

Reporting of surface water monitoring for the period 01-Oct-2023 to 31-Dec-2023

Monitoring location	Substance / parameter ⁽⁶⁾	Test method ⁽²⁾	Date ⁽³⁾	Compliance limit ⁽⁷⁾	Result ^{(1) (4)}	Unit ⁽⁵⁾
SW201	Ionic balance	CALC	12-Oct-2023		-1.93	%
	Electrical conductivity (field)	Field	12-Oct-2023		340	µS/cm
			14-Nov-2023		293	µS/cm
			07-Dec-2023		322	µS/cm
	Groundwater level/dip		12-Oct-2023		33	mm
			14-Nov-2023		72	mm
			07-Dec-2023		68	mm
	Water temperature		12-Oct-2023		15.2	°C
			14-Nov-2023		12.3	°C
			07-Dec-2023		11.4	°C
	Total Suspended solids	TM022	12-Oct-2023		4.5	mg/l
			14-Nov-2023		21.3	mg/l
			07-Dec-2023		12.7	mg/l
	Total organic carbon	TM090	12-Oct-2023		18.7	mg/l
	Ammoniacal Nitrogen as N	TM099	12-Oct-2023		1.86	mg/l
			14-Nov-2023		2.02	mg/l
			07-Dec-2023		3.72	mg/l
	Cadmium (filtered)	TM152	12-Oct-2023		<0.00008	mg/l
	Calcium (filtered)		12-Oct-2023		101	mg/l
	Chromium (filtered)		12-Oct-2023		<0.001	mg/l
	Iron (filtered)		12-Oct-2023		0.0999	mg/l
	Lead (filtered)		12-Oct-2023		0.000479	mg/l

SW201	Magnesium (filtered)	TM152	12-Oct-2023	11.1	mg/l
	Manganese (filtered)		12-Oct-2023	0.488	mg/l
	Nickel (filtered)		12-Oct-2023	0.00406	mg/l
	Potassium (filtered)		12-Oct-2023	50.2	mg/l
	Sodium (filtered)		12-Oct-2023	20.5	mg/l
	Zinc (filtered)		12-Oct-2023	0.0132	mg/l
	4-Methylphenol	TM176	12-Oct-2023	<0.001	mg/l
	Diethyl phthalate		12-Oct-2023	<0.001	mg/l
	Chloride	TM184	12-Oct-2023	61.6	mg/l
			14-Nov-2023	58.5	mg/l
			07-Dec-2023	71.6	mg/l
	Nitrate as NO3		12-Oct-2023	14.9	mg/l
	Nitrite as NO2		12-Oct-2023	0.322	mg/l
	Sulphate		12-Oct-2023	49.5	mg/l
	Total Oxidised Nitrogen as N		12-Oct-2023	3.47	mg/l
	Dichloromethane	TM208	12-Oct-2023	<0.003	mg/l
	Electrical conductivity @20°C (lab)	TM256	12-Oct-2023	763	µS/cm
			14-Nov-2023	644	µS/cm
			07-Dec-2023	749	µS/cm
	pH (lab)		12-Oct-2023	7.67	pH units
			14-Nov-2023	7.49	pH units
			07-Dec-2023	8.15	pH units
	Total Alkalinity as CaCO3		12-Oct-2023	273	mg/l
	Total alkalinity as CaCO3 (filtered)		12-Oct-2023	278	mg/l
	Mecoprop	TM411	12-Oct-2023	0.000076	mg/l
SW202	Ionic balance	CALC	12-Oct-2023	0.758	%
	Electrical conductivity (field)	Field	12-Oct-2023	278	µS/cm
			14-Nov-2023	208	µS/cm
			07-Dec-2023	225	µS/cm

SW202	Groundwater level/dip	Field	12-Oct-2023	42	mm
			14-Nov-2023	68	mm
			07-Dec-2023	66	mm
	Water temperature		12-Oct-2023	15.7	°C
			14-Nov-2023	14.3	°C
			07-Dec-2023	11.8	°C
	Total Suspended solids	TM022	12-Oct-2023	2.9	mg/l
			14-Nov-2023	118	mg/l
			07-Dec-2023	66.2	mg/l
	Total organic carbon	TM090	12-Oct-2023	18.4	mg/l
	Ammoniacal Nitrogen as N	TM099	12-Oct-2023	0.514	mg/l
			14-Nov-2023	<0.2	mg/l
			07-Dec-2023	2.01	mg/l
	Cadmium (filtered)	TM152	12-Oct-2023	<0.00008	mg/l
	Calcium (filtered)		12-Oct-2023	98.1	mg/l
	Chromium (filtered)		12-Oct-2023	<0.001	mg/l
	Iron (filtered)		12-Oct-2023	0.106	mg/l
	Lead (filtered)		12-Oct-2023	0.000449	mg/l
	Magnesium (filtered)		12-Oct-2023	10.4	mg/l
	Manganese (filtered)		12-Oct-2023	0.141	mg/l
	Nickel (filtered)		12-Oct-2023	0.00339	mg/l
	Potassium (filtered)		12-Oct-2023	36.9	mg/l
	Sodium (filtered)		12-Oct-2023	19.1	mg/l
	Zinc (filtered)		12-Oct-2023	0.0136	mg/l
	4-Methylphenol	TM176	12-Oct-2023	<0.001	mg/l
	Diethyl phthalate		12-Oct-2023	<0.001	mg/l
	Chloride	TM184	12-Oct-2023	44.7	mg/l
			14-Nov-2023	17.4	mg/l
			07-Dec-2023	27.7	mg/l

SW202	Nitrate as NO3	TM184	12-Oct-2023	15.3	mg/l
	Nitrite as NO2		12-Oct-2023	0.871	mg/l
	Sulphate		12-Oct-2023	36.4	mg/l
	Total Oxidised Nitrogen as N		12-Oct-2023	3.73	mg/l
	Dichloromethane	TM208	12-Oct-2023	<0.003	mg/l
	Electrical conductivity @20°C (lab)	TM256	12-Oct-2023	660	µS/cm
			14-Nov-2023	458	µS/cm
			07-Dec-2023	516	µS/cm
			12-Oct-2023	7.73	pH units
	pH (lab)		14-Nov-2023	7.39	pH units
			07-Dec-2023	7.89	pH units
			12-Oct-2023	255	mg/l
	Total Alkalinity as CaCO3		12-Oct-2023	259	mg/l
	Total alkalinity as CaCO3 (filtered)		12-Oct-2023	0.0000426	mg/l
	Mecoprop	TM411	12-Oct-2023	0.0000426	mg/l
SW203	Groundwater level/dip	Field	12-Oct-2023	DRY	m
			14-Nov-2023	DRY	m
			07-Dec-2023	DRY	m
SW204	Ionic balance	CALC	12-Oct-2023	-1.19	%
			12-Oct-2023	286	µS/cm
			14-Nov-2023	140	µS/cm
	Electrical conductivity (field)	Field	07-Dec-2023	290	µS/cm
			12-Oct-2023	38	mm
			14-Nov-2023	59	mm
	Groundwater level/dip		07-Dec-2023	58	mm
			12-Oct-2023	15.4	°C
			14-Nov-2023	11.4	°C
	Water temperature		07-Dec-2023	8.9	°C
			12-Oct-2023	6.65	mg/l
			14-Nov-2023	14.3	mg/l

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SW204	Total Suspended solids	TM022	07-Dec-2023		9.4	mg/l
	Total organic carbon	TM090	12-Oct-2023		15.6	mg/l
	Ammoniacal Nitrogen as N	TM099	12-Oct-2023		<0.2	mg/l
			14-Nov-2023		2.61	mg/l
			07-Dec-2023		4.97	mg/l
	Cadmium (filtered)	TM152	12-Oct-2023		<0.00008	mg/l
	Calcium (filtered)		12-Oct-2023		102	mg/l
	Chromium (filtered)		12-Oct-2023		0.00124	mg/l
	Iron (filtered)		12-Oct-2023		0.0697	mg/l
	Lead (filtered)		12-Oct-2023		0.000294	mg/l
	Magnesium (filtered)		12-Oct-2023		9.32	mg/l
	Manganese (filtered)		12-Oct-2023		0.058	mg/l
	Nickel (filtered)		12-Oct-2023		0.00295	mg/l
	Potassium (filtered)		12-Oct-2023		30.3	mg/l
	Sodium (filtered)		12-Oct-2023		16.9	mg/l
	Zinc (filtered)		12-Oct-2023		0.00754	mg/l
	4-Methylphenol	TM176	12-Oct-2023		<0.002	mg/l
	Diethyl phthalate		12-Oct-2023		<0.002	mg/l
	Chloride	TM184	12-Oct-2023		39.1	mg/l
			14-Nov-2023		23.5	mg/l
			07-Dec-2023		42.7	mg/l
	Nitrate as NO3		12-Oct-2023		11.9	mg/l
	Nitrite as NO2		12-Oct-2023		0.256	mg/l
	Sulphate		12-Oct-2023		40.2	mg/l
	Total Oxidised Nitrogen as N		12-Oct-2023		2.76	mg/l
	Dichloromethane	TM208	12-Oct-2023		<0.003	mg/l
	Electrical conductivity @20°C (lab)	TM256	12-Oct-2023		647	µS/cm
			14-Nov-2023		305	µS/cm
			07-Dec-2023		648	µS/cm

SW204	pH (lab)	TM256	12-Oct-2023		8.31	pH units
			14-Nov-2023		8.11	pH units
			07-Dec-2023		7.95	pH units
	Total Alkalinity as CaCO3		12-Oct-2023		268	mg/l
	Total alkalinity as CaCO3 (filtered)		12-Oct-2023		271	mg/l
SW205a	Mecoprop	TM411	12-Oct-2023		<0.00004	mg/l
	Ionic balance	CALC	12-Oct-2023		-2.8	%
	Electrical conductivity (field)	Field	12-Oct-2023		169	µS/cm
			14-Nov-2023		86	µS/cm
			07-Dec-2023		268	µS/cm
	Groundwater level/dip		12-Oct-2023		48	mm
			14-Nov-2023		75	mm
			07-Dec-2023		74	mm
	Water temperature		12-Oct-2023		15.8	°C
			14-Nov-2023		11.2	°C
			07-Dec-2023		8.4	°C
	Total Suspended solids	TM022	12-Oct-2023	<70 mg/l	3.8	mg/l
			14-Nov-2023	<70 mg/l	13.1	mg/l
			07-Dec-2023	<70 mg/l	9	mg/l
	Total organic carbon	TM090	12-Oct-2023		8.95	mg/l
	Ammoniacal Nitrogen as N	TM099	12-Oct-2023	<1.0 mg/l	0.232	mg/l
			14-Nov-2023	<1.0 mg/l	<0.2	mg/l
			07-Dec-2023	<1.0 mg/l	4.41	mg/l
	Cadmium (filtered)	TM152	12-Oct-2023	<0.0001 mg/l	<0.00008	mg/l
	Calcium (filtered)		12-Oct-2023		57.3	mg/l
	Chromium (filtered)		12-Oct-2023		<0.001	mg/l
	Iron (filtered)		12-Oct-2023		0.0333	mg/l
	Lead (filtered)		12-Oct-2023		0.000222	mg/l
	Magnesium (filtered)		12-Oct-2023		5.31	mg/l

SW205a	Manganese (filtered)	TM152	12-Oct-2023		0.0286	mg/l
	Nickel (filtered)		12-Oct-2023		0.00217	mg/l
	Potassium (filtered)		12-Oct-2023		15	mg/l
	Sodium (filtered)		12-Oct-2023		9.95	mg/l
	Zinc (filtered)		12-Oct-2023		0.0134	mg/l
	4-Methylphenol	TM176	12-Oct-2023	<0.001 mg/l	<0.001	mg/l
	Diethyl phthalate		12-Oct-2023	<0.003 mg/l	<0.001	mg/l
	Chloride	TM184	12-Oct-2023	<150 mg/l	25.1	mg/l
			14-Nov-2023	<150 mg/l	11	mg/l
			07-Dec-2023	<150 mg/l	48	mg/l
	Nitrate as NO3		12-Oct-2023		7.39	mg/l
	Nitrite as NO2		12-Oct-2023		0.13	mg/l
	Sulphate		12-Oct-2023		28.7	mg/l
	Total Oxidised Nitrogen as N		12-Oct-2023		1.71	mg/l
	Dichloromethane	TM208	12-Oct-2023	<0.002 mg/l	<0.003	mg/l
	Electrical conductivity @20°C (lab)	TM256	12-Oct-2023		391	µS/cm
			14-Nov-2023		178	µS/cm
			07-Dec-2023		615	µS/cm
	pH (lab)		12-Oct-2023	6 to 9 pH units	8.22	pH units
			14-Nov-2023	6 to 9 pH units	7.87	pH units
			07-Dec-2023	6 to 9 pH units	8.06	pH units
	Total Alkalinity as CaCO3		12-Oct-2023		144	mg/l
	Total alkalinity as CaCO3 (filtered)		12-Oct-2023		147	mg/l
	Mecoprop	TM411	12-Oct-2023	<0.000055 mg/l	<0.00004	mg/l
SW206	Ionic balance	CALC	12-Oct-2023		-1.4	%
	Electrical conductivity (field)	Field	12-Oct-2023		205	µS/cm
			14-Nov-2023		169	µS/cm
			07-Dec-2023		130	µS/cm
	Groundwater level/dip		12-Oct-2023		39	mm

SW206	Groundwater level/dip	Field	14-Nov-2023		62	mm
			07-Dec-2023		61	mm
	Water temperature		12-Oct-2023		15.8	°C
			14-Nov-2023		11.6	°C
			07-Dec-2023		7.9	°C
	Total Suspended solids	TM022	12-Oct-2023	<50 mg/l	8.35	mg/l
			14-Nov-2023	<50 mg/l	20.3	mg/l
			07-Dec-2023	<50 mg/l	6.2	mg/l
	Total organic carbon	TM090	12-Oct-2023		10.8	mg/l
	Ammoniacal Nitrogen as N	TM099	12-Oct-2023	<1.0 mg/l	0.334	mg/l
			14-Nov-2023	<1.0 mg/l	<0.2	mg/l
			07-Dec-2023	<1.0 mg/l	0.208	mg/l
			12-Oct-2023	<0.0001 mg/l	<0.00008	mg/l
			12-Oct-2023		60.4	mg/l
	Calcium (filtered)		12-Oct-2023			
	Chromium (filtered)		12-Oct-2023		<0.001	mg/l
	Iron (filtered)		12-Oct-2023		0.0597	mg/l
	Lead (filtered)		12-Oct-2023		0.000372	mg/l
	Magnesium (filtered)		12-Oct-2023		6.01	mg/l
	Manganese (filtered)		12-Oct-2023		0.074	mg/l
	Nickel (filtered)		12-Oct-2023		0.00248	mg/l
	Potassium (filtered)		12-Oct-2023		19.7	mg/l
	Sodium (filtered)		12-Oct-2023		12.7	mg/l
	Zinc (filtered)		12-Oct-2023		0.0253	mg/l
	4-Methylphenol	TM176	12-Oct-2023	<0.001 mg/l	<0.002	mg/l
	Diethyl phthalate		12-Oct-2023	<0.003 mg/l	<0.002	mg/l
	Chloride	TM184	12-Oct-2023	<150 mg/l	30	mg/l
			14-Nov-2023	<150 mg/l	16.2	mg/l
			07-Dec-2023	<150 mg/l	12	mg/l
	Nitrate as NO3		12-Oct-2023		9.4	mg/l

SW206	Nitrite as NO2	TM184	12-Oct-2023		0.488	mg/l
	Sulphate		12-Oct-2023		28.1	mg/l
	Total Oxidised Nitrogen as N		12-Oct-2023		2.27	mg/l
	Dichloromethane	TM208	12-Oct-2023	<0.002 mg/l	<0.003	mg/l
	Electrical conductivity @20°C (lab)	TM256	12-Oct-2023		428	µS/cm
			14-Nov-2023		391	µS/cm
			07-Dec-2023		272	µS/cm
	pH (lab)		12-Oct-2023	6 to 9 pH units	8.05	pH units
			14-Nov-2023	6 to 9 pH units	7.79	pH units
			07-Dec-2023	6 to 9 pH units	8	pH units
SW207	Total Alkalinity as CaCO3		12-Oct-2023		155	mg/l
	Total alkalinity as CaCO3 (filtered)		12-Oct-2023		157	mg/l
	Mecoprop	TM411	12-Oct-2023	<0.000055 mg/l	<0.00004	mg/l
	Ionic balance	CALC	12-Oct-2023		-1.12	%
	Electrical conductivity (field)	Field	12-Oct-2023		164	µS/cm
			14-Nov-2023		180	µS/cm
			07-Dec-2023		107	µS/cm
	Groundwater level/dip		12-Oct-2023		62	mm
			14-Nov-2023		51	mm
			07-Dec-2023		50	mm
	Water temperature		12-Oct-2023		16.5	°C
			14-Nov-2023		11	°C
			07-Dec-2023		7.1	°C
	Total Suspended solids	TM022	12-Oct-2023		6.45	mg/l
			14-Nov-2023		14	mg/l
			07-Dec-2023		6.7	mg/l
	Total organic carbon	TM090	12-Oct-2023		11.4	mg/l
	Ammoniacal Nitrogen as N	TM099	12-Oct-2023		<0.2	mg/l
			14-Nov-2023		4	mg/l

Monitoring location	Substance / parameter ⁽⁶⁾	Test method ⁽²⁾	Date ⁽³⁾	Compliance limit ⁽⁷⁾	Result ^{(1) (4)}	Unit ⁽⁵⁾
SW207	Ammoniacal Nitrogen as N	TM099	07-Dec-2023		<0.2	mg/l
	Cadmium (filtered)	TM152	12-Oct-2023		<0.00008	mg/l
	Calcium (filtered)		12-Oct-2023		54.5	mg/l
	Chromium (filtered)		12-Oct-2023		<0.001	mg/l
	Iron (filtered)		12-Oct-2023		0.154	mg/l
	Lead (filtered)		12-Oct-2023		0.000291	mg/l
	Magnesium (filtered)		12-Oct-2023		4.73	mg/l
	Manganese (filtered)		12-Oct-2023		0.0182	mg/l
	Nickel (filtered)		12-Oct-2023		0.00205	mg/l
	Potassium (filtered)		12-Oct-2023		12.6	mg/l
	Sodium (filtered)		12-Oct-2023		9.76	mg/l
	Zinc (filtered)		12-Oct-2023		0.00601	mg/l
	4-Methylphenol	TM176	12-Oct-2023		<0.002	mg/l
	Diethyl phthalate		12-Oct-2023		<0.002	mg/l
	Chloride	TM184	12-Oct-2023		19.3	mg/l
			14-Nov-2023		29.5	mg/l
			07-Dec-2023		11.2	mg/l
	Nitrate as NO3		12-Oct-2023		9.13	mg/l
	Nitrite as NO2		12-Oct-2023		0.242	mg/l
	Sulphate		12-Oct-2023		15.9	mg/l
	Total Oxidised Nitrogen as N		12-Oct-2023		2.13	mg/l
	Dichloromethane	TM208	12-Oct-2023		<0.003	mg/l
	Electrical conductivity @20°C (lab)	TM256	12-Oct-2023		361	µS/cm
			14-Nov-2023		394	µS/cm
			07-Dec-2023		241	µS/cm
	pH (lab)		12-Oct-2023		7.99	pH units
			14-Nov-2023		7.82	pH units
			07-Dec-2023		8.05	pH units
	Total Alkalinity as CaCO3		12-Oct-2023		147	mg/l

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SW207	Total alkalinity as CaCO3 (filtered)	TM256	12-Oct-2023		146	mg/l
	Mecoprop	TM411	12-Oct-2023		<0.00004	mg/l

- (1) The result given is the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, the result is given as the 'minimum – maximum' measured values.
- (2) Where an internationally recognised standard test method is used the reference number is given. Where another method that has been formally agreed with the Agency is used, then the appropriate identifier is given. In other cases the principal technique is stated, e.g. gas chromatography.
- (3) For non-continuous measurements the date and time of the sample that produced the result is given. For continuous measurements the percentage of the process operating time covered by the result is given.
- (4) The uncertainty associated with the quoted result at the 95% confidence interval, unless otherwise stated; refer to laboratory data sheets for specific uncertainty.
- (5) Depths reported as metres (m) are metres above base of ditch / stream.
- (6) For details of the sampling method, frequency and parameters measured / analysed for, refer to the site Environmental Monitoring Management Plan (EMMP).
- (7) Where blank, there is no defined compliance limit specified for the monitoring location / parameter.

Signature:.....

Date: 09 January 2024

(Authorised to sign as representative of
Operator)