	Results	WHO Drinking Water limits	Limits Exceeded (Y/N)
Sample_ID	S6		
Sampling date	19.06.2019		
Location ID	Birtley WWTP		
Sample description	Downstream of River Team		
Sample Source	Surface water		
Label	SW		
Latitude	54.90726		
Longitude	-1.59904		
Sea Level (mAOD)			
Depth below ground (m)			
pH	7.84		
Temp (degC)			
Salinity (ppm)	1012		
TDS (mg/l)	1388		
Conductivity (uS)	1960		
Alkalinity (mg/L CaCO3)	262		
Faecal Coliforms (count/100ml)	7300	*0*	Y
Aluminium (mg/l)	0.012	*0.2*	N

Ammonium (mg/l)	0.401	*Not of health concerns at levels found in drinking water*	N
Antimony (mg/l)	0.002	*0.02*	N
Arsenic (mg/l)	0.000	*0.01*	N
Barium (mg/l)	0.040	*1.3*	N
Bromide (mg/l)		*6*	N
Cadmium (mg/l)	0.000	*0.003*	N
Calcium (mg/l)	119.061	*100-300*	Y
Chloride (mg/l)	204.677	*250*	N
Chromium (mg/l)	0.000	*0.05*	N
Copper (mg/l)	0.004	*2*	N
Fluoride (mg/l)	0.507	*1.5*	N
Iron (mg/l)	0.047	*2*	N
Lead (mg/l)	0.000	*0.01*	N
Magnesium (mg/l)	48.181	*Not of health concerns at levels found in drinking water*	N
Manganese (mg/l)	0.506	*0.4*	Y
Nickel (mg/l)	0.010	*0.07*	N
Nitrate (mg/l) *(HACH)*	27.445	*50*	N
Nitrate.1 (mg/l) *(Ion Chrom)*	42.946	*50*	N
Nitrite (mg/l) *(HACH)*	0.591	*3*	N
Nitrite.1 (mg/l) *(Ion Chrom)*	1.934	*3*	N
Phosphate (mg/l)	0.738	*Not of health concerns at levels found in drinking water*	N
Potassium (mg/l)	24.110	*Not of health concerns at levels found in drinking water*	N
Silicon (mg/l)		*Not of health concerns at levels found in drinking water*	N
Sodium (mg/l)	205.170	*200*	Y
Strontium (mg/l)	1.247	*4*	N

Sulphate (mg/l)	90.415	*500*	N
Zinc (mg/l)	0.050	*Not of health concerns at levels found in drinking water*	N
TOC (mg/l)	17.920		
TIC (mg/l)	59.120		
UV abs 200 (cm-1)	2.886		
UV abs 210 (cm-1)	2.916		
UV abs 220 (cm-1)	1.620		
UV abs 230 (cm-1)	0.483		
UV abs 254 (cm-1)	0.114		
UV abs 260 (cm-1)	0.100		
UV abs 280 (cm-1)	0.078		
UV abs 300 (cm-1)	0.058		
Total Coliforms (total count)	16000		
Putative Pathogens - Human E.coli (total count)			
Putative Pathogens - Total E.coli (total count)			
Putative Pathogens - Total Coliform (total count)			
Total Bacteria (total count)			
Enterococci (count/100ml)	2700		
Contaminants	High faecal coliform count; High calcium level; High manganese level; High sodium level;		

Health Effects	Faecal contamination can lead to vomiting and diarrhoea. Pathogens such as E coli, hepatitis and salmonella can cause severe health effects ; High Calcium levels may cause taste to be affected; High manganese levels may cause taste to be affected; High Sodium levels may cause taste to be affected;		
Treatments	Faecal treatment - Heat water to a rolling boil and then allow to cool naturally, chemical disinfection, coagulation, distillation, reverse osmosis, slow sand filtration or solar disinfection; Calcium can be reduced using a water softener or point of use reverse osmosis; Manganese levels can be reduced using aeration or ion exchange; Sodium can be reduced through distillaton, ion exchange and reverse osmosis;		