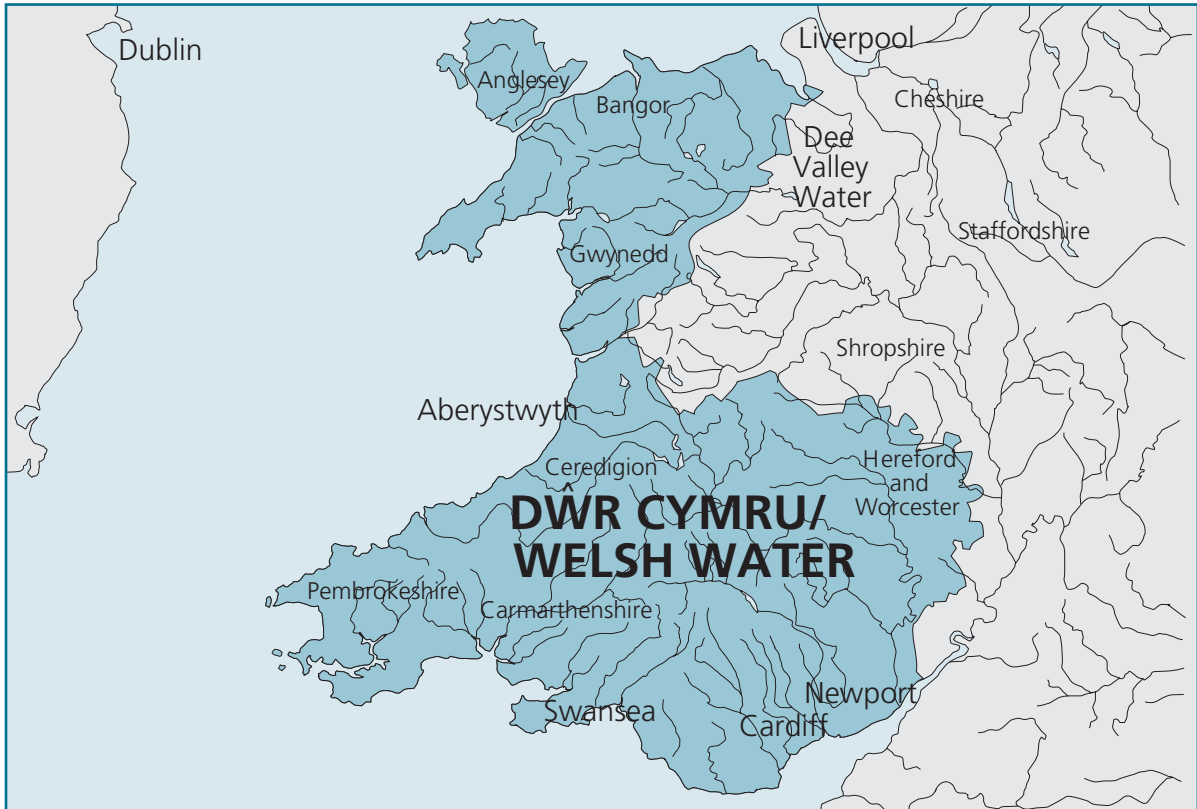


Dŵr Cymru Welsh Water



Company performance:		Company Assets:	
Number of Tests Carried out:	292,973	No. of Treatment Works	92
Mean Zonal Compliance %:	99.96%	No. of Service Reservoirs	557
Consumer contacts per 1000 people supplied	3	No. of Water Supply Zones	92
Water quality incidents per 1,000 km mains	0.5	Length of mains pipe (Km)	22,202
Population served:		Water supplied :	
Population supplied	2,900,000	Water Supplied (Ml/day)	876
Local Authorities	22	From surface sources (Ml/day)	780
Health Authorities (Local Health Boards)	9	From ground sources (Ml/day)	35
Area of supply		From mixed sources (Ml/day)	61
Conwy, Anglesey, Blaenau Gwent, Bridgend, Gwynedd, Caerphilly, Cardiff, Cardiganshire, Carmarthenshire, Denbighshire, Flintshire, Merthyr Tydfil, Monmouthshire, Neath And Port Talbot, Newport, Pembrokeshire, Powys, Rhondda Cynon Taff, Swansea, Torfaen, Vale Of Glamorgan		% from surface sources	89
		% ground sources	4
		% mixed sources	7

*For guidance on interpretation of data tables, please refer to 'Drinking Water Quality Results by Company'.

**Figures in the percentile columns are maximum and minimum figures where the number of samples taken is less than 100.

Table DWR 1: Quality of water leaving treatment works – European Standards
Number of treatment works = 92

Parameter	Prescribed Concentration or Value	Total number of tests	Tests failed	1%ile	99%ile	No. of works with failures
Nitrite (Works)	0.1 mg NO ₂ /l	651	0	<0.0006	0.02	0
Total	–	651	0	–	–	–

Table DWR 2: Quality of water leaving treatment works – National Standards

Parameter	Prescribed Concentration or Value	Total number of tests	Tests failed	1%ile	99%ile	No. of works with failures
Coliform bacteria	0/100 ml	5700	4	0	0	3
<i>Cryptosporidium</i> oocysts	<1 oocysts per 10 litres	5828	0	<0.0015	0.30273	0
<i>Escherichia coli</i>	0/100 ml	6555	0	0	0	0
Total	–	18083	4	–	–	–

Table DWR 3: Quality of water leaving treatment works – Additional Monitoring Requirements

Indicator Parameter	Prescribed Concentration or Value	Total number of tests	Tests Exceeding Specification	1%ile	99%ile
Colony counts @ 22° C	Company specification	6556	–	0	31
Colony counts @ 37° C	Company specification	5679	–	0	13
Residual disinfectant (Free chlorine) mg/l	Company specification	6542	–	0.05	1
Residual disinfectant (Total chlorine) mg/l	Company specification	6538	–	0.14	1.5
Turbidity	1 NTU	8762	62	<0.03	0.85
Total	–	34077	62	–	–

Table DWR 4: Quality of water leaving service reservoirs – National Standards
Number of service reservoirs = 557

Parameter	Prescribed Concentration or Value	Total number of tests	Tests failed	No. of reservoirs with coliforms detected in more than 5% of samples	1%ile	99%ile	No. of reservoirs failing standard
Coliform bacteria	0/100 ml	22358	18	0	0	0	0
<i>Escherichia coli</i>	0/100 ml	23657	3	–	0	0	3
Total	–	46015	21	0	–	–	–

Table DWR 5: Quality of water leaving service reservoirs – Additional Monitoring Requirements

Indicator Parameter	Prescribed Concentration or Value	Total number of tests	1%ile	99%ile
Colony counts @ 22° C	Company specification	23627	0	69
Colony counts @ 37° C	Company specification	20544	0	8
Residual disinfectant (Free chlorine) mg/l	Company specification	23560	<0.1	0.8
Residual disinfectant (Total chlorine) mg/l	Company specification	23538	0.1	1
Total	–	91269	–	–

Table DWR 6: Quality of water leaving bulk supply points - European Standards
Number of supply points = 38

Parameter	Prescribed Concentration or Value	Total number of tests	Tests failed	1%ile	99%ile	Failures by supply point
1,2 Dichloroethane	3 µg/l	252	0	<0.12	<0.12	0
Benzene	1 µg/l	252	0	<0.15	<0.15	0
Boron	1 mg B/l	228	0	<0.01	0.038	0
Bromate	10 µg BrO ₃ /l	52	0	<0.0008	0.0027	0
Cyanide	50 µg CN/l	224	0	<0.0004	0.0009	0
Fluoride	1.5 mg F/l	228	0	<0.04	0.11	0
Mercury	1 µg Hg/l	228	0	<0.015	0.1	0
Pesticides (2,4,-Db)	0.1 µg/l	159	0	<0.003	<0.003	0
Pesticides (2,4,5-T)	0.1 µg/l	178	0	<0.003	<0.003	0
Pesticides (2,4-D)	0.1 µg/l	161	0	<0.003	0.065	0
Pesticides (Aldrin)	0.03 µg/l	277	0	<0.002	<0.002	0
Pesticides (Alpha-HCH)	0.1 µg/l	281	0	<0.001	<0.001	0
Pesticides (Asulam)	0.1 µg/l	151	0	<0.005	0.01	0
Pesticides (Atrazine)	0.1 µg/l	230	0	<0.001	0.025	0
Pesticides (Benazolin)	0.1 µg/l	161	0	<0.002	<0.002	0
Pesticides (Beta-HCH)	0.1 µg/l	281	0	<0.002	<0.002	0
Pesticides (Bromoxynil)	0.1 µg/l	161	0	<0.001	0.004	0
Pesticides (Captan)	0.1 µg/l	225	0	<0.007	0.01	0
Pesticides (Carbendazim)	0.1 µg/l	88	0	<0.002	<0.004	0
Pesticides (Chlorfenvinphos)	0.1 µg/l	241	0	<0.009	<0.01	0
Pesticides (Chlorothalonil)	0.1 µg/l	234	0	<0.001	<0.001	0
Pesticides (Chlorpyrifos)	0.1 µg/l	209	0	<0.003	<0.003	0
Pesticides (Chlortoluron)	0.1 µg/l	88	0	<0.002	<0.002	0
Pesticides (Diazinon)	0.1 µg/l	237	0	<0.005	0.011	0
Pesticides (Dicamba)	0.1 µg/l	161	0	<0.001	<0.001	0
Pesticides (Dichlofluanid)	0.1 µg/l	207	0	<0.013	<0.013	0

Table DWR 6: Quality of water leaving bulk supply points - European Standards
Number of supply points = 38 (continued)

Parameter	Prescribed Concentration or Value	Total number of tests	Tests failed	1%ile	99%ile	Failures by supply point
Pesticides (Dichlorprop)	0.1 µg/l	161	0	<0.002	0.003	0
Pesticides (Dieldrin)	0.03 µg/l	281	0	<0.002	<0.002	0
Pesticides (Diuron)	0.1 µg/l	88	0	<0.003	0.021	0
Pesticides (Endosulfan A (alpha-Endosulfan))	0.1 µg/l	272	0	<0.001	<0.001	0
Pesticides (Endosulfan B (beta-Endosulfan))	0.1 µg/l	263	0	<0.004	<0.004	0
Pesticides (Endrin)	0.1 µg/l	280	0	<0.002	<0.002	0
Pesticides (Ethofumersate)	0.1 µg/l	152	0	<0.002	<0.002	0
Pesticides (Fenpropidin)	0.1 µg/l	225	0	<0.003	<0.003	0
Pesticides (Fenpropimorph)	0.1 µg/l	227	0	<0.006	0.01	0
Pesticides (Fluroxypyr)	0.1 µg/l	129	0	<0.005	0.01	0
Pesticides (Gamma-HCH (Lindane))	0.1 µg/l	275	0	<0.002	<0.002	0
Pesticides (Glyphosate)	0.1 µg/l	31	0	<0.008	0.01	0
Pesticides (Heptachlor epoxide)	0.03 µg/l	280	0	<0.002	<0.002	0
Pesticides (Heptachlor)	0.03 µg/l	280	0	<0.002	<0.002	0
Pesticides (Hexachlorobenzene)	0.1 µg/l	278	0	<0.001	<0.001	0
Pesticides (Ioxynil)	0.1 µg/l	157	0	<0.002	<0.002	0
Pesticides (Isoproturon)	0.1 µg/l	88	0	<0.004	0.016	0
Pesticides (Lambda-Cyhalothrin)	0.1 µg/l	74	0	<0.002	<0.002	0
Pesticides (Linuron)	0.1 µg/l	88	0	<0.003	<0.003	0
Pesticides (MCPA)	0.1 µg/l	161	0	<0.002	0.026	0

Table DWR 6: Quality of water leaving bulk supply points - European Standards
Number of supply points = 38 (continued)

Parameter	Prescribed Concentration or Value	Total number of tests	Tests failed	1%ile	99%ile	Failures by supply point
Pesticides (MCPB)	0.1 µg/l	161	0	<0.004	0.01	0
Pesticides (MCPB(Mecoprop))	0.1 µg/l	161	0	<0.001	0.02	0
Pesticides (Metamitron)	0.1 µg/l	88	0	<0.002	<0.002	0
Pesticides (Methabenz-thiazuron)	0.1 µg/l	88	0	<0.002	0.004	0
Pesticides (op-DDD (TDE))	0.1 µg/l	280	0	<0.002	<0.002	0
Pesticides (op-DDE)	0.1 µg/l	279	0	<0.002	<0.002	0
Pesticides (op-DDT)	0.1 µg/l	275	0	<0.002	<0.002	0
Pesticides (Parathion (Parathion ethyl))	0.1 µg/l	240	0	<0.005	<0.01	0
Pesticides (Pentachlorophenol)	0.1 µg/l	25	0	<0.004	<0.004	0
Pesticides (Permethrin)	0.1 µg/l	231	0	<0.003	<0.003	0
Pesticides (pp-DDD (TDE))	0.1 µg/l	280	0	<0.002	<0.002	0
Pesticides (pp-DDE)	0.1 µg/l	276	0	<0.002	<0.002	0
Pesticides (pp-DDT)	0.1 µg/l	278	0	<0.002	<0.002	0
Pesticides (Propachlor)	0.1 µg/l	230	0	<0.002	<0.002	0
Pesticides (Propazine)	0.1 µg/l	229	0	<0.001	<0.001	0
Pesticides (Propetamphos)	0.1 µg/l	345	0	<0.004	<0.004	0
Pesticides (Propyzamide)	0.1 µg/l	228	0	<0.002	<0.002	0
Pesticides (Simazine)	0.1 µg/l	230	0	<0.001	0.006	0

Table DWR 6: Quality of water leaving bulk supply points – European Standards
Number of supply points = 38 (continued)

Parameter	Prescribed Concentration or Value	Total number of tests	Tests failed	1%ile	99%ile	Failures by supply point
Pesticides (Terbutryn)	0.1 µg/l	223	0	<0.002	<0.002	0
Pesticides (Trietazine)	0.1 µg/l	222	0	<0.001	0.002	0
Pesticides (Trifluralin)	0.1 µg/l	229	0	<0.002	<0.002	0
Pesticides (Triphenyltin (fentin))	0.1 µg/l	1	0	<0.02	<0.02	0
Pesticides: Total	0.5 µg/l	203	0	0	0.07	0
Tetra/ Trichloroethene	10 µg/l	27	0	<0.16	<0.16	0
Total	–	13813	0	–	–	–

Table DWR 7: Quality of water at consumer's tap (zones) – National Standards

Parameter	Prescribed Concentration or Value	Total number of tests	Tests failed	1%ile	99%ile	No. of zones with failures
Tetrachloromethane	3 µg/l	205	0	<0.02	0.09	0
Total	–	205	0	-	-	-

Table DWR 8: Quality of water leaving bulk supply points - Additional Monitoring Requirements

Indicator Parameter	Prescribed Concentration or Value	Total number of tests	Tests Exceeding Specification	1%ile	99%ile
Chloride	250 mg Cl/l	227	0	7	74
<i>Clostridium perfringens</i> (including spores)	0/100 ml	1412	3	0	0
Conductivity	2500 µS/cm	1644	0	52	773
*Gross Alpha	0.1 Bq/l	186	–	–	–
*Gross Beta	1 Bq/l	186	–	–	–
Sulphate	250 mg SO ₄ /l	226	0	<2	75
Total Organic Carbon (TOC)	Company specification	198	–	<0.18	9.46
Tritium (for radiation)	100 Bq/l	302	–	<1.6	<4.7
Total	–	4381	3	–	–

*Monitored for the calculation of Total Indicative Dose

Table DWR 9: Quality of water at consumer's tap (zones) - European Standards
Number of zones = 92

Parameter	Prescribed Concentration or Value	Total number of tests	Tests failed	1%ile	99%ile	No. of zones with failures
1,2 Dichloroethane	3 µg/l	331	0	<0.12	0.16	0
Antimony	5 µg Sb/l	588	0	<0.0002	0.0003	0
Arsenic	10 µg As/l	588	0	<0.0005	<0.5	0
Benzene	1 µg/l	331	0	<0.15	<0.15	0
Benzo(a)pyrene	0.01 µg/l	593	0	<0.001	<0.001	0
Boron	1 mg B/l	304	0	<0.01	0.03	0
Bromate	10 µg BrO ₃ /l	534	0	<0.0008	0.0018	0
Cadmium	5 µg Cd/l	588	0	<0.0002	<0.0002	0
Chromium	50 µg Cr/l	588	0	<0.0003	1.00	0
Copper	2 mg Cu/l	589	0	<0.0012	0.132	0
Cyanide	50 µg CN/l	331	0	<0.0004	0.7	0
<i>Escherichia coli</i>	0/100 ml	6949	1	0	0	1
Enterococci	0/100 ml	588	0	0	0	0
Fluoride	1.5 mg F/l	332	0	<0.04	0.09	0
Lead	25 µg Pb/l	589	0	<0.001	4.52	0
Mercury	1 µg Hg/l	332	0	<0.015	0.1	0
Nickel	20 µg Ni/l	587	0	<0.0014	2	0

Table DWR 9: Quality of water at consumer's tap (zones) - European Standards
Number of zones = 92 (continued)

Parameter	Prescribed Concentration or Value	Total number of tests	Tests failed	1%ile	99%ile	No. of zones with failures
Nitrate	50 mg NO ₃ /l	798	0	<0.06	6.10	0
Nitrite	0.5 mg NO ₂ /l	724	0	<0.0006	0.2418	0
Pesticides (2,4,-Db)	0.1 µg/l	301	0	<0.003	<0.003	0
Pesticides (2,4,5-T)	0.1 µg/l	305	0	<0.003	<0.003	0
Pesticides (2,4-D)	0.1 µg/l	305	0	<0.003	0.016	0
Pesticides (Aldrin)	0.03 µg/l	395	0	<0.002	<0.002	0
Pesticides (Alpha-HCH)	0.1 µg/l	399	0	<0.001	<0.001	0
Pesticides (Asulam)	0.1 µg/l	317	0	<0.005	0.01	0
Pesticides (Atrazine)	0.1 µg/l	381	0	<0.001	0.037	0
Pesticides (Benazolin)	0.1 µg/l	305	0	<0.002	<0.002	0
Pesticides (Beta-HCH)	0.1 µg/l	399	0	<0.002	<0.002	0
Pesticides (Bromoxynil)	0.1 µg/l	305	0	<0.001	0.004	0
Pesticides (Captan)	0.1 µg/l	371	0	<0.007	<0.01	0
Pesticides (Carbendazim)	0.1 µg/l	238	0	<0.002	0.004	0
Pesticides (Chlorfenvinphos)	0.1 µg/l	353	0	<0.009	0.01	0
Pesticides (Chlorothalonil)	0.1 µg/l	397	0	<0.001	0.002	0
Pesticides (Chlorpyrifos)	0.1 µg/l	353	0	<0.003	<0.003	0
Pesticides (Chlortoluron)	0.1 µg/l	238	0	<0.002	0.007	0
Pesticides (Diazinon)	0.1 µg/l	343	0	<0.005	<0.011	0
Pesticides (Dicamba)	0.1 µg/l	305	0	<0.001	<0.001	0
Pesticides (Dichlofluanid)	0.1 µg/l	350	0	<0.013	<0.013	0
Pesticides (Dichlorprop)	0.1 µg/l	305	0	<0.002	0.003	0
Pesticides (Dieldrin)	0.03 µg/l	399	0	<0.002	<0.002	0
Pesticides (Diuron)	0.1 µg/l	238	0	<0.003	0.004	0

Table DWR 9: Quality of water at consumer's tap (zones) – European Standards
Number of zones = 92 (continued)

Parameter	Prescribed Concentration or Value	Total number of tests	Tests failed	1%ile	99%ile	No. of zones with failures
Pesticides (Endosulfan A (alpha-Endosulfan))	0.1 µg/l	374	0	<0.001	<0.001	0
Pesticides (Endosulfan B (beta-Endosulfan))	0.1 µg/l	366	0	<0.004	<0.004	0
Pesticides (Endrin)	0.1 µg/l	397	0	<0.002	<0.002	0
Pesticides (Ethofumersate)	0.1 µg/l	237	0	<0.002	0.004	0
Pesticides (Fenpropidin)	0.1 µg/l	367	0	<0.003	<0.003	0
Pesticides (Fenpropimorph)	0.1 µg/l	376	0	<0.006	0.01	0
Pesticides (Fluroxypyr)	0.1 µg/l	243	0	<0.005	<0.01	0
Pesticides (Gamma-HCH (Lindane))	0.1 µg/l	392	0	<0.002	<0.002	0
Pesticides (Glyphosate)	0.1 µg/l	134	0	<0.008	<0.01	0
Pesticides (Heptachlor epoxide)	0.03 µg/l	397	0	<0.002	<0.002	0
Pesticides (Heptachlor)	0.03 µg/l	397	0	<0.002	<0.002	0
Pesticides (Hexachlorobenzene)	0.1 µg/l	395	0	<0.001	<0.001	0
Pesticides (Ioxynil)	0.1 µg/l	303	0	<0.002	<0.002	0
Pesticides (Isoproturon)	0.1 µg/l	238	0	<0.004	0.008	0
Pesticides (Lambda-Cyhalothrin)	0.1 µg/l	138	0	<0.002	<0.002	0
Pesticides (Linuron)	0.1 µg/l	238	0	<0.003	<0.003	0
Pesticides (Mancozeb (a Dithiocarbamate Fungicide))	0.1 µg/l	37	0	<0.05	<0.05	0
Pesticides (MCPA)	0.1 µg/l	305	0	<0.002	0.047	0
Pesticides (MCPB)	0.1 µg/l	305	0	<0.006	0.01	0
Pesticides (MCPP(Mecoprop))	0.1 µg/l	305	1	<0.001	0.02	1
Pesticides (Metamitron)	0.1 µg/l	238	0	<0.002	<0.002	0

Table DWR 9: Quality of water at consumer's tap (zones) – European Standards
Number of zones = 92 (continued)

Parameter	Prescribed Concentration or Value	Total number of tests	Tests failed	1%ile	99%ile	No. of zones with failures
Pesticides (Methabenzthiazuron)	0.1 µg/l	238	0	<0.002	<0.002	0
Pesticides (op-DDD (TDE))	0.1 µg/l	397	0	<0.002	<0.002	0
Pesticides (op-DDE)	0.1 µg/l	394	0	<0.002	<0.002	0
Pesticides (op-DDT)	0.1 µg/l	382	0	<0.002	<0.002	0
Pesticides (Parathion (Parathion ethyl))	0.1 µg/l	346	0	<0.005	0.01	0
Pesticides (Pentachlorophenol)	0.1 µg/l	51	0	<0.004	<0.004	0
Pesticides (Permethrin)	0.1 µg/l	390	0	<0.003	<0.003	0
Pesticides (pp-DDD (TDE))	0.1 µg/l	397	0	<0.002	<0.002	0
Pesticides (pp-DDE)	0.1 µg/l	392	0	<0.002	<0.002	0
Pesticides (pp-DDT)	0.1 µg/l	383	0	<0.002	<0.002	0
Pesticides (Propachlor)	0.1 µg/l	378	0	<0.002	<0.002	0
Pesticides (Propazine)	0.1 µg/l	379	0	<0.001	<0.001	0
Pesticides (Propetamphos)	0.1 µg/l	608	0	<0.004	<0.004	0
Pesticides (Propyzamide)	0.1 µg/l	383	0	<0.002	0.006	0
Pesticides (Simazine)	0.1 µg/l	381	0	<0.001	0.01	0
Pesticides (Terbutryn)	0.1 µg/l	372	0	<0.002	<0.002	0
Pesticides (Trietazine)	0.1 µg/l	372	0	<0.001	<0.001	0
Pesticides (Trifluralin)	0.1 µg/l	382	0	<0.002	0.003	0
Pesticides (Triphenyltin (fentin))	0.1 µg/l	23	0	<0.02	<0.02	0
Pesticides: Total	0.5 µg/l	330	0	0	0.083	0
Polycyclic Aromatic Hydrocarbons	0.1 µg/l	588	0	0	0.055	0
Selenium	10 µg Se/l	587	0	<0.0004	<0.44	0
Tetra/Trichloroethene	10 µg/l	330	0	0	0	0
Trihalomethanes: Total	100 µg/l	588	1	2.94	87.69	1
Total	–	38819	3	–	–	–

Table DWR 10: Quality of water at consumer's tap (zones) – National Standards

Parameter	Prescribed Concentration or Value	Total number of tests	Tests failed	1%ile	99%ile	No. of zones with failures
Aluminium	200 µg Al/l	1439	0	<0.005	97.6	0
Colour	20 mg/l Pt/Co scale	1267	0	<0.4	5.9	0
Hydrogen ion	6.5-10 pH value	1454	0	7.2	9.1	0
Iron	200 µg Fe/l	2237	28	<0.007	229.62	20
Manganese	50 µg Mn/l	1519	4	<0.0015	25.8	4
Odour	3 at 25°C dilution number	1574	2	0	2	1
Sodium	200 mg Na/l	575	0	3.2	28.4	0
Taste	3 at 25°C dilution number	1360	1	0	1	1
Tetrachloromethane	3 µg/l	330	0	<0.02	0.05	0
Turbidity	4 NTU	1394	1	0.03	1.14	1
Total	–	13149	36	–	–	–

Table DWR 11: Quality of water at consumer's tap (zones) – Additional Monitoring Requirements

Indicator Parameter	Prescribed Concentration or Value	Total number of tests	Tests Exceeding Specification	1%ile	99%ile
Ammonium	0.5 mg NH ₄ /l	1297	1	<0.016	0.2
Chloride	250 mg Cl/l	305	0	6.4	48.1
<i>Clostridium perfringens</i> (including spores)	0/100 ml	1655	1	0	0
Coliform bacteria	0/100 ml	6953	30	0	0
Colony counts @ 22° C	Company specification	1875	–	0	109
Colony counts @ 37° C	Company specification	1869	–	0	72
Conductivity	2500 µS/cm	822	0	54	407
*Gross Alpha	0.1 Bq/l	625	–	–	–
*Gross Beta	1 Bq/l	625	–	–	–
Hydrogen ion	<9.5 pH value	1454	1	7.2	9.1
Residual Disinfectant (Free chlorine) mg/l	Company specification	6926	–	0.04	0.7
Residual Disinfectant (Total chlorine) mg/l	Company specification	6977	–	0.1	0.9
Sulphate	250 mg SO ₄ /l	332	0	2	54.6
Total Organic Carbon (TOC)	Company specification	332	–	0.59	3.31
Tritium (for radiation)	100Bq/l	464	0	<1.5	5.9
Total	–	32511	33	–	–

*Monitored for the calculation of Total Indicative Dose