Capítulo 6

Anexos

Anexo I – Questionário

Foi enviado um questionário a um universo de 180 empresas europeias de águas engarrafadas, seleccionadas aleatoriamente. As questões estavam divididas em quatro grupos de perguntas: no primeiro grupo as perguntas baseavam-se na estrutura organizacional da empresa; no segundo as perguntas eram referentes às características da sua água; questões referentes às análises realizadas em termos bacteriológicos e micológicos compunham o terceiro e quarto grupo, respectivamente. Apresenta-se o respectivo questionário em seguida.

QUESTIONNAIRE: FUNGI IN WATER

Part A: About your organisation

Note that the questions marked with an asterisk are optional

*Q1. What is your organisation's legal name?

*Q2. What is your organisation's abbreviated name?

*Q3. What is your organisation's address?

*Q4. In which country is your organisation located?

*Q5. What is the nature of your organisation?
CHECK ONE BOX ONLY
☐ Private commercial organisation (PRC)
☐ Other (please specify)

*Q5i. If PRC, please indicate the type of organisation:
CHECK ONE BOX ONLY
☐ SA
☐ LTD
☐ GmbH
☐ Other (please specify)

*Q6. Please indicate the number of employees (equivalent number of full-time staff):
CHECK ONE BOX ONLY
☐ 1-9
☐ 10-49
☐ 50-249
☐ ≥250

*Q7. Please indicate annual balance sheet total of the most recent accounting year:
CHECK ONE BOX ONLY

☐ 0≤ EUR 5 million (less or equal to 5000000 Euros)

☐ >EUR 5 million ≤ EUR 27 million (more than 5000000 and less than or equal to 27000000 Euros)

☐ >EUR 27 million (more than 27000000 Euros)

Q8. Please indicate the total volume (litres) of bottled water sales for most recent accounting year:
CHECK ONE BOX ONLY

☐ 0 ≤ 10000 litres

☐ > 10000 ≤ 50000 litres

☐ > 50000 litres

Part B: About your water (use the data for your main source)

Q9. What is the name of the spring? (if applicable)

Q10. Where is the spring located? (if applicable)

Q11. What is the flow rate of the spring? (if applicable)

Q12. What are the dry residue values at 180 ºC?

Q13. What is the hydrogen ion concentration (pH)?

Q14. What is the average temperature of the water at the source?

Q15. What treatments are applied to the water?
CHECK ALL BOXES THAT APPLY

☐ None

☐ Filtration

☐ Decantation

☐ Reverse osmosis

☐ Other (please specify)

Part C: About bacteriological analyses

Q16. How often do you analyse for parasites and pathogenic bacteria?
CHECK ONE BOX ONLY

☐ Batch basis

☐ Daily basis

☐ Weekly basis

☐ Monthly basis

☐ Twice per year basis

☐ Yearly basis

☐ Other (please specify)

Q17. Are you equipped to perform bacteriological analyses?
CHECK ONE BOX ONLY

☐ Yes

☐ No

Q17i. If NO, do you subcontract another organisation/laboratory?
CHECK ONE BOX ONLY

☐ Yes

☐ No (please specify)

Q18. After bottling, on average how many times do the total colony counts exceed 100/ml at 20-22 ºC in 72 hours on agar medium?
CHECK ONE BOX ONLY

☐ Never

☐ Sporadic

☐ Numerous

Q19. At source, and during marketing, how often are the pathogenic bacteria detected in the water?
CHECK ONE BOX ONLY

☐ Never

☐ Sporadic

☐ Numerous

Part D: About mycological analyses

Q20. How many times have you detected fungi (moulds) in the source water over the last five years and during the bacteriological analyses?
CHECK ONE BOX ONLY

☐ None

☐ 1 to 10

☐ 11 to 20

☐ 21 to 50

☐ ≥ 50

Q21. How many times have you detected fungi (moulds) in the bottled water over the last five years and during the bacteriological analyses?
CHECK ONE BOX ONLY

☐ None

☐ 1 to 10

☐ 11 to 20

☐ 21 to 50

☐ ≥ 50

Q22. How often does refused bottled water from the market have fungi as the problem?
CHECK ONE BOX ONLY

☐ Never

☐ Sporadic

☐ Numerous

Q23. Do you have established fungal colony counts as part of water quality control parameter?
CHECK ONE BOX ONLY

☐ Yes

☐ No

Q24. Which medium do you use to detect fungi in the water?
CHECK ALL BOXES THAT APPLY

☐ None

☐ Czapek Dox Agar

☐ Malt Extract Agar

☐ Corn Meal Agar

☐ Sabouraud Dextrose Agar

☐ Sabouraud Maltose Agar

☐ Rose Bengal Chloramphenicol Agar

☐ Other (please specify)

Q25. What is your perception about fungal contamination in your bottled water systems?
CHECK ONE BOX ONLY

☐ Not a problem

☐ A minor problem

☐ A problem

☐ An enormous problem

Additionally, if you have any comments to make on your experience concerning mycological problems in bottled water, please write them in the space provided on the next box:

Anexo II – Resultados do questionário

-97-

Como o objectivo nesta dissertação é saber a real situação das questões micológicas os resultados apresentados são compostos unicamente pelas respostas às questões do quarto grupo.

A primeira pergunta referente às questões de praticas de análise micológica era a seguinte: "Quantas vezes foi detectada a presença de fungos na água de nascente nos últimos cinco anos, durante a rotina microbiológica?". Na Figura I estão representados os resultados obtidos a esta questão.
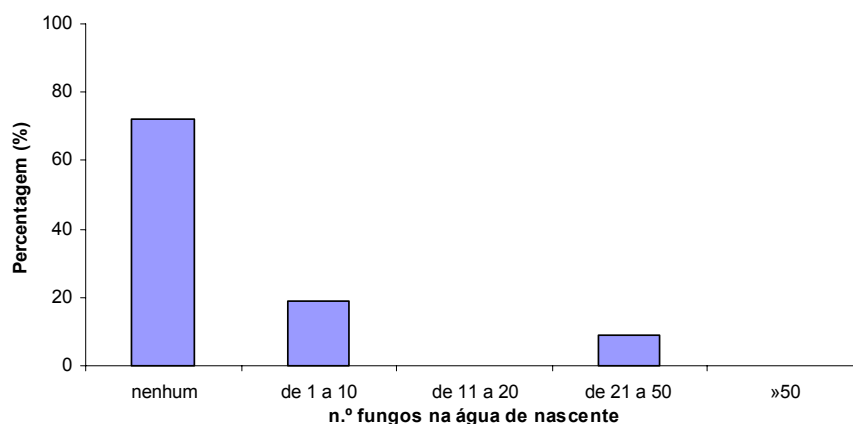
Figura I – Quantidade de fungos detectados na água de nascente durante a rotina microbiológica, nos últimos cinco anos.

A segunda pergunta era a seguinte: "Com que frequência são devolvidas garrafas de água já vendidas por apresentares problemas relacionados com a presença de fungos?". Os resultados desta questão estão representados Figura II.
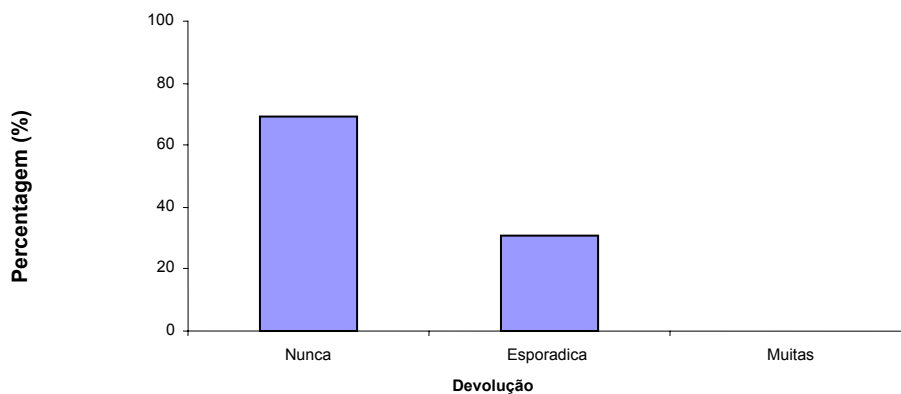
Figura II – Frequência de devolução de garrafas de água já vendidas por apresentares problemas relacionados com a presença de fungos.

Terceira pergunta: "A detecção de colónias de fungos é uma rotina laboratorial empregue como parte do controlo de qualidade?". Os resultados desta questão estão representados na Figura III.
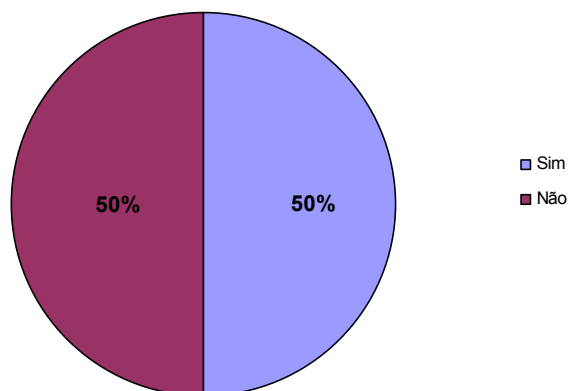

Figura III – Detecção de colónias de fungos usada como rotina laboratorial no controlo de qualidade.

Quarta pergunta "Quais os meios usados para detectar a presença de fungo na água?". Os resultados desta questão estão representados na Figura IV. A fracção "outros" é representada por um único meio, o meio M-Green.
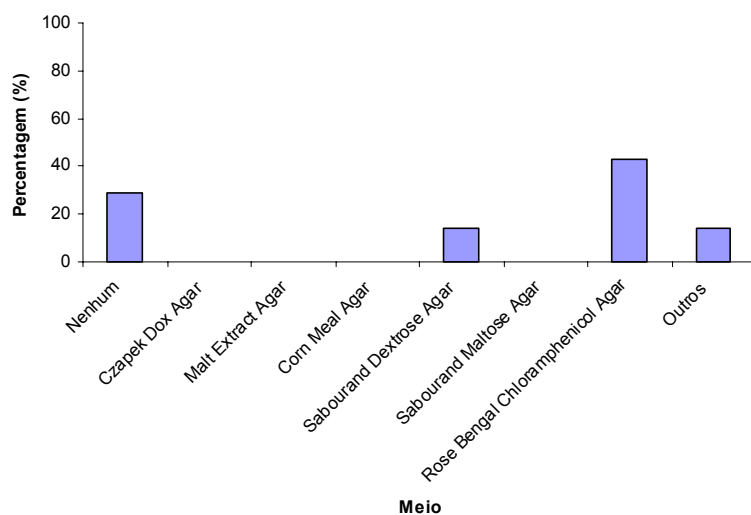

Figura IV – Meios usados para detectar a presença de fungo na água.

Por sua vez, a quinta e última questão era a seguinte: "Qual é na sua perspectiva o grau do problema da contaminação fúngica na sua empresa?". Os resultados desta questão estão representados na Figura V.
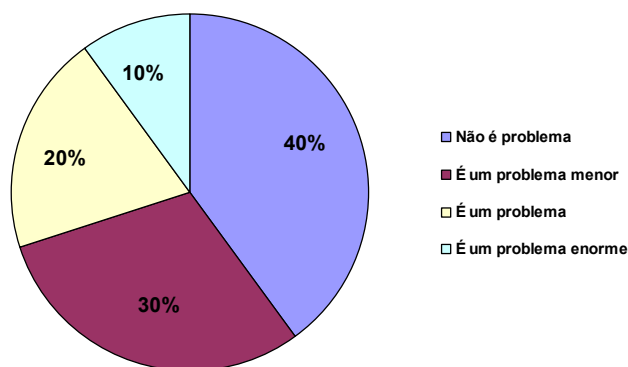
Figura V – Percepção da contaminação fúngica como um problema.

Anexo III – Listagem das estirpes identificadas

Tabela I – Listagem das estirpes identificadas com respectivo código da amostra.

Código da amostra		Identificação	
1.1ª	Wat_nasc	*Trichoderma*	sp.
2.1ª	Wat_nasc	*Trichoderma*	sp.
2.2ª	Wat_nasc	*Trichoderma*	sp.
3.1ª	Wat_nasc	*Cladosporium*	*cladosporioides*
4.1ª	Wat_nasc	*Penicillium*	*glabrum*
7.2ª	Wat_tank	*Cladosporium*	sp.
8.1ª	Wat_tank	*Penicillium*	*expansum*
9.1ª	Wat_tank	*Penicillium*	*expansum*
11.1ª	Wat_tank	*Penicillium*	*expansum*
12.1ª	Wat_filt	*Penicillium*	sp.
13.1ª	Wat_filt	*Cladosporium*	sp.
13.2ª	Wat_filt	*Penicillium*	*variabile*
14.1ª	Wat_filt	*Penicillium*	*expansum*
14.2ª	Wat_filt	*Cladosporium*	sp.
15.1ª	Wat_filt	*Penicillium*	*expansum*
16.1ª	Wat_filt	*Penicillium*	*expansum*
16.2ª	Wat_filt	*Penicillium*	*expansum*
19.1ª	Wat_bottpet	*Penicillium*	sp.
20.2ª	Wat_bottpet	*Penicillium*	*brevicompactum*
22.1ª	Wat_bottpet	*Cladosporium*	sp.
23.1ª	Wat_bottpet	*Penicillium*	*brevicompactum*
25.1ª	Wat_bottpet	*Basidiomycetes*	sp.
25.2ª	Wat_bottpet	*Cladosporium*	*variabile*
26.1ª	Wat_bottpet	*Penicillium*	*glabrum*
27.1ª	Wat_bottpet	*Penicillium*	*glabrum*
27.2ª	Wat_bottpet	*Penicillium*	sp.

27.3A	Wat_bottpet	*Penicillium*	sp.
27.4A	Wat_bottpet	*Penicillium*	*pinophilum*
28.3A	Wat_bottpet	*Penicillium*	*glabrum*
29.1A	Wat_bottpet	*Penicillium*	*brevicompactum*
29.2A	Wat_bottpet	*Penicillium*	*glabrum*
29.3A	Wat_bottpet	*Penicillium*	*expansum*
29.4A	Wat_bottpet	*Penicillium*	*brevicompactum*
29.5A	Wat_bottpet	*Penicillium*	*pinophilum*
29.6A	Wat_bottpet	*Penicillium*	*corylophilum*
29.7A	Wat_bottpet	*Cladosporium*	*tenuissimum*
30.2A	Wat_bottpet	*Penicillium*	*brevicompactum*
30.3A	Wat_bottpet	*Cladosporium*	*sphaerospermum*
31.1A	Air_pet	*Penicillium*	*glabrum*
31.2A	Air_pet	*Cladosporium*	*sphaerospermum*
31.3A	Air_pet	*Penicillium*	*brevicompactum*
31.4A	Air_pet	*Penicillium*	*glabrum*
32.1A	Air_pet	*Penicillium*	*glabrum*
32.2A	Air_pet	*Cladosporium*	*cladosporioides*
32.3A	Air_pet	*Cladosporium*	*cladosporioides*
33.1A	Air_room	*Penicillium*	*spinulosum*
33.2A	Air_room	*Penicillium*	*spinulosum*
33.3A	Air_room	*Penicillium*	*glabrum*
33.4A	Air_room	*Cladosporium*	*sphaerospermum*
33.5A	Air_room	*Penicillium*	*glabrum*
34.2A	Air_room	*Cladosporium*	*sphaerospermum*
34.3A	Air_room	*Penicillium*	*glabrum*
34.4A	Air_room	*Penicillium*	*glabrum*
34.5A	Air_room	*Penicillium*	*brevicompactum*
34.6A	Air_room	*Penicillium*	*expansum*
37.1A	Bottles_outlet	*Penicillium*	*minioluteum*
38.1A	Bottles_outlet	*Cladosporium*	*cladosporioides*
39.2A	Bottles_inlet	*Cladosporium*	*sphaerospermum*
40.1A	Bottles_inlet	*Penicillium*	*griseofulvum*
40.2A	Bottles_inlet	*Penicillium*	*chrysogenum*
40.3A	Bottles_inlet	*Cladosporium*	*sphaerospermum*
41.1A	Bottles_inlet	*Penicillium*	*brevicompactum*
41.2A	Bottles_inlet	*Penicillium*	*glabrum*
43.2A	Cap_p	*Penicillium*	*glabrum*
48.1A	Cap_p	*Penicillium*	*minioluteum*
48.2A	Cap_p	*Penicillium*	*chrysogenum*
49.2A	Cap_P	*Trichoderma*	sp.
49.3A	Cap_P	*Trichoderma*	sp.
50.1A	Cap_P	*Botrytis*	sp.
50.2A	Cap_P	*Penicillium*	*islandicum*
51.1A	Cap_P	*Penicillium*	*citrinum*
52.1A	Cap_P	*Trichoderma*	sp.
52.2A	Cap_P	*Trichoderma*	sp.
52.3A	Cap_P	*Trichoderma*	sp.
54.1A	Cap_P	*Trichoderma*	sp.
1.1B	Wat_nasc	*Alternaria*	sp.
1.2B	Wat_nasc	*Cladosporium*	*cladosporioides*

1.3B	Wat_nasc	*Penicillium*	*chrysogenum*
1.4B	Wat_nasc	*Penicillium*	*decumbens*
1.5B	Wat_nasc	*Penicillium*	*glabrum*
2.1B	Wat_nasc	*Penicillium*	*glabrum*
2.3B	Wat_nasc	*Penicillium*	*glabrum*
2.4B	Wat_nasc	*Penicillium*	*janthinellum*
2.5B	Wat_nasc	*Cladosporium*	*cladosporioides*
2.7B	Wat_nasc	*Penicillium*	*spinulosum*
2.8B	Wat_nasc	*Penicillium*	*paxilli*
31.B	Wat_nasc	*Black yeast*	
3.2B	Wat_nasc	*Cladosporium*	*sphaerospermum*
3.3B	Wat_nasc	*Cladosporium*	*cladosporioides*
3.4B	Wat_nasc	*Penicillium*	*citrinum*
4.2B	Wat_nasc	*Alternaria*	sp.
4.3B	Wat_nasc	*Penicillium*	*glabrum*
5.1B	Wat_nasc	*Penicillium*	*glabrum*
5.3B	Wat_nasc	*Cladosporium*	*cladosporioides*
5.4B	Wat_nasc	*Penicillium*	*glabrum*
6.1B	Wat_nasc	*Cladosporium*	*sphaerospermum*
6.2B	Wat_nasc	*Cladosporium*	*cladosporioides*
7.1B	Wat_tank	*Penicillium*	*glabrum*
7.2B	Wat_tank	*Penicillium*	*corylophilum*
7.3B	Wat_tank	*Trichoderma*	sp.
8.1B	Wat_tank	*Trichoderma*	sp.
12.1B	Wat_tank	*Penicillium*	*glabrum*
12.3B	Wat_tank	*Penicillium*	*brevicompactum*
13.1B	Wat_filt	*Penicillium*	*brevicompactum*
13.2B	Wat_filt	*Cladosporium*	sp.
13.3B	Wat_filt	*Cladosporium*	*herbarum*
14.1B	Wat_filt	*Penicillium*	sp.
14.2B	Wat_filt	*Penicillium*	*minioluteum*
14.3B	Wat_filt	*Penicillium*	*brevicompactum*
15.2B	Wat_filt	*Penicillium*	*glabrum*
15.3B	Wat_filt	*Cladosporium*	*herbarum*
16.1B	Wat_filt	*Penicillium*	*roquefortii*
16.2B	Wat_filt	*Cladosporium*	*cladosporioides*
16.3B	Wat_filt	*Cladosporium*	*cladosporioides*
16.4B	Wat_filt	*Cladosporium*	*sphaerospermum*
16.5B	Wat_filt	*Penicillium*	*janthinellum*
17.1B	Wat_filt	*Penicillium*	*janthinellum*
17.3B	Wat_filt	*Penicillium*	*brevicompactum*
17.5B	Wat_filt	*Penicillium*	*minioluteum*
18.1B	Wat_filt	*Penicillium*	*janthinellum*
18.3B	Wat_filt	*Penicillium*	*minioluteum*
19.1B	Wat_bottpet	*Botrytis*	sp.
19.2B	Wat_bottpet	*Penicillium*	*brevicompactum*
19.3B	Wat_bottpet	*Penicillium*	*brevicompactum*
19.4B	Wat_bottpet	*Penicillium*	*glabrum*
20.2B	Wat_bottpet	*Penicillium*	*glabrum*
20.3B	Wat_bottpet	*Cladosporium*	*cladosporioides*
20.4B	Wat_bottpet	*Penicillium*	*glabrum*
20.5B	Wat_bottpet	*Penicillium*	*brevicompactum*

20.6B	Wat_bottpet	*Penicillium*	*brevicompactum*
23.1B	Wat_bottpet	*Penicillium*	*funiculosum*
23.2B	Wat_bottpet	*Penicillium*	*glabrum*
23.3B	Wat_bottpet	*Penicillium*	*glabrum*
23.5B	Wat_bottpet	*Penicillium*	*corylophilum*
23.7B	Wat_bottpet	*Cladosporium*	*cladosporioides*
24.2B	Wat_bottpet	*Penicillium*	*glabrum*
24.3B	Wat_bottpet	*Trichoderma*	sp.
24.5B	Wat_bottpet	*Cladosporium*	*herbarum*
25.1B	Wat_bottglas	*Trichoderma*	sp.
26.1B	Wat_bottglas	*Penicillium*	*brevicompactum*
29.1B	Wat_bottglas	*Trichoderma*	sp.
30.1B	Wat_bottglas	*Trichoderma*	sp.
31.1B	Air_pet	*Cladosporium*	*sphaerospermum*
32.1B	Air_pet	*Aspergillus*	*versicolor*
33.1B	Air_room	*Cladosporium*	*sphaerospermum*
33.2B	Air_room	*Aspergillus*	*versicolor*
33.3B	Air_room	*Penicillium*	*brevicompactum*
34.1B	Air_room	*Penicillium*	*brevicompactum*
34.2B	Air_room	*Cladosporium*	*sphaerospermum*
34.3B	Air_room	*Penicillium*	*brevicompactum*
34.4B	Air_room	*Penicillium*	*brevicompactum*
34.5B	Air_room	*Rhinocladiella like*	
35.1B	Bottles_inlet	*Penicillium*	*expansum*
35.2B	Bottles_inlet	*Cladosporium*	*sphaerospermum*
35.3B	Bottles_inlet	*Penicillium*	*roqueforti*
36.1B	Bottles_inlet	*Trichoderma*	sp.
36.2B	Bottles_inlet	*Trichoderma*	sp.
36.3B	Bottles_inlet	*Trichoderma*	sp.
36.4B	Bottles_inlet	*Penicillium*	*glabrum*
36.5B	Bottles_inlet	*Penicillium*	*glabrum*
36.6B	Bottles_inlet	*Trichoderma*	sp.
39.1B	Bottles_inlet	*Aspergillus*	*versicolor*
39.2B	Bottles_inlet	*Aspergillus*	*versicolor*
40.1B	Bottles_inlet	*Penicillium*	*brevicompactum*
41.1B	Bottles_inlet	*Penicillium*	*brevicompactum*
41.2B	Bottles_inlet	*Penicillium*	*brevicompactum*
42.1B	Bottles_inlet	*Cladosporium*	*cladosporioides*
42.2B	Bottles_inlet	*Aspergillus*	*versicolor*
44.1B	Cap_g	*Penicillium*	*funiculosum*
46.1B	Cap_g	*Penicillium*	*brevicompactum*
48.1B	Cap_g	*Cladosporium*	*cladosporioides*
49.1B	Cap_G	*Penicillium*	*glabrum*
50.1B	Cap_G	*Penicillium*	*aurantiogriseum*
30.2B	Cap_G	*Penicillium*	*brevicompactum*
51.1B	Cap_G	*Penicillium*	*glabrum*
54.1B	Cap_G	*Penicillium*	*brevicompactum*
63.1B	Cap_P	*Cladosporium*	*sphaerospermum*
1.2C	Wat_nasc	*Penicillium*	*thomii*
1.3C	Wat_nasc	*Talaromyces*	*flavus*
1.4C	Wat_nasc	*Penicillium*	*corylophilum*
1.5C	Wat_nasc	*Penicillium*	*glabrum*

2.1C	Wat_nasc	*Penicillium*	*glabrum*
2.2C	Wat_nasc	*Talaromyces*	*flavus*
2.3C	Wat_nasc	*Cladosporium*	*cladosporioides*
2.4C	Wat_nasc	*Trichoderma*	*Sp*
3.1C	Wat_nasc	*Penicillium*	*aurantiogriseum*
3.2C	Wat_nasc	*Cladosporium*	*cladosporioides*
3.3C	Wat_nasc	*Penicillium*	*brevicompactum*
3.4C	Wat_nasc	*Cladosporium*	*cladosporioides*
5.1C	Wat_nasc	*Penicillium*	*thomii*
5.2C	Wat_nasc	*Penicillium*	*brevicompactum*
5.3C	Wat_nasc	*Penicillium*	*glabrum*
5.4C	Wat_nasc	*Penicillium*	*thomii*
5.5C	Wat_nasc	*Penicillium*	*simplicissimum*
5.6C	Wat_nasc	*Talaromyces*	*flavus*
5.8C	Wat_nasc	*Cladosporium*	*cladosporioides*
5.9C	Wat_nasc	*Penicillium*	*pinophilum*
5.10C	Wat_nasc	*Cladosporium*	*cladosporioides*
6.1C	Wat_nasc	*Penicillium*	*simplicissimum*
6.2C	Wat_nasc	*Penicillium*	*glabrum*
6.3C	Wat_nasc	*Cladosporium*	*cladosporioides*
6.4C	Wat_nasc	*Cladosporium*	*cladosporioides*
6.5C	Wat_nasc	*Penicillium*	*simplicissimum*
6.6C	Wat_nasc	*Penicillium*	*crustosum*
6.7C	Wat_nasc	*Penicillium*	*expansum*
7.1C	Wat_tank	*Penicillium*	*glabrum*
7.3C	Wat_tank	*Penicillium*	*glabrum*
7.4C	Wat_tank	*Cladosporium*	*sphaerospermum*
7.5C	Wat_tank	*Cladosporium*	*sphaerospermum*
8.1C	Wat_tank	*Cladosporium*	*sphaerospermum*
8.3C	Wat_tank	*Penicillium*	*corylophilum*
9.1C	Wat_tank	*Cladosporium*	*cladosporioides*
9.2C	Wat_tank	*Penicillium*	*glabrum*
9.3C	Wat_tank	*Cladosporium*	*cladosporioides*
9.4C	Wat_tank	*Cladosporium*	*sphaerospermum*
9.5C	Wat_tank	*Penicillium*	*aurantiogriseum*
11.1C	Wat_tank	*Penicillium*	*aurantiogriseum*
11.2C	Wat_tank	*Penicillium*	*brevicompactum*
11.3C	Wat_tank	*Penicillium*	*corylophilum*
11.4C	Wat_tank	*Cladosporium*	*cladosporioides*
11.5C	Wat_tank	*Cladosporium*	*cladosporioides*
11.6C	Wat_tank	*Penicillium*	*glabrum*
12.1C	Wat_tank	*Penicillium*	*brevicompactum*
12.2C	Wat_tank	*Cladosporium*	*sphaerospermum*
12.3C	Wat_tank	*Penicillium*	*brevicompactum*
13.1C	Wat_filt	*Penicillium*	*brevicompactum*
13.3C	Wat_filt	*Penicillium*	*glabrum*
13.4C	Wat_filt	*Penicillium*	*brevicompactum*
13.6C	Wat_filt	*Penicillium*	*brevicompactum*
14.1C	Wat_filt	*Penicillium*	*simplicissimum*
14.2C	Wat_filt	*Penicillium*	*simplicissimum*
14.3C	Wat_filt	*Penicillium*	*brevicompactum*
14.5C	Wat_filt	*Cladosporium*	*cladosporioides*

16.2C	Wat_filt	*Cladosporium*	*cladosporioides*
16.3C	Wat_filt	*Cladosporium*	*cladosporioides*
17.1C	Wat_filt	*Penicillium*	*glabrum*
17.2C	Wat_filt	*Cladosporium*	*cladosporioides*
17.4C	Wat_filt	*Cladosporium*	*cladosporioides*
17.6C	Wat_filt	*Penicillium*	*glabrum*
17.8C	Wat_filt	*Cladosporium*	*cladosporioides*
17.9C	Wat_filt	*Penicillium*	*brevicompactum*
18.1C	Wat_filt	*Penicillium*	*glabrum*
18.2C	Wat_filt	*Penicillium*	*paxilli*
18.3C	Wat_filt	*Penicillium*	*glabrum*
18.4C	Wat_filt	*Cladosporium*	*cladosporioides*
18.5C	Wat_filt	*Penicillium*	*brevicompactum*
18.6C	Wat_filt	*Penicillium*	*variabile*
18.7C	Wat_filt	*Penicillium*	*paxilli*
19.1C	Wat_bottpet	*Penicillium*	*glabrum*
19.2C	Wat_bottpet	*Penicillium*	*glabrum*
20.1C	Wat_bottpet	*Penicillium*	*glabrum*
20.2C	Wat_bottpet	*Penicillium*	*brevicompactum*
20.3C	Wat_bottpet	*Penicillium*	*glabrum*
20.4C	Wat_bottpet	*Penicillium*	*glabrum*
22.1C	Wat_bottpet	*Penicillium*	*glabrum*
23.1C	Wat_bottpet	*Penicillium*	*funiculosum*
23.2C	Wat_bottpet	*Penicillium*	*glabrum*
23.3C	Wat_bottpet	*Penicillium*	*expansum*
24.1C	Wat_bottpet	*Penicillium*	*glabrum*
24.2C	Wat_bottpet	*Alternaria*	sp.
24.3C	Wat_bottpet	*Penicillium*	*brevicompactum*
24.6C	Wat_bottpet	*Penicillium*	*brevicompactum*
24.7C	Wat_bottpet	*Penicillium*	*brevicompactum*
25.2C	Wat_bottglas	*Alternaria*	sp.
25.3C	Wat_bottglas	*Cladosporium*	sp.
28.3C	Wat_bottglas	*Cladosporium*	*cladosporioides*
30.1C	Wat_bottglas	*Cladosporium*	*sphaerospermum*
31.1C	Air_pet	*Penicillium*	*brevicompactum*
31.2C	Air_pet	*Penicillium*	*roquefortii*
31.3C	Air_pet	*Cladosporium*	*oxysporum*
31.4C	Air_pet	*Cladosporium*	*cladosporioides*
31.5C	Air_pet	*Cladosporium*	*cladosporioides*
31.6C	Air_pet	*Penicillium*	*paxilli*
31.7C	Air_pet	*Cladosporium*	*cladosporioides*
32.2C	Air_pet	*Penicillium*	*purpurogenum*
32.3C	Air_pet	*Cladosporium*	*cladosporioides*
32.4C	Air_pet	*Penicillium*	*glabrum*
32.6C	Air_pet	*Botrytis*	sp.
33.1C	Air_room	*Penicillium*	*glabrum*
33.3C	Air_room	*Penicillium*	*corylophilum*
33.4C	Air_room	*Cladosporium*	*sphaerospermum*
33.5C	Air_room	*Penicillium*	*brevicompactum*
34.1C	Air_room	*Penicillium*	*glabrum*
34.2C	Air_room	*Penicillium*	*brevicompactum*
34.3C	Air_room	*Penicillium*	*glabrum*

34.4C	Air_room	*Penicillium*	*purpurogenum*
34.5C	Air_room	*Penicillium*	*expansum*
34.6C	Air_room	*Cladosporium*	*sphaerospermum*
34.7C	Air_room	*Penicillium*	*glabrum*
36.1C	Inlet	*Penicillium*	*brevicompactum*
39.1C	Outlet	*Trichoderma*	sp.
39.2C	Outlet	*Trichoderma*	sp.
39.3C	Outlet	*Cladosporium*	*sphaerospermum*
40.1C	Outlet	*Trichoderma*	sp.
42.1C	Outlet	*Cladosporium*	*sphaerospermum*
42.2C	Outlet	*Cladosporium*	*sphaerospermum*
54.1C	Cap_G	*Penicillium*	*brevicompactum*
54.2C	Cap_G	*Penicillium*	*paxilli*
55.5C	Cap_p	*Paecilomyces*	*lilacinus*
56.1C	Cap_p	*Penicillium*	*glabrum*
56.2C	Cap_p	*Penicillium*	*minioluteum*
56.3C	Cap_p	*Penicillium*	*corylophilum*
56.4C	Cap_p	*Penicillium*	*minioluteum*
56.5C	Cap_p	*Cladosporium*	*sphaerospermum*
56.6C	Cap_p	*Penicillium*	*glabrum*
57.1C	Cap_p	*Penicillium*	*glabrum*
57.2C	Cap_p	*Penicillium*	*corylophilum*
57.3C	Cap_p	*Cladosporium*	*sphaerospermum*
58.2C	Cap_p	*Penicillium*	*brevicompactum*
58.3C	Cap_p	*Penicillium*	*glabrum*
58.4C	Cap_p	*Epicoccum*	*nigrum*
58.5C	Cap_p	*Penicillium*	*brevicompactum*
59.2C	Cap_p	*Penicillium*	*brevicompactum*
60.1C	Cap_p	*Penicillium*	*glabrum*
60.2C	Cap_p	*Cladosporium*	*sphaerospermum*
60.3C	Cap_p	*Penicillium*	*glabrum*
60.4C	Cap_p	*Cladosporium*	*sphaerospermum*
60.5C	Cap_p	*Penicillium*	*corylophilum*
64.3C	Cap_p	*Verticillium*	*lecanii*
67.2C	Cap_P	*Penicillium*	*brevicompactum*
67.3C	Cap_P	*Cladosporium*	*cladosporioides*
83.3C	Wat_bottpet	*Cladosporium*	*sphaerospermum*
84.1C	Wat_bottpet	*Trichoderma*	sp.
84.3C	Wat_bottpet	*Trichoderma*	sp.
88.1C	Wat_bottpet	*Cladosporium*	*herbarum*
88.2C	Wat_bottpet	*Penicillium*	*paxilli*
88.3C	Wat_bottpet	*Penicillium*	*glabrum*
1.1D	Wat_nasc	*Cladosporium*	*cladosporioides*
1.2D	Wat_nasc	*Verticillium*	*rexianum*
2.2D	Wat_nasc	*Trichoderma*	sp.
2.3D	Wat_nasc	*Trichoderma*	sp.
3.1D	Wat_nasc	*Cladosporium*	*cladosporioides*
3.2D	Wat_nasc	*Cladosporium*	sp.
3.3D	Wat_nasc	*Cladosporium*	sp.
6.1D	Wat_nasc	*Penicillium*	*crustosum*
6.2D	Wat_nasc	*Cladosporium*	sp.
6.3D	Wat_nasc	*Penicillium*	*brevicompactum*

7.3D	Wat_tank	*Penicillium*	*glabrum*
7.4D	Wat_tank	*Penicillium*	*chrysogenum*
8.1D	Wat_tank	*Aspergillus*	*niger*
8.2D	Wat_tank	*Trichoderma*	sp.
10.2D	Wat_tank	*Cladosporium*	sp.
11.1D	Wat_tank	*Cladosporium*	sp.
12.1D	Wat_tank	*Penicillium*	*chrysogenum*
12.3D	Wat_tank	*Cladosporium*	sp.
13.1D	Wat_filt	*Penicillium*	*brevicompactum*
13.2D	Wat_filt	*Cladosporium*	sp.
16.1D	Wat_filt	*Penicillium*	*brevicompactum*
16.3D	Wat_filt	*Cladosporium*	sp.
17.1D	Wat_filt	*Cladosporium*	sp.
17.2D	Wat_filt	*Cladosporium*	*cladosporioides*
19.1D	Wat_bottpet	*Penicillium*	*brevicompactum*
20.1D	Wat_bottpet	*Penicillium*	*glabrum*
20.2D	Wat_bottpet	*Penicillium*	*expansum*
21.2D	Wat_bottpet	*Penicillium*	*glabrum*
21.3D	Wat_bottpet	*Penicillium*	*glabrum*
22.1D	Wat_bottpet	*Penicillium*	*chrysogenum*
22.2D	Wat_bottpet	*Penicillium*	*chrysogenum*
22.3D	Wat_bottpet	*Penicillium*	*brevicompactum*
22.4D	Wat_bottpet	*Penicillium*	*chrysogenum*
23.1D	Wat_bottpet	*Trichoderma*	sp.
24.1D	Wat_bottpet	*Penicillium*	*brevicompactum*
24.2D	Wat_bottpet	*Penicillium*	*chrysogenum*
24.3D	Wat_bottpet	*Cladosporium*	*herbarum*
25.1D	Wat_bottglas	*Penicillium*	*glabrum*
25.2D	Wat_bottglas	*Penicillium*	*glabrum*
25.4D	Wat_bottglas	*Penicillium*	*brevicompactum*
26.1D	Wat_bottglas	*Penicillium*	*glabrum*
26.2D	Wat_bottglas	*Penicillium*	*brevicompactum*
26.3D	Wat_bottglas	*Penicillium*	*brevicompactum*
31.1D	Air_pet	*Botrytis*	sp.
31.2D	Air_pet	*Cladosporium*	sp.
31.3D	Air_pet	*Penicillium*	*chrysogenum*
31.4D	Air_pet	*Penicillium*	*glabrum*
31.5D	Air_pet	*Penicillium*	*glabrum*
31.6D	Air_pet	*Penicillium*	*chrysogenum*
31.8D	Air_pet	*Cladosporium*	*cladosporioides*
32.1D	Air_pet	*Trichoderma*	sp.
32.2D	Air_pet	*Cladosporium*	*cladosporioides*
32.4D	Air_pet	*Fusarium*	sp.
32.5D	Air_pet	*Penicillium*	*aurantiogriseum*
48.2D	Cap_g	*Penicillium*	*glabrum*
48.4D	Cap_g	*Penicillium*	*corylophilum*
50.1D	Cap_G	*Penicillium*	*brevicompactum*
57.1D	Cap_p	*Penicillium*	*paxilli*
63.1D	Cap_P	*Cladosporium*	*cladosporioides*
32.6D	Air_pet	*Penicillium*	*aurantiogriseum*
32.7D	Air_pet	*Penicillium*	*crustosum*
33.2D	Air_room	*Penicillium*	*brevicompactum*

33.3D	Air_room	*Penicillium*	*brevicompactum*
33.5D	Air_room	*Penicillium*	*brevicompactum*
34.1D	Air_room	*Trichoderma*	sp.
34.2D	Air_room	*Trichoderma*	sp.
34.4D	Air_room	*Trichoderma*	sp.
34.5D	Air_room	*Trichoderma*	sp.
34.6D	Air_room	*Cladosporium*	*herbarum*
46.1D	Cap_g	*Epicoccum*	*nigrum*
46.3D	Cap_g	*Penicillium*	*chrysogenum*
47.1D	Cap_g	*Penicillium*	*brevicompactum*
47.3D	Cap_g	*Cladosporium*	*cladosporioides*
48.1D	Cap_g	*Cladosporium*	*sphaerospermum*
63.2D	Cap_P	*Cladosporium*	*cladosporioides*
63.3D	Cap_P	*Cladosporium*	*sphaerospermum*
64.1D	Cap_P	*Cladosporium*	*sphaerospermum*
73.1D		*Penicillium*	*glabrum*
1.3E	Wat_nasc	*Cladosporium*	*cladosporioides*
1.4E	Wat_nasc	*Penicillium*	*chrysogenum*
1.5E	Wat_nasc	*Penicillium*	*chrysogenum*
1.6E	Wat_nasc	*Penicillium*	*brevicompactum*
2.3E	Wat_nasc	*Penicillium*	*funiculosum*
2.5E	Wat_nasc	*Cladosporium*	*cladosporioides*
2.7E	Wat_nasc	*Cladosporium*	*cladosporioides*
4.1E	Wat_nasc	*Cladosporium*	*cladosporioides*
6.1E	Wat_nasc	*Cladosporium*	*cladosporioides*
6.2E	Wat_nasc	*Penicillium*	*glabrum*
7.8E	Wat_tank	*Penicillium*	*brevicompactum*
9.1E	Wat_tank	*Cladosporium*	*cladosporioides*
10.2E	Wat_tank	*Cladosporium*	*sphaerospermum*
11.1E	Wat_tank	*Cladosporium*	*cladosporioides*
12.1E	Wat_tank	*Cladosporium*	*cladosporioides*
12.2E	Wat_tank	*Penicillium*	*glabrum*
12.3E	Wat_tank	*Cladosporium*	*cladosporioides*
13.2E	Wat_filt	*Cladosporium*	*cladosporioides*
14.2E	Wat_filt	*Cladosporium*	*cladosporioides*
14.4E	Wat_filt	*Cladosporium*	*cladosporioides*
20.1E	Wat_bottpet	*Penicillium*	*chrysogenum*
20.5E	Wat_bottpet	*Penicillium*	*roquefortii*
22.1E	Wat_bottpet	*Cladosporium*	*cladosporioides*
23.1E	Wat_bottpet	*Cladosporium*	*cladosporioides*
24.1E	Wat_bottpet	*Cladosporium*	*oxysporum*
24.2E	Wat_bottpet	*Cladosporium*	*cladosporioides*
25.3E	Wat_bottpet	*Cladosporium*	*cladosporioides*
25.4E	Wat_bottpet	*Cladosporium*	*cladosporioides*
31.1E	Air_pet	*Nigrospora*	sp.
31.4E	Air_pet	*Cladosporium*	*cladosporioides*
31.5E	Air_pet	*Cladosporium*	*herbarum*
32.1E	Air_pet	*Botrytis*	sp.
32.3E	Air_pet	*Penicillium*	*brevicompactum*
32.4E	Air_pet	*Penicillium*	*corylophilum*
32.5E	Air_pet	*Penicillium*	*glabrum*
32.6E	Air_pet	*Penicillium*	*glabrum*

33.5E	Air_room	*Cladosporium*	*cladosporioides*
35.3E	Inlet	*Epicoccum*	*nigrum*
35.4E	Inlet	*Penicillium*	*glabrum*
36.1E	Inlet	*Mucor*	sp.
39.3E	Outlet	*Cladosporium*	*sphaerospermum*
40.2E	Outlet	*Cladosporium*	sp.
40.3E	Outlet	*Penicillium*	*brevicompactum*
41.1E	Outlet	*Cladosporium*	sp.
42.1E	Outlet	*Cladosporium*	sp.
43.2E	Cap_g	*Aspergillus*	*versicolor*
49.2E	Cap_G	*Alternaria*	sp.
50.1E	Cap_G	*Alternaria*	sp.
50.2E	Cap_G	*Alternaria*	sp.
54.1E	Cap_G	*Botrytis*	sp.
59.1E	Cap_p	*Cladosporium*	sp.
59.2E	Cap_p	*Cladosporium*	*sphaerospermum*
66.1E	Cap_P	*Cladosporium*	*sphaerospermum*
75.1E		*Penicillium*	*brevicompactum*
78.1E		*Cladosporium*	*cladosporioides*
90.1E	H8	*Penicillium*	*roquefortii*
90.3E	H8	*Penicillium*	*simplicissimum*
92.2E	H8	*Cladosporium*	sp.
93.1E	H8	*Penicillium*	*expansum*
93.4E	H8	*Penicillium*	*paxilli*
102.1D	Wat_bottglasbait	*Penicillium*	*chrysogenum*
102.2D	Wat_bottglasbait	*Penicillium*	*brevicompactum*
102.3D	Wat_bottglasbait	*Penicillium*	*brevicompactum*
104.1D	Wat_bottpetbait	*Penicillium*	*chrysogenum*
104.2D	Wat_bottpetbait	*Penicillium*	*chrysogenum*
104.3D	Wat_bottpetbait	*Penicillium*	*brevicompactum*
105.1D	Wat_bottpetbait	*Penicillium*	*brevicompactum*
61.1C	Cap_P	*Penicillium*	*brevicompactum*
2.1F	Wat_nasc	*Penicillium*	*glabrum*
2.3F	Wat_nasc	*Penicillium*	*chrysogenum*
5.1F	Wat_nasc	*Cladosporium*	*herbarum*
5.2F	Wat_nasc	*Penicillium*	*glabrum*
6.2F	Wat_nasc	*Penicillium*	*chrysogenum*
8.1F	Wat_tank	*Penicillium*	*chrysogenum*
10.1F	Wat_tank	*Cladosporium*	*herbarum*
11.1F	Wat_tank	*Cladosporium*	*herbarum*
11.2F	Wat_tank	*Penicillium*	*chrysogenum*
11.5F	Wat_tank	*Penicillium*	*chrysogenum*
12.2F	Wat_tank	*Penicillium*	*thomii*
12.3F	Wat_tank	*Penicillium*	*pinophilum*
12.5F	Wat_tank	*Penicillium*	*expansum*
13.2F	Wat_filt	*Penicillium*	*glabrum*
13.3F	Wat_filt	*Penicillium*	*chrysogenum*
13.4F	Wat_filt	*Penicillium*	*chrysogenum*
14.4F	Wat_filt	*Penicillium*	*chrysogenum*
16.1F	Wat_filt	*Cladosporium*	*cladosporioides*
20.2F	Wat_bottpet	*Trichoderma*	sp.
20.3F	Wat_bottpet	*Trichoderma*	sp.

23.1F	Wat_bottpet	*Epicoccum*	*nigrum*
23.3F	Wat_bottpet	*Cladosporium*	*cladosporioides*
25.2F	Wat_bottglas	*Penicillium*	*chrysogenum*
25.4F	Wat_bottglas	*Penicillium*	*simplicissimum*
26.1F	Wat_bottglas	*Mucor*	sp.
26.3F	Wat_bottglas	*Penicillium*	*aurantiogriseum*
29.2F	Wat_bottglas	*Penicillium*	*glabrum*
30.3F	Wat_bottglas	*Penicillium*	*glabrum*
31.2F	Air_pet	*Penicillium*	*funiculosum*
31.4F	Air_pet	*Botrytis*	sp.
32.3F	Air_pet	*Penicillium*	*paxilli*
34.1F	Air_room	*Penicillium*	*glabrum*
34.2F	Air_room	*Cladosporium*	*cladosporioides*
34.3F	Air_room	*Penicillium*	*funiculosum*
35.1F	Inlet	*Trichoderma*	sp.
36.1F	Inlet	*Mucor*	sp.
44.1F	Cap_g	*Penicillium*	*expansum*
46.1F	Cap_g	*Mucor*	sp.
50.1F	Cap_G	*Cladosporium*	*herbarum*
51.1F	Cap_G	*Trichoderma*	sp.
52.1F	Cap_G	*Geotrichum*	sp.
55.1F	Cap_p	*Stemphylium*	sp.
58.2F	Cap_p	*Penicillium*	*crustosum*
60.1F	Cap_P	*Penicillium*	*chrysogenum*
63.1F	Cap_P	*Cladosporium*	*cladosporioides*
89.1F	H8	*Penicillium*	*brevicompactum*
90.3F	H8	*Penicillium*	*brevicompactum*
93.1F	H8	*Penicillium*	*chrysogenum*
101.1F	Wat_bottpetbait	*Penicillium*	*brevicompactum*
101.2F	Wat_bottpetbait	*Penicillium*	*chrysogenum*
102.1F	Wat_bottpetbait	*Penicillium*	*brevicompactum*
102.2F	Wat_bottpetbait	*Penicillium*	*aurantiogriseum*
103.1F	Wat_bottpetbait	*Penicillium*	*brevicompactum*
104.1F	Wat_bottglasbait	*Penicillium*	*chrysogenum*
2.1G	Wat_nasc	*Cladosporium*	*cladosporioides*
4.2G	Wat_nasc	*Penicillium*	*brevicompactum*
4.3G	Wat_nasc	*Penicillium*	*crustosum*
5.1G	Wat_nasc	*Penicillium*	*crustosum*
5.2G	Wat_nasc	*Penicillium*	*crustosum*
5.4G	Wat_nasc	*Penicillium*	*crustosum*
7.1G	Wat_tank	*Cladosporium*	*cladosporioides*
8.1G	Wat_tank	*Penicillium*	*brevicompactum*
9.1G	Wat_tank	*Cladosporium*	*cladosporioides*
9.2G	Wat_tank	*Cladosporium*	*cladosporioides*
9.3G	Wat_tank	*Penicillium*	*chrysogenum*
11.2G	Wat_tank	*Pestalotiopsis*	*aff. uvicola*
11.3G	Wat_tank	*Penicillium*	*brevicompactum*
11.5G	Wat_tank	*Cladosporium*	sp.
11.6G	Wat_tank	*Penicillium*	*waksmanii*
11.7G	Wat_tank	*Cladosporium*	*cladosporioides*
12.1G	Wat_tank	*Cladosporium*	*cladosporioides*
13.3G	Wat_filt	*Cladosporium*	*cladosporioides*

15.1G	Wat_filt	*Penicillium*	*crustosum*
17.2G	Wat_filt	*Penicillium*	*chrysogenum*
20.1G	Wat_bottpet	*Penicillium*	*corylophilum*
21.1G	Wat_bottpet	*Penicillium*	*glabrum*
22.1G	Wat_bottpet	*Cladosporium*	*herbarum*
26.1G	Wat_bottpet	*Penicillium*	*glabrum*
26.2G	Wat_bottpet	*Cladosporium*	*cladosporioides*
26.3G	Wat_bottpet	*Cladosporium*	*cladosporioides*
27.1G	Wat_bottpet	*Cladosporium*	*cladosporioides*
30.1G	Wat_bottpet	*Cladosporium*	*cladosporioides*
30.3G	Wat_bottpet	*Penicillium*	*glabrum*
31.2G	Air_pet	*Penicillium*	*glabrum*
31.4G	Air_pet	*Cladosporium*	*herbarum*
32.1G	Air_pet	*Penicillium*	*glabrum*
32.2G	Air_pet	*Cladosporium*	*cladosporioides*
33.1G	Air_room	*Cladosporium*	*herbarum*
33.2G	Air_room	*Penicillium*	*glabrum*
34.1G	Air_room	*Cladosporium*	*cladosporioides*
34.3G	Air_room	*Penicillium*	*glabrum*
39.1G	Outlet	*Cladosporium*	*sphaerospermum*
46.1G	Cap_g	*Trichoderma*	sp.
49.1G	Cap_G	*Penicillium*	*waksmanii*
50.1G	Cap_G	*Penicillium*	*chrysogenum*
51.1G	Cap_G	*Penicillium*	*aurantiogriseum*
56.1G	Cap_p	*Cladosporium*	*sphaerospermum*
57.2G	Cap_p	*Cladosporium*	*sphaerospermum*
61.1G	Cap_P	*Penicillium*	*brevicompactum*
61.2G	Cap_P	*Cladosporium*	*cladosporioides*
64.1G	Cap_P	*Penicillium*	*glabrum*
66.1G	Cap_P	*Mucor*	sp.
89.1G	Wat_H8	*Penicillium*	*brevicompactum*
91.1G	Wat_H8	*Penicillium*	*glabrum*
92.2G	Wat_H8	*Penicillium*	*glabrum*
93.1G	Wat_H8	*Penicillium*	*brevicompactum*
94.1G	Wat_H8	*Cladosporium*	*sphaerospermum*
94.2G	Wat_H8	*Penicillium*	*brevicompactum*
95.2G	Wat_H2	*Cladosporium*	sp.
96.1G	Wat_H2	*Cladosporium*	sp.
96.5G	Wat_H2	*Penicillium*	*verrucosum*
97.1G	Wat_H2	*Penicillium*	sp.
100.1G	Wat_H2	*Cladosporium*	sp.
13.1G	Wat_filt	*Penicillium*	*glabrum*
13.2G	Wat_filt	*Cladosporium*	sp.
21.2G	Wat_bottpet	*Cladosporium*	sp.
25.1G	Wat_bottpet	*Penicillium*	*glabrum*
57.1G	Cap_p	*Arthrinium*	sp.
39.1G	Outlet	*Pithomyces*	sp.
1.3H	Wat_nasc	*Penicillium*	*brevicompactum*
2.2H	Wat_nasc	*Cladosporium*	sp.
6.3H	Wat_nasc	*Penicillium*	*brevicompactum*
7.1H	Wat_tank	*Cladosporium*	sp.
8.2H	Wat_tank	*Penicillium*	*brevicompactum*

12.1H	Wat_tank	*Penicillium*	*glabrum*
18.2H	Wat_filt	*Penicillium*	*roquefortii*
19.3H	Wat_bottpet	*Penicillium*	*glabrum*
22.1H	Wat_bottpet	*Penicillium*	*roquefortii*
22.3H	Wat_bottpet	*Penicillium*	*brevicompactum*
24.1H	Wat_bottpet	*Penicillium*	*chrysogenum*
24.2H	Wat_bottpet	*Penicillium*	*minioluteum*
28.1H	Wat_bottglas	*Rhizopus*	sp.
32.1H	Air_pet	*Penicillium*	*aurantiogriseum*
33.1H	Air_room	*Trichoderma*	sp.
33.6H	Air_room	*Cladosporium*	sp.
33.11H	Air_room	*Aspergillus*	*versicolor*
34.1H	Air_room	*Cladosporium*	sp.
34.2H	Air_room	*Penicillium*	*chrysogenum*
34.3H	Air_room	*Cladosporium*	sp.
34.5H	Air_room	*Cladosporium*	sp.
35.1H	Inlet	*Trichoderma*	sp.
35.2H	Inlet	*Cladosporium*	sp.
35.4H	Inlet	*Penicillium*	*glabrum*
36.1H	Inlet	*Penicillium*	*chrysogenum*
36.4H	Inlet	*Cladosporium*	sp.
36.6H	Inlet	*Cladosporium*	sp.
41.1H	Outlet	*Cladosporium*	sp.
48.1H	Cap_g	*Penicillium*	*chrysogenum*
52.1H	Cap	*Penicillium*	*variabile*
56.1H	Cap_p	*Penicillium*	*waksmanii*
63.1H	Cap_P	*Penicillium*	*aurantiogriseum*
65.1H	Cap_P	*Penicillium*	*corylophilum*
65.2H	Cap_P	*Penicillium*	*corylophilum*
89.1H	Wat_H8	*Cladosporium*	sp.
90.2H	Wat_H8	*Penicillium*	*glandicola*
90.4H	Wat_H8	*Cladosporium*	*glandicola*
90.5H	Wat_H8	*Penicillium*	*glandicola*
91.1H	Wat_H8	*Cladosporium*	sp.
92.1H	Wat_H8	*Cladosporium*	sp.
92.2H	Wat_H8	*Paecilomyces*	*variotii*
92.3H	Wat_H8	*Penicillium*	*glandicola*
94.1H	Wat_H8	*Paecilomyces*	*variotii*
7.1I	Wat_tank	*Cladosporium*	sp.
7.2I	Wat_tank	*Penicillium*	*glandicola*
7.3I	Wat_tank	*Cladosporium*	sp.
7.4I	Wat_tank	*Penicillium*	*roquefortii*
7.5I	Wat_tank	*Penicillium*	*griseofulvum*
9.1I	Wat_tank	*Cladosporium*	sp.
9.2I	Wat_tank	*Cladosporium*	sp.
9.3I	Wat_tank	*Cladosporium*	sp.
10.1I	Wat_tank	*Cladosporium*	sp.
10.3I	Wat_tank	*Penicillium*	*glabrum*
13.5I	Wat_filt	*Cladosporium*	sp.
13.6I	Wat_filt	*Penicillium*	*corylophilum*
15.1I	Wat_filt	*Cladosporium*	sp.
16.2I	Wat_filt	*Cladosporium*	sp.

16.3I	Wat_filt	*Trichoderma*	sp.
16.4I	Wat_filt	*Cladosporium*	sp.
23.3I	Wat_bottpet	*Cladosporium*	sp.
26.4I	Wat_bottglas	*Penicillium*	*paxilli*
26.5I	Wat_bottglas	*Cladosporium*	sp.
26.6I	Wat_bottglas	*Penicillium*	*corylophilum*
28.1I	Wat_bottglas	*Cladosporium*	sp.
31.8I	Air_pet	*Cladosporium*	sp.
31.9I	Air_pet	*Cladosporium*	sp.
32.1I	Air_pet	*Botrytis*	sp.
32.5I	Air_pet	*Botrytis*	sp.
32.7I	Air_pet	*Cladosporium*	sp.
33.2I	Air_room	*Penicillium*	*brevicompactum*
33.3I	Air_room	*Penicillium*	*chrysogenum*
34.3I	Air_room	*Penicillium*	*glabrum*
34.7I	Air_room	*Penicillium*	*corylophilum*
34.10I	Air_room	*Paecilomyces*	*lilacinus*
35.1I	Inlet	*Alternaria*	sp.
35.6I	Inlet	*Aspergillus*	*niger*
35.8I	Inlet	*Trichoderma*	sp.
35.9I	Inlet	*Cladosporium*	sp.
36.1I	Inlet	*Fusarium*	*lateritium*
36.2I	Inlet	*Penicillium*	*pinophilum*
36.4I	Inlet	*Penicillium*	*chrysogenum*
36.6I	Inlet	*Cladosporium*	sp.
37.1I	Inlet	*Penicillium*	*roqueforti*
37.3I	Inlet	*Cladosporium*	sp.
38.2I	Inlet	*Cladosporium*	sp.
47.1I	Cap_g	*Trichoderma*	sp.
49.1I	Cap_G	*Cladosporium*	sp.
89.2I	Wat_H8	*Penicillium*	*chrysogenum*
89.6I	Wat_H8	*Cladosporium*	sp.
92.2I	Wat_H8	*Cladosporium*	sp.
94.1I	Wat_H8	*Rhizopus*	sp.
90.1I	Wat_H8	*Geotrichum*	sp.
5.1J	Wat_nasc	*Penicillium*	*roqueforti*
5.2J	Wat_nasc	*Cladosporium*	sp.
7.3J	Wat_tank	*Cladosporium*	sp.
8.1J	Wat_tank	*Cladosporium*	sp.
13.3J	Wat_tank	*Penicillium*	*aurantiogriseum*
19.1J	Wat_bottpet	*Cladosporium*	sp.
24.1J	Wat_bottpet	*Penicillium*	*roquefortii*
26.3J	Wat_bottpet	*Penicillium*	*crustosum*
28.1J	Wat_bottpet	*Cladosporium*	sp.
28.2J	Wat_bottpet	*Cladosporium*	sp.
28.4J	Wat_bottpet	*Cladosporium*	sp.
30.1J	Wat_bottpet	*Penicillium*	*minioluteum*
30.2J	Wat_bottpet	*Cladosporium*	sp.
31.1J	Air_pet	*Penicillium*	*glabrum*
32.1J	Air_pet	*Penicillium*	*flavus*
32.2J	Air_pet	*Penicillium*	*chrysogenum*
32.3J	Air_pet	*Penicillium*	*chrysogenum*

33.1J	Air_room	*Penicillium*	*spinulosum*
33.3J	Air_room	*Penicillium*	*atramentosum*
34.1J	Air_room	*Aspergillus*	*niger*
34.2J	Air_room	*Penicillium*	*spinulosum*
34.3J	Air_room	*Cladosporium*	sp.
34.4J	Air_room	*Penicillium*	*dendriticum*
34.6J	Air_room	*Paecilomyces*	*variotii*
34.7J	Air_room	*Cladosporium*	sp.
56.2J	Cap_p	*Penicillium*	*corylophilum*
57.2J	Cap_p	*Aspergillus*	*versicolor*
57.3J	Cap_p	*Curvularia*	sp.
60.1J	Cap_p	*Penicillium*	*roqueforti*
60.2J	Cap_p	*Botrytis*	sp.
63.1J	Cap_P	*Paecilomyces*	*lilacinus*
80.1J	Swab	*Penicillium*	*roquefortii*
90.1J	Wat_H8	*Epicoccum*	*nigrum*
90.2J	Wat_H8	*Penicillium*	*expansum*
93.2J	Wat_H8	*Penicillium*	*crustosum*
93.3J	Wat_H8	*Cladosporium*	sp.
94.3J	Wat_H8	*Penicillium*	*brevicompactum*
94.5J	Wat_H8	*Cladosporium*	sp.
94.6J	Wat_H8	*Cladosporium*	sp.
103.1I	Wat_bottpetbait	*Penicillium*	*crustosum*
1.1K	Wat_nasc	*Penicillium*	*glabrum*
2.2K	Wat_nasc	*Cladosporium*	sp.
2.3K	Wat_nasc	*Trichoderma*	sp.
8.2K	Wat_tank	*Trichoderma*	sp.
15.1K	Wat_filt	*Cladosporium*	sp.
17.1K	Wat_filt	*Cladosporium*	sp.
18.1K	Wat_filt	*Cladosporium*	sp.
19.3K	Wat_bottpet	*Aspergillus*	*ustus*
20.1K	Wat_bottpet	*Penicillium*	*brevicompactum*
20.2K	Wat_bottpet	*Penicillium*	*roquefortii*
20.4K	Wat_bottpet	*Verticillium*	*lecanii*
21.2K	Wat_bottpet	*Penicillium*	*glabrum*
29.1K	Wat_bottglas	*Botrytis*	sp.
30.2K	Wat_bottglas	*Cladosporium*	sp.
31.1K	Air_pet	*Cladosporium*	sp.
31.2K	Air_pet	*Cladosporium*	sp.
31.3K	Air_pet	*Euroticum*	*amstelodami*
32.5K	Air_pet	*Penicillium*	*expansum*
33.1K	Air_room	*Aspergillus*	*niger*
33.4K	Air_room	*Cladosporium*	sp.
34.1K	Air_room	*Penicillium*	*glabrum*
43.1K	Cap_g	*Rhizopus*	sp.
46.1K	Cap_g	*Trichoderma*	sp.
55.1K	Cap_p	*Penicillium*	*roquefortii*
55.2K	Cap_p	*Verticillium*	*lecanii*
89.3K	Wat_H8	*Penicillium*	*minioluteum*
89.4K	Wat_H8	*Penicillium*	*citrinum*
89.5K	Wat_H8	*Paecilomyces*	*lilacinus*
89.9K	Wat_H8	*Penicillium*	*variabile*

89.9K	Wat_H8	*Penicillium*	*glabrum*
90.1K	Wat_H8	*Penicillium*	*glabrum*
1.2M	Wat_nasc	*Penicillium*	*waksmanii*
7.2M	Wat_tank	*Trichoderma*	sp.
13.1M	Wat_filt	*Trichoderma*	sp.
14.2M	Wat_filt	*Cladosporium*	sp.
14.1M	Wat_filt	*Penicillium*	*chrysogenum*
15.1M	Wat_filt	*Cladosporium*	sp.
18.2M	Wat_filt	*Penicillium*	*chrysogenum*
19.1M	Wat_bottpet	*Trichoderma*	sp.
20.2M	Wat_bottpet	*Penicillium*	*glabrum*
25.1M	Wat_bottglas	*Penicillium*	*roquefortii*
25.2M	Wat_bottglas	*Verticillium*	*lecanii*
25.2M	Wat_bottglas	*Penicillium*	*glabrum*
26.3M	Wat_bottglas	*Penicillium*	*brevicompactum*
31.2M	Air_pet	*Penicillium*	*brevicompactum*
32.6M	Air_pet	*Penicillium*	*glabrum*
33.2M	Air_room	*Trichoderma*	sp.
33.3M	Air_room	*Penicillium*	*variabile*
34.3M	Air_room	*Trichoderma*	sp.
33.2M	Air_room	*Penicillium*	*corylophilum*
33.4M	Air_room	*Aspergillus*	*versicolor*
34.8M	Air_room	*Penicillium*	*variabile*
35.2M	Inlet	*Penicillium*	*glabrum*
36.2M	Inlet	*Cladosporium*	sp.
38.3M	Inlet	*Cladosporium*	sp.
38.4M	Inlet	*Cladosporium*	sp.
44.1M	Cap_g	*Penicillium*	*brevicompactum*
50.1M	Cap_g	*Penicillium*	*roqueforti*
54.1M	Cap_g	*Penicillium*	*brevicompactum*
55.1M	Cap_p	*Penicillium*	*glabrum*
64.1M	Cap_P	*Rhizopus*	sp.
1.1L	Wat_nasc	*Penicillium*	*brevicompactum*
1.2L	Wat_nasc	*Cladosporium*	sp.
1.5L	Wat_nasc	*Penicillium*	*brevicompactum*
2.1L	Wat_nasc	*Penicillium*	*citrinum*
2.2L	Wat_nasc	*Penicillium*	*expansum*
2.3L	Wat_nasc	*Penicillium*	*camembertii*
5.1L	Wat_nasc	*Aspergillus*	*niger*
5.3L	Wat-n	*Penicillium*	*chrysogenum*
7.1L	Wat_tank	*Trichoderma*	sp.
8.2L	Wat_tank	*Trichoderma*	sp.
8.3L	Wat_tank	*Cladosporium*	sp.
11.1L	Wat_tank	*Trichoderma*	sp.
14.2L	Wat_filt	*Penicillium*	*expansum*
26.3L	Wat_bottpet	*Verticillium*	*lecanii*
29.1L	Wat_bottpet	*Penicillium*	*chrysogenum*
30.1L	Wat_bottpet	*Penicillium*	*glabrum*
30.2L	Wat_bottpet	*Cladosporium*	sp.
31.1L	Air_pet	*Penicillium*	*glabrum*
32.2L	Air_pet	*Penicillium*	*expansum*
32.3L	Air_pet	*Aspergillus*	*versicolor*

32.4L	Air_pet	*Penicillium*	*corylophilum*
32.8L	Air_pet	*Penicillium*	*brevicompactum*
32.9L	Air_pet	*Penicillium*	*glabrum*
33.3L	Air_room	*Penicillium*	*brevicompactum*
33.6L	Air_room	*Fusarium*	*verticillioides*
34.5L	Air_room	*Cladosporium*	sp.
48.2L	Cap_g	*Cladosporium*	sp.
51.1L	Cap_g	*Penicillium*	*corylophilum*
74.1L	Cap_g	*Penicillium*	*citrinum*
89.1L	Swab	*Penicillium*	*citrinum*
90.3L	Wat_H8	*Arthrinium*	sp.
93.1L	Wat_H8	*Penicillium*	*roqueforti*
26.1M	Wat_H8	*Penicillium*	*expansum*
33.4M		*Penicillium*	*expansum*
34.6M		*Penicillium*	*corylophilum*
1.1N	Wat_H8	*Penicillium*	*glabrum*
6.1N	Wat_nasc	*Rhizopus*	sp.
7.1N	Wat_tank	*Penicillium*	*variabile*
8.1N	Wat_tank	*Cladosporium*	sp.
13.1N	Wat_filt	*Verticillium*	*lecanii*
14.3N	Wat_filt	*Penicillium*	*brevicompactum*
19.3N	Wat_bottpet	*Penicillium*	*brevicompactum*
23.1N	Wat_bottpet	*Mucor*	sp.
25.1N	Wat_bottglas	*Trichoderma*	sp.
32.1N	Air_pet	*Penicillium*	*glabrum*
33.2N	Air_room	*Penicillium*	*glabrum*
33.3N	Air_room	*Cladosporium*	sp.
33.4N	Air_room	*Penicillium*	*roqueforti*
36.1N	Inlet	*Trichoderma*	sp.
39.1N	Outlet	*Penicillium*	*roqueforti*
39.2N	Outlet	*Cladosporium*	sp.
62.1N	Cap_P	*Penicillium*	*roqueforti*
66.1N	Cap_P	*Penicillium*	*corylophilum*
67.2N	Swab	*Cladosporium*	sp.
71.2N	Swab	*Cladosporium*	sp.
7.1O	Wat_tank	*Penicillium*	*griseofulvum*
7.2O	Wat_tank	*Alternaria*	sp.
7.3O	Wat_tank	*Acremonium*	sp.
7.4O	Wat_tank	*Penicillium*	*glabrum*
20.2O	Wat_bottglas	*Cladosporium*	sp.
22.1O	Wat_bottglas	*Penicillium*	*expansum*
25.2O	Wat_bottpet	*Cladosporium*	sp.
26.2O	Wat_bottpet	*Cladosporium*	sp.
31.3O	Air_pet	*Penicillium*	*citrinum*
32.2O	Air_pet	*Penicillium*	*corylophilum*
32.3O	Air_pet	*Penicillium*	*aurantiogriseum*
32.5O	Air_pet	*Penicillium*	*citrinum*
33.1O	Air_room	*Penicillium*	*glabrum*
34.1O	Air_room	*Penicillium*	*brevicompactum*
35.1O	Inlet	*Penicillium*	*chrysogenum*
39.2O	Outlet	*Penicillium*	*brevicompactum*
41.1O	Outlet	*Cladosporium*	sp.

43.1O	Cap_g	*Penicillium*	*aurantiogriseum*
44.1O	Cap_g	*Penicillium*	*chrysogenum*
45.1O	Cap_g	*Penicillium*	*glabrum*
47.1O	Cap_g	*Penicillium*	*chrysogenum*
73.1O	Swab	*Cladosporium*	sp.
1.1P	Wat_nasc	*Penicillium*	*brevicompactum*
1.2P	Wat_nasc	*Cladosporium*	sp.
7.1P	Wat_tank	*Cladosporium*	sp.
8.2P	Wat_tank	*Acremonium*	sp.
19.2P	Wat_bottpet	*Penicillium*	*glabrum*
20.3P	Wat_bottpet	*Penicillium*	*glabrum*
20.5P	Wat_bottpet	*Penicillium*	*spinulosum*
24.3P	Wat_bottpet	*Trichoderma*	sp.
25.2P	Wat_bottglas	*Penicillium*	*chrysogenum*
29.1P	Wat_bottglas	*Penicillium*	*chrysogenum*
30.1P	Wat_bottglas	*Penicillium*	*chrysogenum*
30.2P	Wat_bottglas	*Penicillium*	*chrysogenum*
31.1P	Air_pet	*Alternaria*	sp.
33.2P	Air_room	*Cladosporium*	sp.
33.3P	Air_room	*Aspergillus*	*sydowii*
34.4P	Air_room	*Aspergillus*	*versicolor*
34.5P	Air_room	*Cladosporium*	sp.
35.2P	Inlet	*Trichoderma*	sp.
36.3P	Inlet	*Trichoderma*	sp.
41.1P	Outlet	*Penicillium*	*chrysogenum*
42.1P	Outlet	*Penicillium*	*chrysogenum*
49.2P	Cap_g	*Alternaria*	Sp.
49.3P	Cap_g	*Penicillium*	corylophilum
52.1P	Cap_g	*Cladosporium*	sp.
71.2P	Swab	*Penicillium*	*aurantiogriseum*