Analytical Results

Matrix: WATER
Sub-Matrix: **WATER**

Compound	CAS#	LOR	Unit	Client sample ID: LAKE 1 A	LAKE 1 B	LAKE 4 A	LAKE 4 B	LAKE 5 A
				Client sampling date / time: 14-Dec-2020 09:00	14-Dec-2020 09:00	14-Dec-2020 08:00	14-Dec-2020 08:00	14-Dec-2020 08:30
				JD2002755-001	JD2002755-002	JD2002755-003	JD2002755-004	JD2002755-005
AGGREGATE ORGANIC PARAMETERS								
Biochemical Oxygen Demand	----	2	mg/L	**6**	**7**	**7**	**6**	**3**
Total Organic Carbon	----	1.0	mg/L	**14.7**	**14.4**	**8.2**	**8.7**	**7.3**
NUTRIENTS								
Ammonia as N	7664-41-7	0.01	mg/L	**0.03**	**0.03**	**0.23**	**0.27**	**0.20**
^ Nitrate as N	14797-55-8	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
^ Total Phosphate	----	0.03	mg/L	**3.22**	**3.00**	**0.10**	**0.08**	**0.09**
Total Phosphorus as P	----	0.01	mg/L	**1.05**	**0.98**	**0.03**	**0.02**	**0.03**
PHYSICAL PARAMETERS								
Total Suspended Solids	----	5	mg/L	**28**	**30**	<5	<5	<5

Analytical Results

Matrix: WATER			Client sample ID	LAKE 5 B	----	----	----	----
Sub-Matrix: **WATER**			Client sampling date / time	14-Dec-2020 08:30	----	----	----	----
Compound	*CAS#*	*LOR*	*Unit*	**JD2002755-006**	--------	--------	--------	--------
AGGREGATE ORGANIC PARAMETERS								
Biochemical Oxygen Demand	----	2	mg/L	**3**	----	----	----	----
Total Organic Carbon	----	1.0	mg/L	**8.0**	----	----	----	----
NUTRIENTS								
Ammonia as N	7664-41-7	0.01	mg/L	**0.18**	----	----	----	----
^ Nitrate as N	14797-55-8	0.01	mg/L	<0.01	----	----	----	----
^ Total Phosphate	----	0.03	mg/L	**0.21**	----	----	----	----
Total Phosphorus as P	----	0.01	mg/L	**0.07**	----	----	----	----
PHYSICAL PARAMETERS								
Total Suspended Solids	----	5	mg/L	<5	----	----	----	----

Brief Method Summaries

The analytical procedures used by the Life Sciences Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA AS, NEPM, FDA/BAM, AOAC, ISO etc. In house developed procedures are employed in the absence of documented standards or by client request.

Analytical Methods	Method	Matrix	Method Descriptions
Total Suspended Solids	EA025H	WATER	APHA 2540 D, 23rd ed. A gravimetric procedure employed to determine the amount of `non-filterable` residue in a aqueous sample. The prescribed GFC (1.2um) filter is rinsed with deionised water, oven dried and weighed prior to analysis. A well-mixed sample is filtered through a glass fibre filter (1.2um). The residue on the filter paper is dried at 104+/-2C .
Ammonia as N/NH3	EK055-G	WATER	SM 4500-NH3 H, APHA 23rd ed. / Aquakem NH3-W-P-V. Ammonia is determined by direct colorimetry via discrete analyser.
Nitrate as N/NO3	EK058-G	WATER	NEMI Method 9171; Thermo-Scientific Method NOx-W-C-I; Nitrate is reduced to nitrite by way of a cadmium reduction column followed by quantification by Discrete Analyser. Nitrite is determined seperately by direct colourimetry. Result for Nitrate is calculated as the difference between the two results.
Total Phosphorus as P	EK067-G	WATER	APHA 4500-P H, 23rd ed. Samples are digested using a traditional Kjeldahl digestion followed by determination via discrete analyser. Phosphate calculated (if required) by multiplying 3.065 with TP result.
Total Organic Carbon	EP005	WATER	SM 5310 B, APHA 22nd ed. The automated carbon analyzer determines total and inorganic carbon by IR cell. TOC is calculated as the difference.
Biochemical Oxygen Demand (BOD)	EP030	WATER	APHA 5210 B, 23rd ed. The 5-Day BOD test provides an empirical measure of the oxygen consumption capacity of a given water. A portion of the sample is diluted into oxygenated, nutrient rich water, and a seed added to begin biological decay. The initial dissolved oxygen content is measured, then the bottle is sealed and incubated for five days. The remaining dissolved oxygen is measured, and from the difference, the demand for oxygen, by biological decay, is determined.

Preparation Methods	Method	Matrix	Method Descriptions
Preparation for TKN / TP	TKN/TP-PREP	WATER	Preparation for TKN / TP

A `*` symbol preceding any method indicates laboratory or subcontractor non-accredited test. In the case when a procedure belonging to an accredited method was used for non-accredited matrix, would apply that the reported results are non-accredited. Please refer to General Comment section on front page for information. If the report contains subcontracted analysis, those are made in a subcontracted laboratory.