Public Health England

Protecting and improving the nation's health

Summary of Results

External Quality Assessment of Water Microbiology

Drinking Water Scheme

Distribution Number: W184 **Sample Numbers: W184A, W184B, W184C**

Distribution Date:	**November 2018**
Results Due:	**07 December 2018**
Report Date:	**11 December 2018**
Samples prepared and quality control tested by:	**Angela Appea** **Richard Borrill** **Thomas Harper** **Margaret Njenga** **Zak Prior** **Lili Tsegaye** **Vanessa Waite**
Data analysed by:	**Nita Patel** **Manchari Rajkumar**
Report compiled by:	**Nita Patel** **Manchari Rajkumar**
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For further information on the scheme please refer to:

Scheme Guide: https://www.gov.uk/government/publications/food-and-water-proficiency-testing-schemes-scheme-guide

Guide to Scoring and Statistics:
https://www.gov.uk/government/publications/food-and-water-proficiency-testing-schemes-scoring-systems-and-statistics

General guidance for z-scores:
Participants' enumeration results are converted into z-scores using the following formula:

$$Z = \frac{(x_i - X_{pt})}{\sigma_{pt}}$$

x_i = participants' result expressed (expressed as a $\log_{10}$ value)
X_{pt} = assigned value (participants' consensus median (expressed as a $\log_{10}$ value))
σ_{pt} = the fixed standard deviation for the examination (calculated by FEPTU)

The σ_{pt}-value expresses the acceptable difference between the individual participant's result and the participants' consensus median. The σ_{pt}-value used for calculating z-scores for all parameters in the Drinking Water Scheme is 0.35. A guide to interpreting z-scores follows, although laboratories must interpret their scores in the context of their own laboratory situation.

z = -1.99 to +1.99	satisfactory
z = -2 to -2.99 or +2 to +2.99	questionable
z= < -3.00 or > + 3.00	unsatisfactory

It is usually recommended that z-scores exceeding +/-2 are investigated to establish the possible cause. As a general rule, PHE recommends that all questionable and unsatisfactory results are investigated.

FEPTU Quality Control: To demonstrate homogeneity of the sample, a minimum of 10 LENTICULE® discs, selected randomly from a batch, are tested in duplicate for parameters requiring enumeration.

To demonstrate stability of the sample, a minimum of six LENTICULE discs, selected randomly from a batch, are examined throughout the distribution period for enumeration parameters.

PHE uses methods stipulated in the DWI 's series of documents: The Microbiology of Drinking Water (2002) - Methods for the Examination of Waters and Associated Materials.

The FEPTU results are used for guidance in the preliminary intended results notification, letters are posted on the website immediately after every distribution; electronic notification of their availability is sent to all participants.

Refer to section 17.0 of the Scheme Guide if you have experienced difficulties with any of the examinations.
https://www.gov.uk/government/publications/food-and-water-proficiency-testing-schemes-scheme-guide

Participants are reminded that reporting an incorrect or false negative results could have serious public health implications.

Results, as summarised in the performance assessment sheet included in this report, provide a more effective indication of on-going problems with the enumeration of low levels of indicator organisms in drinking water samples. Performance assessment cannot be undertaken as effectively if laboratories do not participate in all distributions for the Drinking Water Scheme.

Please contact FEPTU staff for advice and information:

Repeat samples	Carmen Gomes or Kermin Daruwalla	**Tel:** **+44 (0)20 8327 7119**
Data Analysis	Manchari Rajkumar or Nita Patel	**Fax:** **+44 (0)20 8200 8264**
Microbiological advice	Nita Patel or Zak Prior	**Email:** **foodeqa@phe.gov.uk**
General comments and complaints	Nita Patel or Zak Prior	FEPTU's website
Scheme consultants	Julie E. Russell	
Scheme Co-ordinator	Nita Patel	

Accreditation: PHE Water EQA Scheme for Drinking Water is accredited by the United Kingdom Accreditation Service (UKAS) to ISO/IEC 17043:2010.

UKAS PROFICIENCY TESTING

0006

Sample: W184A

Contents: *Escherichia coli* (wild strain), *Klebsiella pneumoniae* (wild strain), *Enterococcus faecium* (NCIMB 12672), *Clostridium perfringens* (wild strain), *Lactococcus lactis* (wild strain), *Pseudomonas putida* (wild strain)

Expected Results:

All counts are expressed as colony forming units (cfu) per 100mL except the colony counts at 37ºC/48h and 22ºC/72h which are cfu per mL.

The fixed standard deviation value (σ_{pt} value) used for calculation of the z-scores is **0.35** for all parameters.

Parameter	Coliform bacteria	E.coli	Enterococci	P.aeruginosa	C.perfringens	Colony count 37ºC/48h	Colony count 22ºC/72h
FEPTU median	34	30	64	0	58	[illegible]	27
No. results returned	142	145	129	110	102	127	124
Assigned value (Participants median all results)	47	38	67	0	[illegible]	19	23
Uncertainty of assigned value*	0.02	0.02	0.01	N/A	[illegible]	0.02	0.01
Participants Algorithm A mean (all results)	44	36	67	0	[illegible]	18	23
Expected Range	15 - 147	12 - 120	[illegible] - 212	N/A	20 - 202	6 - 60	7 - 73
Standard deviation** ($\log_{10}$)	0.22	0.21	0.09	N/A	0.16	0.19	0.12
No of outlying counts	13	14	8	N/A	11	20	7
False positives	N/A	[illegible]	N/A	12	N/A	N/A	N/A
False negatives	[illegible]	[illegible]	5	N/A	3	0	0
Your result							
Score for performance assessment							
Z-score							
Analyst 2 Result							
Analyst 2 Z-score							
Analyst 3 Result							
Analyst 3 Z-score							

* $U(X_{pt})$ is based on results transformed to a $\log_{10}$ scale

** Robust S^* based on median absolute deviation about the participants' median (*MADe*) and is based on logged data

Total sent samples	154
Not examined	4
Non returns	5
Late returns	0

Sample: W184B

Contents: *Enterobacter cloacae* (wild strain), *Escherichia coli* (wild strain), *Pseudomonas aeruginosa* (NCTC 10332), *Clostridium sordellii* (wild strain), *Cryptococcus albidus* (wild strain)

Expected Results:

All counts are expressed as colony forming units (cfu) per 100mL except the colony counts at 37ºC/48h and 22ºC/72h which are cfu per mL.

The fixed standard deviation value (σ_{pt} value) used for calculation of the z-scores is **0.35** for all parameters.

Parameter	Coliform bacteria	E.coli	Enterococci	P.aeruginosa	C.perfringens	Colony count 37ºC/48h	Colony count 22ºC/72h
FEPTU median	54	20	0	57	0		26
No. results returned	141	144	129	110	102	126	123
Assigned value (Participants median all results)	67	24	0	36		1	11
Uncertainty of assigned value*	0.02	0.02	N/A	0.02	N/	0.05	0.07
Participants Algorithm A mean (all results)	65	24	0	34		0	9
Expected Range	21 - 212	7 - 74	N/A	11 - 112	N/A	0 - 6	1 - 35
Standard deviation** ($\log_{10}$)	0.16	0.18	N/A	0.2	N/A	0.45	0.59
No of outlying counts	7	7	N/A	12	N/A	12	22
False positives	N/A	N/	1	N/A	8	N/A	N/A
False negatives	2	2	N/A	5	N/A	0	16
Your result							
Score for performance assessment							
Z-score							
Analyst 2 Result							
Analyst 2 Z-score							
Analyst 3 Result							
Analyst 3 Z-score							

* $U(X_{pt})$ is based on results transformed to a $\log_{10}$ scale

** Robust S^* based on median absolute deviation about the participants' median (*MADe*) and is based on logged data

Total sent samples	154
Not examined	5
Non returns	5
Late returns	0

Sample: W184C

Contents: *Enterococcus faecalis* (wild strain), *Pseudomonas aeruginosa* (wild strain), *Clostridium perfringens* (wild strain), *Lactococcus lactis* (wild strain), *Providencia rettgeri* (NCTC 7475), *Staphylococcus epidermidis* (wild strain)

Expected Results:

All counts are expressed as colony forming units (cfu) per 100mL except the colony counts at 37ºC/48h and 22ºC/72h which are cfu per mL.

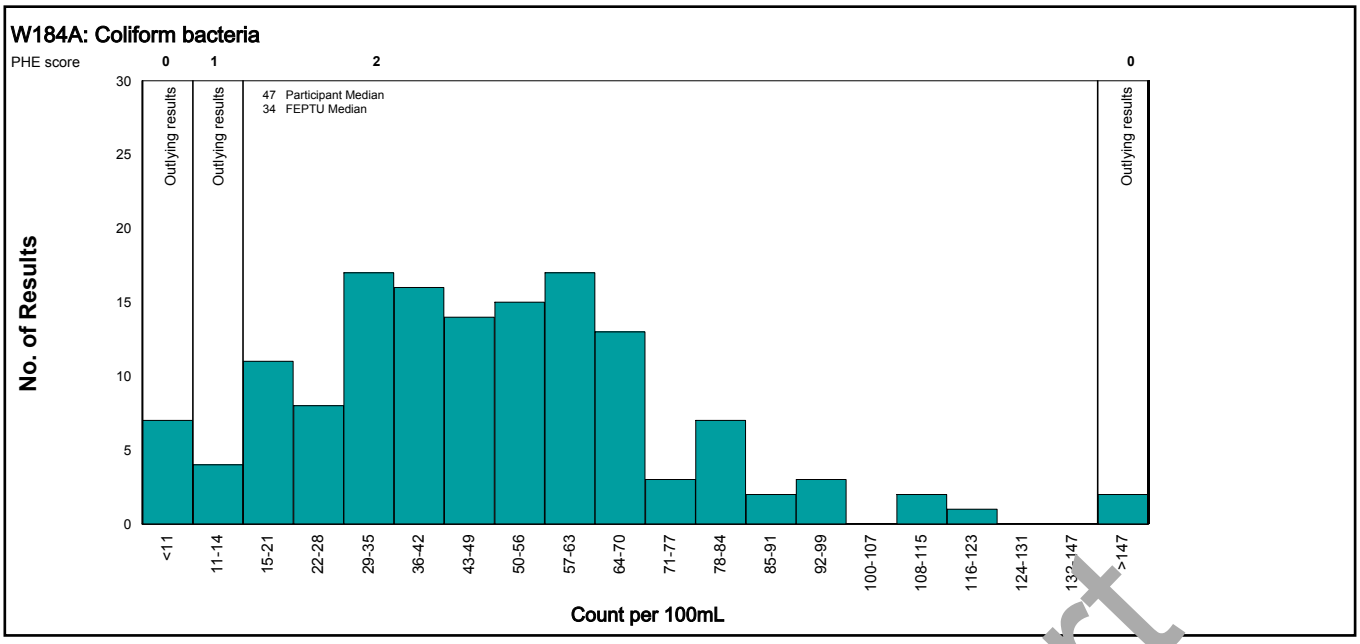
The fixed standard deviation value (σ_{pt} value) used for calculation of the z-scores is **0.35** for all parameters.

Parameter	Coliform bacteria	E.coli	Enterococci	P.aeruginosa	C.perfringens	Colony count 37ºC/48h	Colony count 22ºC/72h
FEPTU median	0	0	39	31	54	[illegible]	14
No. results returned	140	143	130	112	103	125	123
Assigned value (Participants median all results)	0	0	44	26	[illegible]	14	12
Uncertainty of assigned value*	N/A	N/A	0.01	0.02	[illegible]	0.02	0.02
Participants Algorithm A mean (all results)	0	0	44	26	[illegible]	13	12
Expected Range	N/A	N/A	[illegible] - 139	[illegible] - 82	19 - 193	4 - 44	4 - 38
Standard deviation** ($\log_{10}$)	N/A	N/A	0.1	0.19	0.13	0.21	0.15
No of outlying counts	N/A	[illegible]	2	4	8	13	7
False positives	5	[illegible]	N/A	N/A	N/A	N/A	N/A
False negatives	[illegible]	[illegible]	0	1	3	1	0
Your result							
Score for performance assessment							
Z-score							
Analyst 2 Result							
Analyst 2 Z-score							
Analyst 3 Result							
Analyst 3 Z-score							

* $U(X_{pt})$ is based on results transformed to a $\log_{10}$ scale

** Robust S^* based on median absolute deviation about the participants' median (*MADe*) and is based on logged data

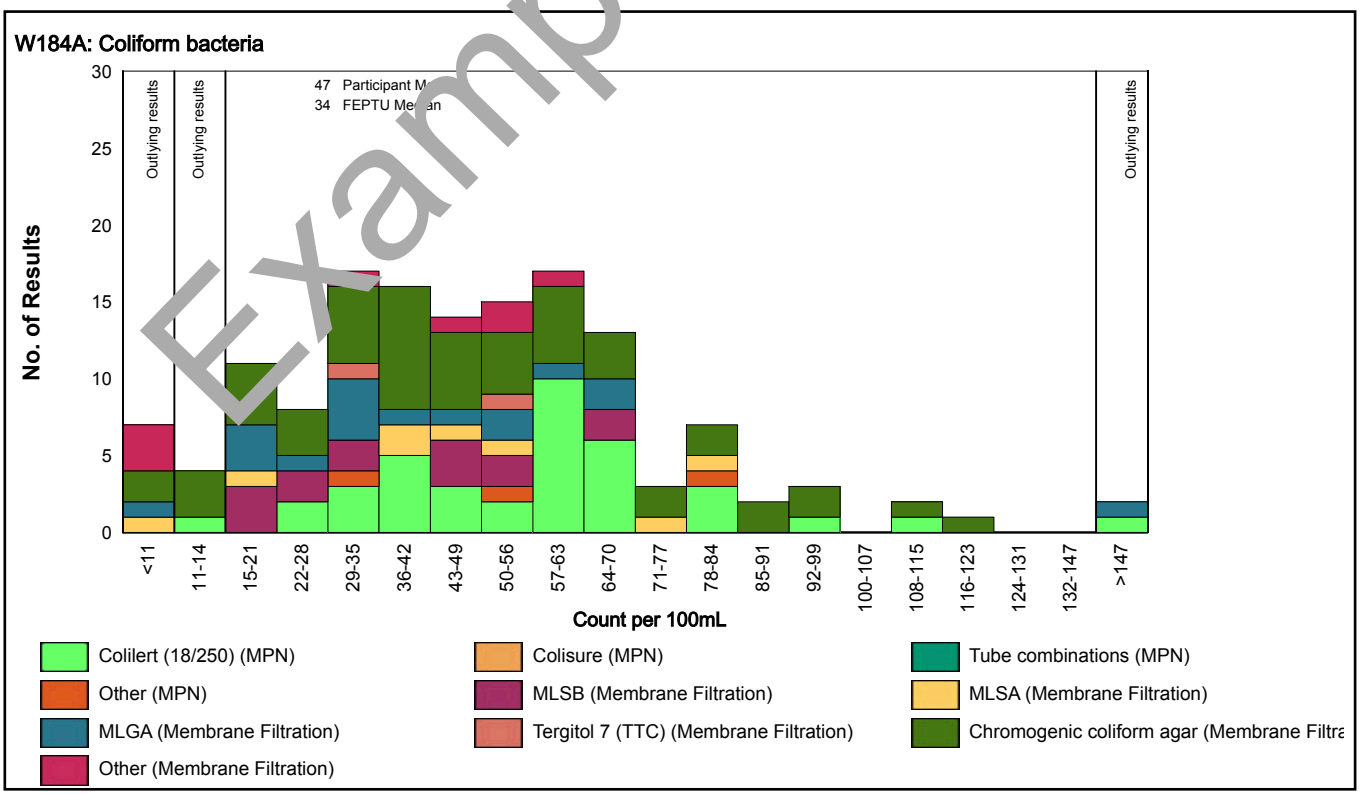
Total sent samples	154
Not examined	5
Non returns	5
Late returns	0

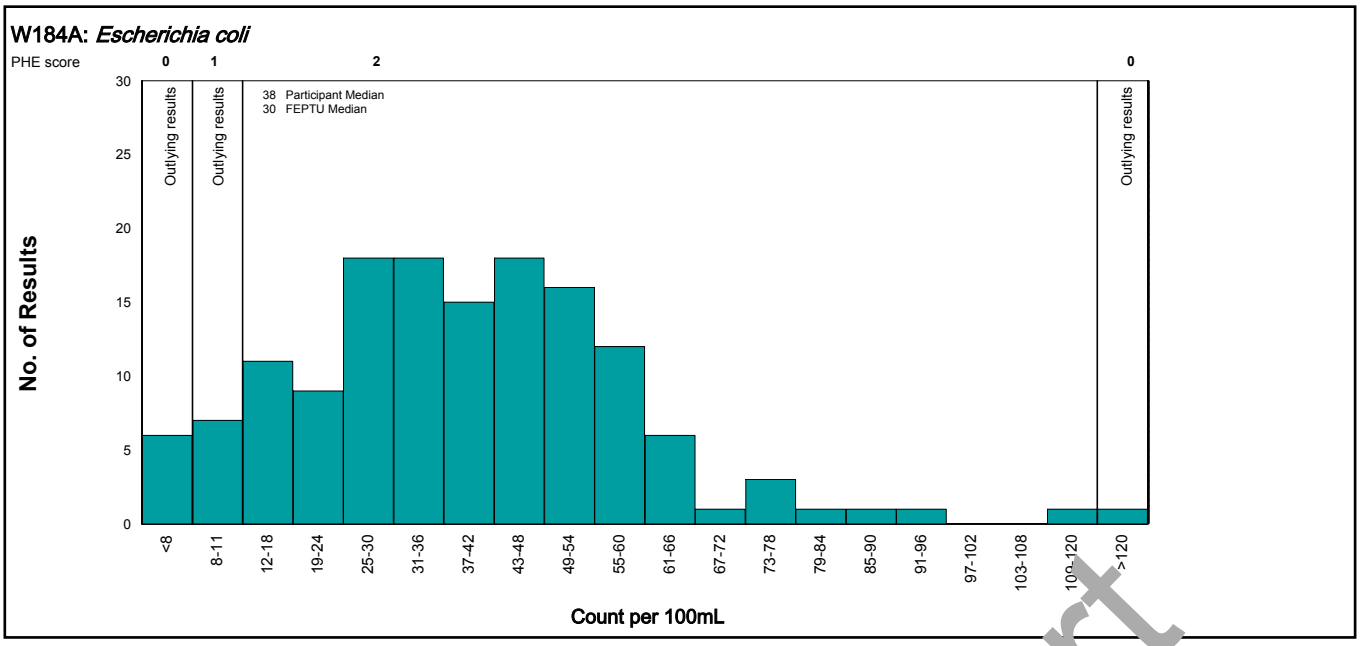


Method based presentation

W184A : Coliform bacteria — **FEPTU Method: Chromogenic coliform agar**

Method	Number of Results	Excluded Results	Percentage of the total	Median	Range S* (Log_{10})	Range Reported
Colilert (18/250)	38	0	26		0.15	11 - 165
Colisure	0	0	0			
Tube combinations	0	0	0			
Other (MPN)	3	0	2			
MLSB	14	0	10	39	0.21	20 - 68
MLSA	8	0	5			
MLGA	17	0	11	32	0.27	7 - 220
Tergitol 7 (TTC)	2	0	1			
Chromogenic coliform agar	52	0	36	45	0.26	6 - 120
Other (Membrane filtration)	8	0	5			

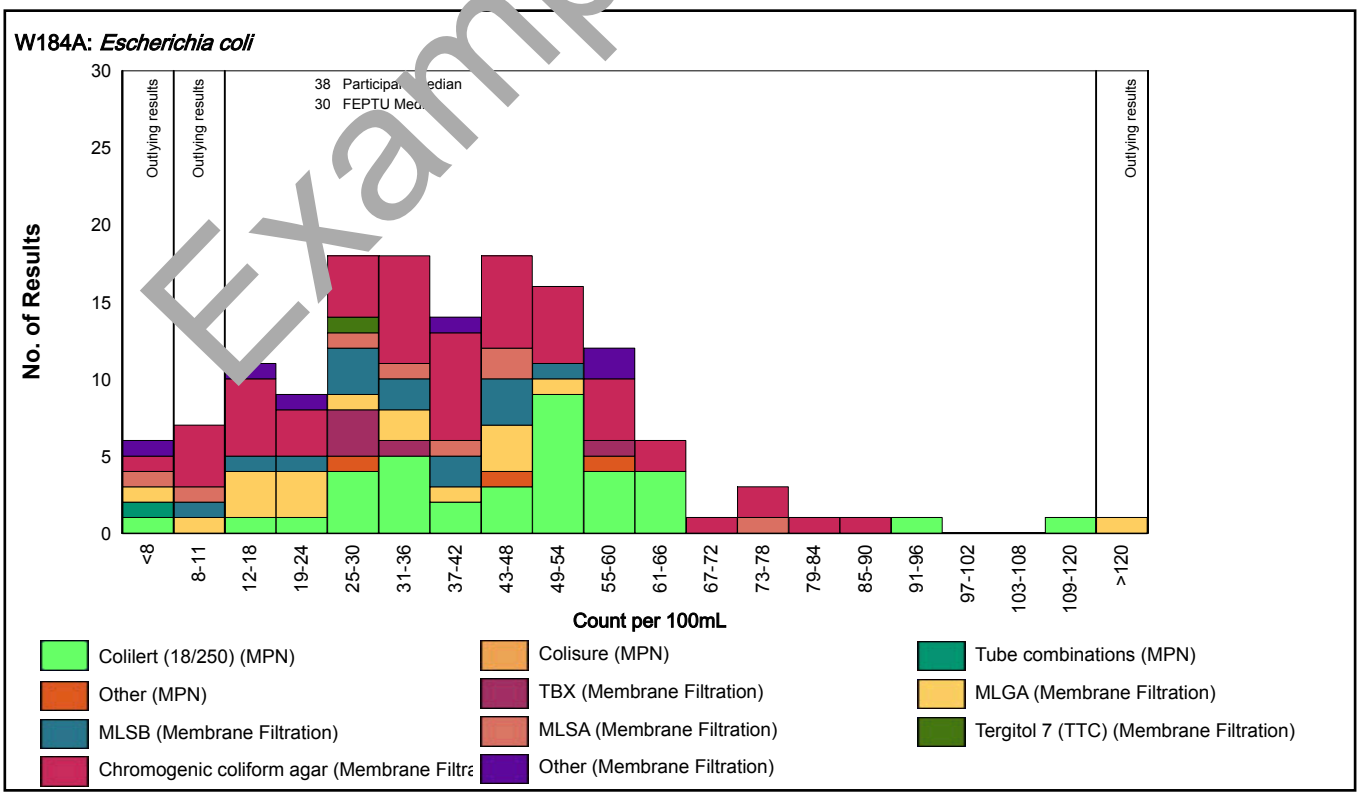


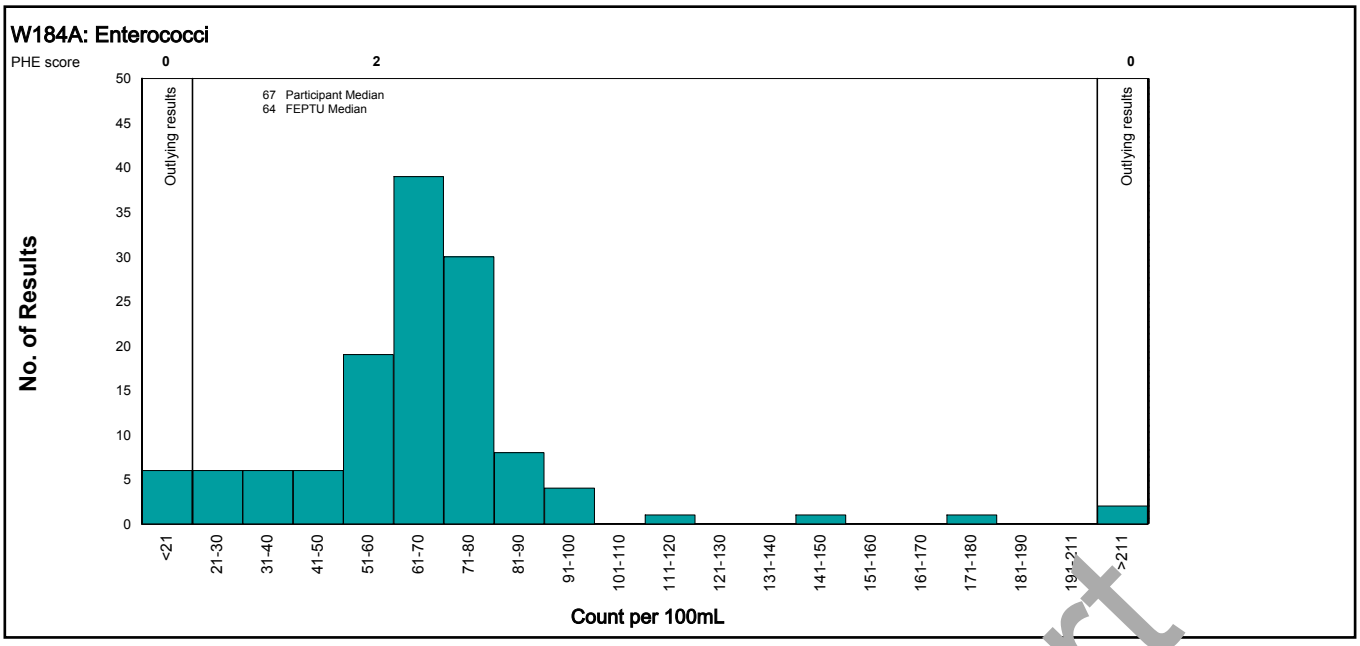


Method based presentation

W184A : *Escherichia coli* **FEPTU Method: Chro ogenic liform agar**

Method	Number of Results	Excluded Results	Percentage of the total	Media	R S* (Log_{10})	Range Reported
Colilert (18/250)	36	0	25		0.15	1 - 118
Colisure	0	0	0			
Tube combinations	0	1				
Other (MPN)	3	0	2			
TBX	5	0				
MLGA	17	0	11	25	0.29	2 - 160
MLSB	14	0	9	35	0.17	9 - 51
MLSA	8	0	5			
Tergitol 7 (TTC)	1	0	0			
Chromogenic coliform agar	53		37	39	0.22	5 - 90
Other (Membrane filtration)	6	0	4			

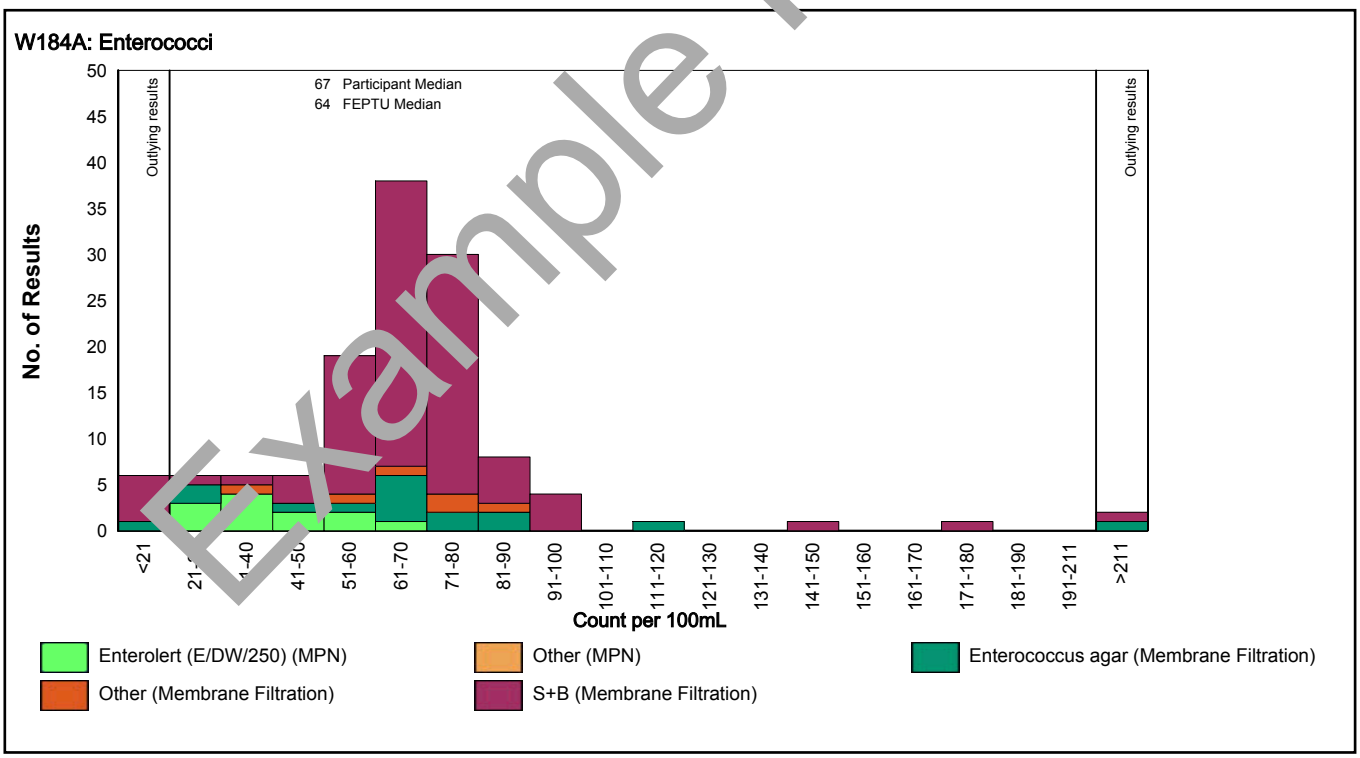




Method based presentation

W184A : Enterococci **FEPTU Method: S+B**

Method	Number of Results	Excluded Results	Percentage of the total	Media	Ro... t S* (Log_{10})	Range Reported
Enterolert (E/DW/250)	12	0	9		0.16	21 - 70
Other (MPN)	0	0	0			
Enterococcus agar	16	0	12		0.15	0 - 250
Other (Membrane filtration)	6	0	4			
S+B	94	0	7	69	0.06	0 - 270



W184A: *Pseudomonas aeruginosa*

No data for graph

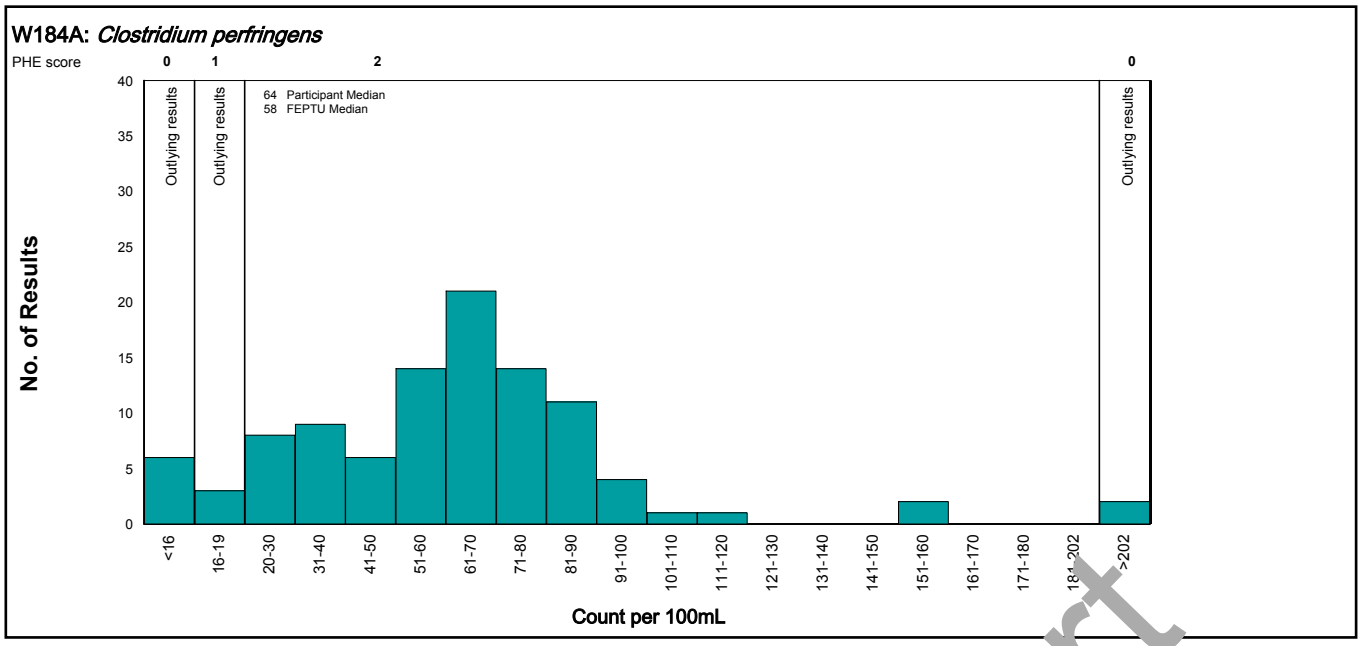
Method based presentation

W184A : *Pseudomonas aeruginosa* FEPTU Method: PCN

Method	Number of Results	Excluded Results	Percentage of the total	Median	Robust S* (Log_{10})	Range Reported
Pseudalert	5	2	5			
Other (MPN)	0	1	0			
PCN	83	4	8	0	0.00	0 - 234
Other (Membrane filtration)	10	2	10	0	0.00	0 - 0

W184A: *Pseudomonas aeruginosa*

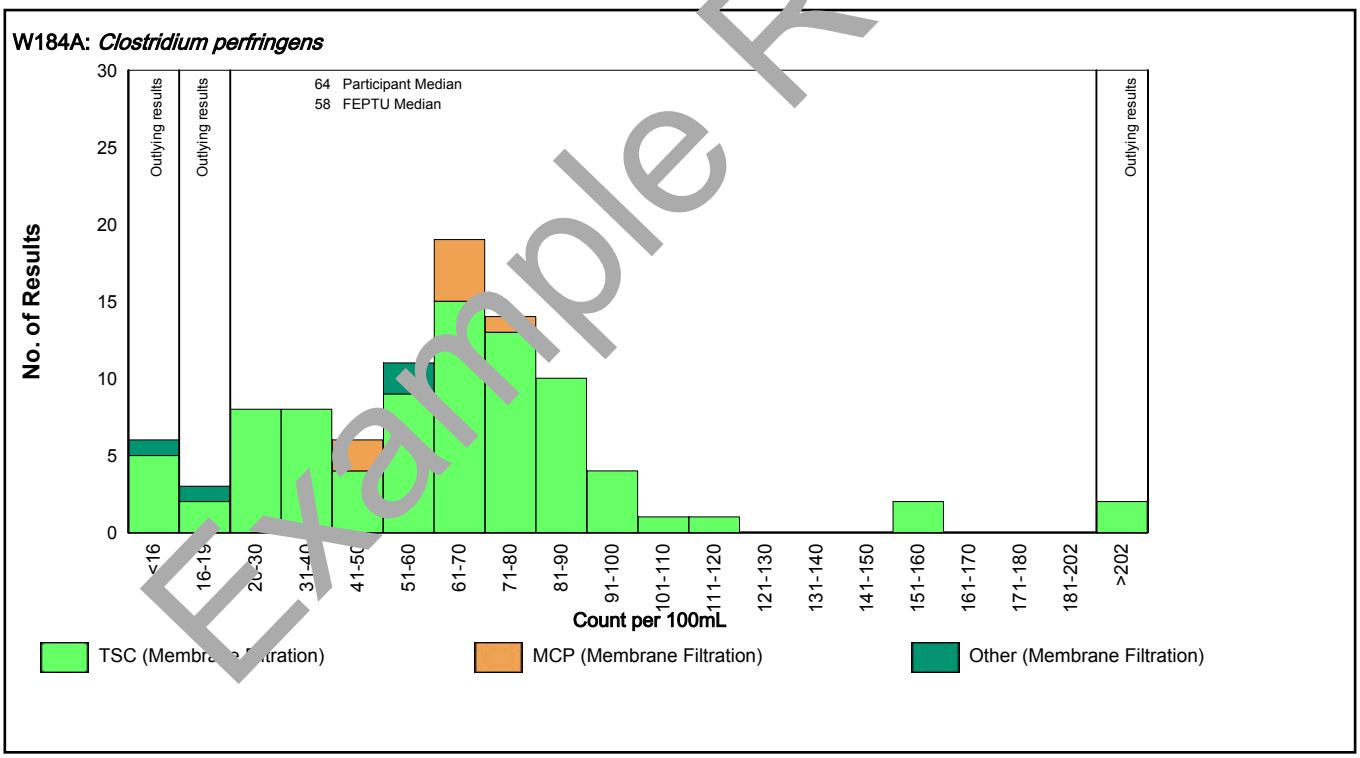
No data for graph

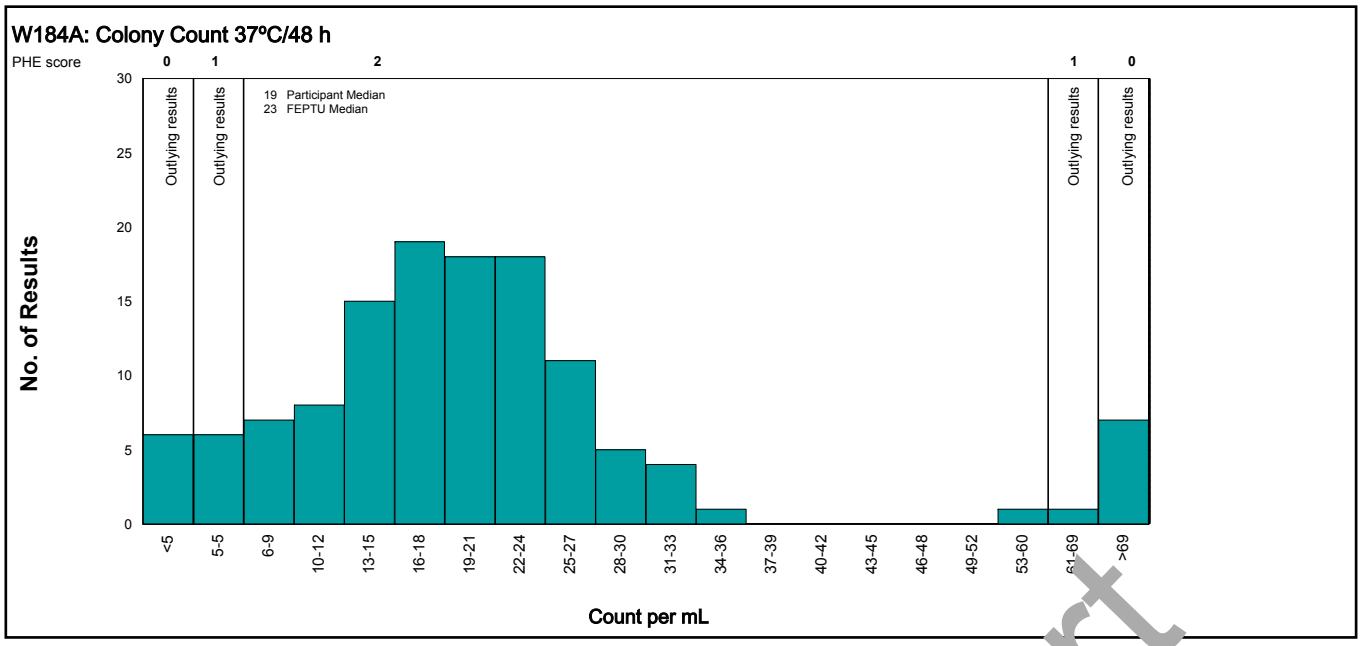


Method based presentation

W184A : *Clostridium perfringens* **FEPTU Method: TSC**

Method	Number of Results	Excluded Results	Percentage of the total	Median	R... S* (Log10)	Range Reported
TSC	83	1	88	[illegible]	0.18	0 - 270
MCP	7	0	7			
Other (Membrane filtration)	4	0	[illegible]			

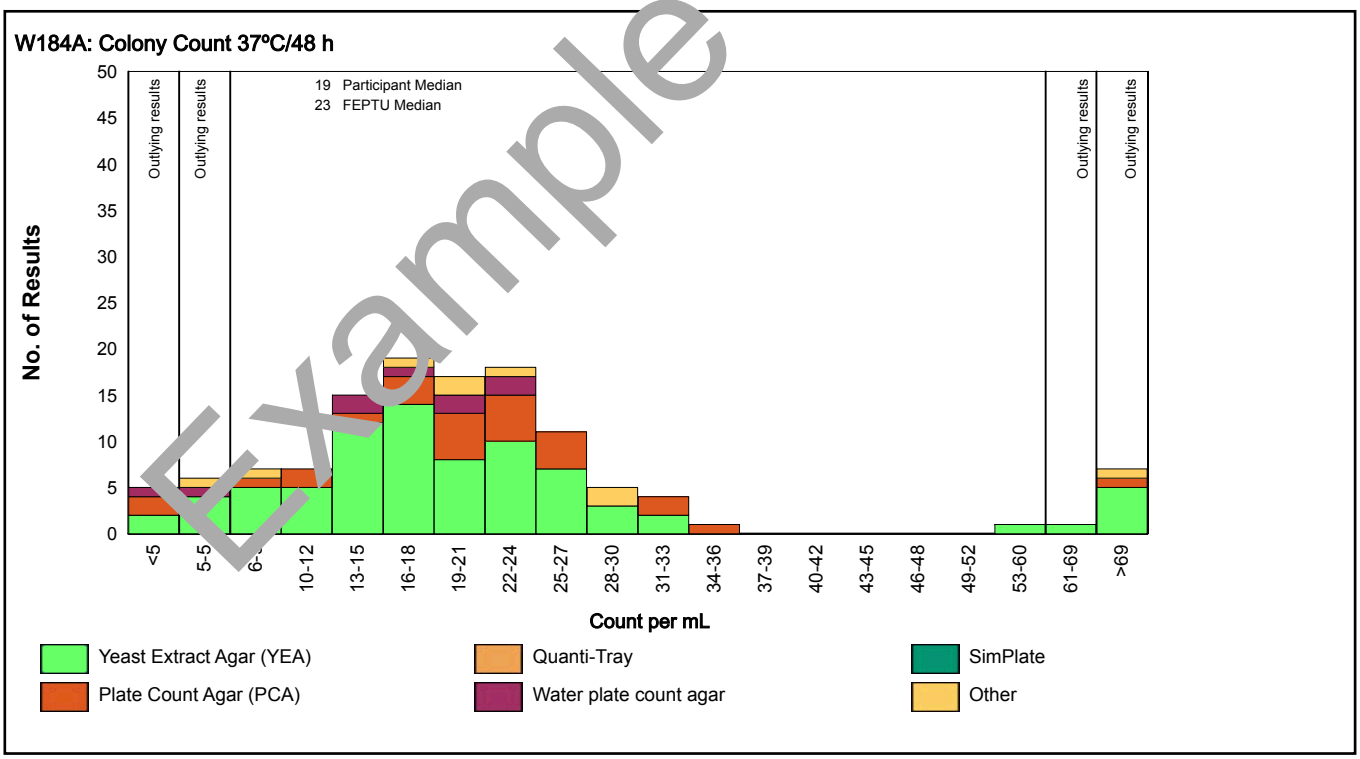


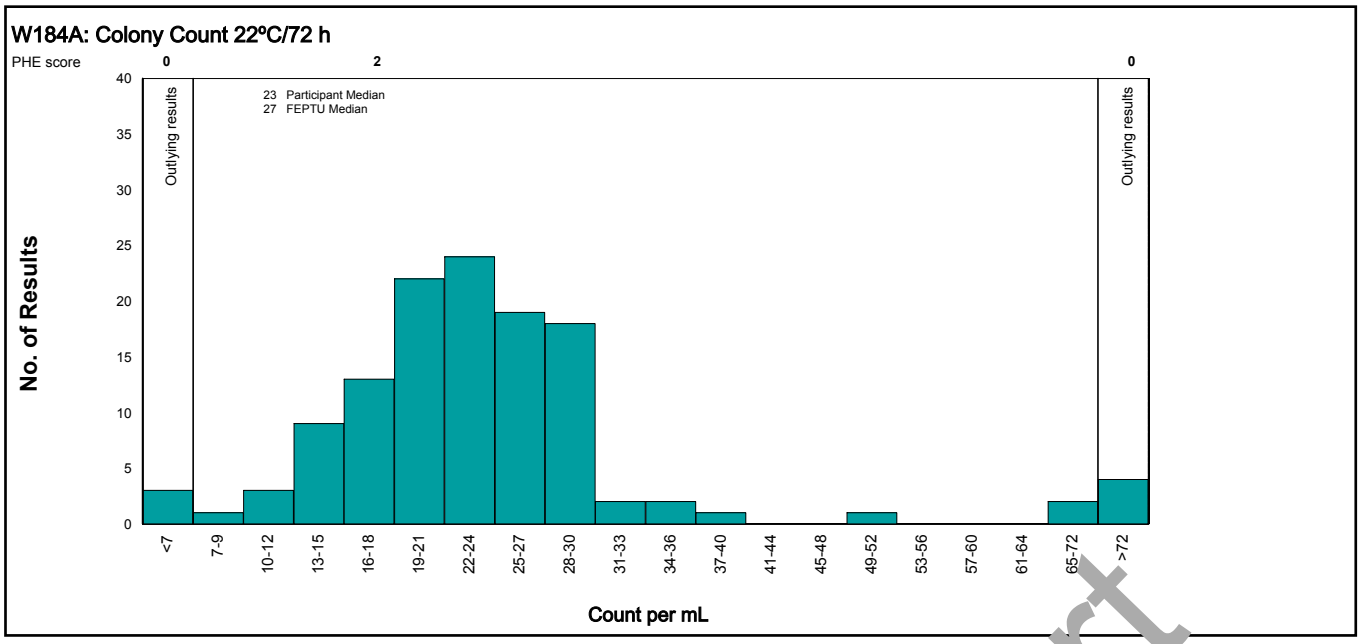


Method based presentation

W184A : Colony Count 37ºC/48 h — **FEPTU Method: Yeas Extract gar (YEA)**

Method	Number of Results	Excluded Results	Percentage of the total	Media	Re S* (Log_{10})	Range Reported
Yeast Extract Agar (YEA)	79	0	63		0.21	3 - 1845
Quanti-Tray	0	0	0			
SimPlate	0	0				
Plate Count Agar (PCA)	27	0	21	21	0.13	3 - 270
Water plate count agar	9	0				
Other	9	0	7			



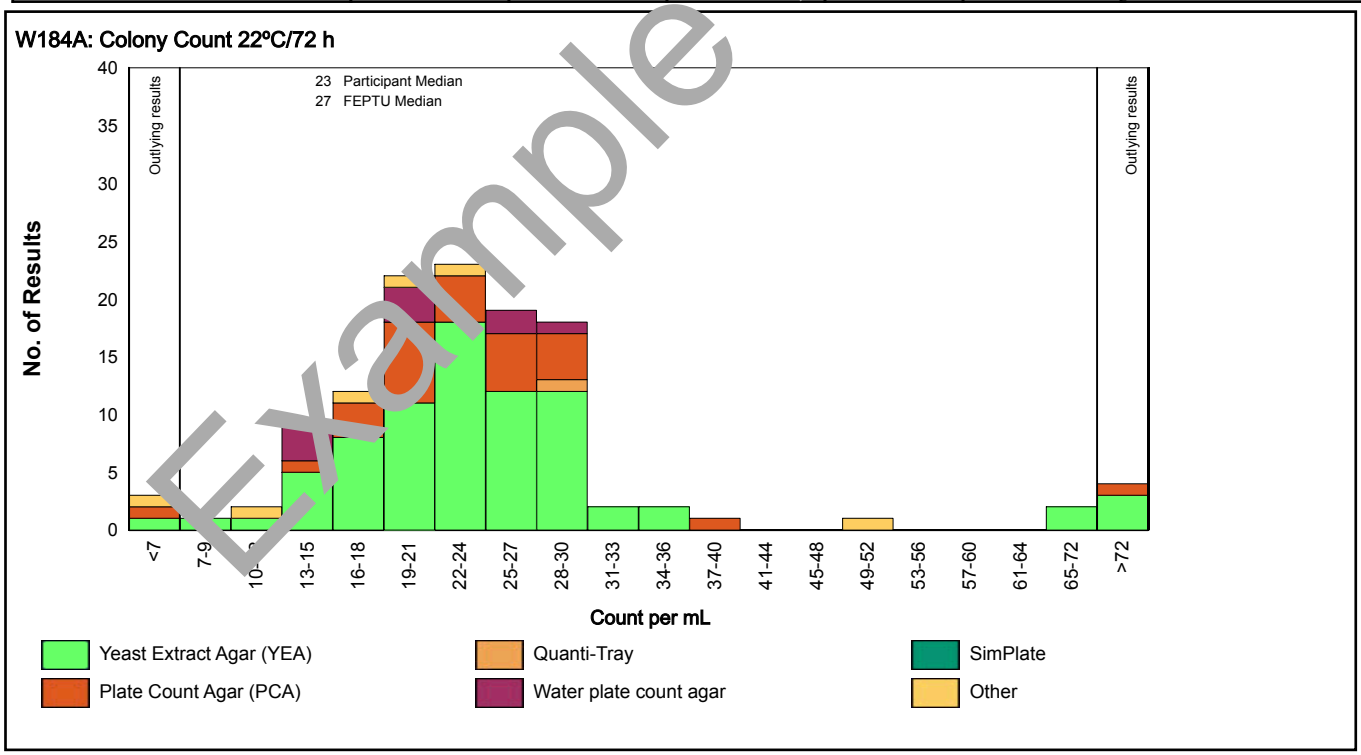


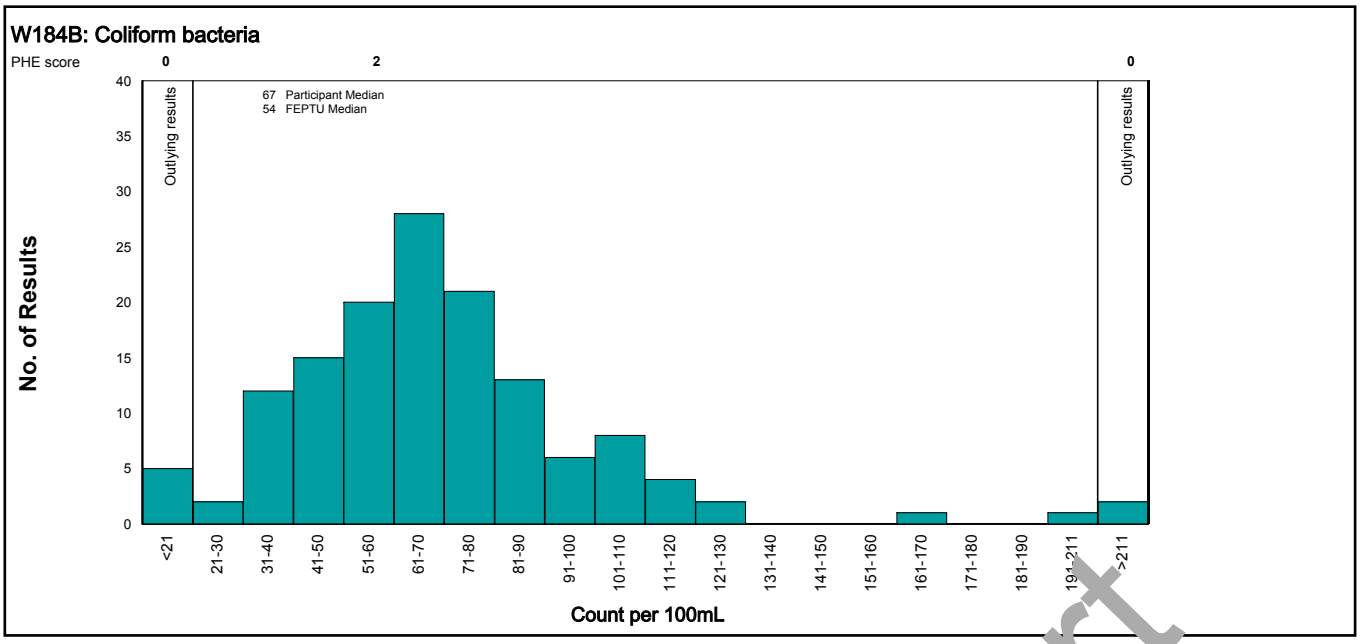
Method based presentation

W184A : Colony Count 22ºC/72 h

FEPTU Method: Yeas Extract gar (YEA)

Method	Number of Results	Excluded Results	Percentage of the total	Median	Re S* (Log_{10})	Range Reported
Yeast Extract Agar (YEA)	78	0	64	23	0.12	6 - 81
Quanti-Tray	1	0	0			
SimPlate	0	0	0			
Plate Count Agar (PCA)	27	0	22	22	0.10	5 - 270
Water plate count agar	9	0	7			
Other	6	0	4			

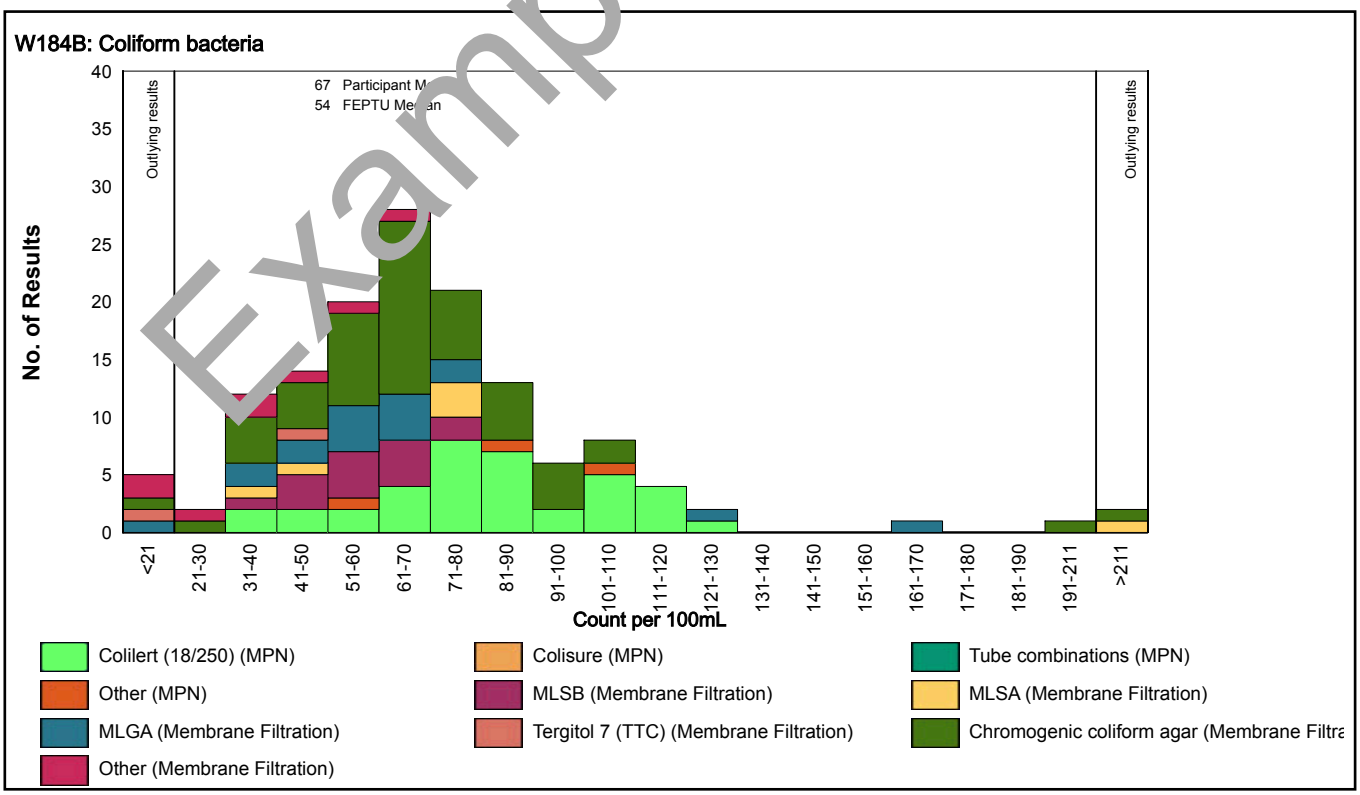


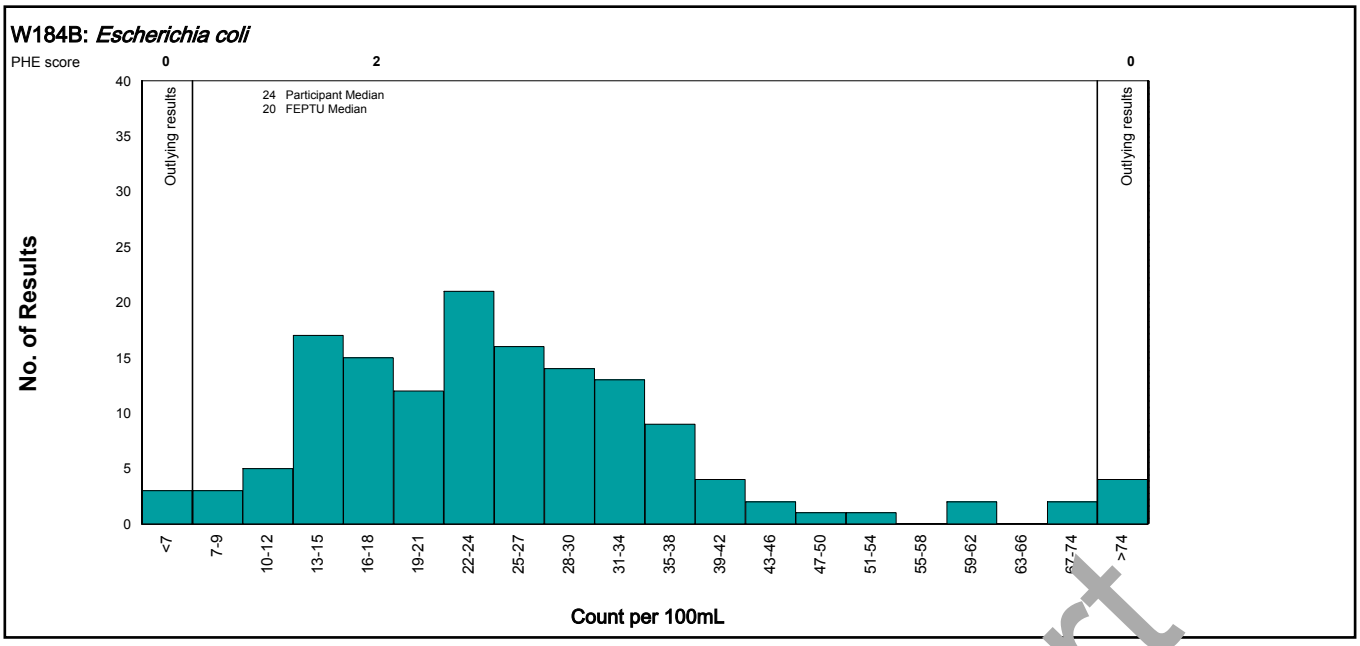


Method based presentation

W184B : Coliform bacteria **FEPTU Method: Chro ogenic oliform agar**

Method	Number of Results	Excluded Results	Percentage of the total	Median	R S* (Log_{10})	Range Reported
Colilert (18/250)	37	1	26		0.13	32 - 130
Colisure	0	0	0			
Tube combinations	0	0				
Other (MPN)	3	0	2			
MLSB	14	0		56	0.11	40 - 79
MLSA	6	0	4			
MLGA	17	0	12	60	0.16	18 - 170
Tergitol 7 (TTC)	2	0	1			
Chromogenic coliform agar	52	1	37	67	0.13	8 - 280
Other (Membrane filtration)	8		5			

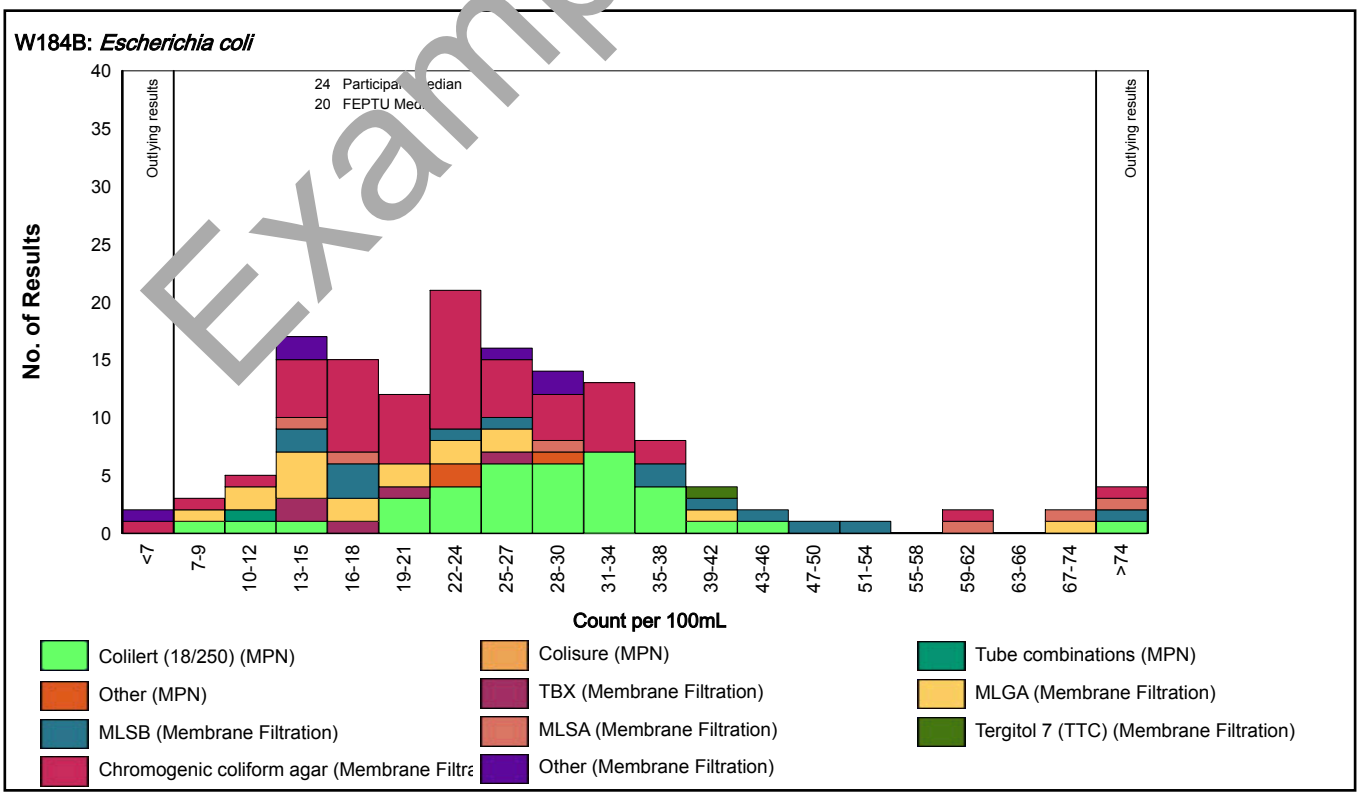




Method based presentation

W184B : *Escherichia coli* **FEPTU Method: Chro ogenic liform agar**

Method	Number of Results	Excluded Results	Percentage of the total	Media	R S* (Log_{10})	Range Reported
Colilert (18/250)	36	0	25		0.12	8 - 95
Colisure	0	0	0			
Tube combinations	1	0				
Other (MPN)	3	0	2			
TBX	5	0				
MLGA	17	0	11	18	0.18	8 - 68
MLSB	14	0	9	31	0.27	14 - 84
MLSA	6	0	4			
Tergitol 7 (TTC)	1	0	0			
Chromogenic coliform agar	53		37	22	0.14	5 - 80
Other (Membrane filtration)	6	0	4			



W184B: Enterococci

No data for graph

Method based presentation

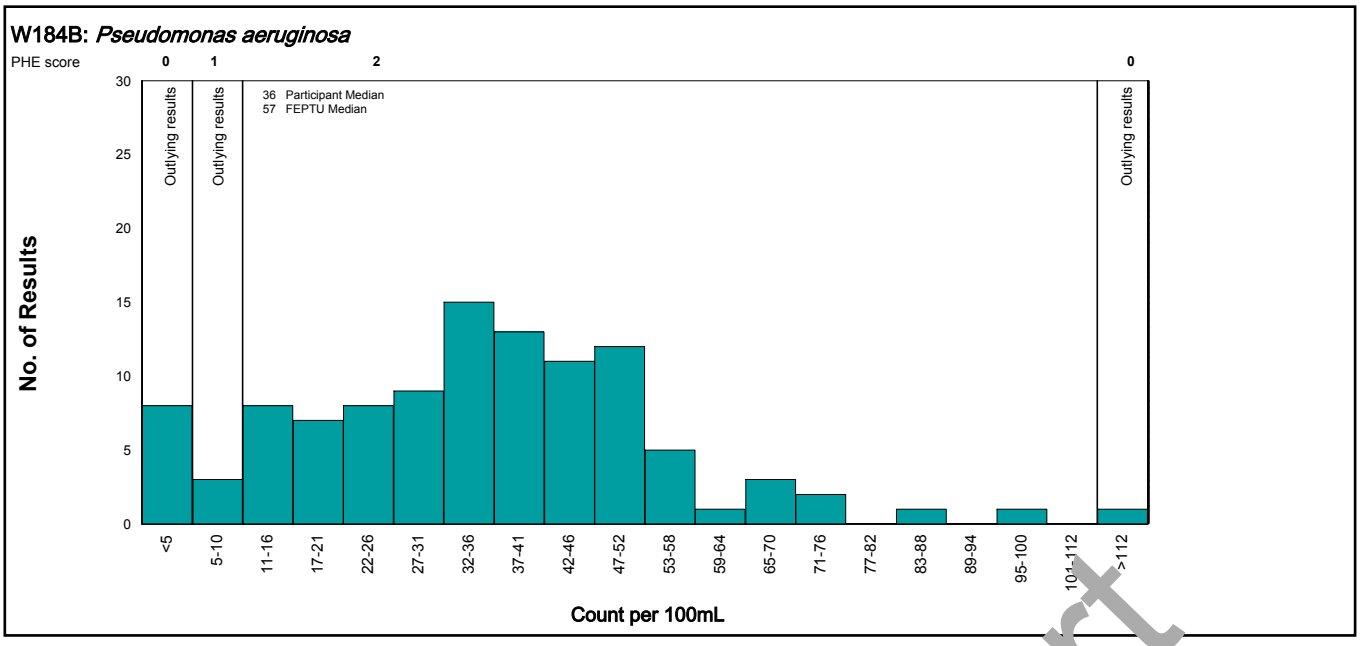
W184B : Enterococci

FEPTU Method: S+B

Method	Number of Results	Excluded Results	Percentage of the total	Median	Robust S* (Log_{10})	Range Reported
Enterolert (E/DW/250)	8	5	7			
Other (MPN)	0	0	0			
Enterococcus agar	14	2	1	0	0.00	0 - 0
Other (Membrane filtration)	5	1	4			
S+B	86	6	6	0	0.00	0 - 65

W184B: Enterococci

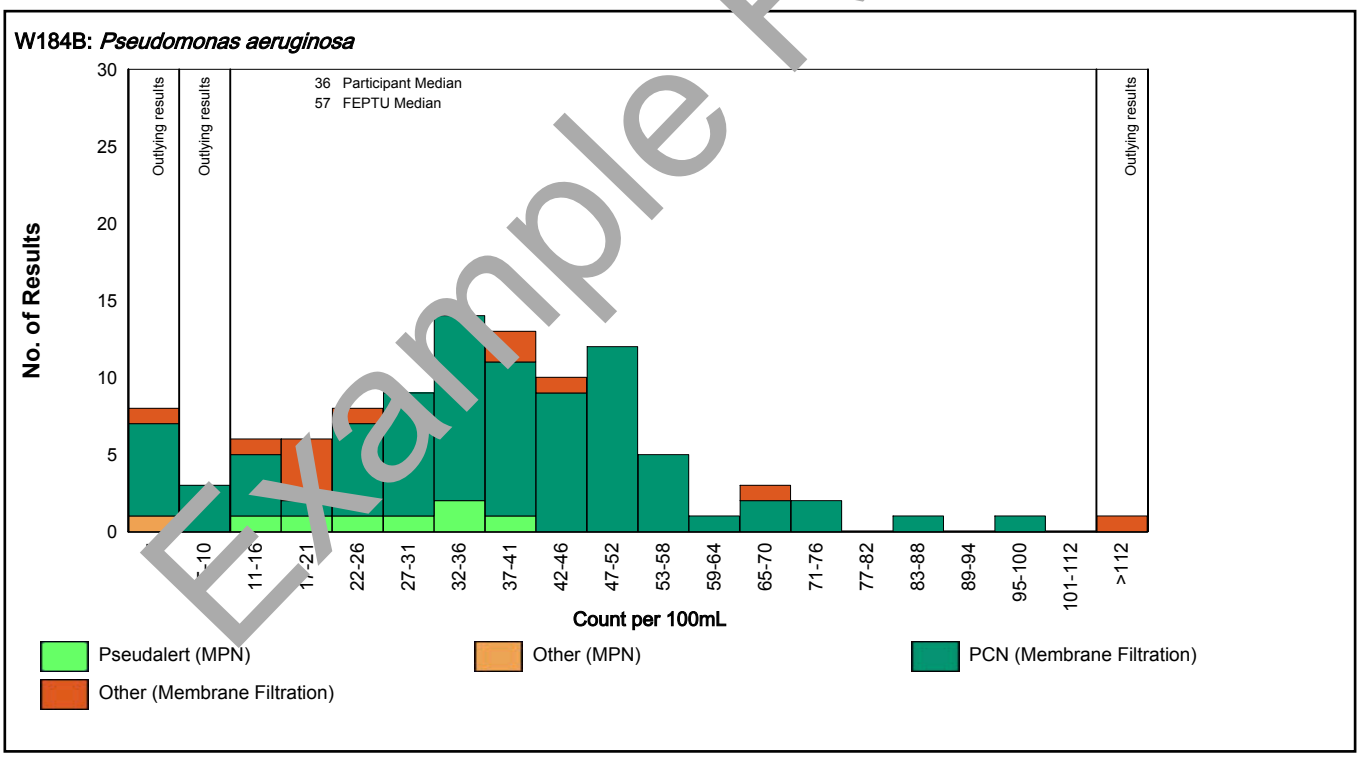
No data for graph



Method based presentation

W184B : *Pseudomonas aeruginosa* **FEPTU Method: PCN**

Method	Number of Results	Excluded Results	Percentage of the total	Median	Range S* (Log_{10})	Range Reported
Pseudalert	7	0	6			
Other (MPN)	0	1	0			
PCN	82	5	[illegible]	38	0.17	0 - 96
Other (Membrane filtration)	12	0	11	21	0.31	1 - 170



W184B: *Clostridium perfringens*

No data for graph

Method based presentation

W184B : *Clostridium perfringens* FEPTU Method: TSC

Method	Number of Results	Excluded Results	Percentage of the total	Median	Robust S* (Log_{10})	Range Reported
TSC	77	7	87	0	0.00	0 - 72
MCP	7	0	7			
Other (Membrane filtration)	4	0	4			

W184B: *Clostridium perfringens*

No data for graph

W184B: Colony Count 37ºC/48 h

No data for graph

Method based presentation

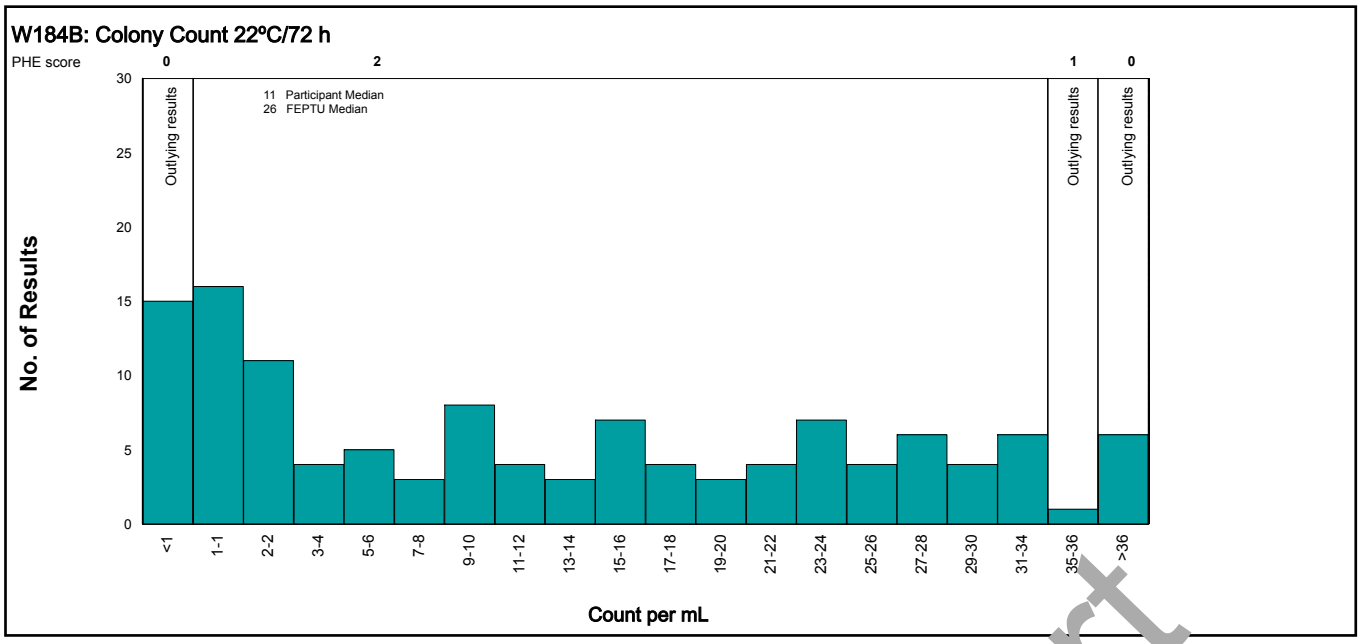
W184B : Colony Count 37ºC/48 h

FEPTU Method: Yeast Extract Agar (YEA)

Method	Number of Results	Excluded Results	Percentage of the total	Median	Robust S* (Log_{10})	Range Reported
Yeast Extract Agar (YEA)	80	0	67	1	0.45	0 - 600
Quanti-Tray	0	0	0			
SimPlate	0	0	0			
Plate Count Agar (PCA)	22	4	18	2	0.27	0 - 1700
Water plate count agar	8	1	7			
Other	9	0	7			

W184B: Colony Count 37ºC/48 h

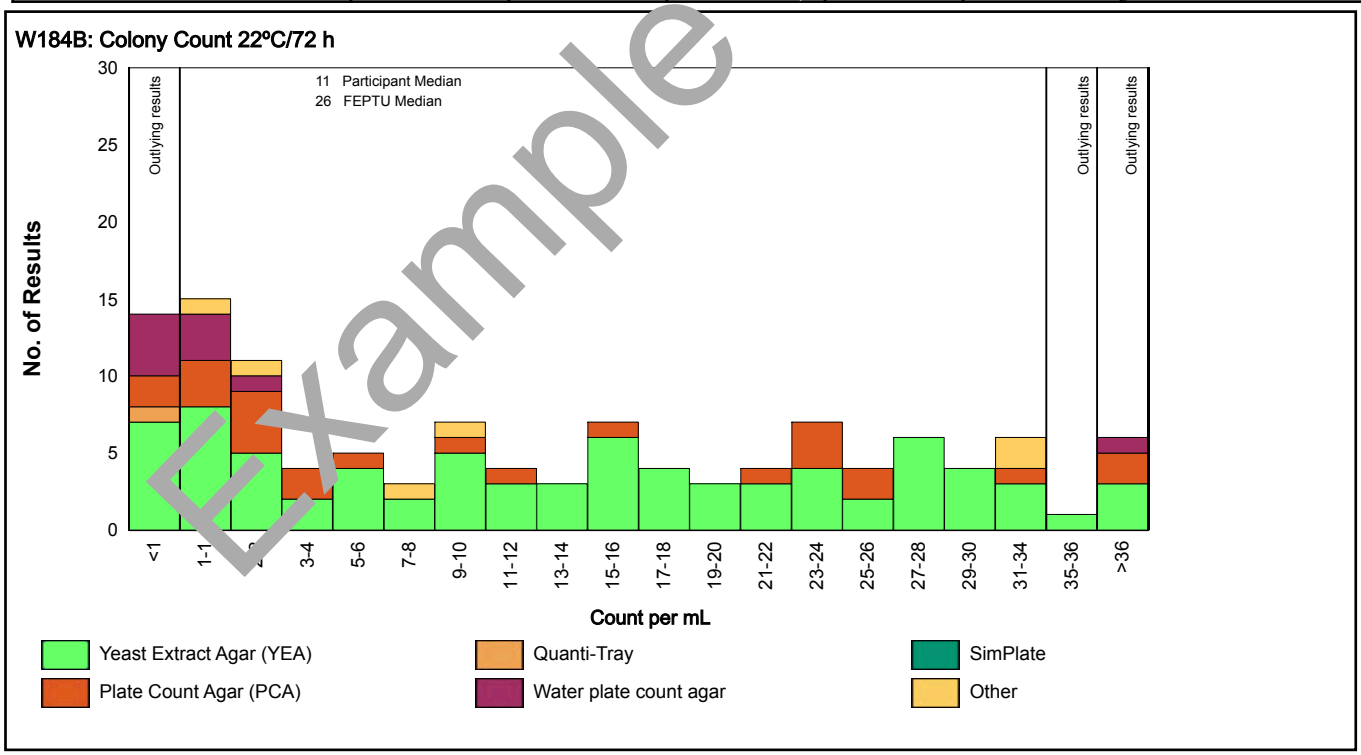
No data for graph



Method based presentation

W184B : Colony Count 22ºC/72 h — **FEPTU Method: Yeas Extract gar (YEA)**

Method	Number of Results	Excluded Results	Percentage of the total	Median	Re... S* (Log_{10})	Range Reported
Yeast Extract Agar (YEA)	78	1	67	15	0.40	0 - 60
Quanti-Tray	1	0	0			
SimPlate	0	0	0			
Plate Count Agar (PCA)	23	3	20	9	0.69	0 - 1000
Water plate count agar	7	2	6			
Other	6	0	5			



W184C: Coliform bacteria

No data for graph

Method based presentation

W184C : Coliform bacteria

FEPTU Method: Chromogenic coliform agar

Method	Number of Results	Excluded Results	Percentage of the total	Median	Robust SD* (Log_{10})	Range Reported
Colilert (18/250)	32	7	25	0	0.00	0 - 0
Colisure	0	0	0			
Tube combinations	0	0	0			
Other (MPN)	3	0	2			
MLSB	13	0	0	0	0.00	0 - 0
MLSA	6	0	4			
MLGA	17	0	13	0	0.00	0 - 0
Tergitol 7 (TTC)	2	0	1			
Chromogenic coliform agar	47	0	37	0	0.00	0 - 45
Other (Membrane filtration)	7	1	5			

W184C: Coliform bacteria

No data for graph

W184C: *Escherichia coli*

No data for graph

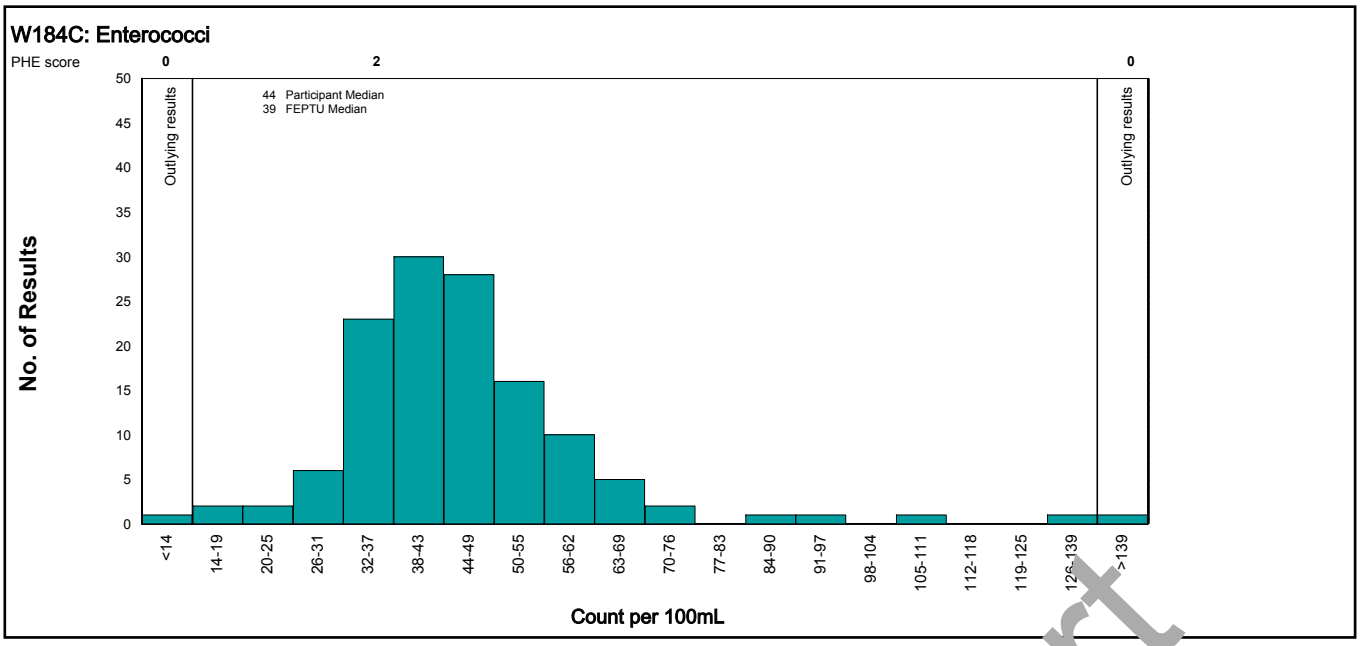
Method based presentation

W184C : *Escherichia coli* FEPTU Method: Chromogenic coliform agar

Method	Number of Results	Excluded Results	Percentage of the total	Median	Robust S* (Log_{10})	Range Reported
Colilert (18/250)	31	6	24	0	0.00	0 - 0
Colisure	0	0	0			
Tube combinations	0	1	0			
Other (MPN)	3	0	2			
TBX	4	1	3			
MLGA	17	0	13	0	0.00	0 - 0
MLSB	13	0	10	0	0.00	0 - 0
MLSA	7	0	5			
Tergitol 7 (TTC)	1	1	0			
Chromogenic coliform agar	48	6	37	0	0.00	0 - 0
Other (Membrane filtration)	5	1	3			

W184C: *Escherichia coli*

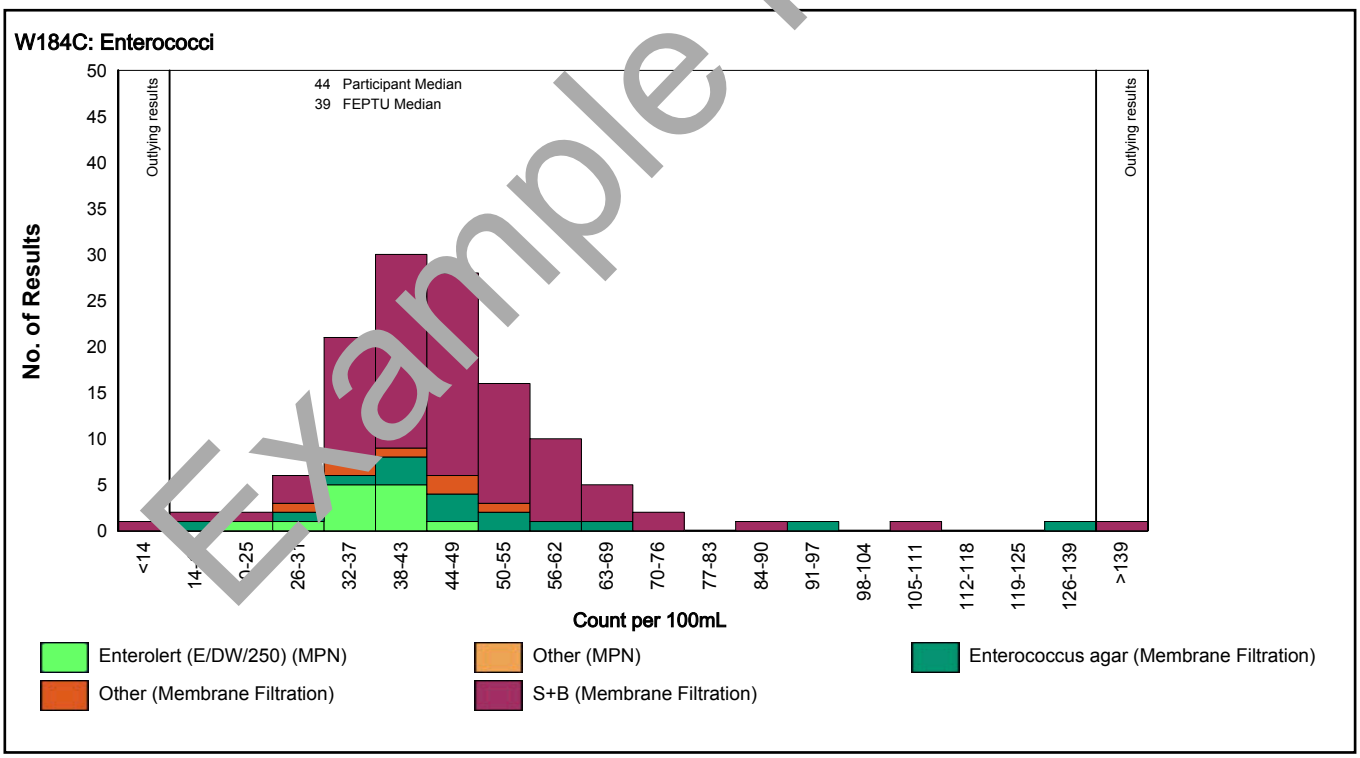
No data for graph

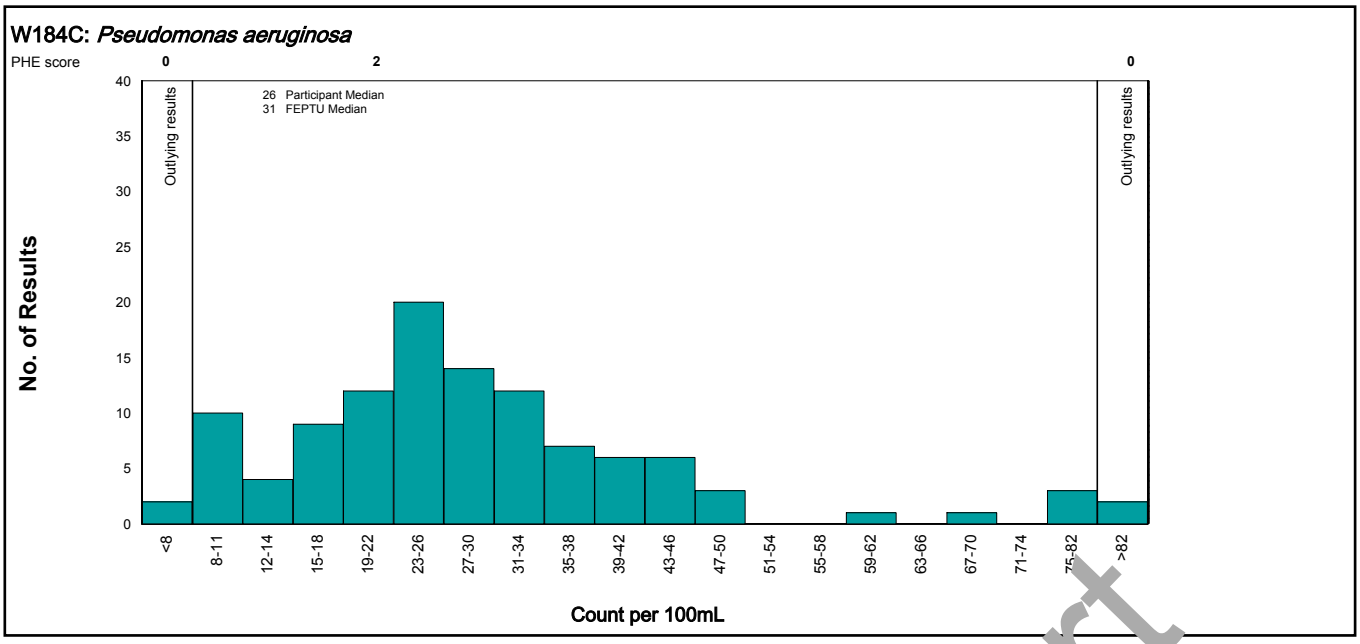


Method based presentation

W184C : Enterococci **FEPTU Method: S+B**

Method	Number of Results	Excluded Results	Percentage of the total	Media	Ro... t S* (Log_{10})	Range Reported
Enterolert (E/DW/250)	13	0	10		0.08	24 - 47
Other (MPN)	0	0	0			
Enterococcus agar	15	0			0.14	15 - 136
Other (Membrane filtration)	7	0	5			
S+B	93	0		45	0.10	1 - 180

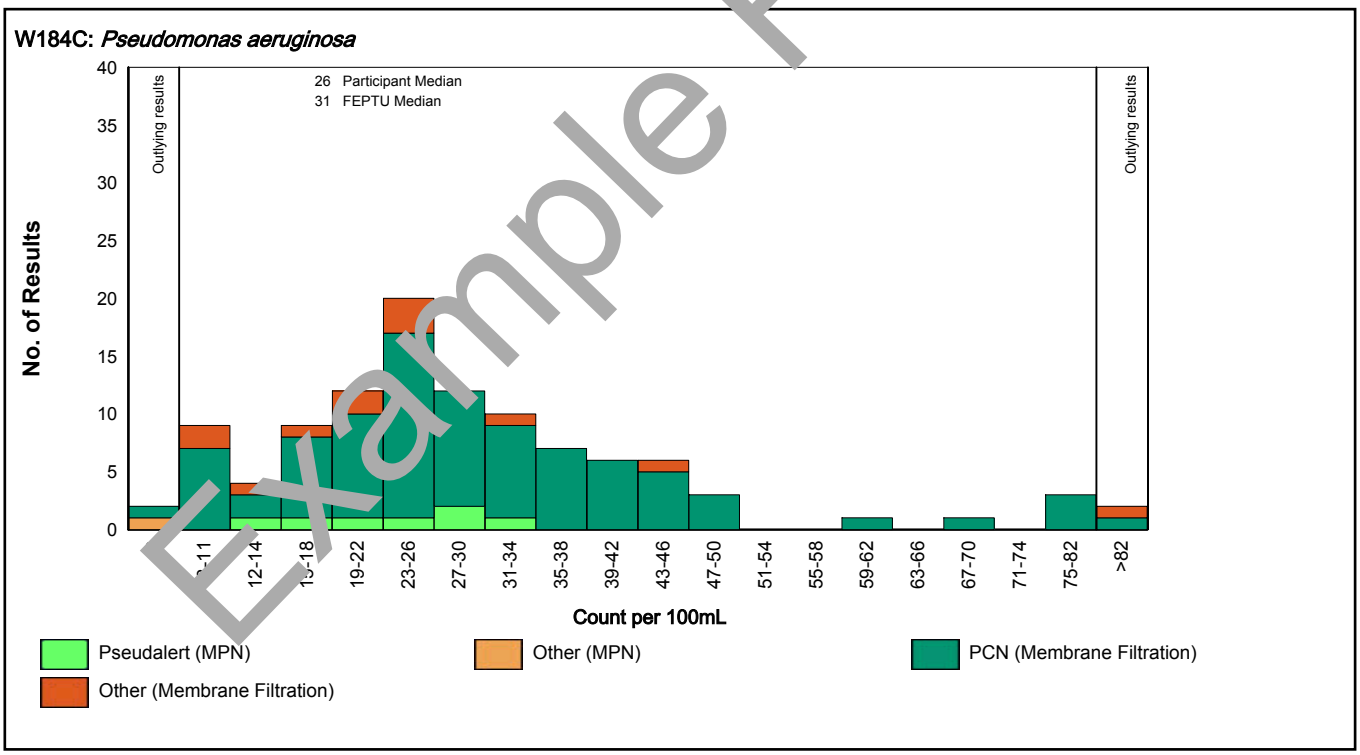


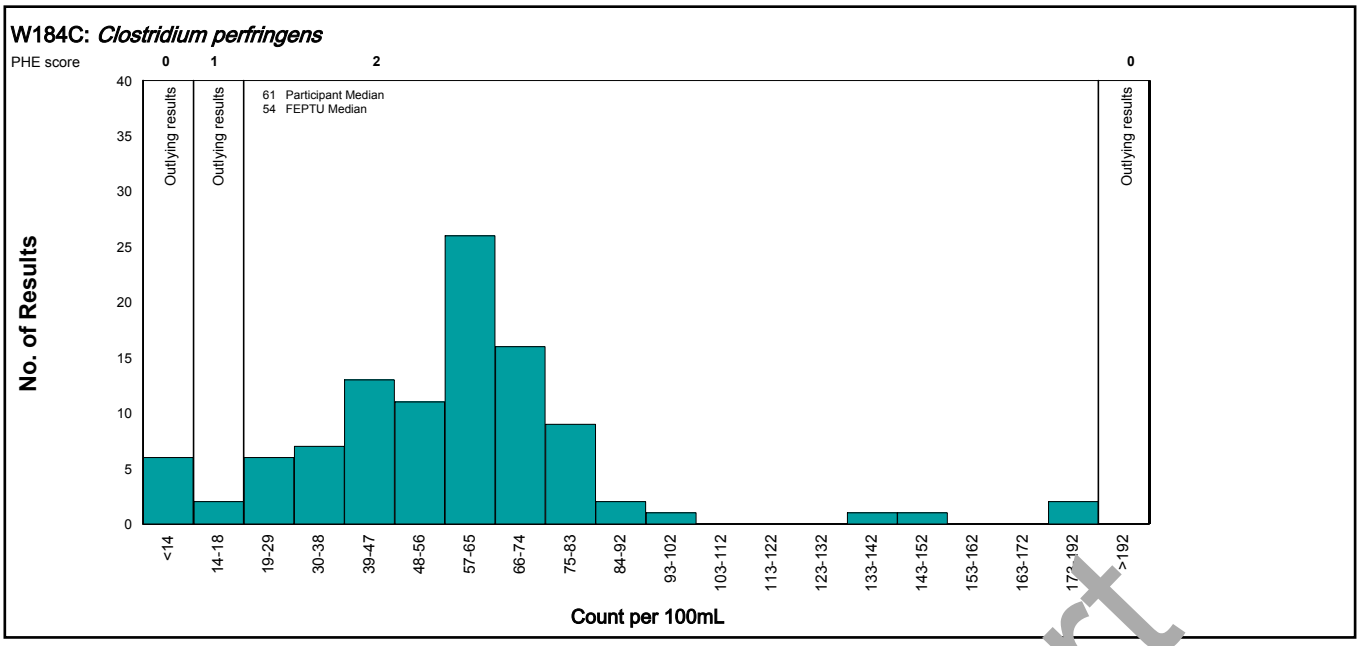


Method based presentation

W184C : *Pseudomonas aeruginosa* **FEPTU Method: PCN**

Method	Number of Results	Excluded Results	Percentage of the total	Median	R... S* (Log_{10})	Range Reported
Pseudalert	7	0	6			
Other (MPN)	1	0	0			
PCN	86	2	[illegible]	27	0.19	0 - 80
Other (Membrane filtration)	12	0	11	22	0.25	10 - 110

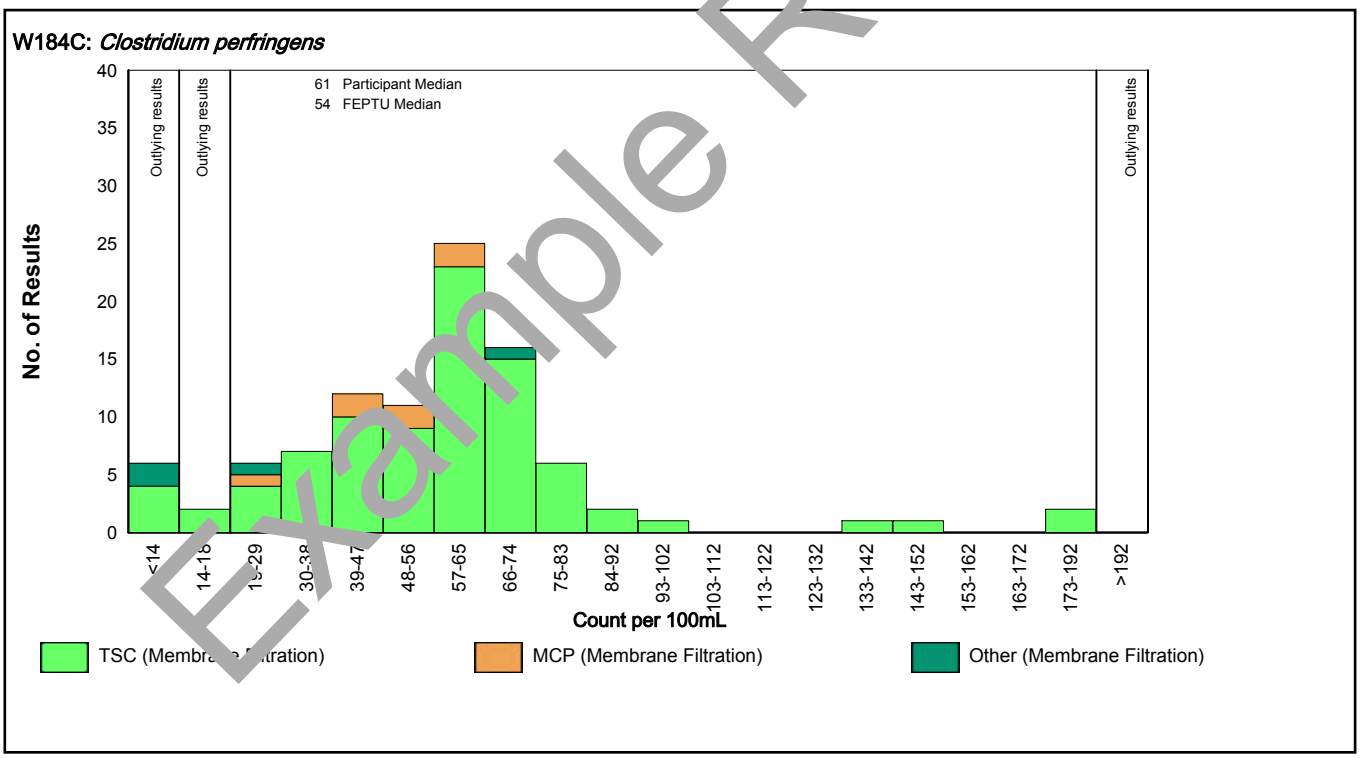


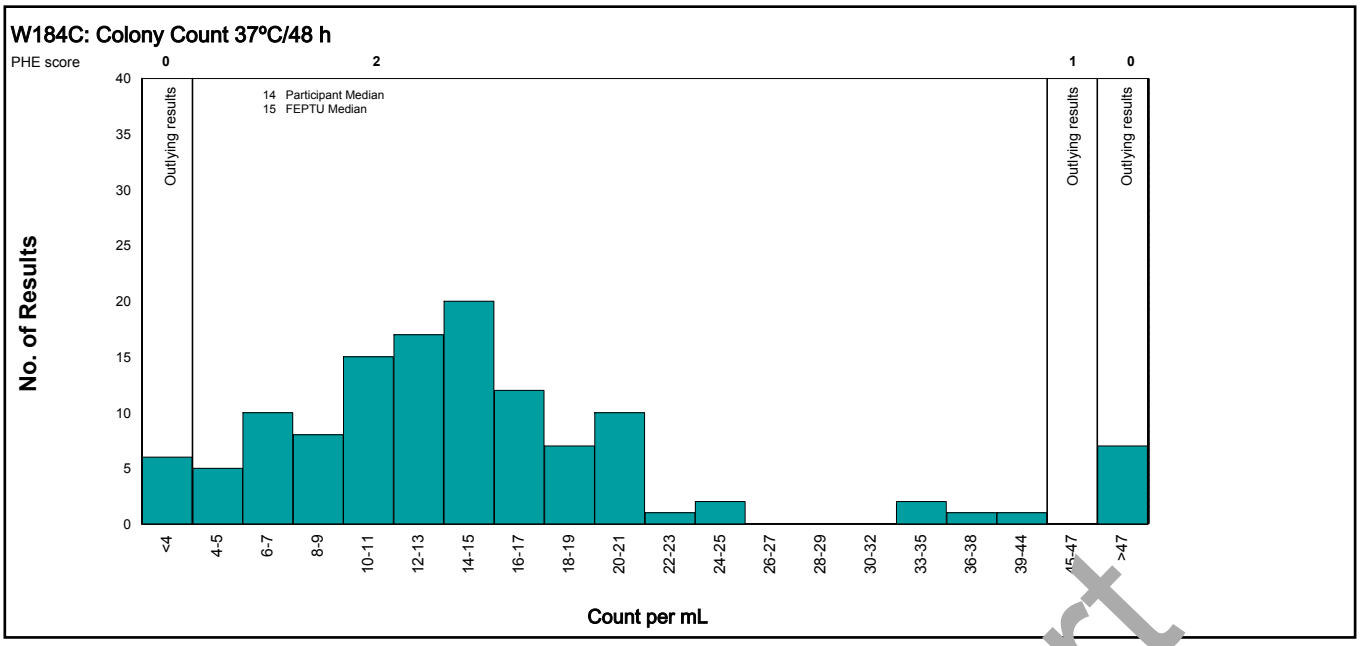


Method based presentation

W184C : *Clostridium perfringens* **FEPTU Method: TSC**

Method	Number of Results	Excluded Results	Percentage of the total	Median	R... S* (Log_{10})	Range Reported
TSC	86	1	88	[illegible]	0.12	0 - 180
MCP	7	0	7			
Other (Membrane filtration)	4	0	[illegible]			

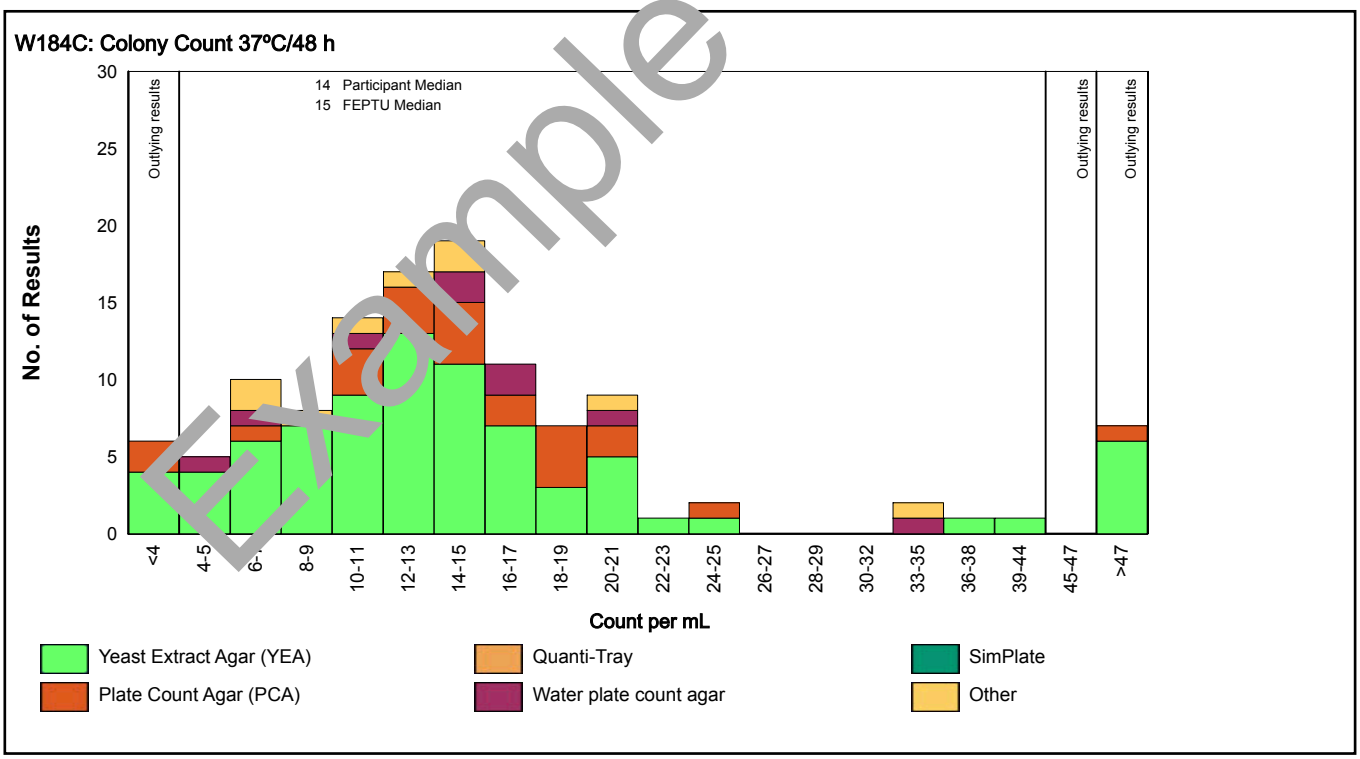


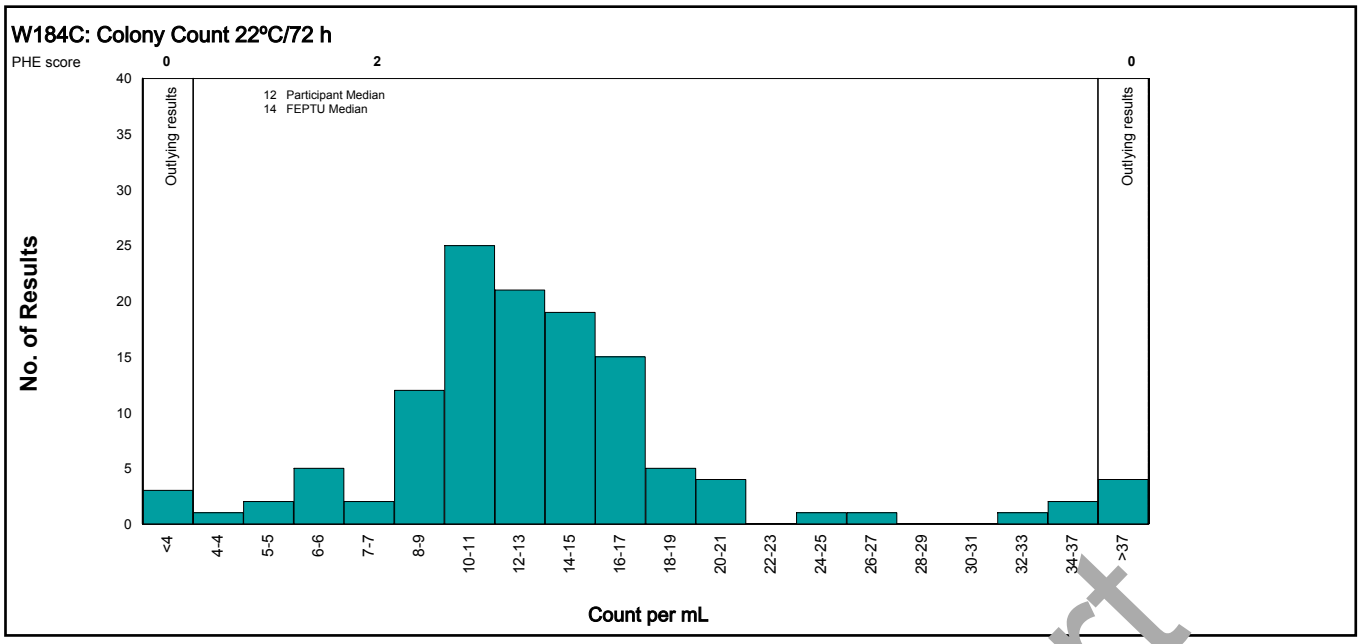


Method based presentation

W184C : Colony Count 37ºC/48 h — **FEPTU Method: Yeas Extract gar (YEA)**

Method	Number of Results	Excluded Results	Percentage of the total	Median	Re S* (Log_{10})	Range Reported
Yeast Extract Agar (YEA)	79	0	65		0.19	2 - 3591
Quanti-Tray	0	0	0			
SimPlate	0	0				
Plate Count Agar (PCA)	23	3	19	15	0.15	2 - 4000
Water plate count agar	9	0				
Other	9	0	7			

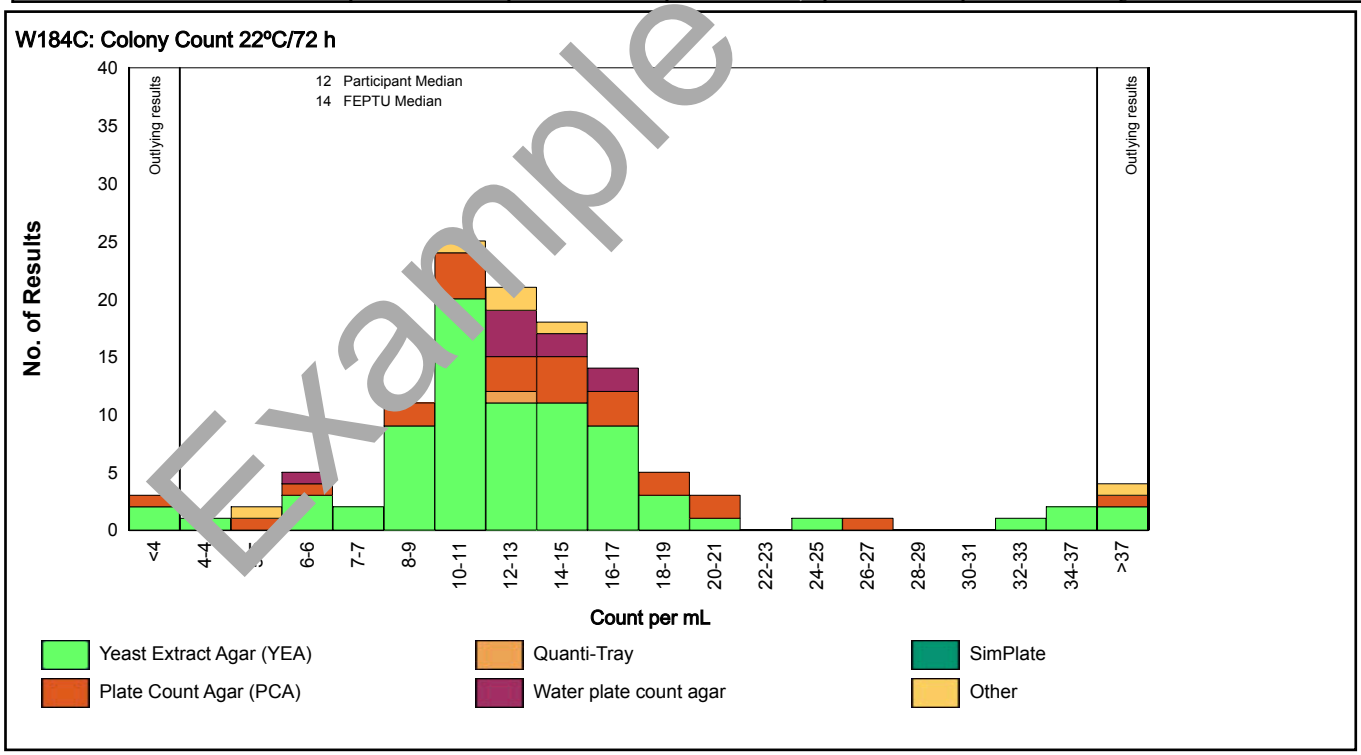




Method based presentation

W184C : Colony Count 22ºC/72 h **FEPTU Method: Yeas Extract gar (YEA)**

Method	Number of Results	Excluded Results	Percentage of the total	Median	Re... S* (Log_{10})	Range Reported
Yeast Extract Agar (YEA)	78	0	65	12	0.14	2 - 42
Quanti-Tray	1	0	0			
SimPlate	0	0	0			
Plate Count Agar (PCA)	25	1	21	14	0.17	1 - 31000
Water plate count agar	9	0	7			
Other	6	0	5			



Performance Assessment Sheet

Distribution	Sample	Coliform bacteria score	*Escherichia coli* score	Enterococci score	*Pseudomonas aeruginosa* score	*Clostridium perfringens* score	Colony Count 37ºC/48 h score	Colony Count 22ºC/72 h score
W184	W184A							
	W184B							
	W184C							
W183	W183A							
	W183B							
	W183C							
W182	W182A							
	W182B							
	W182C							
W181	W181A							
	W181B							
	W181C							
W180	W180A							
	W180B							
	W180C							
W179	W179A							
	W179B							
	W179C							
Total maximum possible score								
Total percentage								

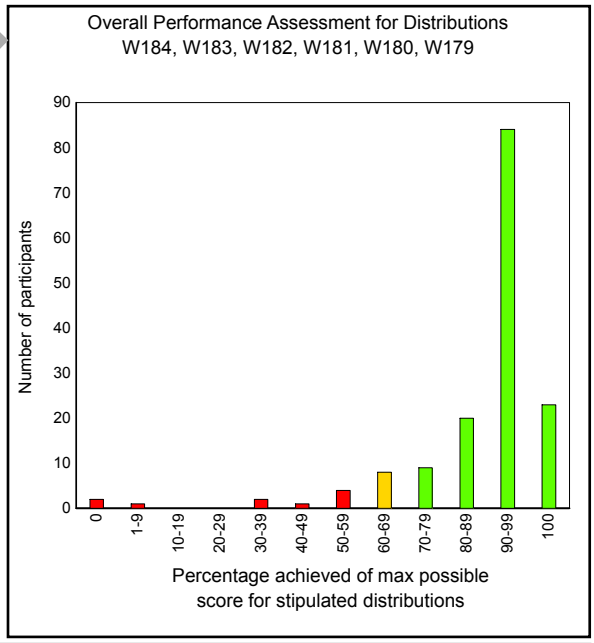
Performance Assessment Comment:

Participants are reminded that to take advantage of the performance assessment overtime tool provided in the reports they need to take part in more than one distribution a year.

Performance assessments are designed to alert participants to on-going problems with their examinations and are provided after every distribution. Scores are allocated to results reported for every parameter, for every sample to help assess performance.

Cummulative scores are calculated for the current and previous **five** distributions for the Drinking Water Scheme. Participants' cummulative scores for each of the examinations are compared with the maximum possible scores after every distribution.

Your overall performance with the enumerations of low levels of indicator organisms in drinking water proficiency testing samples for the current and last five distributions is collated in the chart to the right.



Performance Assessment Comment:

Laboratories that achieve less than 70% of the maximum possible score are likely to be experiencing significant problems with their examinations and are advised to:

a) refer to the relevant distribution reports for sample-specific comments

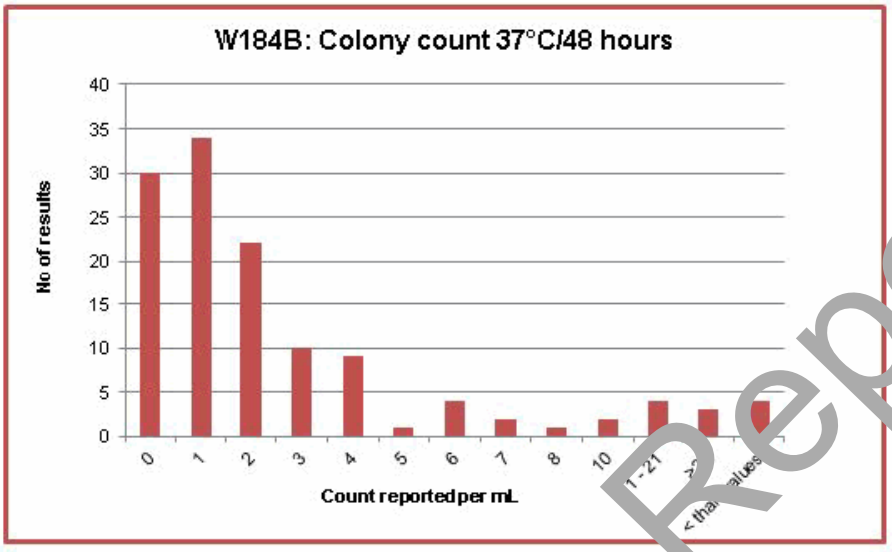
b) refer to the website guidance documents:
https://www.gov.uk/government/collections/external-quality-assessment-eqa-and-proficiency-testing-pt-for-food-water-and-environmental-microbiology

c) contact the organisers for advice

Sample specific comment

W184A: *Pseudomonas aeruginosa*
12/110 (11%) participants reported a false positive result for this examination. The sample contained *Pseudomonas putida* which grows as 1 - 3mm circular, cream colonies on PCN agar. However further tests would have confirmed that the organism was not *P. aeruginosa*.

W184B: Colony count 37°C/ 48 hours
Below is a graph of the colony counts results reported for W184B which is not shown in the main scheme report.



W184B: Colony count 22°C/ 72 hours
16/123 (13%) participants reported a false negative result for this examination. *The Cryptococcus albidus* in the sample grew as pin point colonies on the yeast extract agar after 72 hours incubation. The standard deviation was 59 cfu per mL (wide) and the actual counts reported were not evenly distributed following a Kolmogorov-Smirnov test. Therefore participants reporting a 0 count have been excluded from scoring.

Method based presentation of results
Participants are advised if less than 10 laboratories report a result for a method, no data is shown for the Median, Robust *S and the Range Reported in the 'Method based presentation' tables. Numbers shown in the 'Excluded Results' column are laboratories that reported a censored value.**

Trend analysis
Plotting your PT results over a period of time can help to identify potential problems. Download the updated trend analysis spreadsheet one week after this report has been issued: https://www.gov.uk/government/publications/drinking-water-scheme-trend-analysis

General comment:
If you do not return a result for a distribution, you will not be able to view all the participants' results data in your individualised report. Therefore, we will post generic reports on the website, which will be available for 12 months after the distribution has closed, so you can access the missing data.

End of report.