



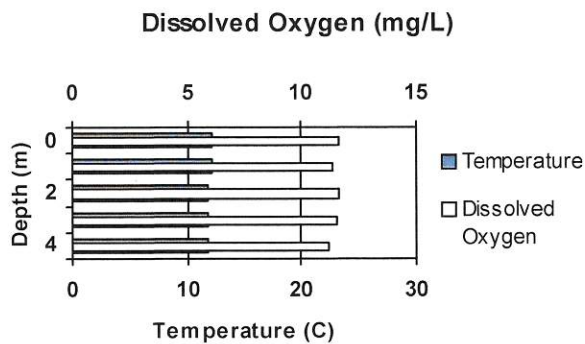
Water Quality Monitoring Report

2018058

Customer	Waterbody	Sample Information
North Lake (Muskegon)	North Lake	Date: 4/30/2018
		Site: deep hole

On-Site Results

Depth (m)	Temperature (degrees C)	Dissolved Oxygen	
		mg/L	%
0	12.2	11.6	108
1	12.1	11.4	105
2	11.9	11.6	107
3	11.8	11.5	107
4	11.7	11.2	105



Secchi Disk Depth	4.0 meters
Thermocline Depth	meters

Analytical Results

Parameter	Result	Units	Interpretation
Fecal Bacteria (E. coli)		CFU/100 mL	N/A
Conductivity	94	uS/cm	Low concentration of dissolved salts
Total Dissolved Solids	61	mg/L	
pH	7.9	S.U.	Water is slightly alkaline
Alkalinity	48	mg CaCO ₃ /L	Water is very soft
Total Phosphorus	13	ug/L	Moderately phosphorus enriched
Nitrates	200	ug/L	Not nitrogen enriched
Chlorophyll	N/A		

Trophic State Evaluation

	TSI	Trophic Status
Based on Secchi Disk Depth	40	mesotrophic
Based on Total Phosphorus	37	meso-oligotrophic
Based on Chlorophyll	N/A	

Conclusions

- Conditions are good for fish growth.
- Minimum dissolved oxygen is adequate for good fish production.
- pH is within acceptable limits.
- Sample is somewhat phosphorus enriched. Create natural buffer between lawn & lakeshore.
- Repeat LakeCheck in Fall.

-
- WARNING. condition requires immediate attention.
 - CAUTION. condition requires further evaluation.
 - OK. condition within acceptable limits.
 - NEUTRAL. condition neither good nor bad.

Notes

Report describes conditions at the time the sample was collected.

Approved by

Jaimee Conroy

Date 10/23/2018

Mrs. Jaimee Conroy, Technical Services Manager

FROM YOUR



DEALER



PLM Lake & Land Management Corp

P.O. Box 132

Caledonia MI 49316-

Phone: (616) 891-1294



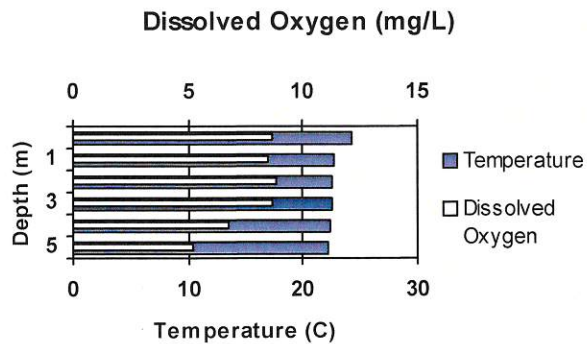
Water Quality Monitoring Report

2018116

Customer	Waterbody	Sample Information
North Lake (Muskegon)	North Lake	Date: 9/14/2018
		Site: Deep Hole

On-Site Results

Depth (m)	Temperature (degrees C)	Dissolved Oxygen	
		mg/L	%
0	24.3	8.6	89
1	22.8	8.5	85
2	22.6	8.8	89
3	22.5	8.6	87
4	22.4	6.7	64
5	22.2	5.2	52



Secchi Disk Depth 2.5 meters

Thermocline Depth meters

Analytical Results

Parameter	Result	Units	Interpretation
Fecal Bacteria (E. coli)		CFU/100 mL	N/A
Conductivity	100	uS/cm	
Total Dissolved Solids	61	mg/L	Low concentration of dissolved salts
pH	8.1	S.U.	Water is slightly alkaline
Alkalinity	38	mg CaCO ₃ /L	Water is very soft
Total Phosphorus	21	ug/L	Moderately phosphorus enriched
Nitrates	210	ug/L	Not nitrogen enriched
Chlorophyll	N/A		

Trophic State Evaluation

	TSI	Trophic Status
Based on Secchi Disk Depth	47	mesotrophic
Based on Total Phosphorus	44	mesotrophic
Based on Chlorophyll	N/A	

Conclusions

- Conditions are good for fish growth.
- Minimum dissolved oxygen is adequate for good fish production.
- pH is within acceptable limits.
- Sample is somewhat phosphorus enriched. Create natural buffer between lawn & lakeshore.
- REPEAT LakeCheck NEXT YEAR!

-
- WARNING. condition requires immediate attention.
 - CAUTION. condition requires further evaluation.
 - OK. condition within acceptable limits.
 - NEUTRAL. condition neither good nor bad.

Notes

Report describes conditions at the time the sample was collected.

Approved by

Jaimee Conroy

Date 10/23/2018

Mrs. Jaimee Conroy, Technical Services Manager

FROM YOUR **WQ
PRO** DEALER



PLM Lake & Land Management Corp
P.O. Box 132
Caledonia MI 49316-
Phone: (616) 891-1294



Bacteria Sampling Report

Waterbody: North Lake (Muskegon)
North Lake (Muskegon)

Date Sampled:
7/19/2018

Location	<i>E. coli</i>	Total Coliforms	Interpretation
#1	1.0	108	● Water meets bacteriological standards for safe swimming.
#2	1.0	104	● Water meets bacteriological standards for safe swimming.
#3	4.0	92	● Water meets bacteriological standards for safe swimming.

Bacterial counts are expressed as the number of Colony Forming Units per 100 milliliters (CFU/100mL).

For full body contact recreation (including swimming) counts of *E. coli* should not exceed 130 (CFU/100mL) as a monthly geometric mean of at least five samples per the State of Michigan standard, or single samples should not exceed 298 (CFU/100mL) [235 CFU/100mL in a designated bathing beach area] per Federal (EPA) guidelines.

Current recreational water quality standards do not rely on Total Coliform counts.

Approved by


Mrs. Jaimee Conroy, Technical Services Manager

Date 23-Jul-18



PLM Lake & Land Management Corp
P.O. Box 132
Caledonia MI 49316-
Phone: (616) 891-1294

