

RESULTS OF WATER ANALYSIS

5 samples supplied by Lismore City Council on 29/11/2022. Lab Job No. N5139.

Samples submitted by CS Compliance. Your Job: Surface Water Half Yearly Q22/83 PO 92477.

PO Box 23A LISMORE NSW 2480

Parameter	Methods reference	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
		MCS01	MCS02	MCS03	MCS04	MCS05
	Job No.	N5139/1	N5139/2	N5139/3	N5139/4	N5139/5
pH	APHA 4500-H ⁺ -B	7.37	7.88	7.63	7.76	7.65
Conductivity (EC) (dS/m)	APHA 2510-B	0.240	0.566	0.572	0.588	0.569
Total Dissolved Salts (mg/L)	** Calculation using EC x 680	163	385	389	400	387
Temperature (-C)	Onsite	..	..	..	..	..
Redox Potential (mV)	Onsite	214	228	229	231	231
Total Suspended Solids (mg/L)	GFC equiv. filter - APHA 2540-D	42	95	172	97	83
Turbidity (ntu)	APHA 2130	56	94	188	143	130
Dissolved Oxygen (mg/L O ₂)	** APHA 4500-O-G (Onsite method preferable)	..	..	..	..	..
Biochemical Oxygen Demand ₅ (mg/L O ₂)	APHA 5210-B	2.2	11.8	16.5	13.2	9.5
Total Phosphorus (mg/L P)	In house method W4	0.12	2.83	2.71	3.21	2.62
Total Nitrogen (mg/L N)	In house method W4	0.54	7.96	9.16	8.41	7.47
Nitrate (mg/L N)	APHA 4500 NO ₃ ⁻ -F	<0.005	1.27	1.08	0.778	0.653
Ammonia (mg/L N)	APHA 4500 NH ₃ -H	<0.005	1.94	1.98	1.83	1.36
Faecal Coliforms (cfu/100 ml)	** APHA 9222-D	2,040	7,000	7,000	5,200	3,900
Dissolved Organic Carbon (mg/L C)	APHA 5310-B	8.28	16.40	17.00	17.70	18.30
BTEX						
Benzene (µg/L)	Subcontracted: SGS report SE 239920	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene (µg/L)	Subcontracted: SGS report SE 239920	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene (µg/L)	Subcontracted: SGS report SE 239920	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-xylene (µg/L)	Subcontracted: SGS report SE 239920	<1	<1	<1	<1	<1
o-xylene (µg/L)	Subcontracted: SGS report SE 239920	<0.5	<0.5	<0.5	<0.5	<0.5
Total Xylenes (µg/L)	Subcontracted: SGS report SE 239920	<1.5	<1.5	<1.5	<1.5	<1.5
Total BTEX (µg/L)	Subcontracted: SGS report SE 239920	<3	<3	<3	<3	<3
Naphthalene (VOC) (µg/L)	Subcontracted: SGS report SE 239920	<0.5	<0.5	<0.5	<0.5	<0.5
Total Recoverable Hydrocarbons (TRH)						
TRH C6-C9 (µg/L)	Subcontracted: SGS report SE 239920	<40	<40	<40	<40	<40
Benzene (F0) (µg/L)	Subcontracted: SGS report SE 239920	<0.5	<0.5	<0.5	<0.5	<0.5
TRH C6-C10 (µg/L)	Subcontracted: SGS report SE 239920	<50	<50	<50	<50	<50
TRH C6-C10 minus BTEX (F1) (µg/L)	Subcontracted: SGS report SE 239920	<50	<50	<50	<50	<50
LLTRH C10-C14 (µg/L)	Subcontracted: SGS report SE 239920	<50	<50	<50	<50	<50
LLTRH C15-C28 (µg/L)	Subcontracted: SGS report SE 239920	<100	130	140	140	160
LLTRH C29-C36 (µg/L)	Subcontracted: SGS report SE 239920	<50	<50	<50	<50	73.0
LLTRH >C10-C16 (µg/L)	Subcontracted: SGS report SE 239920	<50	<50	<50	<50	<50
LLTRH >C16-C34 (F3) (µg/L)	Subcontracted: SGS report SE 239920	<100	160	160	170	210
LLTRH >C34-C40 (F4) (µg/L)	Subcontracted: SGS report SE 239920	<100	<100	<100	<100	<100
TRH Sum C10-C36 (µg/L)	Subcontracted: SGS report SE 239920	<100	130	<100	<100	<100

Notes:

- Total metals - samples digested with nitric acid; Total available (acid soluble/ extractable) metals - samples acidified with nitric acid to <2pH;
Dissolved metals - samples filtered through 0.45µm cellulose acetate and then acidified with nitric acid prior to analysis
- Metals and salts analysed by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS).
- 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 µg/L (micrograms per litre) = 1000 ppb (part per billion).
- For conductivity 1 dS/m = 1 mS/cm = 1000 µS/cm.
- Analysis performed according to APHA (2012) 'Standard Methods for the Examination of Water & Wastewater', 22nd Edition, except where stated otherwise.
- Analysis conducted between sample arrival date and reporting date.
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- Results relate only to the samples tested.
- This report was issued on 20/12/2022.



RESULTS OF LEACHATE ANALYSIS

2 samples supplied by Lismore City Council on 29/11/2022. Lab Job No. N5140.
 Samples submitted by Commercial Services Compliance. Your Job: Yearly Leachate Q22/83 PO 92477
 PO Box 23A LISMORE NSW 2480

Parameter	Methods reference	Sample 1	Sample 2
		LD	TWP
	Job No.	N5140/1	N5140/2
pH	APHA 4500-H ⁺ -B	8.50	8.49
Conductivity (EC) (dS/m)	APHA 2510-B	2.35	2.37
Total Dissolved Salts (mg/L)	** Calculation using EC x 680	1,598	1,612
Bicarbonate (Alkalinity) (mg/L CaCO ₃ equivalent)	** Total Alkalinity - APHA 2320	862	878
Chemical Oxygen Demand (mg/L O ₂)	** APHA 5220-D	560	540
Total Phosphorus (mg/L P)	In house method W4	2.41	1.39
Total Nitrogen (mg/L N)	In house method W4	98.2	95.8
Nitrate (mg/L N)	APHA 4500 NO ₃ ⁻ -F	0.178	0.155
Ammonia (mg/L N)	APHA 4500 NH ₃ -H	78.9	78.3
Sodium (mg/L)	APHA 3125 ICPMS ^{note 1&2}	204	194
Potassium (mg/L)	APHA 3125 ICPMS ^{note 1&2}	118	111
Calcium (mg/L)	APHA 3125 ICPMS ^{note 1&2}	97.2	101
Magnesium (mg/L)	APHA 3125 ICPMS ^{note 1&2}	45.6	43.0
Sodium Absorption Ratio (SAR)	** By calculation	4.3	4.1
Fluoride (mg/L)	** APHA 4500-F-D	0.5	0.6
Faecal Coliforms (cfu/100 ml)	** APHA 9222-D	2,600,000	65,000
Dissolved Organic Carbon (mg/L)	APHA 5310-B	85.7	87.7
Arsenic (mg/L)	Total Available - APHA 3125 ICPMS ^{note 1&2}	0.006	0.006
Pesticide analysis screen ^{see notes}			
Hexachlorobenzene (HCB) (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
Alpha BHC (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
Lindane (gamma BHC) (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
Heptachlor (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
Aldrin (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
Beta BHC (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
Delta BHC (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
Heptachlor epoxide (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
o,p'-DDE (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
Alpha Endosulfan (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
Gamma Chlordane (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
Alpha Chlordane (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
trans-Nonachlor (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
p,p'-DDE (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
Dieldrin (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
Endrin (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
o,p'-DDD (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
o,p'-DDT (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
Beta Endosulfan (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
p,p'-DDD (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
p,p'-DDT (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
Endosulfan sulphate (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
Endrin aldehyde (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
Methoxychlor (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
Endrin ketone (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
Isodrin (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
Mirex (µg/L)	Subcontracted: SGS report SE 239919	<0.1	<0.1
Total OC (µg/L)	Subcontracted: SGS report SE 239919	<1	<1
Total OC (µg/L)	Subcontracted: SGS report SE 239919	<1	<1
Dichlorvos (µg/L)	Subcontracted: SGS report SE 239919	<0.5	<0.5
Dimethoate (µg/L)	Subcontracted: SGS report SE 239919	<0.5	<0.5
Diazinon (Dimpylate) (µg/L)	Subcontracted: SGS report SE 239919	<0.5	<0.5
Fenitrothion (µg/L)	Subcontracted: SGS report SE 239919	<0.2	<0.2
Malathion (µg/L)	Subcontracted: SGS report SE 239919	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl) (µg/L)	Subcontracted: SGS report SE 239919	1.00	<0.2
Parathion-ethyl (Parathion) (µg/L)	Subcontracted: SGS report SE 239919	<0.2	<0.2
Bromophos Ethyl (µg/L)	Subcontracted: SGS report SE 239919	<0.2	<0.2
Methidathion (µg/L)	Subcontracted: SGS report SE 239919	<0.5	<0.5
Ethion (µg/L)	Subcontracted: SGS report SE 239919	<0.2	<0.2
Azinphos-methyl (µg/L)	Subcontracted: SGS report SE 239919	<0.2	<0.2

Notes:

- Total metals - samples digested with nitric acid; Total available (acid soluble/ extractable) metals - samples acidified with nitric acid to pH <2;
Dissolved metals - samples filtered through 0.45µm cellulose acetate and then acidified with nitric acid prior to analysis
- Metals and salts analysed by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS).
- 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 µg/L (micrograms per litre) = 1000 ppb (part per billion).
- For conductivity 1 dS/m = 1 mS/cm = 1000 µS/cm.
- Analysis performed according to APHA (2017) 'Standard Methods for the Examination of Water & Wastewater', 23rd Edition, except where stated otherwise.
- Analysis conducted between sample arrival date and reporting date.
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- Results relate only to the samples tested.
- This report was issued on 12/12/2022.



RESULTS OF LEACHATE ANALYSIS

2 samples supplied by Lismore City Council on 10/03/2022. Lab Job No. M6689.

Samples submitted by Eleisha Went. Your Job: Q20/123 PO77501

PO Box 23A LISMORE NSW 2480

Parameter	Methods reference	Sample 1	Sample 2
		LD	TWP
	<i>Job No.</i>	<i>M6689/1</i>	<i>M6689/2</i>
pH	APHA 4500-H ⁺ -B	7.76	7.96
Conductivity (EC) (dS/m)	APHA 2510-B	1.58	2.16
Total Dissolved Salts (mg/L)	** Calculation using EC x 680	1,073	1,469
Bicarbonate (Alkalinity) (mg/L CaCO ₃ equivalent)	** Total Alkalinity - APHA 2320	494	631
Chemical Oxygen Demand (mg/L O ₂)	** APHA 5220-D	760	760
Total Phosphorus (mg/L P)	In house method W4	3.43	3.38
Total Nitrogen (mg/L N)	In house method W4	48.8	44.6
Total Kjeldahl Nitrogen (mg/L N)	** Calculation: TN - NO _x	48.7	44.5
Nitrate (mg/L N)	APHA 4500 NO ₃ ⁻ -F	<0.05	<0.05
Ammonia (mg/L N)	APHA 4500 NH ₃ -H	6.75	18.8
Sodium (mg/L)	APHA 3125 ICPMS ^{note 1&2}	110	167
Potassium (mg/L)	APHA 3125 ICPMS ^{note 1&2}	246	340
Calcium (mg/L)	APHA 3125 ICPMS ^{note 1&2}	51.6	89.8
Magnesium (mg/L)	APHA 3125 ICPMS ^{note 1&2}	22.8	34.9
Sodium Absorption Ratio (SAR)	** By calculation	3.2	3.8
Chloride (mg/L)	APHA 3125 ICPMS ^{note 1&2}	181	277
Sulfate (mg/L SO ₄ ²⁻)	APHA 3125 ICPMS ^{note 1&2}	32	62
Chloride/Sulfate Ratio	** Calculation	5.6	4.4
Fluoride (mg/L)	** APHA 4500-F-D	1.1	1.0
Faecal Coliforms (cfu/100 ml)	** APHA 9222-D	390,000	780,000
Dissolved Organic Carbon (mg/L)	APHA 5310-B	173	195
Arsenic (mg/L)	Total Available - APHA 3125 ICPMS ^{note 1&2}	0.007	0.012

Notes:

- Total metals - samples digested with nitric acid; Total available (acid soluble/ extractable) metals - samples acidified with nitric acid to pH <2; Dissolved metals - samples filtered through 0.45µm cellulose acetate and then acidified with nitric acid prior to analysis
- Metals and salts analysed by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS).
- 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 µg/L (micrograms per litre) = 1000 ppb (part per billion).
- For conductivity 1 dS/m = 1 mS/cm = 1000 µS/cm.
- Analysis performed according to APHA (2017) 'Standard Methods for the Examination of Water & Wastewater', 23rd Edition, except where stated otherwise.
- Analysis conducted between sample arrival date and reporting date.
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- Results relate only to the samples tested.
- This report was issued on 28/03/2022.



RESULTS OF WATER ANALYSIS

5 samples supplied by Lismore City Council on 10/03/2022. Lab Job No. M6690.
Samples submitted by Eleisha Went. Your Job: Q20/124 PO77501.

PO Box 23A LISMORE NSW 2480

Parameter	Methods reference	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
		MCS01	MCS02	MCS03	MCS04	MCS05
	Job No.	M6690/1	M6690/2	M6690/3	M6690/4	M6690/5
pH	APHA 4500-H ⁺ -B	6.69	6.83	6.80	6.79	6.83
Conductivity (EC) (dS/m)	APHA 2510-B	0.168	0.185	0.189	0.199	0.206
Total Dissolved Salts (mg/L)	** Calculation using EC x 680	114	126	129	135	140
Temperature (- C)	Onsite	24	24	24	24	24
Redox Potential (mV)	Onsite	237	268	270	281	285
Total Suspended Solids (mg/L)	GFC equiv. filter - APHA 2540-D	18	22	24	24	26
Turbidity (ntu)	APHA 2130	43	47	47	50	46
Dissolved Oxygen (mg/L O ₂)	** APHA 4500-O-G (Onsite method preferable)	2.9	2.6	1.7	1.9	1.3
Biochemical Oxygen Demand ₅ (mg/L O ₂)	APHA 5210-B	4.2	4.5	6.3	7.4	9.3
Total Phosphorus (mg/L P)	In house method W4	0.47	0.60	0.65	0.67	0.67
Total Nitrogen (mg/L N)	In house method W4	1.48	2.25	2.37	2.48	2.56
Total Kjeldahl Nitrogen (mg/L N)	** Calculation: TN - NO _x	1.47	2.19	2.36	2.47	2.55
Nitrate (mg/L N)	APHA 4500 NO ₃ -F	0.008	<0.005	<0.005	<0.005	<0.005
Ammonia (mg/L N)	APHA 4500 NH ₃ -H	0.644	1.46	1.53	1.61	1.63
Faecal Coliforms (cfu/100 ml)	** APHA 9222-D	26,000	52,000	65,000	65,000	65,000
Dissolved Organic Carbon (mg/L C)	**Inhouse	12.2	12.7	15.3	15.5	16.0
BTEX						
Benzene (µg/L or ppb)	Subcontracted: SGS report SE 229975	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene (µg/L or ppb)	Subcontracted: SGS report SE 229975	1.5	<0.5	1.1	<0.5	0.8
Ethylbenzene (µg/L or ppb)	Subcontracted: SGS report SE 229975	<0.5	<0.5	<0.5	<0.5	<0.5
m+p-Xylene (µg/L or ppb)	Subcontracted: SGS report SE 229975	<1	<1	<1	<1	<1
o-Xylene (µg/L or ppb)	Subcontracted: SGS report SE 229975	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene (µg/L or ppb)	Subcontracted: SGS report SE 229975	<0.5	<0.5	<0.5	<0.5	<0.5
Total Recoverable Hydrocarbons (TRH)						
C6-C9 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 229975	<40	<40	<40	<40	<40
C10-C14 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 229975	<50	<50	<50	<50	<50
C15-C28 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 229975	<100	<100	<100	<100	<100
C29-C36 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 229975	<50	<50	<50	<50	<50
C10-C16 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 229975	<60	<60	<60	<60	<60
C10-C16 less Naphthalene Fraction (µg/L or ppb)	Subcontracted: SGS report SE 229975	<60	<60	<60	<60	<60
C16-C34 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 229975	<200	<200	<200	<200	<200
C34-C40 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 229975	<100	<100	<100	<100	<100

Notes:

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Dissolved metals - samples filtered through 0.45µm cellulose acetate and then acidified with nitric acid prior to analysis
- Metals and salts analysed by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS).
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- Results relate only to the samples tested.
- This report was issued on 28/03/2022.



RESULTS OF WATER ANALYSIS

5 samples supplied by Lismore City Council on 7/06/2022. Lab Job No. M9383.

Samples submitted by Eleisha Went. Your Job: Q20/124 PO 77501

PO Box 23A LISMORE NSW 2480

Parameter	Methods reference	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
		MCS01	MCS02	MCS03	MCS04	MCS05
	Job No.	M9383/1	M9383/2	M9383/3	M9383/4	M9383/5
pH	APHA 4500-H ⁺ -B	7.24	7.48	7.13	7.36	7.32
Conductivity (EC) (dS/m)	APHA 2510-B	0.246	0.343	0.351	0.360	0.355
Total Dissolved Salts (mg/L)	** Calculation using EC x 680	167	233	239	245	241
Redox Potential (mV)	Onsite	294	278	297	294	297
Total Suspended Solids (mg/L)	GFC equiv. filter - APHA 2540-D	9	19	32	32	25
Turbidity (NTU)	APHA 2130	18.5	12.2	15.7	15.4	19.4
Bicarbonate (Alkalinity) (mg/L CaCO ₃ equivalent)	** Total Alkalinity - APHA 2320	55	82	86	87	86
Dissolved Oxygen (mg/L O ₂)	** APHA 4500-O-G (Onsite method preferable)	6.6	5.3	5.0	5.2	4.9
Biochemical Oxygen Demand ₅ (mg/L O ₂)	APHA 5210-B	4.1	12.3	12.1	10.8	12.8
Total Phosphorus (mg/L P)	In house method W4	0.09	0.59	0.61	0.59	0.54
Total Nitrogen (mg/L N)	In house method W4	0.36	3.32	3.31	3.40	3.46
Total Kjeldahl Nitrogen (mg/L N)	** Calculation: TN - NO _x	0.30	2.53	2.45	2.50	2.53
Nitrate (mg/L N)	APHA 4500 NO ₃ ⁻ -F	0.061	0.629	0.703	0.737	0.781
Ammonia (mg/L N)	APHA 4500 NH ₃ -H	0.033	1.94	2.01	1.98	1.97
Temperature (°C)	data supplied by client	16	17	16	16	16
Sodium (mg/L)	APHA 3125 ICPMS ^{1000 182}	23.1	35.6	35.9	35.4	35.5
Potassium (mg/L)	APHA 3125 ICPMS ^{1000 182}	0.91	4.47	4.70	5.47	5.31
Calcium (mg/L)	APHA 3125 ICPMS ^{1000 182}	10.7	15.4	16.9	16.5	15.9
Magnesium (mg/L)	APHA 3125 ICPMS ^{1000 182}	7.84	6.58	7.08	7.13	7.13
Sodium Absorption Ratio (SAR)	** By calculation	1.3	1.9	1.8	1.8	1.9
Chloride (mg/L)	APHA 3125 ICPMS ^{1000 182}	43	43	51	50	45
Sulfate (mg/L SO ₄ ²⁻)	APHA 3125 ICPMS ^{1000 182}	<9	11	11	11	10
Chloride/Sulfate Ratio	** Calculation	..	3.8	4.7	4.7	4.7
Fluoride (mg/L)	** APHA 4500-F-D	0.1	0.3	0.2	0.3	0.2
Faecal Coliforms (cfu/100 ml)	** APHA 9222-D	360	3,900	3,900	3,900	1,720
Dissolved Organic Carbon (mg/L)	APHA 5310-B	9.9	9.4	10.2	9.1	14.2
Iron (mg/L)	Total Available - APHA 3125 ICPMS ^{1000 182}	1.25	1.21	1.24	1.37	1.57
Manganese (mg/L)	Total Available - APHA 3125 ICPMS ^{1000 182}	0.057	0.096	0.117	0.161	0.236
BTEX						
Benzene (µg/L or ppb)	Subcontracted: SGS report SE232943	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene (µg/L or ppb)	Subcontracted: SGS report SE232943	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene (µg/L or ppb)	Subcontracted: SGS report SE232943	<0.5	<0.5	<0.5	<0.5	<0.5
m/p-Xylene (µg/L or ppb)	Subcontracted: SGS report SE232943	<1	<1	<1	<1	<1
o-Xylene (µg/L or ppb)	Subcontracted: SGS report SE232943	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene (µg/L or ppb)	Subcontracted: SGS report SE232943	<0.5	<0.5	<0.5	<0.5	<0.5
Total Recoverable Hydrocarbons (TRH)						
Benzene (F0) (µg/L or ppb)	Subcontracted: SGS report SE232943	<0.5	<0.5	<0.5	<0.5	<0.5
C6-C9 Fraction (µg/L or ppb)	Subcontracted: SGS report SE232943	<40	<40	<40	<40	<40
C6-C10 Fraction (µg/L or ppb)	Subcontracted: SGS report SE232943	<50	<50	<50	<50	<50
C6-C10 minus BTEX (F1) Fraction (µg/L or ppb)	Subcontracted: SGS report SE232943	<50	<50	<50	<50	<50
C10-C14 Fraction (µg/L or ppb)	Subcontracted: SGS report SE232943	<50	<50	<50	<50	<50
C15-C28 Fraction (µg/L or ppb)	Subcontracted: SGS report SE232943	<100	<100	<100	<100	<100
C29-C36 Fraction (µg/L or ppb)	Subcontracted: SGS report SE232943	<50	<50	<50	<50	<50
C10-C16 Fraction (µg/L or ppb)	Subcontracted: SGS report SE232943	<60	<60	<60	<60	<60
C10-C16 less Naphthalene (F2) Fraction (µg/L or ppb)	Subcontracted: SGS report SE232943	<60	<60	<60	<60	<60
C16-C34 (F3) Fraction (µg/L or ppb)	Subcontracted: SGS report SE232943	<200	<200	<200	<200	<200
C34-C40 (F4) Fraction (µg/L or ppb)	Subcontracted: SGS report SE232943	<100	<100	<100	<100	<100
Sum C10-C36 Fraction (µg/L or ppb)	Subcontracted: SGS report SE232943	<100	<100	<100	<100	<100

Notes:

- Total metals - samples digested with nitric acid; Total available (acid soluble/ extractable) metals - samples acidified with nitric acid to pH <2; Dissolved metals - samples filtered through 0.45µm cellulose acetate and then acidified with nitric acid prior to analysis
- Metals and salts analysed by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS).
- 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 µg/L (micrograms per litre) = 1000 ppb (part per billion).
- For conductivity 1 dS/m = 1 mS/cm = 1000 µS/cm.
- Analysis performed according to APHA (2017) 'Standard Methods for the Examination of Water & Wastewater', 23rd Edition, except where stated otherwise.
- Analysis conducted between sample arrival date and reporting date.
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- This report was issued on 20/06/2022.



RESULTS OF LEACHATE ANALYSIS

2 samples supplied by Lismore City Council on 7/06/2022 . Lab Job No. M9384.

Samples submitted by Eleisha Went. Your Job: Q20/124 PO 77051

PO Box 23A LISMORE NSW 2480

Parameter	Methods reference	Sample 1	Sample 2
		LD	TWP
	<i>Job No.</i>	<i>M9384/1</i>	<i>M9384/2</i>
pH	APHA 4500-H ⁺ -B	8.19	7.78
Conductivity (EC) (dS/m)	APHA 2510-B	1.22	1.40
Total Dissolved Salts (mg/L)	** Calculation using EC x 680	829	953
Bicarbonate (Alkalinity) (mg/L CaCO ₃ equivalent)	** Total Alkalinity - APHA 2320	358	401
Chemical Oxygen Demand (mg/L O ₂)	** APHA 5220-D	250	270
Total Phosphorus (mg/L P)	In house method W4	0.47	1.89
Total Nitrogen (mg/L N)	In house method W4	18.4	26.7
Nitrate (mg/L N)	APHA 4500 NO ₃ ⁻ -F	0.321	0.683
Ammonia (mg/L N)	APHA 4500 NH ₃ -H	13.9	15.0
Sodium (mg/L)	APHA 3125 ICPMS ^{note 1&2}	88.2	101
Potassium (mg/L)	APHA 3125 ICPMS ^{note 1&2}	169	222
Calcium (mg/L)	APHA 3125 ICPMS ^{note 1&2}	41.7	67.3
Magnesium (mg/L)	APHA 3125 ICPMS ^{note 1&2}	18.7	25.8
Sodium Absorption Ratio (SAR)	** By calculation	2.8	2.7
Fluoride (mg/L)	** APHA 4500-F-D	0.5	0.5
Faecal Coliforms (cfu/100 ml)	** APHA 9222-D	18,200	11,200
Dissolved Organic Carbon (mg/L)	APHA 5310-B	58.5	72.2
Arsenic (mg/L)	Total Available - APHA 3125 ICPMS ^{note 1&2}	0.004	0.008
Pesticide analysis screen ^{^see notes}			
Dieldrin (µg/L or ppb)	Subcontracted: SGS report SE232945	<0.1	<0.1
Endrin (µg/L or ppb)	Subcontracted: SGS report SE232945	<0.1	<0.1
o,p'-DDD (µg/L or ppb)	Subcontracted: SGS report SE232945	<0.1	<0.1
p,p'-DDD (µg/L or ppb)	Subcontracted: SGS report SE232945	<0.1	<0.1
o,p'-DDT (µg/L or ppb)	Subcontracted: SGS report SE232945	<0.1	<0.1
p,p'-DDT (µg/L or ppb)	Subcontracted: SGS report SE232945	<0.1	<0.1
Methoxychlor (µg/L or ppb)	Subcontracted: SGS report SE232945	<0.1	<0.1
Organochlorine (OC) Pesticides (µg/L or ppb)	Subcontracted: SGS report SE232945	<1	<1
Dichlorvos (µg/L or ppb)	Subcontracted: SGS report SE232945	<0.5	<0.5
Dimethoate (µg/L or ppb)	Subcontracted: SGS report SE232945	<0.5	<0.5
Diazinon (Dimpylate) (µg/L or ppb)	Subcontracted: SGS report SE232945	<0.5	<0.5
Methodathion (µg/L or ppb)	Subcontracted: SGS report SE232945	<0.5	<0.5
Organophosphate (OP) Pesticides (µg/L or ppb)	Subcontracted: SGS report SE232945	<1.7	<1.7

Notes:

- Total metals - samples digested with nitric acid; Total available (acid soluble/ extractable) metals - samples acidified with nitric acid to pH <2;
Dissolved metals - samples filtered through 0.45µm cellulose acetate and then acidified with nitric acid prior to analysis
- Metals and salts analysed by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS).
- 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 µg/L (micrograms per litre) = 1000 ppb (part per billion).
- For conductivity 1 dS/m = 1 mS/cm = 1000 µS/cm.
- Analysis performed according to APHA (2017) 'Standard Methods for the Examination of Water & Wastewater', 23rd Edition, except where stated otherwise.
- Analysis conducted between sample arrival date and reporting date.
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Sample 10	Sample 11	Sample 12	Sample 13	Sample 14	Sample 15	Sample 16	Sample 17	Sample 18
MW18	MW19	MW20	MW21	MW22	MW23	MW25	NW26	No sample
M9485/10	M9485/11	M9485/12	M9485/13	M9485/14	M9485/15	M9485/16	M9485/17	M9485/18
3.10	2.59	2.42	0.99	2.84	3.95	4.29	1.08	..
7.40	6.75	6.68	6.62	6.75	7.30	7.37	7.87	..
1.580	0.246	1.894	1.833	7.355	6.053	0.175	3.482	..
1,074	167	1,288	1,246	5,001	4,116	119	2,368	..
212	214	226	222	226	225	195	228	..
463	113	132	109	552	400	64	688	..
4.6	0.6	2.1	3.1	5.1	2.1	3.2	3.4	..
16.1	8.5	8.0	5.9	3.7	16.4	2.6	21.4	..
0.47	0.79	2.53	1.09	0.54	0.74	0.28	2.40	..
0.46	2.13	4.15	4.31	1.76	5.98	0.85	18.82	..
0.116	<0.05	0.314	0.032	0.075	0.284	0.567	0.120	..
0.309	0.543	2.896	4.529	1.501	7.609	0.073	20.345	..
15	15	15	15	16	14	15	15	..
248	9.58	275	318	902	891	24.1	561	..
3.55	3.54	12.5	12.7	8.50	19.8	11.6	37.4	..
67.8	24.0	72.7	27.0	520	237	6.62	41.1	..
64.2	12.3	45.0	27.7	387	260	2.14	82.4	..
5.2	0.4	6.3	10.3	7.3	9.5	2.1	11.6	..
258	<10	484	481	1,182	1,155	22	722	..
15	<3	21	5	741	421	<3	<3	..
45	<9	63	14	2,224	1,263	<9	<9	..
5.7	..	7.6	33.7	0.5	0.9	..	..	..
0.2	0.2	0.3	0.4	1.1	1.0	0.1	0.4	..
200	200	<10	10	10	<10	10	150	..
7.4	17.7	20.2	7.4	22.4	16.9	8.7	10.3	..
<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	..
<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	..
0.634	0.229	2.91	0.142	0.161	0.042	0.268	0.036	..
<0.001	0.003	0.003	<0.001	0.001	<0.001	<0.001	0.002	..
<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	..
<0.001	<0.001	0.002	<0.001	<0.001	<0.001	0.002	<0.001	..
0.003	0.003	0.025	<0.001	<0.001	<0.001	0.003	<0.001	..
1.78	20.3	9.37	0.811	13.3	16.5	0.415	0.782	..
1.04	3.38	0.987	0.616	1.99	0.752	0.107	0.097	..
0.004	0.009	0.011	0.005	0.004	0.003	0.001	<0.001	..
<0.001	<0.001	0.007	<0.001	0.001	<0.001	<0.001	<0.001	..
<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	..
0.039	0.087	2.90	0.061	0.005	0.008	0.078	0.007	..
<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	..
<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	..
<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	..
<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	..
<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	..
<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	..
<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	..
<1	<1	<1	<1	<1	<1	<1	<1	..
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	..
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	..
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	..
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	..
<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	<1.7	..
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	..
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	..
<1	<1	<1	<1	<1	<1	<1	<1	..
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	..
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	..
<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	..
<40	<40	<40	<40	<40	<40	<40	<40	..
<50	<50	<50	<50	<50	<50	<50	<50	..
<50	<50	<50	<50	<50	<50	<50	<50	..
<50	<50	<50	<50	<50	<50	<50	<50	..
<100	<100	<100	<100	<100	<100	<100	<100	..
<100	<100	<100	<100	<100	<100	<100	<100	..
<100	<100	<100	<100	<100	<100	<100	<100	..

RESULTS OF WATER ANALYSIS

5 samples supplied by Lismore City Council on 25/08/2022. Lab Job No. N2024.

Samples submitted by CS Compliance. Your Job: Q20/124 PO 77501.

PO Box 23A LISMORE NSW 2480

Parameter	Methods reference	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
		MCS01 25/8/2022	MCS02 25/8/2022	MCS03 25/8/2022	MCS04 25/8/2022	MCS05 25/8/2022
	<i>Job No.</i>	<i>N2024/1</i>	<i>N2024/2</i>	<i>N2024/3</i>	<i>N2024/4</i>	<i>N2024/5</i>
pH	APHA 4500-H ⁺ -B	7.34	7.67	7.64	7.38	7.37
Conductivity (EC) (dS/m)	APHA 2510-B	0.388	0.539	0.558	0.582	0.560
Total Dissolved Salts (mg/L)	** Calculation using EC x 680	264	367	379	396	381
Temperature (-C)	Onsite	14	16	16	14	16
Redox Potential (mV)	Onsite	226	212	207	238	227
Total Suspended Solids (mg/L)	GFC equiv. filter - APHA 2540-D	18	83	116	61	39
Turbidity (ntu)	APHA 2130	27	63	98	82	38
Dissolved Oxygen (mg/L O ₂)	** APHA 4500-O-G (Onsite method preferable)	6.1	6.9	7.2	7.4	7.4
Biochemical Oxygen Demand ₅ (mg/L O ₂)	APHA 5210-B	2.6	18.1	21.1	11.5	13.7
Total Phosphorus (mg/L P)	In house method W4	0.08	3.05	3.15	2.74	2.13
Total Nitrogen (mg/L N)	In house method W4	0.56	10.5	9.84	8.32	7.31
Total Kjeldahl Nitrogen (mg/L N)	** Calculation: TN – NO _x	0.55	9.13	8.45	7.17	6.46
Nitrate (mg/L N)	APHA 4500 NO ₃ ⁻ -F	<0.005	1.06	1.06	0.851	0.606
Ammonia (mg/L N)	APHA 4500 NH ₃ -H	0.019	3.79	4.17	3.88	3.98
Faecal Coliforms (cfu/100 ml)	** APHA 9222-D	1,120	5,200	5,200	3,900	1,720
Dissolved Organic Carbon (mg/L C)	** Inhouse	6.75	16.4	14.8	15.9	15.0
BTEX						
Benzene (µg/L or ppb)	Subcontracted: SGS report SE 236004	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene (µg/L or ppb)	Subcontracted: SGS report SE 236004	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene (µg/L or ppb)	Subcontracted: SGS report SE 236004	<0.5	<0.5	<0.5	<0.5	<0.5
m+p-Xylene (µg/L or ppb)	Subcontracted: SGS report SE 236004	<1	<1	<1	<1	<1
o-Xylene (µg/L or ppb)	Subcontracted: SGS report SE 236004	<0.5	<0.5	<0.5	<0.5	<0.5
Naphthalene (µg/L or ppb)	Subcontracted: SGS report SE 236004	<0.5	<0.5	<0.5	<0.5	<0.5
Total Recoverable Hydrocarbons (TRH)						
C6-C9 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 236004	<40	<40	<40	<40	<40
C10-C14 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 236004	<50	<50	<50	<50	<50
C15-C28 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 236004	<100	<100	<100	<100	130
C29-C36 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 236004	<50	<50	<50	<50	72
C10-C16 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 236004	<60	<60	<60	<60	<60
C16-C34 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 236004	<200	<200	<200	<200	<200
C34-C40 Fraction (µg/L or ppb)	Subcontracted: SGS report SE 236004	<100	<100	<100	<100	<100

Notes:

- Total metals - samples digested with nitric acid; Total available (acid soluble/ extractable) metals - samples acidified with nitric acid to <2pH;
Dissolved metals - samples filtered through 0.45µm cellulose acetate and then acidified with nitric acid prior to analysis
- Metals and salts analysed by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS).
- 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 µg/L (micrograms per litre) = 1000 ppb (part per billion).
- For conductivity 1 dS/m = 1 mS/cm = 1000 µS/cm.
- Analysis performed according to APHA (2012) 'Standard Methods for the Examination of Water & Wastewater', 22nd Edition, except where stated otherwise.
- Analysis conducted between sample arrival date and reporting date.
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- This report was issued on 6/09/2022.



RESULTS OF LEACHATE ANALYSIS

2 samples supplied by Lismore City Council on 26/08/2022. Lab Job No. N2090.

Samples submitted by Eleisha Went. Your Job: Quarterly Leachate

PO Box 23A LISMORE NSW 2480

Parameter	Methods reference	Sample 1	Sample 2
		LD	TWP
	<i>Job No.</i>	<i>N2090/1</i>	<i>N2090/2</i>
pH	APHA 4500-H ⁺ -B	7.61	7.42
Conductivity (EC) (dS/m)	APHA 2510-B	1.13	2.34
Total Dissolved Salts (mg/L)	** Calculation using EC x 680	766	1,594
Bicarbonate (Alkalinity) (mg/L CaCO ₃ equivalent)	** Total Alkalinity - APHA 2320	262	391
Chemical Oxygen Demand (mg/L O ₂)	** APHA 5220-D	164	360
Total Phosphorus (mg/L P)	In house method W4	0.62	1.83
Total Nitrogen (mg/L N)	In house method W4	7.67	21.7
Nitrate (mg/L N)	APHA 4500 NO ₃ ⁻ -F	0.061	<0.05
Ammonia (mg/L N)	APHA 4500 NH ₃ -H	1.41	9.03
Sodium (mg/L)	APHA 3125 ICPMS ^{note 1&2}	87.9	152
Potassium (mg/L)	APHA 3125 ICPMS ^{note 1&2}	113	166
Calcium (mg/L)	APHA 3125 ICPMS ^{note 1&2}	40.8	150
Magnesium (mg/L)	APHA 3125 ICPMS ^{note 1&2}	18.0	44.6
Sodium Absorption Ratio (SAR)	** By calculation	2.9	2.8
Chloride (mg/L)	APHA 3125 ICPMS ^{note 1&2}	161	235
Sulfate (mg/L SO ₄ ²⁻)	APHA 3125 ICPMS ^{note 1&2}	55	432
Chloride/Sulfate Ratio	** Calculation	2.9	0.5
Fluoride (mg/L)	** APHA 4500-F-D	0.4	1.0
Faecal Coliforms (cfu/100 ml)	** APHA 9222-D	6,400	27,200
Dissolved Organic Carbon (mg/L)	APHA 5310-B	53.9	109
Arsenic (mg/L)	Total Available - APHA 3125 ICPMS ^{note 1&2}	0.003	0.004

Notes:

- Total metals - samples digested with nitric acid; Total available (acid soluble/ extractable) metals - samples acidified with nitric acid to pH <2; Dissolved metals - samples filtered through 0.45µm cellulose acetate and then acidified with nitric acid prior to analysis
- Metals and salts analysed by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS).
- 1 mg/L (milligram per litre) = 1 ppm (part per million) = 1000 µg/L (micrograms per litre) = 1000 ppb (part per billion).
- For conductivity 1 dS/m = 1 mS/cm = 1000 µS/cm.
- Analysis performed according to APHA (2017) 'Standard Methods for the Examination of Water & Wastewater', 23rd Edition, except where stated otherwise.
- Analysis conducted between sample arrival date and reporting date.
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