

Drinking Water Quality Report for Oakham Supply Zone ZST0101

Areas covered by Report:	Oakham
Report Period:	01 January 2018 to 31 December 2018
Upstream Zone:	Severn Trent Water Rutland & Uppingham WSZ (ZLC06)
Population:	1635
Notices:	Undertaking IWN3466 in relation to Total Pesticides and Metaldehyde in the bulk supply provided. This scheme is progressing according to the action plan.

Commentary on Water Quality

The water supplied to the Oakham Zone originates from a surface water source that is chloraminated. The analysis results indicate the quality of the water supplied to this zone is very good with no contraventions recorded or detected during 2018.

There was 1 customer contact concerning "illness" during the period of this report. The investigation by IWNL concluded that the water supplied was compliant with regulations.

Hardness Rating:	The water supplied to this zone is classified as hard as it contains naturally elevated concentrations of calcium and magnesium.					
	Soft	Moderately Soft	Slightly Hard	Moderately Hard	Hard	Very Hard
CaCO ₃ mg/l	0-50	50-100	100-150	150-200	200-300	300+

Microbiological Indicators

Parameter	units of measurement	Number of Samples	Minimum	Max	Average	Prescribed Concentration or Value
Coliform Bacteria (Indicator)	No. 100/ml	12	0	0	0	0
E.coli (faecal coliforms Confirmed)	No. 100/ml	12	0	0	0	0
Enterococci (Confirmed)	No. 100/ml	4	0	0	0	0
Sulphite-reducing Clostridia (Confirmed)	No. 100/ml	4	0	0	0	0

Physio-Chemical Parameters

Parameter	units of measurement	Number of Samples	Minimum	Max	Average	Prescribed Concentration or Value
Ammonium (Total)	mg/l NH ₄	4	0.022	0.186	0.098	0.5
Boron	mg/l B	4	0.05	0.11	0.08	1
Bromate	ug/l BrO ₃	4	0.1	0.4	0.23	10
Chloride	mg/l	4	45.5	70.9	63.08	250
Colour	mg/l Pt/Co	4	1	1.6	1.25	20
Cyanide (Total)	ug/l CN	4	0.7	0.7	0.7	50

Physio-Chemical Parameters continued							
Parameter	units of measurement	Number of Samples	Minimum	Max	Average	Prescribed Concentration or Value	
Electrical Conductivity	uS/cm @ 20 C	4	581	657	627.8	2500	
Fluoride (Total)	mg/l F	4	0.18	0.28	0.243	1.5	
Free Residual Chlorine	mg/l	12	0.08	0.66	0.254	No Specific PCV	
Hydrogen ion	pH value	4	7.16	7.68	7.335	6.5-9.5	
Nitrate (Total)	mg/l NO3	4	10.4	18.8	14.63	50	
Nitrite - Consumer's Taps	mg/l NO3	4	0.002	0.007	0.0040	0.5	
Nitrite/Nitrate formula	No Units	4	0.21	0.38	0.293	1	
Sodium	mg/l Na	4	9.21	48.2	32.9775	200	
Sulphate	mg/l SO4	4	17.1	122	86.33	250	
Total Residual Chlorine	mg/l	12	0.17	0.83	0.476	No Specific PVC	
Turbidity (CT)	FTU	4	0.14	0.2	0.168	4	

Hydrocarbons / Organics

Parameter	units of measurement	Number of Samples	Minimum	Max	Average	Prescribed Concentration or Value	
1 1 1-Trichloroethane (Total)	ug/l	4	0.04	0.04	0.040	0.1	
1 2-Dichloroethane (Total)	ug/l	4	0.07	0.07	0.070	3	
Benzene (Total)	ug/l	4	0.02	0.02	0.020	1	
Benzo[a]Pyrene (Total)	ug/l	4	0.00022	0.00022	0.000220	0.01	
Benzo[b]Fluoranthene (Total)	ug/l	4	0.00052	0.00052	0.000520	The sum of PAHs must be <0.1 ug/l	
Benzo[ghi]Perylene (Total)	ug/l	4	0.0004	0.0004	0.000400	The sum of PAHs must be <0.1 ug/l	
Benzo[k]Fluoranthene (Total)	ug/l	4	0.00047	0.00047	0.000470	The sum of PAHs must be <0.1 ug/l	
Bromodichloromethane (Total)	ug/l	4	1.53	4.02	3.028	60	
ChloroDibromomethane (Total)	ug/l	4	4.85	8.56	7.108	100	
Indeno[1 2 3-cd]Pyrene (Total)	ug/l	4	0.00048	0.00048	0.00048	The sum of PAHs must be <0.1 ug/l	
Polycyclic Aromatic Hydrocarbons (Total by Calculation)	ug/l	4	0.001	0.004	0.0025	0.1	
Tetrachloroethene (Total)	ug/l	4	0.05	0.05	0.050	10	
Tetrachloromethane (Total)	ug/l	4	0.02	0.02	0.020	3	
Total Organic Carbon	mg/l C	4	2.7	3.7	3.325	NO ABNORMAL CHANGE	
Total Trichloroethene & Tetrachloroethene (Total by Calculation)	ug/l	4	0	0	0	100	

Hydrocarbons / Organics continued

Parameter	units of measurement	Number of Samples	Minimum	Max	Average	Prescribed Concentration or Value
Tribromomethane-Bromoform (Total)	ug/l	4	3.26	5.43	4.523	100
Trichloroethene (Total)	ug/l	4	0.05	0.05	0.050	10
Trichloromethane-Chloroform (Total)	ug/l	4	0.3	1.47	0.973	300
Trihalomethanes (Total by Calculation)	ug/l	4	10.82	18.98	15.555	100

Metals

Parameter	units of measurement	Number of Samples	Minimum	Max	Average	Prescribed Concentration or Value
Aluminium (Total)	ug/l Al	4	3.21	7.22	6.2175	200
Antimony	ug/l Sb	4	0.21	0.364	0.2935	5
Arsenic (Total)	ug/l As	4	0.26	0.74	0.4375	10
Cadmium (Total)	ug/l Cd	4	0.013	0.04	0.0245	5
Chromium (Total)	ug/l Cr	4	0.27	0.53	0.365	50
Copper (Total)	mg/l Cu	4	0.0032	0.0785	0.03105	2
Iron (Total)	ug/l Fe	4	8.57	52.6	34.22	200
Lead (10)	ug/l Pb	4	0.03	0.24	0.1475	10
Manganese (Total)	ug/l Mn	4	0.14	0.44	0.26	50
Mercury (Total)	ug/l Hg	4	0.02	0.05	0.033	1
Nickel (Total)	ug/l Ni	4	2.35	3.61	2.99	20
Selenium (Total)	ug/l Se	4	0.16	1.81	0.61	10

Organoleptic Parameters

Parameter	units of measurement	Number of Samples	Minimum	Max	Average	Prescribed Concentration or Value
Odour (Quantitative)	Dilution Number	4	0	0	0	0
Taste(Quantitative)	Dilution Number	4	0	0	0	0

Notes

1. For some parameters, monitoring occurs at the supplying Water Treatment Works rather than the Water Supply Zone.

Glossary of Terms

Term	Definition
PCV	Prescribed Concentration or Value
mg/l	Milligrammes per Litre or parts per million
µg/l	Microgrammes per Litre or parts per billion
Pt/Co	Platinum/Cobalt
µS/cm	Micro Siemens per Centimetre
Bq/l	Becquerel per Litre
NTU	Nephelometric Turbidity Units
