entry errors. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Experiment Failed** (expFail). PCR experiment failed. No value reported. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**AI - Inhibition present but addressed** (flagAI). The original sample was inhibited; however, the inhibition has been addressed through dilution. The reported concentration estimate is the updated result after addressing inhibition. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**B - Trace levels of contamination** (flagB). Analytical result may be subject to “trace” levels of contamination; the target analyte was also detected in negative controls on the same run as the sample. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**FI - Inhibition present and unaddressed** (flagFI). The original sample was inhibited; however, the inhibition has not been successfully addressed. Therefore, no concentration estimate has been reported. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**J - Weak signal extrapolation** (flagJ). Analytical result falls below the lowest concentration of the experiment-specific standard curve but above the y-intercept value; the reported value is based on the extrapolation of

the standard curve in the non-linear region. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**ND - Non-detect** (flagND). No amplification occurred in the reaction; non-detect. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**UJ - Trace signal extrapolation** (flagUJ). Observed quantitation cycle is greater than the experiment-specific standard curve intercept value but evidence of clear amplification was present (i.e., “trace” signal observed); the reported value is based on the extrapolation of the standard curve in the non-linear region. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**UQ - Unquantifiable** (flagUQ). Unquantifiable, Ct value exceeds the maximum value of the standard curve. There was a detect, but we cannot quantify it with certainty. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Low breadth of coverage** (lBC). The percentage of the genome covered by reads (the breadth) is low. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Low depth of coverage** (lDC). Poor coverage, specifically an insufficient number of reads or too many sequencing reads that are mapped incorrectly. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Multiple issues** (mI). Multiple issues have arisen in the sequencing process. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**No quality concerns** (noConcern). A flag to indicate there is are no quality concern about the measure or sample. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Sample missing time stamp** (noTime). Sample is missing the autosampler time; incomplete metadata on collection. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Quality concerns** (qf1). A flag to indicate there is a quality concern, not otherwise specified. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Sparse coverage** (sC). Sequencing shows sparse coverage, ie. numerical breadth of coverage shows as adequate but coverage plots reveal missing genome pieces. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **PCR quality set**

(pcrQualitySet)Quality set for PCR measures. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Experiment Failed** (expFail). PCR experiment failed. No value reported. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**AI - Inhibition present but addressed** (flagAI). The original sample was inhibited; however, the inhibition has been addressed through dilution. The reported concentration estimate is the updated result after addressing inhibition. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**B - Trace levels of contamination** (flagB). Analytical result may be subject to “trace” levels of contamination; the target analyte was also detected in negative controls on the same run as the sample. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**FI - Inhibition present and unaddressed** (flagFI). The original sample was inhibited; however, the inhibition has not been successfully addressed. Therefore, no concentration estimate has been reported. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**J - Weak signal extrapolation** (flagJ). Analytical result falls below the lowest concentration of the experiment-specific standard curve but above the y-intercept value; the reported value is based on the extrapolation of



the standard curve in the non-linear region. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**ND - Non-detect** (flagND). No amplification occurred in the reaction; non-detect. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**UJ - Trace signal extrapolation** (flagUJ). Observed quantitation cycle is greater than the experiment-specific standard curve intercept value but evidence of clear amplification was present (i.e., “trace” signal observed); the reported value is based on the extrapolation of the standard curve in the non-linear region. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**UQ - Unquantifiable** (flagUQ). Unquantifiable, Ct value exceeds the maximum value of the standard curve. There was a detect, but we cannot quantify it with certainty. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**No quality concerns** (noConcern). A flag to indicate there is are no quality concern about the measure or sample. Status: active. First released: 1.0.0. Last updated: 2.0.0.

## **Sample quality set**

(sampleQualitySet)Quality set for a sample. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Sample frozen** (frozen). Sample was frozen before analysis or processing Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Leaked sample** (leaked). Sample leaked, some volume and material was lost. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Low-volume sample** (lowVol). Sample is low-volume, but was run regardless. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**No quality concerns** (noConcern). A flag to indicate there is are no quality concern about the measure or sample. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Sample not labelled** (noLabel). Sample had no label Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sample missing time stamp** (noTime). Sample is missing the autosampler time; incomplete metadata on collection. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sample spilled** (spill). Sample contents spilled from container. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sample stored incorrectly** (wrongStorage). Sample was stored inappropriately. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sample stored at wrong temperature** (wrongTemp). Sample was stored at an inappropriate temperature. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Sequencing quality set**

(seqQualitySet)Quality set for sequencing measures Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Experiment Failed** (expFail). PCR experiment failed. No value reported. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Low breadth of coverage** (IBC). The percentage of the genome covered by reads (the breadth) is low. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Low depth of coverage** (IDC). Poor coverage, specifically an insufficient number of reads or too many sequencing reads that are mapped incorrectly. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**No quality concerns** (noConcern). A flag to indicate there is no quality concern about the measure or sample. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Sample missing time stamp** (noTime). Sample is missing the autosampler time; incomplete metadata on collection. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sparse coverage** (sC). Sequencing shows sparse coverage, ie. numerical breadth of coverage shows as adequate but coverage plots reveal missing genome pieces. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## Specimens

(specimens). Measures or observations are taken from three types of substances: populations (humans or geographic areas), samples, sites. See `partID = specimenID`

**Population** (po). An measure or observation for a geographic area or population. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Sample** (sa). A measure made on a compartment or property from a sample of a substance. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Site** (si). A measure made on a compartment or property at a site. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## Specimen sets

(specimenSets). Sets of specimens. Specimen sets are used when a measure or attribute can be recorded for more than one specimen.

## *Sets*

### **Any specimen set**

(anySpecimenSet) A specimen set that includes any specimen. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Population** (po). An measure or observation for a geographic area or population. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Sample** (sa). A measure made on a compartment or property from a sample of a substance. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Site** (si). A measure made on a compartment or property at a site. Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Specimen set not applicable**

(naSpecimenSet) A specimen set for when specimen/specimen set is not applicable. Use 'not applicable' when there is no specimen/set for the part Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Specimen not applicable** (naSpecimen). Non applicable specimen. Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Population or sample set**

(poSaSpecimenSet) A specimen set that includes population or sample specimen. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Population** (po). An measure or observation for a geographic area or population. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Sample** (sa). A measure made on a compartment or property from a sample of a substance. Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Population or site set**

(poSiSpecimenSet) A specimen set that includes population or site specimen. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Population** (po). An measure or observation for a geographic area or population. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Site** (si). A measure made on a compartment or property at a site. Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Population specimen set**

(poSpecimenSet) A specimen set that includes only a population specimen. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Population** (po). An measure or observation for a geographic area or population. Status: active. First released: 1.0.0. Last updated: 2.0.0.

### **Sample specimen set**

(saSpecimenSet) A specimen set that includes only a sample specimen. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Sample** (sa). A measure made on a compartment or property from a sample of a substance. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

### **Site or sample specimen set**

(siSaSpecimenSet) A specimen set that includes site or sample specimen. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Sample** (sa). A measure made on a compartment or property from a sample of a substance. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Site** (si). A measure made on a compartment or property at a site. Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Site specimen set**

(siSpecimenSet) A specimen set that includes only a site specimen. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Site** (si). A measure made on a compartment or property at a site. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Tables**

(tables). Tables are where measures, methods and attributes are recorded. Tables represent the main entities of the environmental surveillance. There An example of a table is **site** a collection of attributes such as site name and address to describe where environment samples are taken. PHES-ODM has report tables, but users can create their own tables as well.

**Address table** (addresses). The table that contains information about addresses. Addresses can be recorded for sites, organizations or contacts (individuals). Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Contact table** (contacts). The table that contains information about a contact; a person who is the contact of a site or laboratory. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Dataset table** (datasets). A report table for capturing details about data's parental data set and data custodians. Supplying attribution for data collectors. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Instrument table** (instruments). The table that contains information about instruments. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Language Look-up table** (languages). Look up table for all languages, used to give structure to the translation table. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Measure report table** (measures). The table that contains information and details about a given measure Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Measure set report table** (measureSets). The table that identifies sets of measures. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Organization table** (organizations). The table that contains information about a laboratory. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Parts Look-up table** (parts). Look up table containing all parts in of the data model. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Polygon table** (polygons). The table that contains information about the geometry of a geographic area. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Protocol relationships table** (protocolRelationships). The table that contains the organizational information and details (such as order) about

## *Sets*

a given protocol, recorded as a series of protocol steps (protocolSteps). Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Protocols table** (protocols). The table for protocols. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Protocol steps table** (protocolSteps). The table for collecting metadata on individual steps in a protocol, methodological process, or assay. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Quality reports table** (qualityReports). The table for recording the various quality metrics and indicators for samples and measures. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Reporter table depreciated** (reportersDep). The table that contains information about a reporter of a sample, method, measure, or attribute. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Sample relationships table** (sampleRelationships). Table for recording the relationships between samples. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sample report table** (samples). The table that contains information about a sample. A sample is defined as a representative volume of wastewater (or other forms of water or liquid), air, or surface area taken from a site. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Sets look-up table** (sets). Look up table for all sets, managing how categorical inputs for various methods and attributes are grouped together. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Sites table** (sites). The table that contains information about a site; the location where an environmental sample was taken. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Translation look-up table** (translations). Look up table for translations of the description, label, and instruction for all parts. Status: active. First released: 2.0.0. Last updated: 2.0.0.



**Wide name table** (wideNames). The table for wide names. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## Units

(units). The unit of the measurement. Every measurement must have a unit. Meaning, **units** are a mandatory field whenever a measurement is recorded.

**Number of active cases** (acti). Number of active cases. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Breadth of coverage ( $\geq 5\times$  depth)** (boc). Positions with read depth greater or equal to 5. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Degrees Celcius** (cel). Degrees Celsius. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**CFU per 100 ml** (cfu). Colony forming units per 100 ml of filtered sample. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Centimetres** (cm). Unit part for the SI unit of centimetres. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Confirmed Cases Case report date** (conCase). Date that the numbers were reported publicly for a confirmed case. Typically, reported data and this measure is most commonly reported and used. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Number of confirmed cases** (conf). Number of confirmed cases. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Confirmed cases episode date** (confEp). Episode date is the earliest of onset, test or reported date for a confirmed case. Status: active. First released: 1.0.0. Last updated: 2.0.0.

## *Sets*

**Confirmed Cases Onset date** (confOn). Earliest that symptoms were reported for a confirmed case. This data is often not known and reported. In lieu, episode is used. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Confirmed cases test date** (conTest). Date that the covid-19 test was performed for a confirmed case. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Cumulative count** (cuCo). Units for describing a population measure of a cumulative count of cases of a given disease. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Daily count** (daiCo). Units for describing a population measure of a daily count of new cases of a given disease. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Days** (days). A unit for indicating a length of time in days. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Deaths** (death). Units for describing a population measure of patients who have died from a given cause. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Detected** (det). Substance detected or not detected. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Depth of coverage** (doc). The sequencing read depth. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Gene copies per copy of crAssphage** (gcCrA). Gene or variant copies per copy of crAssphage. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**gene copies per day per 100,000** (gcD100). The unit for measures reflecting the gene copies per day per 100,000 people in the population. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Gene copies per gram solids** (gCGS). Gene or variant copies per gram solids. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Gene copies per L** (gcL). Gene or variant copies per litre. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Gene copies per mL** (gcMl). Gene or variant copies per millilitre of solution. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Gene copies per PMMoV copy** (gcPpmov). Gene or variant copies per copy of PMMoV. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Gram per cubic metre** (gm3). Density unit. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Grams** (grams). A unit of mass or weight. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**General Hospital Admissions** (hosa). Hospital admissions or patients newly admitted to hospital. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Hospital Census** (hosc). Hospital census or the number of people admitted with an ailment. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Hours** (hours). A unit for indicating a length of time in hours. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Intensive care unit patients** (icu). Units for describing a population measure of patients who are in intensive care due to a given cause. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Kilogram per second** (kgS). Kilograms per second. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Kilolitres** (kl). Kilolitres of volume Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Litres** (l). Litres of volume Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Cubic metres per day** (m3D). Cubic metres per day. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Cubic metres per hour** (m3H). Cubic metres per hour. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Cubic metres per second** (m3S). Cubic metre per second. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Millions of gallons per day (MG/D)** (mgd). A unit for measuring of design capacity for wastewater treatment plants, represented as millions of gallons per day. Also can be used to measure flow. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Milligrams per litre** (mgL). Milligrams per litre. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Minutes** (minutes). A unit for indicating a length of time in minutes. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Millilitres** (ml). Millilitres of volume Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Megalitres per day (ML/d)** (mld). Megalitres per day. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Millimetres** (mm). Unit part for the SI unit of millimetres. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Months** (months). A unit for indicating a length of time in months. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Metres per second** (ms). metres per second. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Unit not applicable** (naUnit). Not applicable for units. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Population of newly vaccinated persons** (newVax). Population of newly vaccinated persons Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Nephelometric turbidity unit** (ntu). Nephelometric Turbidity Units, a unit used in the measurement of turbidity (see “turbidity” under measureIDs). Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Other Unit deprecated** (otunDep). Other measurement of viral copies or wastewater treatment plant parameter. Add description to UnitOther. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Percent** (perc). Percentage. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Percent recovery** (percRec). Percent of the surrogate recovery for a recovery efficiency control assay. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Population equivalents** (popEq). A unit for measuring of design capacity for wastewater treatment plants, represented as the approximate amount of water a single person would use. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Percent positive** (pp). Percent positive of sample measures. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**parts per million** (ppm). Parts per million. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Percent positivity rate** (pprt). Percent positivity rate of tests conducted within a day in a given region. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Percent primary sludge** (pps). Percentage of total solids, for primary sludge. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Proportion of total** (prop). Proportion as a percent of total. Status: active. First released: 1.0.0. Last updated: 2.0.0.

## *Sets*

**Proportion of variant in sample** (propV). Proportion of a variant as percent of total variants. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Number of positive tests** (ptot). Number of positive tests conducted within a day in a given region. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Ratio** (ratio). Ratio (unitless) Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Recovered patients** (recov). Units for describing a population measure of patients who have recovered from a given disease. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Rate per 100,000** (rP100). Units for describing a population measure of a rate of case incidence per 100,000 people of a given disease. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Number of tests performed** (test). Number of tests performed. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Unitless measure** (unitless). A unit for unitless measures, like pH. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Micro-Siemens per centimetre** (uSCm). Micro-siemens per centimetre. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

**Frequency of variants detected** (varFreq). A description of the frequency of a variants detected. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Population with 1 dose of vaccine** (vax1). A measure of the population with a single dose of vaccine. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Population with 2 doses of vaccine** (vax2). Population with 2 doses of vaccine Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Population with 3 doses of vaccine** (vax3). Population with 3 doses of vaccine Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Years** (years). A unit for indicating a length of time in years. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Unit sets**

(unitSets). Sets of units. Contains units that are associated with part types such as measures. Sets are lists of input values. Each input value within a set is a part (has a partID) that can be reused between sets. For example, a set A could contain the values of ‘yes’ and ‘no’; and set B could contain the values of ‘yes’, ‘no’, and ‘maybe.’ partTypes with sets include aggregations, compartments, missingness, quality flags, specimens, and units. Measures with categories and dataTypes have their own specific sets (catSetID) because their input values are unique and are not reused.

### **Absolute humidity unit set**

(absHumidUnitSet)Unit set for absolute humidity measurements. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Gram per cubic metre** (gm3). Density unit. Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Allele unit set**

(alleleUnitSet)Unit set for alleles. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Cycle threshold or quantification cycle (Ct or Cq)** (ct). Cycle thresholds in a PCR assay. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Detected** (det). Substance detected or not detected. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Depth of coverage** (doc). The sequencing read depth. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Gene copies per copy of crAssphage** (gcCrA). Gene or variant copies per copy of crAssphage. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**gene copies per day per 100,000** (gcD100). The unit for measures reflecting the gene copies per day per 100,000 people in the population. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Gene copies per gram solids** (gCGS). Gene or variant copies per gram solids. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Gene copies per mL** (gcMl). Gene or variant copies per millilitre of solution. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Gene copies per PMMoV copy** (gcPpmov). Gene or variant copies per copy of PMMoV. Status: active. First released: 1.0.0. Last updated: 2.0.0.

## **Bacteria unit set**

(bacteriaUnitSet)Unit set for bacteria-related measurements. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**CFU per 100 ml** (cfu). Colony forming units per 100 ml of filtered sample. Status: active. First released: 1.1.0. Last updated: 2.0.0.



## **Capacity unit set**

(capacityUnitSet)Unit set for capacity measurements. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Millions of gallons per day (MG/D)** (mgd). A unit for measuring of design capacity for wastewater treatment plants, represented as millions of gallons per day. Also can be used to measure flow. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Megalitres per day (ML/d)** (mld). Megalitres per day. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Population equivalents** (popEq). A unit for measuring of design capacity for wastewater treatment plants, represented as the approximate amount of water a single person would use. Status: active. First released: 1.0.0. Last updated: 2.0.0.

## **Conductivity unit set**

(conductivityUnitSet)Unit set related to conductivity measurements. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Micro-Siemens per centimetre** (uSCm). Micro-siemens per centimetre. Status: depreciated. First released: 1.0.0. Last updated: 2.0.0.

## **Dissolved gas concentration unit set**

(dissGasUnitSet)Unit set for carbon dioxide concentrations measurements in water or air. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Milligrams per litre** (mgL). Milligrams per litre. Status: active. First released: 1.1.0. Last updated: 2.0.0.

## *Sets*

**parts per million** (ppm). Parts per million. Status: active. First released: 1.0.0. Last updated: 2.0.0.

### **Volume flow rate unit set**

(flowUnitSet)Unit set for volume flow measurements. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Kilogram per second** (kgS). Kilograms per second. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Cubic metres per day** (m3D). Cubic metres per day. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Cubic metres per hour** (m3H). Cubic metres per hour. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Cubic metres per second** (m3S). Cubic metre per second. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Millions of gallons per day (MG/D)** (mgd). A unit for measuring of design capacity for wastewater treatment plants, represented as millions of gallons per day. Also can be used to measure flow. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Megalitres per day (ML/d)** (mld). Megalitres per day. Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Genetics unit set**

(geneticUnitSet)Unit set for genetic-related measurements. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Breadth of coverage ( $\geq 5\times$  depth)** (boc). Positions with read depth greater or equal to 5. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Detected** (det). Substance detected or not detected. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Depth of coverage** (doc). The sequencing read depth. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Gene copies per L** (gcL). Gene or variant copies per litre. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Percent recovery** (percRec). Percent of the surrogate recovery for a recovery efficiency control assay. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Proportion of total** (prop). Proportion as a percent of total. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Proportion of variant in sample** (propV). Proportion of a variant as percent of total variants. Status: active. First released: 1.1.0. Last updated: 2.0.0.

### **Unit set not applicable**

(naUnitSet)Not applicable for unit sets. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Unit not applicable** (naUnit). Not applicable for units. Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Population unit set**

(populationUnitSet)Unit set for hospital-related measurements. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Number of active cases** (acti). Number of active cases. Status: active. First released: 1.0.0. Last updated: 2.0.0.

## *Sets*

**Confirmed Cases Case report date** (conCase). Date that the numbers were reported publicly for a confirmed case. Typically, reported data and this measure is most commonly reported and used. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Number of confirmed cases** (conf). Number of confirmed cases. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Confirmed cases episode date** (confEp). Episode date is the earliest of onset, test or reported date for a confirmed case. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Confirmed Cases Onset date** (confOn). Earliest that symptoms were reported for a confirmed case. This data is often not known and reported. In lieu, episode is used. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Confirmed cases test date** (conTest). Date that the covid-19 test was performed for a confirmed case. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Cumulative count** (cuCo). Units for describing a population measure of a cumulative count of cases of a given disease. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Daily count** (daiCo). Units for describing a population measure of a daily count of new cases of a given disease. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Deaths** (death). Units for describing a population measure of patients who have died from a given cause. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**General Hospital Admissions** (hosa). Hospital admissions or patients newly admitted to hospital. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Hospital Census** (hosc). Hospital census or the number of people admitted with an ailment. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Intensive care unit patients** (icu). Units for describing a population measure of patients who are in intensive care due to a given cause. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Population of newly vaccinated persons** (newVax). Population of newly vaccinated persons Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Percent positivity rate** (pprt). Percent positivity rate of tests conducted within a day in a given region. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Number of positive tests** (ptot). Number of positive tests conducted within a day in a given region. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Recovered patients** (recov). Units for describing a population measure of patients who have recovered from a given disease. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Rate per 100,000** (rP100). Units for describing a population measure of a rate of case incidence per 100,000 people of a given disease. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Number of tests performed** (test). Number of tests performed. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Population with 1 dose of vaccine** (vax1). A measure of the population with a single dose of vaccine. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Population with 2 doses of vaccine** (vax2). Population with 2 doses of vaccine Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Population with 3 doses of vaccine** (vax3). Population with 3 doses of vaccine Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Precipitation unit set**

(precipitationUnitSet)Unit set for percipitation measurements. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Centimetres** (cm). Unit part for the SI unit of centimetres. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Millimetres** (mm). Unit part for the SI unit of millimetres. Status: active. First released: 1.1.0. Last updated: 2.0.0.

### **Relative humidity unit set**

(relHumidUnitSet)Unit set for relative humidity measurements. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Percent** (perc). Percentage. Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Specific humidity unit set**

(specHumidUnitSet)Unit set for specific humidity. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Ratio** (ratio). Ratio (unitless) Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Standard concentration unit set**

(stdConcentrationUnitSet)Unit set for concentration measurements. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Milligrams per litre** (mgL). Milligrams per litre. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**parts per million** (ppm). Parts per million. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Percent primary sludge** (pps). Percentage of total solids, for primary sludge. Status: active. First released: 1.0.0. Last updated: 2.0.0.

## **Temperature unit set**

(temperatureUnitSet)Unit set for temperature measurements. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Degrees Celcius** (cel). Degrees Celsius. Status: active. First released: 1.1.0. Last updated: 2.0.0.

## **Time unit set**

(timeUnitSet)The unit set for measures of time. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Days** (days). A unit for indicating a length of time in days. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Hours** (hours). A unit for indicating a length of time in hours. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Minutes** (minutes). A unit for indicating a length of time in minutes. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## *Sets*

**Months** (months). A unit for indicating a length of time in months. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Years** (years). A unit for indicating a length of time in years. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Turbidity unit set**

(turbidityUnitSet)Unit set for turbidity measurements. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Nephelometric turbidity unit** (ntu). Nephelometric Turbidity Units, a unit used in the measurement of turbidity (see “turbidity” under measureIDs). Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Unitless unit set**

(unitlessUnitSet)Unit set for measurements that does not have units. Status: active. First Released: 2.0.0. Last updated: 2.0.0.

**Unitless measure** (unitless). A unit for unitless measures, like pH. Status: active. First released: 2.0.0. Last updated: 2.0.0.

## **Volume unit set**

(volumeUnitSet)Unit set of volume measurements. Status: active. First Released: 1.0.0. Last updated: 2.0.0.

**Grams** (grams). A unit of mass or weight. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Kilolitres** (kl). Kilolitres of volume Status: active. First released: 2.0.0. Last updated: 2.0.0.



**Litres** (l). Litres of volume Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Millilitres** (ml). Millilitres of volume Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Millimetres** (mm). Unit part for the SI unit of millimetres. Status: active. First released: 1.1.0. Last updated: 2.0.0.

**Percent positive** (pp). Percent positive of sample measures. Status: active. First released: 1.0.0. Last updated: 2.0.0.

**Sub-variant or lineage** (subVar). A unit used to report a specific genetic lineage, or to specify that a reported variant is a sub-variant of another. Status: active. First released: 2.0.0. Last updated: 2.0.0.

**Frequency of variants detected** (varFreq). A description of the frequency of a variants detected. Status: active. First released: 2.0.0. Last updated: 2.0.0.

### **Wind speed unit set**

(windSpeedUnitSet)Unit set for wind speed measurements. Status: deprecated. First Released: 1.0.0. Last updated: 2.0.0.

**Metres per second** (ms). metres per second. Status: active. First released: 2.0.0. Last updated: 2.0.0.



# Tables

Dictionary 2.0.0.

The ODM database model has 21 tables in its full relational database. The full model is commonly referred to as “long” tables as it stores data with one measurement per row. Each table has mandatory and optional headers.

## **i** Data storage

Store all ODM data in the 21 recommended tables to ensure optimal interoperability and support by the [ODM validation toolkit](#) and other ODM libraries.

Users can, however, create custom tables or ‘views’ by merging fields from any table. A common format for data entry format are “wide” table format, with *one day per row* and multiple measures or attributes per row. It is important to note that this guide does not provide instructions on generating wide tables.

## Table types

There are five table types:

1) **Regular report tables.** The **measures** and **samples** tables are used for daily reporting of new measurements and information on sample collection. There are three tables that support regular reporting:- **measureSets**

## Tables

(optional) is used to link measures, `sampleRelationships` (optional) is used when samples are pooled or split, and `qualityReports` is used for detailed quality assurance and control measures.

2) **Contact information tables.** The `sites`, `organizations`, `contacts`, and `addresses` tables store contact information for the testing site and the person who performed the testing.

3) **Protocol or methods tables.** The `protocols` and `instruments` tables hold information on the methods used for sample collection or measurement. `protocolSteps` and `protocolRelationships` tables are used in conjunction with the `protocols` table.

4) **Other report tables.** The `polygons` table stores information on the sample area and the `datasets` table includes information on the data custodian and owner.

5) **Dictionary reference tables.** The `parts` table describes all elements of the ODM, including tables, table headers, measures, methods, categories, and units. The `sets` table stores collections of parts, such as units grouped together in a `unitSet`. The `languages` and `translations` tables support translations.

## Header roles

Each table in the ODM has column headers, also known as table variables, fields, or entity relationship attributes. The header serves as the top row and contains the variable name.

**Primary key (PK)** - With the exception of the dictionary tables, all tables have one primary key. The primary key serves as a unique identifier for each row in the table, meaning that a primary key value cannot be repeated.

*Mandatory, optional, mandatoryIf*

**Foreign key (FK)** - Tables may have one or more foreign keys. A foreign key connects an entry to another table with a primary key. This allows for relationships to be established between tables, making it possible to link data between different tables.

**Header** (header) - This label is used in a table description when a header is not a primary or foreign key.

## **Mandatory, optional, mandatoryIf**

Each header may be classified as either **mandatory** or **optional**. In the **measures** table, examples of mandatory headers are the **measureID** and **measurement date**. The ODM validation toolkit can be used to validate data, and will return an error if a table lacks a mandatory header or if there are missing row entries for mandatory fields.

Additionally, there are special headers called **mandatoryIf** headers. These headers are mandatory if certain conditions apply. For example, the **protocol steps** table has row entries that are either **measures** or **methods**. If the row entry is a **measure**, then a **unit** becomes **mandatory** since all measures must have a unit. Therefore, units are **mandatoryIf** in the protocol steps table.

## **Table list**

Address table

Contact table

Dataset table

Instrument table

Language Look-up table

## *Tables*

Measure report table

Measure set report table

Organization table

Parts Look-up table

Polygon table

Protocol relationships table

Protocols table

Protocol steps table

Quality reports table

Sample relationships table

Sample report table

Sets look-up table

Sites table

Translation look-up table

## **Address table**

partID: addresses. The table that contains information about addresses. Addresses can be recorded for sites, organizations or contacts (individuals). The Sites, Organizations, and Contacts tables include a link to the addresses table through Address ID.

**Address Line 1** (addL1). Line 1 (the street name, number and direction) for a given address. Role: Header. Requirement: mandatory. Data type: varchar.

**Address Line 2** (addL2). Line 2 (the unit number) for a given address.Role: Header.Requirement: optional.Data type: varchar.

**City** (city). The city where a site or organization is located; part of the address.Role: Header.Requirement: mandatory.Data type: varchar.

**State, Province, or Region** (stateProvReg). The state, province, or region where a site or organization is located; part of the address.Role: Header.Requirement: mandatory.Data type: varchar.

**Postal or Zip Code** (pCode). The zip code or postal code for a given address, specifying a specific geographic area.Role: Header.Requirement: optional.Data type: varchar.

**Last edited** (lastEdited). The date the entry was last updated.Role: Header.Requirement: optional.Data type: datetime.

**Notes** (notes). A note used to describe details that are not captured in other attributes.Role: Header.Requirement: optional.Data type: varchar.

## Contact table

partID: contacts. The table that contains information about a contact; a person who is the contact of a site or laboratory. adapt from version 1 documentation

**First name of contact** (firstName). Specifies the first name of a given contact.Role: Header.Requirement: optional.Data type: varchar.

**Last name of contact** (lastName). Specifies the last name of a given contact.Role: Header.Requirement: optional.Data type: varchar.

**Contact email** (email). Contact e-mail address, for the lab.Role: Header.Requirement: mandatory.Data type: varchar.

## Tables

**Contact phone** (phone). Contact phone number, for the lab.Role: Header.Requirement: optional.Data type: varchar.

**Role of contact** (role). Specifies the organizational role of a given contact.Role: Header.Requirement: optional.Data type: varchar.

**Last edited** (lastEdited). The date the entry was last updated.Role: Header.Requirement: optional.Data type: datetime.

**Notes** (notes). A note used to describe details that are not captured in other attributes.Role: Header.Requirement: optional.Data type: varchar.

## Dataset table

partID: datasets. A report table for capturing details about data's parental data set and data custodians. Supplying attribution for data collectors.

**Dataset creation date** (datasetDate). Specifies the date a given dataset was created.Role: Header.Requirement: recommended.Data type: datetime.

**Name** (name). Name of a domain, specimen, group, class, attribute, unit, nomenclature or other entity.Role: Header.Requirement: recommended.Data type: varchar.

**Description** (descr). A detailed description as an attribute for describing results or program elements.Role: Header.Requirement: optional.Data type: varchar.

**Reference link** (refLink). Link to the reference material for a part. May link to literature on a method, measure, etc.Role: Header.Requirement: optional.Data type: varchar.

**Last edited** (lastEdited). The date the entry was last updated.Role: Header.Requirement: optional.Data type: datetime.



**Notes** (notes). A note used to describe details that are not captured in other attributes. Role: Header. Requirement: optional. Data type: varchar.

## Instrument table

partID: instruments. The table that contains information about instruments. adapt from version 1 documentation

**Name** (name). Name of a domain, specimen, group, class, attribute, unit, nomenclature or other entity. Role: Header. Requirement: recommended. Data type: varchar.

**Model** (model). Model number or version of the instrument. Role: Header. Requirement: mandatory. Data type: varchar.

**Manufacturer** (manufacturer). Manufacturer of an instrument. Role: Header. Requirement: optional. Data type: varchar.

**Description** (descr). A detailed description as an attribute for describing results or program elements. Role: Header. Requirement: optional. Data type: varchar.

**Reference link** (refLink). Link to the reference material for a part. May link to literature on a method, measure, etc. Role: Header. Requirement: optional. Data type: varchar.

**Describe other instrument type, if applicable** (insTypeOth). Description of the instrument in case it is not listed in instrumentType. Role: Header. Requirement: optional. Data type: varchar.

**Index** (index). Index number in case the measurement was taken multiple times. Role: Header. Requirement: optional. Data type: varchar.

**Last edited** (lastEdited). The date the entry was last updated. Role: Header. Requirement: optional. Data type: datetime.

## Tables

**Notes** (notes). A note used to describe details that are not captured in other attributes. Role: Header. Requirement: optional. Data type: varchar.

### Language Look-up table

partID: languages. Look up table for all languages, used to give structure to the translation table.

**Language family** (langFam). Specifies the language family of a given language for translation and language tracking purposes. Role: Header. Requirement: mandatory. Data type: varchar.

**Language name** (langName). Specifies the name of the language in roman alphabet characters for translation and language tracking purposes. Role: Header. Requirement: mandatory. Data type: varchar.

**Native Name** (natName). The native name of the language, i.e. what the language is called by its speakers. Role: Header. Requirement: mandatory. Data type: categorical.

**ISO639-1** (iso6391). The first part of the ISO 639 series of international standards for language codes. Part 1 covers the registration of two-letter codes. There are 183 two-letter codes registered as of June 2021. The registered codes cover the world's major languages. Role: Header. Requirement: mandatory. Data type: categorical.

**ISO639-2B** (iso6392B). A set of international standards that lists short codes for language names. These ISO639-2 are the three-letter codes defined in part two (ISO 639-2) of the standard, including the corresponding two-letter (ISO 639-1) codes where they exist. The 'B' specifies the bibliographic code (B code). Role: Header. Requirement: mandatory. Data type: categorical.

**ISO639-2T** (iso6392T). A set of international standards that lists short codes for language names. These ISO639-2 are the three-letter codes defined in part two (ISO 639-2) of the standard, including the corresponding two-letter (ISO 639-1) codes where they exist. The ‘T’ specifies the terminological code (T code).Role: Header.Requirement: mandatory.Data type: categorical.

**ISO639-3** (iso6393). A set of international standards that lists short codes for language names. ISO 639-3 extends the ISO 639-2 alpha-3 codes with an aim to cover all known natural languages.Role: Header.Requirement: mandatory.Data type: categorical.

**ISO639-6** (iso6396). A set of international standards that lists short codes for language names. ISO 639-6 builds off ISO639-3 with the use of four-letter codes, and allowing users to differentiate between variants of languages and language families, such as historical vs. revived versions of languages.Role: Header.Requirement: mandatory.Data type: categorical.

**First released version** (firstReleased). The version in which a part was first releasedRole: Header.Requirement: mandatory.Data type: varchar.

**Last updated version** (lastUpdated). The version in which the part was last updated.Role: Header.Requirement: mandatory.Data type: varchar.

**Changes column** (changes). A column for recording the changes from a previous version.Role: Header.Requirement: optional.Data type: varchar.

**Notes** (notes). A note used to describe details that are not captured in other attributesRole: Header.Requirement: optional.Data type: varchar.

## Measure report table

partID: measures. The table that contains information and details about a given measure adapt from version 1 documentation

**Analysis date start** (aDateStart). Date the measurement or analysis was started.Role: Header.Requirement: optional.Data type: datetime.

**Analysis date end** (aDateEnd). Date the measurement or analysis was completed.Role: Header.Requirement: mandatory.Data type: datetime.

**Report date** (reportDate). The date a measure was reported.Role: Header.Requirement: optional.Data type: datetime.

**Value** (value). Value of a measure, observation or attribute.Role: Header.Requirement: mandatory.Data type: varchar.

**Index** (index). Index number in case the measurement was taken multiple times.Role: Header.Requirement: optional.Data type: varchar.

**Measure license** (measureLic). Specifies the access and use licensing for a given single measurement.Role: Header.Requirement: optional.Data type: varchar.

**Reportable** (reportable). Flag for whether a measure is reportable or not, based on confidence in the measure and methods applied.Role: Header.Requirement: optional.Data type: boolean.

**Organization ID** (organizationID). A unique identifier for the organization to which the reporter is affiliated.Role: Header.Requirement: optional.Data type: varchar.

**Contact ID** (contactID). A unique identifier for a given contact person.Role: Header.Requirement: optional.Data type: varchar.

**Reference link** (refLink). Link to the reference material for a part. May link to literature on a method, measure, etc.Role: Header.Requirement: optional.Data type: varchar.

**Last edited** (lastEdited). The date the entry was last updated.Role: Header.Requirement: optional.Data type: datetime.

**Notes** (notes). A note used to describe details that are not captured in other attributesRole: Header.Requirement: optional.Data type: varchar.

### Measure set report table

partID: measureSets. The table that identifies sets of measures. Examples of measure sets include a set of replicates, dilutions (used to generate a Ct curve) or variants that are identified in a single sample.

**Name** (name). Name of a domain, specimen, group, class, attribute, unit, nomenclature or other entity.Role: Header.Requirement: optional.Data type: varchar.

**Last edited** (lastEdited). The date the entry was last updated.Role: Header.Requirement: optional.Data type: datetime.

**Notes** (notes). A note used to describe details that are not captured in other attributesRole: Header.Requirement: optional.Data type: varchar.

### Organization table

partID: organizations. The table that contains information about a laboratory. adapt from version 1 documentation

**Name** (name). Name of a domain, specimen, group, class, attribute, unit, nomenclature or other entity.Role: Header.Requirement: recommended.Data type: varchar.

## Tables

**Description** (descr). A detailed description as an attribute for describing results or program elements.Role: Header.Requirement: optional.Data type: varchar.

**Organization Type** (orgType). Specifies the type or purpose of a given organization.Role: Header.Requirement: recommended.Data type: categorical.Measure, method or attribute set: orgTypeSet

**Organization level** (orgLevel). The geographic level of an organization.Role: Header.Requirement: recommended.Data type: categorical.Measure, method or attribute set: orgLevelSet

**Organization sector** (orgSector). The sector of an organizationRole: Header.Requirement: recommended.Data type: categorical.Measure, method or attribute set: orgSectorSet

**Last edited** (lastEdited). The date the entry was last updated.Role: Header.Requirement: optional.Data type: datetime.

**Notes** (notes). A note used to describe details that are not captured in other attributesRole: Header.Requirement: optional.Data type: varchar.

## Parts Look-up table

partID: parts. Look up table containing all parts in of the data model. Contains all parts, including self-referential parts.

**Label** (partLabel). A human readable label of a part.Role: Header.Requirement: mandatory.Data type: varchar.

**Part types** (partType). Part types describe the purpose or use of the part.Role: Header.Requirement: mandatory.Data type: categorical.

**Short names** (shortName). Shortened names for tables and other important parts for use in wide names.Role: Header.Requirement: mandatory.Data type: varchar.

**Part description** (partDesc). The description of the part.Role: Header.Requirement: mandatory.Data type: varchar.

**Part instruction** (partInstr). Additional notes and instructions on how a part is used and/or defined.Role: Header.Requirement: mandatory.Data type: varchar.

**Domain** (domain). Domain is the highest level of describing of a measure.Role: Header.Requirement: mandatory.Data type: categorical.

**Group** (group). Unique identifier for a group of measures. Mostly applicable for measures, methods, units, and aggregations.Role: Header.Requirement: mandatory.Data type: categorical.

**Class** (class). A unique identifier for a class, which is akin to a subgroup; it's a way of grouping parts within a given group. A group can have one or more classes to describe different parts of the class.Role: Header.Requirement: mandatory.Data type: categorical.

**Nomenclature** (nomenclature). A classification system to report the measure class. Only applicable to variants, mutations, and diseases.Role: Header.Requirement: mandatory.Data type: categorical.

**Ontology reference** (ontologyRef). Ontology reference for a part.Role: Header.Requirement: mandatory.Data type: varchar.

**LaTeX expression** (latExp). LaTeX expression used to generate formulas, symbols, etc. Mainly relevant for units.Role: Header.Requirement: mandatory.Data type: varchar.

**Measure, method, or attribute** (mmaSet). The set for a measure, method, or attribute. Only applicable for categorical fields, and the categories that populate them.Role: Header.Requirement: mandatory.Data type: categorical.

**Aggregation scale** (aggregationScale). A scale used for an aggregation. Only applicable for measures and units.Role: Header.Requirement: mandatory.Data type: categorical.

## Tables

**Aggregation set** (aggregationSet). The aggregation set for a unit.Role: Header.Requirement: mandatory.Data type: categorical.

**Quality set** (qualitySetID). The quality set that corresponds to a given part. Only applicable for samples and measures.Role: Header.Requirement: mandatory.Data type: varchar.

**Missingness sets** (missingnessSets). Missingness sets for measures, methods or attributes.Role: Header.Requirement: mandatory.Data type: categorical.

**Status** (status). Whether the part is still active and can be used in the most current ODM version. Values are 'active' or 'inactive'.Role: Header.Requirement: mandatory.Data type: varchar.

**First released version** (firstReleased). The version in which a part was first released.Role: Header.Requirement: mandatory.Data type: varchar.

**Last updated version** (lastUpdated). The version in which the part was last updated.Role: Header.Requirement: mandatory.Data type: varchar.

**Changes column** (changes). A column for recording the changes from a previous version.Role: Header.Requirement: mandatory.Data type: varchar.

**Protocol steps table** (protocolSteps). The table for collecting metadata on individual steps in a protocol, methodological process, or assay.Role: Header.Requirement: mandatory.Data type: varchar.

**Protocol Relationship table required headers** (protocolRelationshipsRequired). Specifies the columns required in the Protocol Organization table.Role: Header.Requirement: mandatory.Data type: varchar.

**Protocol steps table required headers** (protocolStepsRequired). Specifies the columns required in a Protocol Steps table.Role: Header.Requirement: mandatory.Data type: varchar.



**Protocol steps table column order** (protocolStepsOrder). Specifies the order of the columns in a Protocol Steps table.Role: Header.Requirement: mandatory.Data type: integer.

**Protocol relationships table** (protocolRelationships). The table that contains the organizational information and details (such as order) about a given protocol, recorded as a series of protocol steps (protocolSteps).Role: Header.Requirement: mandatory.Data type: varchar.

**Protocol relationships table column order** (protocolRelationshipsOrder). Specifies the order of the columns in the Protocol Organization table.Role: Header.Requirement: mandatory.Data type: integer.

**Measure report table** (measures). The table that contains information and details about a given measureRole: Header.Requirement: mandatory.Data type: varchar.

**Measures table required headers** (measuresRequired). Specifies the columns required in a Measures table.Role: Header.Requirement: mandatory.Data type: varchar.

**Measures table column order** (measuresOrder). Specifies the order of the columns in a Measures table.Role: Header.Requirement: mandatory.Data type: integer.

**Measure set report table** (measureSets). The table that identifies sets of measures.Role: Header.Requirement: mandatory.Data type: varchar.

**Measure sets table column order** (measureSetsOrder). Specifies the order of the columns in a Measure Sets table.Role: Header.Requirement: mandatory.Data type: integer.

**Measure Set table required headers** (measureSetsRequired). Specifies the columns required in a Measure Sets table.Role: Header.Requirement: mandatory.Data type: varchar.

**Dataset table** (datasets). A report table for capturing details about data's parental data set and data custodians. Supplying attribution for

## Tables

data collectors.Role: Header.Requirement: mandatory.Data type: varchar.

**Dataset table required headers** (datasetsRequired). Specifies the columns required in a Datasets table.Role: Header.Requirement: mandatory.Data type: varchar.

**Datasets table column order** (datasetsOrder). Specifies the order of the columns in a Datasets table.Role: Header.Requirement: mandatory.Data type: integer.

**Sites table** (sites). The table that contains information about a site; the location where an environmental sample was taken.Role: Header.Requirement: mandatory.Data type: varchar.

**Sites table required headers** (sitesRequired). Specifies the columns required in a Sites table.Role: Header.Requirement: mandatory.Data type: varchar.

**Sites table column order** (sitesOrder). Specifies the order of the columns in a Sites table.Role: Header.Requirement: mandatory.Data type: integer.

**Sample report table** (samples). The table that contains information about a sample. A sample is defined as a representative volume of wastewater (or other forms of water or liquid), air, or surface area taken from a site.Role: Header.Requirement: mandatory.Data type: varchar.

**Sample table required headers** (samplesRequired). Specifies the columns required in a Samples table.Role: Header.Requirement: mandatory.Data type: varchar.

**Samples table column order** (samplesOrder). Specifies the order of the columns in a Samples table.Role: Header.Requirement: mandatory.Data type: integer.

**Address table** (addresses). The table that contains information about addresses. Addresses can be recorded for sites, organizations or contacts (individuals).Role: Header.Requirement: mandatory.Data type: varchar.

**Address table required headers** (addressesRequired). Specifies the columns required in a Addresses table.Role: Header.Requirement: mandatory.Data type: varchar.

**Addresses table column order** (addressesOrder). Specifies the order of the columns in the Addresses table.Role: Header.Requirement: mandatory.Data type: integer.

**Contact table** (contacts). The table that contains information about a contact; a person who is the contact of a site or laboratory.Role: Header.Requirement: mandatory.Data type: varchar.

**Contact table required headers** (contactsRequired). Specifies the columns required in a Contacts table.Role: Header.Requirement: mandatory.Data type: varchar.

**Contacts table column order** (contactsOrder). Specifies the order of the columns in a Contacts table.Role: Header.Requirement: mandatory.Data type: integer.

**Organization table** (organizations). The table that contains information about a laboratory.Role: Header.Requirement: mandatory.Data type: varchar.

**Organization table required headers** (organizationsRequired). Specifies the columns required in a Organizations table.Role: Header.Requirement: mandatory.Data type: varchar.

**Organizations table column order** (organizationsOrder). Specifies the order of the columns in a Organizations table.Role: Header.Requirement: mandatory.Data type: integer.

## *Tables*

**Instrument table** (instruments). The table that contains information about instruments.Role: Header.Requirement: mandatory.Data type: varchar.

**Instrutment table required headers** (instrumentsRequired). Specifies the columns required in the Instruments table.Role: Header.Requirement: mandatory.Data type: varchar.

**Instruments table column order** (instrumentsOrder). Specifies the order of the columns in the Instruments table.Role: Header.Requirement: mandatory.Data type: integer.

**Polygon table** (polygons). The table that contains information about the geometry of a geographic area.Role: Header.Requirement: mandatory.Data type: varchar.

**Polygon table required headers** (polygonsRequired). Specifies the columns required in a Polygons table.Role: Header.Requirement: mandatory.Data type: varchar.

**Polygons table column order** (polygonsOrder). Specifies the order of the columns in a Polygons table.Role: Header.Requirement: mandatory.Data type: integer.

**Language Look-up table** (languages). Look up table for all languages, used to give structure to the translation table.Role: Header.Requirement: mandatory.Data type: varchar.

**Language table required headers** (languagesRequired). Required headers in the Languages table.Role: Header.Requirement: mandatory.Data type: varchar.

**Language table column order** (languagesOrder). Specifies the order of the columns in the Languages table.Role: Header.Requirement: mandatory.Data type: integer.

**Translation look-up table** (translations). Look up table for translations of the description, label, and instruction for all parts.Role: Header.Requirement: mandatory.Data type: varchar.

**Parts Look-up table** (parts). Look up table containing all parts in of the data model.Role: Header.Requirement: mandatory.Data type: varchar.

**Translation table required headers** (translationsRequired). Required headers in the Translations table.Role: Header.Requirement: mandatory.Data type: varchar.

**Parts table column order** (partsOrder). Order of headers in the Parts table.Role: Header.Requirement: mandatory.Data type: varchar.

**Translation table column order** (translationsOrder). Specifies the order of the columns in the Translation table.Role: Header.Requirement: mandatory.Data type: integer.

**Parts table required headers** (partsRequired). Required headers in the Parts table.Role: Header.Requirement: mandatory.Data type: varchar.

**Sets look-up table** (sets). Look up table for all sets, managing how categorical inputs for various methods and attributes are grouped together.Role: Header.Requirement: mandatory.Data type: varchar.

**Sets table column order** (setsOrder). Specifies the order of the columns in the Sets table.Role: Header.Requirement: mandatory.Data type: integer.

**Sets table required headers** (setsRequired). Required headers in the Sets table.Role: Header.Requirement: mandatory.Data type: varchar.

**Quality reports table** (qualityReports). The table for recording the various quality metrics and indicators for samples and measures.Role: Header.Requirement: mandatory.Data type: varchar.

**Quality report table required headers** (qualityReportsRequired). Specifies the columns required in the Quality Reports table.Role: Header.Requirement: mandatory.Data type: varchar.

## Tables

**Quality reports table column order** (qualityReportsOrder). Specifies the order of the columns in the Quality Reports table.Role: Header.Requirement: mandatory.Data type: integer.

**Sample relationships table** (sampleRelationships). Table for recording the relationships between samples.Role: Header.Requirement: mandatory.Data type: varchar.

**Sample relationships table required headers** (sampleRelationshipsRequired). Specifies the columns required in a Sample Relationships table.Role: Header.Requirement: mandatory.Data type: varchar.

**Sample relationships table column order** (sampleRelationshipsOrder). Specifies the order of the columns in a Sample Relationships table.Role: Header.Requirement: mandatory.Data type: integer.

**Protocols table** (protocols). The table for protocols.Role: Header.Requirement: mandatory.Data type: varchar.

**Protocols table required headers** (protocolsRequired). Specifies the columns required in the Protocols table.Role: Header.Requirement: mandatory.Data type: varchar.

**Protocols table column order** (protocolsOrder). Specifies the order of the columns in the Protocols table.Role: Header.Requirement: mandatory.Data type: integer.

**Reference link** (refLink). Link to the reference material for a part. May link to literature on a method, measure, etc.Role: Header.Requirement: mandatory.Data type: varchar.

**Data types** (dataTypes). The data type for a part.Role: Header.Requirement: mandatory.Data type: categorical.

**Minimum value part support** (minValue). The minimum value of part.Role: Header.Requirement: mandatory.Data type: varchar.

**Maximum value part support** (maxValue). The maximum value of a part.Role: Header.Requirement: mandatory.Data type: varchar.

**Minimum length** (minLength). The maximum value of measure.Role: Header.Requirement: mandatory.Data type: integer.

**Maximum length** (maxLength). The maximum length of the value of a part or measure.Role: Header.Requirement: mandatory.Data type: integer.

## Polygon table

partID: polygons. The table that contains information about the geometry of a geographic area.

**Name** (name). Name of a domain, specimen, group, class, attribute, unit, nomenclature or other entity.Role: Header.Requirement: recommended.Data type: varchar.

**Description** (descr). A detailed description as an attribute for describing results or program elements.Role: Header.Requirement: optional.Data type: varchar.

**Polygon Population** (polyPop). An attribute of a polygon, which specifies the population of that polygon. A rough estimate of the number of human residents.Role: Header.Requirement: optional.Data type: integer.

**Type of geography** (geoType). Type of geography that is represented by the polygon.Role: Header.Requirement: mandatory.Data type: categorical.Measure, method or attribute set: geoTypeSet

**European Petroleum Survey Group Coordinates** (geoEPSG). The unique EPSG code specifying a given geospatial area.Role: Header.Requirement: mandatory.Data type: float.

**Well-known text** (geoWKT). Well-known text of the polygon.Role: Header.Requirement: mandatory.Data type: varchar.

## Tables

**File location of polygon** (fileLocation). The location of the file containing the geometry of the polygon.Role: Header.Requirement: optional.Data type: blob.

**Reference link** (refLink). Link to the reference material for a part. May link to literature on a method, measure, etc.Role: Header.Requirement: optional.Data type: varchar.

**Organization ID** (organizationID). A unique identifier for the organization to which the reporter is affiliated.Role: Header.Requirement: optional.Data type: varchar.

**Contact ID** (contactID). A unique identifier for a given contact person.Role: Header.Requirement: optional.Data type: varchar.

**Last edited** (lastEdited). The date the entry was last updated.Role: Header.Requirement: optional.Data type: datetime.

**Notes** (notes). A note used to describe details that are not captured in other attributesRole: Header.Requirement: optional.Data type: varchar.

## Protocol relationships table

partID: protocolRelationships. The table that contains the organizational information and details (such as order) about a given protocol, recorded as a series of protocol steps (protocolSteps). Protocols are a group of related protocol steps. For example a protocol step can describe a sample concentration, extraction, inhibition or a measurement. Protocols can include both methodID (a procedure) and measureIDs (a measure). An example of a method is centrifugation; where the centrifugation rotation speed is described as a measure.

**Last edited** (lastEdited). The date the entry was last updated.Role: Header.Requirement: optional.Data type: datetime.



**Notes** (notes). A note used to describe details that are not captured in other attributes. Role: Header. Requirement: optional. Data type: varchar.

## Protocols table

partID: protocols. The table for protocols.

**Name** (name). Name of a domain, specimen, group, class, attribute, unit, nomenclature or other entity. Role: Header. Requirement: optional. Data type: varchar.

**Summary** (summ). Short description of the assay and how it is different from the other assay methods. Role: Header. Requirement: optional. Data type: varchar.

**Reference link** (refLink). Link to the reference material for a part. May link to literature on a method, measure, etc. Role: Header. Requirement: optional. Data type: varchar.

**Protocol version** (protocolVersion). Specifies the version of a method set. Role: Header. Requirement: optional. Data type: integer.

**Last edited** (lastEdited). The date the entry was last updated. Role: Header. Requirement: optional. Data type: datetime.

**Notes** (notes). A note used to describe details that are not captured in other attributes. Role: Header. Requirement: optional. Data type: varchar.

## Protocol steps table

partID: protocolSteps. The table for collecting metadata on individual steps in a protocol, methodological process, or assay.

## Tables

**Summary** (summ). Short description of the assay and how it is different from the other assay methods.Role: Header.Requirement: optional.Data type: varchar.

**Protocol step version** (stepVer). Specifies the version of a given protocol step.Role: Header.Requirement: optional.Data type: varchar.

**Reference link** (refLink). Link to the reference material for a part. May link to literature on a method, measure, etc.Role: Header.Requirement: optional.Data type: varchar.

**Value** (value). Value of a measure, observation or attribute.Role: Header.Requirement: mandatoryif.Data type: varchar.

**Last edited** (lastEdited). The date the entry was last updated.Role: Header.Requirement: optional.Data type: datetime.

**Notes** (notes). A note used to describe details that are not captured in other attributesRole: Header.Requirement: optional.Data type: varchar.

## Quality reports table

partID: qualityReports. The table for recording the various quality metrics and indicators for samples and measures.

**Quality flag** (qualityFlag). A field for reporting any quality concerns - of lack thereof - for a sample or measure.Role: Header.Requirement: mandatory.Data type: categorical.

**Severity indicator** (severity). An indicator of the severity or seriousness of a quality flag.Role: Header.Requirement: optional.Data type: varchar.

**Last edited** (lastEdited). The date the entry was last updated.Role: Header.Requirement: optional.Data type: datetime.

**Notes** (notes). A note used to describe details that are not captured in other attributes. Role: Header. Requirement: optional. Data type: varchar.

### Sample relationships table

partID: sampleRelationships. Table for recording the relationships between samples. Samples can be pooled or split. The sample relationships table holds information on parent-child relationships between samples, and allow for tracking sample lineage for single and pooled samples.

**Last edited** (lastEdited). The date the entry was last updated. Role: Header. Requirement: optional. Data type: datetime.

**Notes** (notes). A note used to describe details that are not captured in other attributes. Role: Header. Requirement: optional. Data type: varchar.

### Sample report table

partID: samples. The table that contains information about a sample. A sample is defined as a representative volume of wastewater (or other forms of water or liquid), air, or surface area taken from a site. Samples can be combined, split, stored and reused. The **Sample relationships** (sampleRelationships) is used to describe the relationships between samples.

**Organization ID** (organizationID). A unique identifier for the organization to which the reporter is affiliated. Role: Header. Requirement: optional. Data type: varchar.

**Sample origin** (origin). An attribute of a sample specifying the origin. Role: Header. Requirement: optional. Data type: categorical.

## Tables

**Sample collection type** (collType). The type of collection.Role: Foreign Key.Requirement: mandatory.Data type: categorical.Measure, method or attribute set: collectSet

**Collection period** (collPer). Collection period. The time period over which the sample was collected, in hours. Alternatively, use collectionStart and collectionEnd.Role: Header.Requirement: mandatory.Data type: float.

**Collection number** (collNum). The number of subsamples that were combined to create the sample. Use NA for continuous, proportional or passive sampling.Role: Header.Requirement: mandatory.Data type: integer.

**Collection number and period** (collNumPer). Composite collection number.period.Role: Header.Requirement: mandatory.Data type: varchar.

**Pooled** (pooled). Is this a pooled sample, and therefore composed of multiple child samples obtained at different sitesRole: Header.Requirement: optional.Data type: boolean.

**Collection date time** (collDT). For grab samples this is the date, time and timezone the sample was taken.Role: Header.Requirement: mandatory.Data type: datetime.

**Collection date time start** (collDTStart). For integrated time averaged samples this is the date, time and timezone the sample was started being taken.Role: Header.Requirement: optional.Data type: datetime.

**Collection date time end** (collDTEnd). For integrated time average samples this is the date, time and timezone the sample was finished being taken.Role: Header.Requirement: optional.Data type: datetime.

**Date sample was sent** (sentDate). The date the sample was sent for analyses at a laboratory.Role: Header.Requirement: optional.Data type: datetime.

**Date sample recieved** (recDate). The date the sample was received at the laboratory for analysis.Role: Header.Requirement: optional.Data type: datetime.

**Reportable** (reportable). Flag for whether a measure is reportable or not, based on confidence in the measure and methods applied.Role: Header.Requirement: optional.Data type: boolean.

**Last edited** (lastEdited). The date the entry was last updated.Role: Header.Requirement: optional.Data type: datetime.

**Notes** (notes). A note used to describe details that are not captured in other attributesRole: Header.Requirement: optional.Data type: varchar.

## Sets look-up table

partID: sets. Look up table for all sets, managing how categorical inputs for various methods and attributes are grouped together. This table manages many-to-many relationships and category recycling within the ODM.

**Set type** (setType). The type of set. i.e. quality set, aggregation set, unit setRole: Header.Requirement: mandatory.

**Label** (partLabel). A human readable label of a part.Role: Header.Requirement: mandatory.Data type: varchar.

**Part instruction** (partInstr). Additional notes and instructions on how a part is used and/or defined.Role: Header.Requirement: mandatory.Data type: varchar.

**Status** (status). Whether the part is still active and can be used in the most current ODM version. Values are 'active' or 'inactive'.Role: Header.Requirement: mandatory.Data type: varchar.

## Tables

**First released version** (firstReleased). The version in which a part was first released.Role: Header.Requirement: mandatory.Data type: varchar.

**Last updated version** (lastUpdated). The version in which the part was last updated.Role: Header.Requirement: mandatory.Data type: varchar.

**Changes column** (changes). A column for recording the changes from a previous version.Role: Header.Requirement: optional.Data type: varchar.

**Notes** (notes). A note used to describe details that are not captured in other attributes.Role: Header.Requirement: optional.Data type: varchar.

## Sites table

partID: sites. The table that contains information about a site; the location where an environmental sample was taken. The site of an environmental sample. Information in the site table does not regularly change. Consider using the MeasureReport table if the information changes often.

**Sample shed** (sampleShed). A geographic area, physical space, or structure. A sample is taken from a sample shed for a representative measurement of a substance(s).Role: Header.Requirement: mandatory.Data type: categorical.Measure, method or attribute set: shedSet

**Organization ID** (organizationID). A unique identifier for the organization to which the reporter is affiliated.Role: Header.Requirement: optional.Data type: varchar.

**Name** (name). Name of a domain, specimen, group, class, attribute, unit, nomenclature or other entity.Role: Header.Requirement: recommended.Data type: varchar.

**Description** (descr). A detailed description as an attribute for describing results or program elements.Role: Header.Requirement: optional.Data type: varchar.

**Primary reporting authority** (repOrg1). The primary or most responsible authority for routine surveillance reports or findings, or where the site is located.Role: Header.Requirement: optional.Data type: varchar.

**Secondary reporting authority** (repOrg2). The secondary, additional or alternative authority for routine surveillance reports or findings, or where the site is located.Role: Header.Requirement: optional.Data type: varchar.

**Population Served** (popServ). An attribute of a site, which specifies the population of/population served by a given site.Role: Header.Requirement: optional.Data type: categorical.

**Latitude** (geoLat). Geographical location, latitude in decimal coordinates, ie.: (45.424721)Role: Header.Requirement: mandatoryIf.Data type: float.

**Longitude** (geoLong). Geographical location, longitude in decimal coordinates, ie.: (-75.695000)Role: Header.Requirement: mandatoryIf.Data type: float.

**European Petroleum Survey Group Coordinates** (geoEPSG). The unique EPSG code specifying a given geospatial area.Role: Header.Requirement: mandatoryIf.Data type: float.

**Last edited** (lastEdited). The date the entry was last updated.Role: Header.Requirement: optional.Data type: datetime.

**Notes** (notes). A note used to describe details that are not captured in other attributesRole: Header.Requirement: optional.Data type: varchar.

### Translation look-up table

**partID:** translations. Look up table for translations of the description, label, and instruction for all parts. The default language if a translation is not specified is English.

**Label** (partLabel). A human readable label of a part.Role: Header.Requirement: mandatory.Data type: varchar.

**Part description** (partDesc). The description of the part.Role: Header.Requirement: mandatory.Data type: varchar.

**Part instruction** (partInstr). Additional notes and instructions on how a part is used and/or defined.Role: Header.Requirement: optional.Data type: varchar.

**First released version** (firstReleased). The version in which a part was first released.Role: Header.Requirement: mandatory.Data type: varchar.

**Last updated version** (lastUpdated). The version in which the part was last updated.Role: Header.Requirement: mandatory.Data type: varchar.

**Changes column** (changes). A column for recording the changes from a previous version.Role: Header.Requirement: optional.Data type: varchar.

**Notes** (notes). A note used to describe details that are not captured in other attributes.Role: Header.Requirement: optional.Data type: varchar.

Page created on Tue May 30 00:00:00 2023.