



ENTEROTESTER TEMPLATE

Simple Step by Step Instructions

Note: These instructions have been designed for the **Enterotester V200** and **V677 templates** (Refer to: <http://www.public.health.wa.gov.au/3/1287/2/publications.pm>). They may not be compatible with other Enterotester template versions!

Step 1

A) Open a new Excel worksheet within an Excel workbook and enter or copy into the worksheet all of your bacterial enterococci sample results and relevant information.

B) Organise all sample results by the order of their respective site location/site code.

Note: It is best to open a new worksheet for each site location/site code set of results!

C) Organise the sample results for each site location/site code from left to right in the order of 'collection date' and then 'result'. The order of other fields is not important, as date and enterococci value are the only 2 fields that will be copied into the Enterotester template (see Example pg 2).

Note: A minimum of 8 sample results for a particular site location/site code is required to initiate the 'Enterotester template'. However, the reliability and confidence of data output (i.e. 95th percentiles and accompanying trigger levels), with only 8 samples will be significantly reduced!

In reality it is better to have many more samples. The Department of Health – Western Australia, recommends a minimum of 65 samples, collected from a particular site location over 5 consecutive years, to provide sufficient confidence and reliability in the 95th percentile data output.





Example of Excel Worksheet for Specific Site Location ordered by Collection Date and then Enterococci Result

Microsoft Excel - EXAMPLE_KJ.xls

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90%

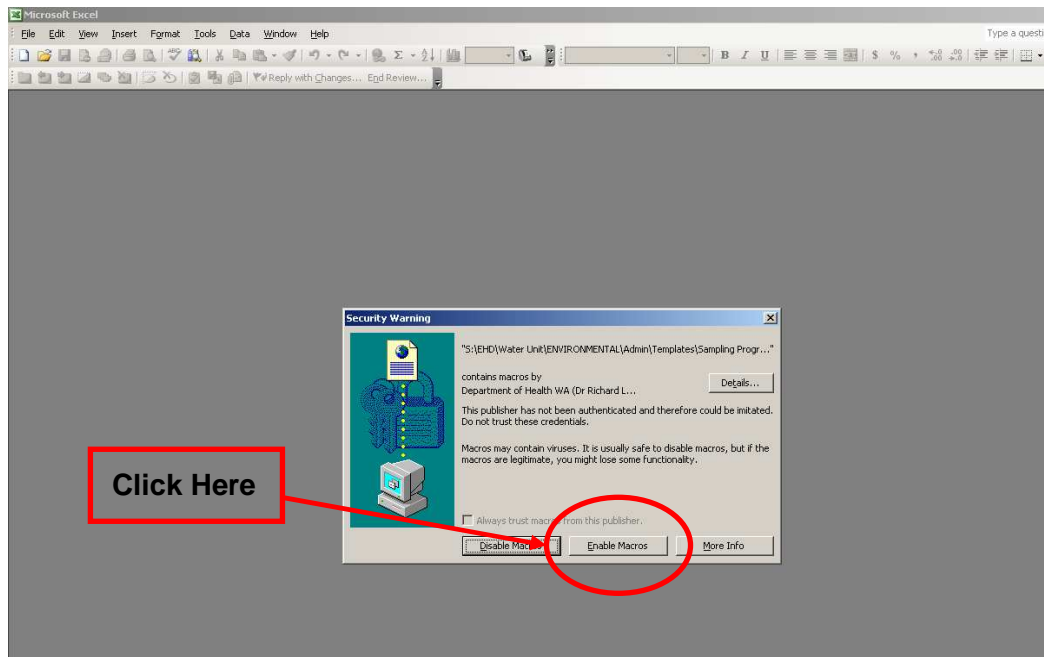
	A	B	C	D	E	F	G	H
1	Collection Date	Result	Site Code	Site Location	GTLT	Result	Test definition	Unit
37	04-Nov-05	52	EV3/599	River East Bank		52	Confirmed Enterococci	MPN/100 mL
38	16-Nov-05	9	EV3/599	River East Bank		9	Confirmed Enterococci	MPN/100 mL
39	29-Nov-05	52	EV3/599	River East Bank		52	Confirmed Enterococci	MPN/100 mL
40	21-Dec-05	52	EV3/599	River East Bank		52	Confirmed Enterococci	MPN/100 mL
41	10-Jan-06	20	EV3/599	River East Bank		20	Confirmed Enterococci	MPN/100 mL
42	23-Jan-06	86	EV3/599	River East Bank		86	Confirmed Enterococci	MPN/100 mL
43	06-Feb-06	51	EV3/599	River East Bank		51	Confirmed Enterococci	MPN/100 mL
44	20-Feb-06	20	EV3/599	River East Bank		20	Confirmed Enterococci	MPN/100 mL
45	10-Mar-06	31	EV3/599	River East Bank		31	Confirmed Enterococci	MPN/100 mL
46	28-Mar-06	31	EV3/599	River East Bank		31	Confirmed Enterococci	MPN/100 mL
47	04-Apr-06	10	EV3/599	River East Bank		10	Confirmed Enterococci	MPN/100 mL
48	27-Apr-06	74	EV3/599	River East Bank		74	Confirmed Enterococci	MPN/100 mL
49	06-Nov-06	31	EV3/599	River East Bank		31	Confirmed Enterococci	MPN/100 mL
50	20-Nov-06	74	EV3/599	River East Bank		74	Confirmed Enterococci	MPN/100 mL
51	04-Dec-06	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
52	18-Dec-06	20	EV3/599	River East Bank		20	Confirmed Enterococci	MPN/100 mL
53	10-Jan-07	10	EV3/599	River East Bank		10	Confirmed Enterococci	MPN/100 mL
54	22-Jan-07	31	EV3/599	River East Bank		31	Confirmed Enterococci	MPN/100 mL
55	05-Feb-07	120	EV3/599	River East Bank		120	Confirmed Enterococci	MPN/100 mL
56	19-Feb-07	820	EV3/599	River East Bank		820	Confirmed Enterococci	MPN/100 mL
57	08-Mar-07	31	EV3/599	River East Bank		31	Confirmed Enterococci	MPN/100 mL
58	19-Mar-07	97	EV3/599	River East Bank		97	Confirmed Enterococci	MPN/100 mL
59	20-Mar-07	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
60	02-Apr-07	20	EV3/599	River East Bank		20	Confirmed Enterococci	MPN/100 mL
61	23-Apr-07	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
62	23-Apr-07	30	EV3/599	River East Bank		30	Confirmed Enterococci	MPN/100 mL
63	05-Nov-07	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
64	13-Nov-07	10	EV3/599	River East Bank		10	Confirmed Enterococci	MPN/100 mL
65	20-Nov-07	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
66	03-Dec-07	31	EV3/599	River East Bank		31	Confirmed Enterococci	MPN/100 mL
67	11-Dec-07	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
68	02-Jan-08	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
69	03-Jan-08	41	EV3/599	River East Bank		41	Confirmed Enterococci	MPN/100 mL
70	09-Jan-08	30	EV3/599	River East Bank		30	Confirmed Enterococci	MPN/100 mL
71	14-Jan-08	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
72	22-Jan-08	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
73	05-Feb-08	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
74	14-Feb-08	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
75	28-Feb-08	10	EV3/599	River East Bank		10	Confirmed Enterococci	MPN/100 mL
76	10-Mar-08	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
77	10-Mar-08	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
78	19-Mar-08	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
79	27-Mar-08	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
80	28-Mar-08	41	EV3/599	River East Bank		41	Confirmed Enterococci	MPN/100 mL
81	15-Apr-08	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
82	12-Nov-08	10	EV3/599	River East Bank		10	Confirmed Enterococci	MPN/100 mL
83	25-Nov-08	74	EV3/599	River East Bank		74	Confirmed Enterococci	MPN/100 mL
84	03-Dec-08	10	EV3/599	River East Bank		10	Confirmed Enterococci	MPN/100 mL
85	09-Dec-08	20	EV3/599	River East Bank		20	Confirmed Enterococci	MPN/100 mL





Step 2

- D) Double click on the Enterotester template to open a new workbook.
- E) Click on the 'Enable Macros' button (This is the middle button – see below).



Step 3

- A) Read the Terms of Use Agreement (see pg 4).
- B) Click on the 'Yes' button (see pg 4) to accept Terms of Use Agreement.





Microsoft Excel - Enterotester V2001

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Terms of Use Agreement

By using the Enterotester Template and Instructions you are agreeing to comply with, and be bound by, the following Terms of Use. Please review the following Terms of Use carefully. If you do not agree to these Terms, you should not use the Template or Instructions.

- 1) This Agreement is between you and the State of Western Australia, represented by the Western Australian Department of Health. All communication in respect of this Agreement will be to the Environmental Health Directorate, Western Australian Department of Health (Attn: Mr Jared Koutsoukcs), PO Box 8172, Perth Business Centre, Western Australia 6849, AUSTRALIA (or e-mail to jared.koutsoukcs@health.wa.gov.au)
- 2) The material subject to the present Agreement is designated as the Enterotester Template.
- 3) You agree to recognise and acknowledge the ownership by the State of Western Australia, represented by the Western Australian Department of Health, of the Copyright to the Enterotester Template, in reproducing or quoting any material sourced therefrom.
- 4) The Enterotester Template may be used for bona fide personal, academic, research, public health and other non-commercial purposes.
- 5) The Enterotester Template is not to be reproduced or used for any commercial purposes without the written permission of the Western Australian Department of Health. The Department is under no obligation to grant this permission.
- 6) You agree to advise the Western Australian Department of Health of any modifications that may be made to the Enterotester Template, and to allow it access to the new material, if requested.
- 7) You agree not to provide the Enterotester Template to any third party. Any requests from other parties for access to the Enterotester Template will be referred to the Western Australian Department of Health.
- 8) All information and content provided in the Enterotester Template is given in good faith by the Western Australian Department of Health, and is believed to be reliable and accurate at the time of development. The State of Western Australia, the WA Department of Health and their respective officers, employees and agents, do not accept legal liability or responsibility for the Enterotester Template, or any consequences arising from its use.

Terms of Use

You must first accept these Terms of Use to operate the Enterotester Template or a workbook derived from it.

To avoid seeing this message again, save the template with a suitably modified name, and consider making it read-only.

Do you accept the Terms of Use?

Click Here

Step 3

Read the pop-up dialogue box and click 'OK' (see pg 5).





Microsoft Excel - EnteroTester v2001

File Edit View Insert Format Tools Data Window Help

Type a question for help

A	B	C	D	E	F	G	H	I	J	K	L	M	N
INSTRUCTIONS												34	0.02527
1. Paste data to be assessed in the yellow cells. The microbiological concentrations should start at B24. For the time being, these concentrations should be in the form of a continuous, single-column array, not exceeding 200 observations.												35	0.03177
2. Data that are shown as less than a value (e.g. <10) should be entered with a "<" sign. Complete cell A21 if desired.												36	0.03751
3. When data entry in columns A and B is complete, click the Fix Data button to adjust for zero values or ties (shown as pink).												37	0.04276
Total Number of observations (from 8 to 200)												38	0.04767
Number of chosen samples												39	0.05232
Shapiro-Francia statistic H^*													
Probability of lognormal distribution of the organisms													
Test Statistic													
Assigned geometric mean													
Assigned 95th percentile													
Microbial Assessment Category													
Suggested Water Quality two-in-a-row Trigger Level													
0												40	0.05678
Lowest enumerated value (cfu/100mL)												41	0.06106
Percent of observations below lowest enum. value													
Logarithmic Standard Deviation of observations													
No of Std Errors away from Ref Std Deviation													
Percent of observations less than 33 cfu/100mL													
Percent of observations above 157 cfu/100mL												42	0.06522
												43	0.06926
Date of Observation													
Concentration of organisms (cfu/100mL)													
Descending Rank (from highest)													
Sorted Observations													
Cumulative Probability													
Expected Values												44	0.07320
Fix Data													
Trigger Adj													
Export													
Undo													
Reassign												45	0.07705
												46	0.08083
												47	0.08454
												48	0.08819
												49	0.09179
												50	0.09534
												51	0.09885
												52	0.10231
												53	0.10573
												54	0.10912
												55	0.11248
												56	0.11581
												57	0.11911
												58	0.12238
												59	0.12562
												60	0.12885
												61	0.13205
												62	0.13522
												63	0.13838
												64	0.14152
												65	0.14464
												66	0.14774
												67	0.15082
												68	0.15389

Getting started

Enter or paste data to be assessed in the yellow cells, then click the Fix Data box on the worksheet. See detailed instructions 1-3 or rows 13-17 of this worksheet. Further details can be read by hovering your cursor over cells H16, B23, A21 and A24.

Do not show this message again

OK

Click Here

Step 4

Blank screen is ready for data entry. Click onto relevant worksheet to copy data.

Microsoft Excel - EnteroTester v2001

File Edit View Insert Format Tools Data Window Help

Type a question for help

A	B	C	D	E	F	G	H	I	J	K	L	M	N
INSTRUCTIONS												34	0.02527
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Total Number of observations (from 8 to 200)												38	0.04767
Number of chosen samples												39	0.05232
Shapiro-Francia statistic H^*													
Probability of lognormal distribution of the organisms													
Test Statistic													
Assigned geometric mean													
Assigned 95th percentile													
Microbial Assessment Category													
Suggested Water Quality two-in-a-row Trigger Level													
0												40	0.05678
Lowest enumerated value (cfu/100mL)												41	0.06106
Percent of observations below lowest enum. value													
Logarithmic Standard Deviation of observations													
No of Std Errors away from Ref Std Deviation													
Percent of observations less than 33 cfu/100mL													
Percent of observations above 157 cfu/100mL												42	0.06522
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												51	0.09885
												52	0.10231
												53	0.10573
												54	0.10912
												55	0.11248
												56	0.11581
												57	0.11911
												58	0.12238
												59	0.12562
												60	0.12885
												61	0.13205
												62	0.13522
												63	0.13838
												64	0.14152
												65	0.14464
												66	0.14774
												67	0.15082
												68	0.15389





Step 5

- A) Select relevant data from worksheet with columns arranged in order by 'date' and then 'enterococci result'.
- B) Right-click mouse or press 'context-menu' key (to left of right Ctrl key) and choose 'Copy' from the shortcut menu, or press 'Control-C' using the keyboard.

	A	B	C	D	E	F	G	H
1	Collection Date	Result	Site Code	Site Location	GTLT	Result	Test definition	Unit
37	04-Nov-05	52	EV3/599	River East Bank		52	Confirmed Enterococci	MPN/100 mL
38	16-Nov-05	9	EV3/599	River East Bank		9	Confirmed Enterococci	MPN/100 mL
39	29-Nov-05	52	EV3/599	River East Bank		52	Confirmed Enterococci	MPN/100 mL
40	21-Dec-05	52	EV3/599	River East Bank		52	Confirmed Enterococci	MPN/100 mL
41	10-Jan-06	20	EV3/599	River East Bank		20	Confirmed Enterococci	MPN/100 mL
42	23-Jan-06	86	EV3/599	River East Bank		86	Confirmed Enterococci	MPN/100 mL
43	06-Feb-06	51	EV3/599	River East Bank		51	Confirmed Enterococci	MPN/100 mL
44	20-Feb-06	20	EV3/599	River East Bank		20	Confirmed Enterococci	MPN/100 mL
45	10-Mar-06	31	EV3/599	River East Bank		31	Confirmed Enterococci	MPN/100 mL
46	28-Mar-06	31	EV3/599	River East Bank		31	Confirmed Enterococci	MPN/100 mL
47	04-Apr-06	10	EV3/599	River East Bank		10	Confirmed Enterococci	MPN/100 mL
48	27-Apr-06	74	EV3/599	River East Bank		74	Confirmed Enterococci	MPN/100 mL
49	06-Nov-06	31	EV3/599	River East Bank		31	Confirmed Enterococci	MPN/100 mL
50	20-Nov-06	74	EV3/599	River East Bank		74	Confirmed Enterococci	MPN/100 mL
51	04-Dec-06	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
52	18-Dec-06	20	EV3/599	River East Bank		20	Confirmed Enterococci	MPN/100 mL
53	10-Jan-07	10	EV3/599	River East Bank		10	Confirmed Enterococci	MPN/100 mL
54	22-Jan-07	31	EV3/599	River East Bank		31	Confirmed Enterococci	MPN/100 mL
55	05-Feb-07	120	EV3/599	River East Bank		120	Confirmed Enterococci	MPN/100 mL
56	19-Feb-07	820	EV3/599	River East Bank		820	Confirmed Enterococci	MPN/100 mL
57	08-Mar-07	31	EV3/599	River East Bank		31	Confirmed Enterococci	MPN/100 mL
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59	20-Mar-07	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
60	02-Apr-07	20	EV3/599	River East Bank		20	Confirmed Enterococci	MPN/100 mL
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64	13-Nov-07	10	EV3/599	River East Bank		10	Confirmed Enterococci	MPN/100 mL
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66	03-Dec-07	31	EV3/599	River East Bank		31	Confirmed Enterococci	MPN/100 mL
67	11-Dec-07	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
68	02-Jan-08	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
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70	09-Jan-08	30	EV3/599	River East Bank		30	Confirmed Enterococci	MPN/100 mL
71	14-Jan-08	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
72	22-Jan-08	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
73	05-Feb-08	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
74	14-Feb-08	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
75	28-Feb-08	10	EV3/599	River East Bank		10	Confirmed Enterococci	MPN/100 mL
76	10-Mar-08	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
77	10-Mar-08	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
78	19-Mar-08	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
79	27-Mar-08	<10	EV3/599	River East Bank	<	10	Confirmed Enterococci	MPN/100 mL
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83	25-Nov-08	74	EV3/599	River East Bank		74	Confirmed Enterococci	MPN/100 mL
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85	09-Dec-08	20	EV3/599	River East Bank		20	Confirmed Enterococci	MPN/100 mL





Step 6.1

- Click back to Enterotester workbook.
- Press 'context-menu key' or right-click mouse on top left cell of yellow highlighted columns i.e. Row 24, Column A.
- Choose 'Paste' or 'Paste Special' from the shortcut menu. If the copied data has been concatenated (i.e. 2 cell values are merged to form 1 cell value), 'Paste Special' must be chosen.

The screenshot shows the Microsoft Excel interface for 'Enterotester V2001'. The spreadsheet contains instructions and data. A context menu is open over cell A24, with 'Paste Special...' highlighted. A red box and arrow point to this option with a text box explaining when to use 'Paste Special'.

If you used the concatenate function to merge 2 cells together in the excel datasheet e.g. < & 10 became < 10 then click 'Paste Special', if not may click 'Paste'

Step 6.2 – Only applicable if 'Paste Special' function selected (Step 6.1)

Click on 'Values' and then click on 'OK'.





If you used the concatenate function to merge 2 cells together in the excel datasheet (see Step 6.1) Click 'Values' then click 'OK'

Step 7

The relevant data should now have been copied into the yellow cells. Click on the 'Fix' button to initiate the Enterotester calculator.

Click on 'Fix' Button





Step 8

Click on the 'OK' button to accept the Enterotester calculator recommendation.

Microsoft Excel - Enterotester V2001

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Type a question for

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Arial

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
Upper 95th Percentile Cut-off or Bounding Values (in cfu/100mL) for MACs:										faecal streptococci	Illness	Assessment	excess GI risk (%)					
A	B	Category C (Unacceptable)								A	B	C						
(Superior)	(Satisfact)	(Marginal)	(M)						106	5.38	2.3808	2.8292						
40	200	500	>500						34	0.02527	10.49	intercept β	Slope θ_2					
INSTRUCTIONS										35	0.02077							
1. Paste data to be assessed in the yellow cells. The microbiological concentrations should start at B24. For the time being, these concentrations should be in the form of a continuous, single-column array, not exceeding 200 observations.										36	0.02075							
2. Data that are shown as less than a value (e.g. <10) should be entered with a "< " sign. Complete cell A21 if desired.										37	0.04276							
3. When data entry in columns A and B is complete, click the Fix Data button to adjust for zero values or ties (shown as p=0).										38	0.04187							
4. When data entry in columns A and B is complete, click the Fix Data button to adjust for zero values or ties (shown as p=0).										39	0.05232							
Location	Number of observations (from 5 to 10)	Number of chosen samples	Francis statistic (F)	Lognormal distribution of the Test Statistic	Assigned geometric mean	Assigned 95th percentile	Microbial Water Quality Assessment	Microbial Water Quality two-in-a-row	Suggested Water Quality one-off Trigger									
19	76	36	0.989	0.263	0.929	7.7	95	40	0.05670									
20	76	36	0.989	0.263	0.929	7.7	95	41	0.06306									
Lowest enumerated value (cfu/100mL)	Percent of observations below lowest	Logarithm of Standard Deviation	No of Std Errors away from Std	Percent of observations as less than 33	Percent of observations above	Is MAC as good as or better than in H9?	Is MAC worse than in H9?											
21	10	0.474	0.950	0.328	84.2	6.6	11	42	0.06522									
22	10	0.474	0.950	0.328	84.2	6.6	11	43	0.06926									
Date of Observation (cfu/100mL)	Location of organisms (cfu/100mL)	g Rank (from highest)	Sorted Observation	Cumulative Probability	Expected Values	Expor	Und	Reassi										
23	24	4 Nov 05	20	1	2700	0.992	88.0	44	0.07200									
24	25	16 Nov 05	<1	2	1000	0.979	408.2	45	0.07705									
25	26	20 Nov 05	10	3	1000	0.986	277.0	46	0.08083									
26	27	21 Dec 05	<10	4	330	0.952	209.3	47	0.08454									
27	28	10 Jan 06	<10	5	220	0.939	167.3	48	0.08816									
28	29	22 Jan 06	10	6	120	0.926	126.6	49	0.09179									
29	30	6 Feb 06	10	7	98	0.913	117.6	50	0.09543									
30	31	20 Feb 06	<10	8	86	0.900	101.6	51	0.09902									
31	32	10 Mar 06	10	9	85	0.887	89.9	52	0.10261									
32	33	28 Mar 06	<10	10	62	0.874	78.6	53	0.10620									
33	34	4 Apr 06	10	11	52	0.861	70.2	54	0.10982									
34	35	27 Apr 06	<10	12	41	0.848	63.1	55	0.11347									
35	36	6 Nov 06	3700	13	31	0.802	45.2	56	0.11713									
36	37	7 Nov 06	31	14	21	0.802	45.2	57	0.12082									
37	38	20 Nov 06	<10	15	18	0.802	45.2	58	0.12452									
38	39	4 Dec 06	<10	16	16	0.802	45.2	59	0.12823									
39	40	18 Dec 06	<10	17	15	0.802	45.2	60	0.13196									
40	41	10 Jan 07	31	18	13	0.802	45.2	61	0.13571									
41	42	22 Jan 07	52	19	20	0.743	31.4	62	0.13948									
42	43	5 Feb 07	10	20	20	0.743	31.4	63	0.14327									
43	44	18 Feb 07	<10	21	20	0.743	31.4	64	0.14707									
44	45	8 Mar 07	<10	22	19	0.598	14.8	65	0.15088									
45	46	19 Mar 07	1000	23	19	0.598	14.8	66	0.15470									
46	47	23 Apr 07	31	24	19	0.598	14.8	67	0.15854									
47	48	5 Nov 07	<10	25	19	0.598	14.8	68	0.16239									
48	49	20 Nov 07	<10	26	19	0.598	14.8	69	0.16625									
49	50	3 Dec 07	10	27	19	0.598	14.8	70	0.17012									
50	51	9 Jan 08	<10	28	19	0.598	14.8	71	0.17400									
51	52	22 Jan 08	<10	29	19	0.598	14.8	72	0.17789									
52	53	5 Feb 08	85	30	19	0.598	14.8	73	0.18179									
53	54	19 Mar 08	<10	31	19	0.598	14.8	74	0.18570									
54	55	15 Apr 08	62	32	19	0.598	14.8	75	0.18962									
55	56	12 Nov 08	<10	33	19	0.598	14.8	76	0.19356									

Where to from here?

Congratulations! The data have been successfully entered and prepared for further analysis.

Do you want to:

- Standardise the 95th percentile now (recommended), or
- Export the data to the Results sheet now?

The Export option may be chosen now if:

- there is a better than even chance of a lognormal distribution (value in cell D19 > 0.5), and
- the sample and reference log standard deviations are close to one another (value in cell C21 < 0.01).

[There is still the option of subsequently standardising the 95th percentile – just click the Reassign box later.]

OK Cancel

Click OK

Step 9

Click on the 'OK' button to accept the calculated mathematical recommendation.

Microsoft Excel - Enterotester V2001

File Edit View Insert Format Tools Data Window Help

Type a question for

75%

Arial

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
Upper 95th Percentile Cut-off or Bounding Values (in cfu/100mL) for MACs:										faecal streptococci	Illness	Assessment	excess GI risk (%)					
A	B	Category C (Unacceptable)								A	B	C						
(Superior)	(Satisfact)	(Marginal)	(M)						106	5.38	2.3808	2.8292						
40	200	500	>500						34	0.02527	10.49	intercept β	Slope θ_2					
INSTRUCTIONS										35	0.02077							
1. Paste data to be assessed in the yellow cells. The microbiological concentrations should start at B24. For the time being, these concentrations should be in the form of a continuous, single-column array, not exceeding 200 observations.										36	0.02075							
2. Data that are shown as less than a value (e.g. <10) should be entered with a "< " sign. Complete cell A21 if desired.										37	0.04276							
3. When data entry in columns A and B is complete, click the Fix Data button to adjust for zero values or ties (shown as p=0).										38	0.04187							
4. When data entry in columns A and B is complete, click the Fix Data button to adjust for zero values or ties (shown as p=0).										39	0.05232							
Location	Number of observations (from 5 to 10)	Number of chosen samples	Francis statistic (F)	Lognormal distribution of the Test Statistic	Assigned geometric mean	Assigned 95th percentile	Microbial Water Quality Assessment	Microbial Water Quality two-in-a-row	Suggested Water Quality one-off Trigger									
19	76	36	0.989	0.263	0.929	7.7	95	40	0.05670									
20	76	36	0.989	0.263	0.929	7.7	95	41	0.06306									
Lowest enumerated value (cfu/100mL)	Percent of observations below lowest	Logarithm of Standard Deviation	No of Std Errors away from Std	Percent of observations as less than 33	Percent of observations above	Is MAC as good as or better than in H9?	Is MAC worse than in H9?											
21	10	0.474	0.950	0.328	84.2	6.6	11	42	0.06522									
22	10	0.474	0.950	0.328	84.2	6.6	11	43	0.06926									
Date of Observation (cfu/100mL)	Location of organisms (cfu/100mL)	g Rank (from highest)	Sorted Observation	Cumulative Probability	Expected Values	Expor	Und	Reassi										
23	24	4 Nov 05	20	1	2700	0.992	88.0	44	0.07200									
24	25	16 Nov 05	<1	2	1000	0.979	408.2	45	0.07705									
25	26	20 Nov 05	10	3	1000	0.986	277.0	46	0.08083									
26	27	21 Dec 05	<10	4	330	0.952	209.3	47	0.08454									
27	28	10 Jan 06	<10	5	220	0.939	167.3	48	0.08816									
28	29	22 Jan 06	10	6	120	0.926	126.6	49	0.09179									
29	30	6 Feb 06	10	7	98	0.913	117.6	50	0.09543									
30	31	20 Feb 06	<10	8	86	0.900	101.6	51	0.09902									
31	32	10 Mar 06	10	9	85	0.887	89.9	52	0.10261									
32	33	28 Mar 06	<10	10	62	0.874	78.6	53	0.10620									
33	34	4 Apr 06	10	11	52	0.861	70.2	54	0.10982									
34	35	27 Apr 06	<10	12	41	0.848	63.1	55	0.11347									
35	36	6 Nov 06	3700	13	31	0.802	45.2	56	0.11713									
36	37	7 Nov 06	31	14	21	0.802	45.2	57	0.12082									
37	38	20 Nov 06	<10	15	18	0.802	45.2	58	0.12452									
38	39	4 Dec 06	<10	16	16	0.802	45.2	59	0.12823									
39	40	18 Dec 06	<10	17	15	0.802	45.2	60	0.13196									
40	41	10 Jan 07	31	18	13	0.802	45.2	61	0.13571									
41	42	22 Jan 07	52	19	20	0.743	31.4	62	0.13948									
42	43	5 Feb 07	10	20	20	0.743	31.4	63	0.14327									
43	44	18 Feb 07	<10	21	20	0.743	31.4	64	0.14707									
44	45	8 Mar 07	<10	22	19	0.598	14.8	65	0.15088									
45	46	19 Mar 07	1000	23	19	0.598	14.8	66	0.15470									
46	47	23 Apr 07	31	24	19	0.598	14.8	67	0.15854									
47	48	5 Nov 07	<10	25	19	0.598	14.8	68	0.16239									
48	49	20 Nov 07	<10	26	19	0.598	14.8	69	0.16625									
49	50	3 Dec 07	10	27	19	0.598	14.8	70	0.17012									
50	51	9 Jan 08	<10	28	19	0.598	14.8	71	0.17400									
51	52	22 Jan 08	<10	29	19	0.598	14.8	72	0.17789									
52	53	5 Feb 08	85	30	19	0.598	14.8	73	0.18179									
53	54	19 Mar 08	<10	31	19	0.598	14.8	74	0.18570									
54	55	15 Apr 08	62	32	19	0.598	14.8	75	0.18962									
55	56	12 Nov 08	<10	33	19	0.598	14.8	76	0.19356									

Reassign the 95th percentile value

The lognormal assumption appears sound, and its use is recommended. [You may compare use of the empirical distribution later, if you wish.]

- Use the lognormal assumption
- Use the empirical distribution

OK Cancel

Click OK



Step 10

Click on the 'OK' button to export data to the 'Results' worksheet

Step 11

Click on the 'OK' button to export data to 'Row 3' of the 'Results' worksheet. Alternatively designate another number row and then click 'OK'.



Step 12

Enter 'Site Code', 'Site Name' and 'Seasons Covered' details into designated cells in the results row worksheet (see 2nd worksheet below).

	A	B	C	D	E	F	G	H	I	J	K	L	M
	Site Code	Site Name	Seasons Covered	Number of Observations	Percent of observations below lowest enum. Value	Percent of observations less than 33 cfu/100mL	Percent of observations above 157 cfu/100mL	Assigned or Standardised 95th Percentile	Microbial Water Quality Assessment Category	Website Traffic Light Colour	Suggested Water Quality one-off Trigger Level	Suggested Water Quality two-in-a-row Trigger Level	
1													
3				73	33	75	3	150	Category B	Green	224	69	
4													
5													
6													
7													
8													
9													

	A	B	C	D	E	F	G	H	I	J	K	L	M
	Site Code	Site Name	Seasons Covered	Number of Observations	Percent of observations below lowest enum. Value	Percent of observations less than 33 cfu/100mL	Percent of observations above 157 cfu/100mL	Assigned or Standardised 95th Percentile	Microbial Water Quality Assessment Category	Website Traffic Light Colour	Suggested Water Quality one-off Trigger Level	Suggested Water Quality two-in-a-row Trigger Level	
1													
3	EV3/599	River East Bank	2005-2010	73	33	75	3	150	Category B	Green	224	69	
4													
5													
6													
7													
8													
9													

Step 13

Press 'Ctrl-PageUp' or click on the '95%ile Calculator' worksheet tab at the bottom of 'Results' worksheet page (see pg 12).





Step 15

If necessary, you can now repeat this process for other sample locations/site codes using data from another worksheet.

Sample ID	Location	Test Results	Notes
38	0.06171		
39	0.06172		
40	0.06173		
41	0.06194		
42	0.06192		
43	0.06193		
44	0.07220		
45	0.07709		
46	0.08103		
47	0.08104		
48	0.08119		
49	0.08178		
50	0.08214		
51	0.08105		
52	0.08231		
53	0.08241		
54	0.08192		
55	0.08241		
56	0.08191		
57	0.08191		
58	0.08221		
59	0.08241		
60	0.08205		
61	0.08205		
62	0.08232		
63	0.08231		
64	0.08182		
65	0.08184		
66	0.08174		
67	0.08182		
68	0.08214		
69	0.08184		
70	0.08199		
71	0.08209		
72	0.08149		
73	0.08169		
74	0.07749		
75	0.07749		
76	0.07749		
77	0.08105		
78	0.08274		
79	0.08184		
80	0.08164		
81	0.08241		
82	0.08211		
83	0.08102		
84	0.21011		
85	0.21014		
86	0.21019		
87	0.21063		
88	0.21045		
89	0.21021		
90	0.21097		
91	0.21014		
92	0.21214		
93	0.21241		
94	0.21217		
95	0.21211		
96	0.21247		
97	0.21241		
98	0.21017		
99	0.21015		
100	0.21055		
101	0.21024		
102	0.21095		
103	0.21012		
104	0.21019		
105	0.21017		
106	0.21012		
107	0.21417		
108	0.21414		
109	0.21725		
110	0.21717		
111	0.21717		
112	0.21731		
113	0.21944		
114	0.21949		

More Information:

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