

Environmental Health Laboratories

110 S. Hill Street
South Bend, IN 46617
(219) 233-4777
(219) 233-3272
FAX (219) 233-8207

LABORATORY REPORT

Client: Lake Papakeechee Home Owners Association
Attn: Ron Kerlin
9485 East 100 North
Syracuse, IN 46567

Report#: 112258-61(58)

Priority: Standard Written

Status: Final

Project/Site: Inlet

Samples Submitted: One surface water sample

Copies to: None

Collected: 05-12-94

By: Client

Received: 05-13-94

REPORT RESULTS

FECAL COLIFORM

Lab #	Limit	Results (cfu/100mL)	Interpretation
112258	200	< 1	Satisfactory

Analyzed: 05-13-94

Analyst: WJ

The presence of fecal coliform is indicative of fecal contamination. Although most fecal coliform bacteria are not pathogenic (i.e. non-disease producing), they are often detected when pathogenic organisms are present. When fecal coliform is not detected, the probability that pathogenic organisms are present is very low.

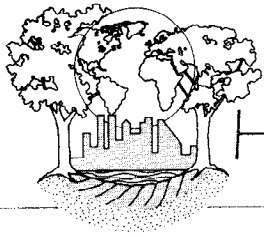
We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call us at (219) 233-4777.

REVIEWED BY: RA T S

DATE: 6-8-94

FINALIZED BY: John E. Hoag

DATE: 6/15/94



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LABORATORY REPORT

Client: Lake Papakeechee Home Owners Association
Attn: Ron Kerlin
9485 East 100 North
Syracuse, IN 46567

Report#: 112258-61(59)
Priority: Standard Written
Status: Final

Project/Site: Holiday Harbor

Samples Submitted: One surface water sample

Copies to: None

Collected: 05-12-94

By: Client

Received: 05-13-94

REPORT RESULTS

FECAL COLIFORM

Lab #	Limit	Results (cfu/100mL)	Interpretation
112259	200	30	Satisfactory

Analyzed: 05-13-94

Analyst: WJ

The presence of fecal coliform is indicative of fecal contamination. Although most fecal coliform bacteria are not pathogenic (i.e. non-disease producing), they are often detected when pathogenic organisms are present. When fecal coliform is not detected, the probability that pathogenic organisms are present is very low.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call us at (219) 233-4777.

REVIEWED BY: RA T. G.

DATE: 6-8-94

FINALIZED BY: John E. George III

DATE: 6/15/94

Client: Lake Papakeechee Home Owners Association

Report#: 112258-61(59)

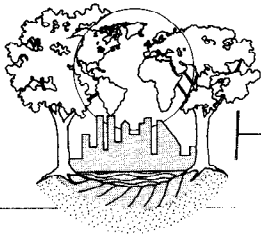
DEFINITIONS OF TERMS

Fecal Coliform

Analytical technique: Membrane Filtration

Reference: Standard Methods For Examination of Water and Wastewater
Vol. 17, 1989

1cfu = 1 Colony Forming Unit = a bacteria colony presumed to have originated from a single bacterium present in the sample.



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LABORATORY REPORT

Client: Lake Papakeechee Home Owners Association
Attn: Ron Kerlin
9485 East 100 North
Syracuse, IN 46567

Report#: 112258-61(60)

Priority: Standard Written

Status: Final

Project/Site: Inlet

Samples Submitted: One surface water sample

Copies to: None

Collected: 05-12-94

By: Client

Received: 05-13-94

REPORT SUMMARY

One water sample was submitted for E. Coli analysis.

After discussion with the client, the analysis was cancelled due to its infeasibility at the present time.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call us at (219) 233-4777.

REVIEWED BY:

MA 7/6

DATE:

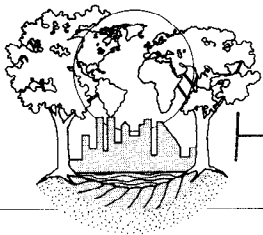
6-8-94

FINALIZED BY:

John E. Georg, II

DATE:

6/15/94



LABORATORY REPORT

Client: Lake Papakeechee Home Owners Association
Attn: Ron Kerlin
9485 East 100 North
Syracuse, IN 46567

Report#: 112258-61(61)

Priority: Standard Written

Status: Final

Project/Site: Inlet

Samples Submitted: One surface water sample

Copies to: None

Collected: 05-12-94

By: Client

Received: 05-13-94

REPORT SUMMARY

None of the analytes included in the detailed parameter list were detected in the sample submitted for analysis.

Results of all associated quality control samples were within acceptance limits. No project specific quality control was requested.

Detailed quantitative results are presented on the following pages.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call us at (219) 233-4777.

REVIEWED BY: *RK*

DATE: 6-8-94

FINALIZED BY: *John E. George III*

DATE: 6/15/94

Client: Lake Papakeechee Home Owners Association

Report#: 112258-61(58)

DEFINITIONS OF TERMS

Fecal Coliform

Analytical technique: Membrane Filtration

Reference: Standard Methods For Examination of Water and Wastewater
Vol. 17, 1989

1cfu = 1 Colony Forming Unit = a bacteria colony presumed to have originated from a single bacterium present in the sample.

SEMI-VOLATILE ORGANIC CHEMICALS, continued

Parameter	Tradename	MCL (ug/L)	Result (ug/L)	Interpretation
Benfluralin	Benefin [®]	NA	Not Detected Ł	Acceptable
Bolstar		NA	Not Detected Ł	Acceptable
Bromacil	Borea [®]	NA	< 0.2 µg/L	Acceptable
Butachlor	Machete [®]	NA	< 0.1 µg/L	Acceptable
Butylate	Sutan [®]	NA	Not Detected Ł	Acceptable
Carboxin	Vitavax [®]	NA	Not Detected Ł	Acceptable
Clomazone		NA	Not Detected Ł	Acceptable
Chlordane Components				
alpha-Chlordane		2 *	< 0.2 µg/L	Acceptable
gamma-Chlordane		2 *	< 0.2 µg/L	Acceptable
trans-nonachlor		2 *	< 0.2 µg/L	Acceptable
Chlorobenzilate	Kop-Mite [®]	NA	Not Detected Ł	Acceptable
Chloroneb	Terraneb [®]	NA	Not Detected Ł	Acceptable
Chloroprotham	Chloro IPC [®]	NA	Not Detected Ł	Acceptable
Chloropropylate	Acaralate [®]	NA	Not Detected Ł	Acceptable
Chlorothalonil	Bravo [®]	NA	Not Detected Ł	Acceptable
Chlorpyrifos	Dursban [®]	NA	Not Detected Ł	Acceptable
Coumaphos		NA	Not Detected Ł	Acceptable
Cyanazine	Bladex [®]	NA	< 0.1 µg/L	Acceptable
Cycloate	Sabet [®]	NA	Not Detected Ł	Acceptable
Dasanit		NA	Not Detected Ł	Acceptable
DCPA	Dacthal [®]	NA	Not Detected Ł	Acceptable
4,4'-DDD	Rothane [®]	NA	Not Detected Ł	Acceptable
4,4'-DDE		NA	Not Detected Ł	Acceptable
4,4'-DDT		NA	Not Detected Ł	Acceptable
Demeton		NA	Not Detected Ł	Acceptable
Desethylatrazine		NA	Not Detected Ł	Acceptable
Desisopropylatrazine		NA	Not Detected Ł	Acceptable
Diazinon	Spectracide [®]	NA	Not Detected Ł	Acceptable
Dichlobenil	Casaron [®]	NA	Not Detected Ł	Acceptable
Dichlofenthion		NA	Not Detected Ł	Acceptable
Dichloran	Botran [®]	NA	Not Detected Ł	Acceptable
Dichlorvos	Cekusan [®]	NA	Not Detected Ł	Acceptable
Dieldrin		NA	< 0.2 µg/L	Acceptable
Diphenamid	Dymid [®]	NA	Not Detected Ł	Acceptable
Disulfoton	Insyst-D [®]	NA	Not Detected Ł	Acceptable
Disulfoton Sulfone		NA	Not Detected Ł	Acceptable

Continued on the following page

SEMI-VOLATILE ORGANIC CHEMICALS, continued

Parameter	Tradename	MCL (ug/L)	Result (ug/L)	Interpretation
Disulfoton Sulfoxide		NA	Not Detected Ł	Acceptable
Diuron	Dirax®	NA	Not Detected Ł	Acceptable
Dyfonate		NA	Not Detected Ł	Acceptable
Endosulfan I		NA	Not Detected Ł	Acceptable
Endosulfan II		NA	Not Detected Ł	Acceptable
Endosulfan sulfate		NA	Not Detected Ł	Acceptable
Endrin	Hexadrin®	2	< 0.2 µg/L	Acceptable
Endrin aldehyde		NA	Not Detected Ł	Acceptable
EPN		NA	Not Detected Ł	Acceptable
EPTC	Eradicane®	NA	Not Detected Ł	Acceptable
Ethalfuralin	Sonalan®	NA	Not Detected Ł	Acceptable
Ethion		NA	Not Detected Ł	Acceptable
Ethoprop	Mocap®	NA	Not Detected Ł	Acceptable
Etridiazole		NA	Not Detected Ł	Acceptable
Famphur		NA	Not Detected Ł	Acceptable
Fenamiphos	Nemacur®	NA	Not Detected Ł	Acceptable
Fenarimol	Rubigan®	NA	Not Detected Ł	Acceptable
Fenthion		NA	Not Detected Ł	Acceptable
Fluazifop-Butyl	Fusilade®	NA	Not Detected Ł	Acceptable
Fluchloralin	Basalin®	NA	Not Detected Ł	Acceptable
Fluometuron	Higalcoton®	NA	Not Detected Ł	Acceptable
Fluridone	Sonar®	NA	Not Detected Ł	Acceptable
Heptachlor	Heptamul®	0.4	< 0.2 µg/L	Acceptable
Heptachlor epoxide		0.2	< 0.2 µg/L	Acceptable
Hexachlorobenzene	Bunt-cure®	1	< 0.2 µg/L	Acceptable
Hexachlorocyclopentadiene		50	< 0.2 µg/L	Acceptable
Hexazinone	Velpar®	NA	Not Detected Ł	Acceptable
Lactofen	Cobra®	NA	Not Detected Ł	Acceptable
Linuron	Lorox®	NA	Not Detected Ł	Acceptable
Lindane Components				
gamma-BHC	Lindane®	0.2	Not Detected Ł	Acceptable
alpha-BHC		NA	Not Detected Ł	Acceptable
beta-BHC		NA	Not Detected Ł	Acceptable
delta-BHC		NA	Not Detected Ł	Acceptable
Malathion	Malathion®	NA	Not Detected Ł	Acceptable
Merphos	Folex®	NA	Not Detected Ł	Acceptable
Methoxychlor	Marlate®	40	< 0.2 µg/L	Acceptable
1-Methyl Napthalene		NA	Not Detected Ł	Acceptable
Methyl Paraoxon	Mintacol®	NA	Not Detected Ł	Acceptable

Continued on the following page

SEMI-VOLATILE ORGANIC CHEMICALS, continued

Parameter	Tradename	MCL (ug/L)	Result (ug/L)	Interpretation
Methyl Parathion		NA	Not Detected Ł	Acceptable
Metolachlor	Dual®	NA	< 0.1 µg/L	Acceptable
Metribuzin	Lexone®	NA	< 0.1 µg/L	Acceptable
Mevinphos	Phosdrin®	NA	Not Detected Ł	Acceptable
MKG-264		NA	Not Detected Ł	Acceptable
MKG-326		NA	Not Detected Ł	Acceptable
Molinate	Ordram®	NA	Not Detected Ł	Acceptable
Napromamide	Devrinol®	NA	Not Detected Ł	Acceptable
Norflurazon	Solicam®	NA	Not Detected Ł	Acceptable
Oryzalin		NA	Not Detected Ł	Acceptable
Oxadiazon	Chipco®	NA	Not Detected Ł	Acceptable
Parathion		NA	Not Detected Ł	Acceptable
Pebulate	Tillam®	NA	Not Detected Ł	Acceptable
Pendimethalin	Prowl®	NA	Not Detected Ł	Acceptable
Pentachlorophenol		1	< 5.0 µg/L	Acceptable
Permethrin, cis-	Ambush®	NA	Not Detected Ł	Acceptable
Permethrin, trans-	Ambush®	NA	Not Detected Ł	Acceptable
Phorate	Rampart®	NA	Not Detected Ł	Acceptable
Phosmet		NA	Not Detected Ł	Acceptable
Profluralin	Tolban®	NA	Not Detected Ł	Acceptable
Prometon	Pramitol®	NA	< 0.1 µg/L	Acceptable
Prometryn	Caparol®	NA	Not Detected Ł	Acceptable
Pronamide	Kerb®	NA	Not Detected Ł	Acceptable
Propachlor	Ramrod®	NA	< 0.1 µg/L	Acceptable
Propanil	Prop-Job®	NA	Not Detected Ł	Acceptable
Propazine	Milogard®	NA	Not Detected Ł	Acceptable
Simazine	Princep®	4	< 0.2 µg/L	Acceptable
Simetryn	Gy-bon®	NA	Not Detected Ł	Acceptable
Stirofos	Gardona®	NA	Not Detected Ł	Acceptable
Terbacil	Sinbar®	NA	Not Detected Ł	Acceptable
Terbufos	Counter®	NA	Not Detected Ł	Acceptable
Tebuthiuron	Spike®	NA	Not Detected Ł	Acceptable
Terbutryn	Prebane®	NA	Not Detected Ł	Acceptable
Triademefon	Bayleton®	NA	Not Detected Ł	Acceptable
Tribufos (DEF)		NA	Not Detected Ł	Acceptable
Tricyclazole	Beam®	NA	Not Detected Ł	Acceptable
Trifluralin	Treflan®	NA	< 0.1 µg/L	Acceptable
Vernolate	Vernam®	NA	Not Detected Ł	Acceptable

Continued on the following page

SEMI-VOLATILE ORGANIC CHEMICALS

Parameter	Tradename	MCL (ug/L)	Result (ug/L)	Interpretation
Phthalates				
Butyl benzyl phthalate		NA	Not Detected \pm	Acceptable
Di-n-butyl phthalate		NA	Not Detected \pm	Acceptable
Diethylphthalate		NA	Not Detected \pm	Acceptable
Di(2-ethylhexyl)adipate		400	< 2.0 $\mu\text{g/L}$	Acceptable
Di(2-ethylhexyl)phthalate		6	< 2.0 $\mu\text{g/L}$	Acceptable
Dimethylphthalate		NA	Not Detected \pm	Acceptable
PCBs				
Chlorobiphenyl		NA	Not Detected \pm	Acceptable
Dichlorobiphenyl		NA	Not Detected \pm	Acceptable
Trichlorobiphenyl		NA	Not Detected \pm	Acceptable
Tetrachlorobiphenyl		NA	Not Detected \pm	Acceptable
Pentachlorobiphenyl		NA	Not Detected \pm	Acceptable
Hexachlorobiphenyl		NA	Not Detected \pm	Acceptable
Heptachlorobiphenyl		NA	Not Detected \pm	Acceptable
Octachlorobiphenyl		NA	Not Detected \pm	Acceptable
Polynuclear Aromatic Hydrocarbons				
Acenaphthylene		NA	Not Detected \pm	Acceptable
Anthracene		NA	Not Detected \pm	Acceptable
Benzo (a) anthracene		NA	Not Detected \pm	Acceptable
Benzo (b) fluoranthene		NA	Not Detected \pm	Acceptable
Benzo (k) fluoranthene		NA	Not Detected \pm	Acceptable
Benzo (ghi) perylene		NA	Not Detected \pm	Acceptable
Benzo (a) pyrene		0.2	< 2.0 $\mu\text{g/L}$	Acceptable
Chrysene		NA	Not Detected \pm	Acceptable
Dibenz (a,h) anthracene		NA	Not Detected \pm	Acceptable
Fluorene		NA	Not Detected \pm	Acceptable
Indeno (1,2,3-cd) pyrene		NA	Not Detected \pm	Acceptable
Phenanthrene		NA	Not Detected \pm	Acceptable
Pyrene		NA	Not Detected \pm	Acceptable
Pesticides/Herbicides				
Alachlor	Lasso [®]	2	< 0.2 $\mu\text{g/L}$	Acceptable
Aldrin	Aldrin [®]	NA	< 0.2 $\mu\text{g/L}$	Acceptable
Ametryn	Gesapax [®]	NA	Not Detected \pm	Acceptable
Aspon	Aspon [®]	NA	Not Detected \pm	Acceptable
Atraton	Gestamin [®]	NA	Not Detected \pm	Acceptable
Atrazine	Atratol [®]	3	< 0.2 $\mu\text{g/L}$	Acceptable
Azinphos-methyl	Carfene [®]	NA	Not Detected \pm	Acceptable

Continued on the following page

DEFINITIONS OF TERMS

MCL = (Maximum Contaminant Levels) are the maximum allowable concentrations of regulated parameters in public drinking water supplies. Monitoring requirements for public supplies are not currently applicable to private (residential) water systems.

Practical Quantitation Limits (PQL's) represent the lower limit at which the compounds of interest can be accurately measured, at a 95% confidence level, and reported for a sample exhibiting minimal chemical background interference under the conditions employed in the analytical procedure. PQL's are by definition a function of the instrument performance for an ideal sample and thus are not adjusted for sample dilutions used to calculate results.

Semi-Volatile Organic Chemicals (SOCs) are chemicals used in the manufacture of a wide range of products. These include chemicals used in the production of wood preservatives, hydraulic and electrical transformer oils, plastics, tars, creosotes, and other types of pesticide formulations. SOC's are usually categorized into the following groups: Phenols, Pesticides, PCBs, Phthalates, Polynuclear Aromatics, and other miscellaneous chemicals commonly referred to as Base Neutrals. The presence of these chemicals in water usually results from exposure of the water to waste materials or soils containing these materials or from an accidental spill.

1 $\mu\text{g/L}$ = 1 microgram per liter = 1 part per billion (ppb).

< = "less than". This number is the lowest reportable value by the procedure used for analysis.

Client: Lake Papakeechee Home Owners Association

Report#: 112258-61(61)

SEMI-VOLATILE ORGANIC CHEMICALS, continued

L = Qualitative analysis only. If this parameter is present in the sample, the concentration is estimated by the ratio of the peak area to that of the internal standard. The compounds listed can be routinely detected down to levels of 0.1 - 1.0 µg/L.

* The MCL presented is for total chlordane.

NA = Not Applicable

Analyzed: 05-17-94

Analyst: AMD