



C. C. I. W.
LIBRARY

1966

LIMNOLOGICAL DATA REPORT NO. 8

LAKE ERIE

CRUISE 66 - 11, AUGUST 8 - 14

PUBLISHED BY
CANADIAN OCEANOGRAPHIC DATA CENTRE

CANADA CENTRE FOR INLAND WATERS

BURLINGTON • ONTARIO

Programmed by

GRÉAT LAKES DIVISION

INLAND WATERS BRANCH

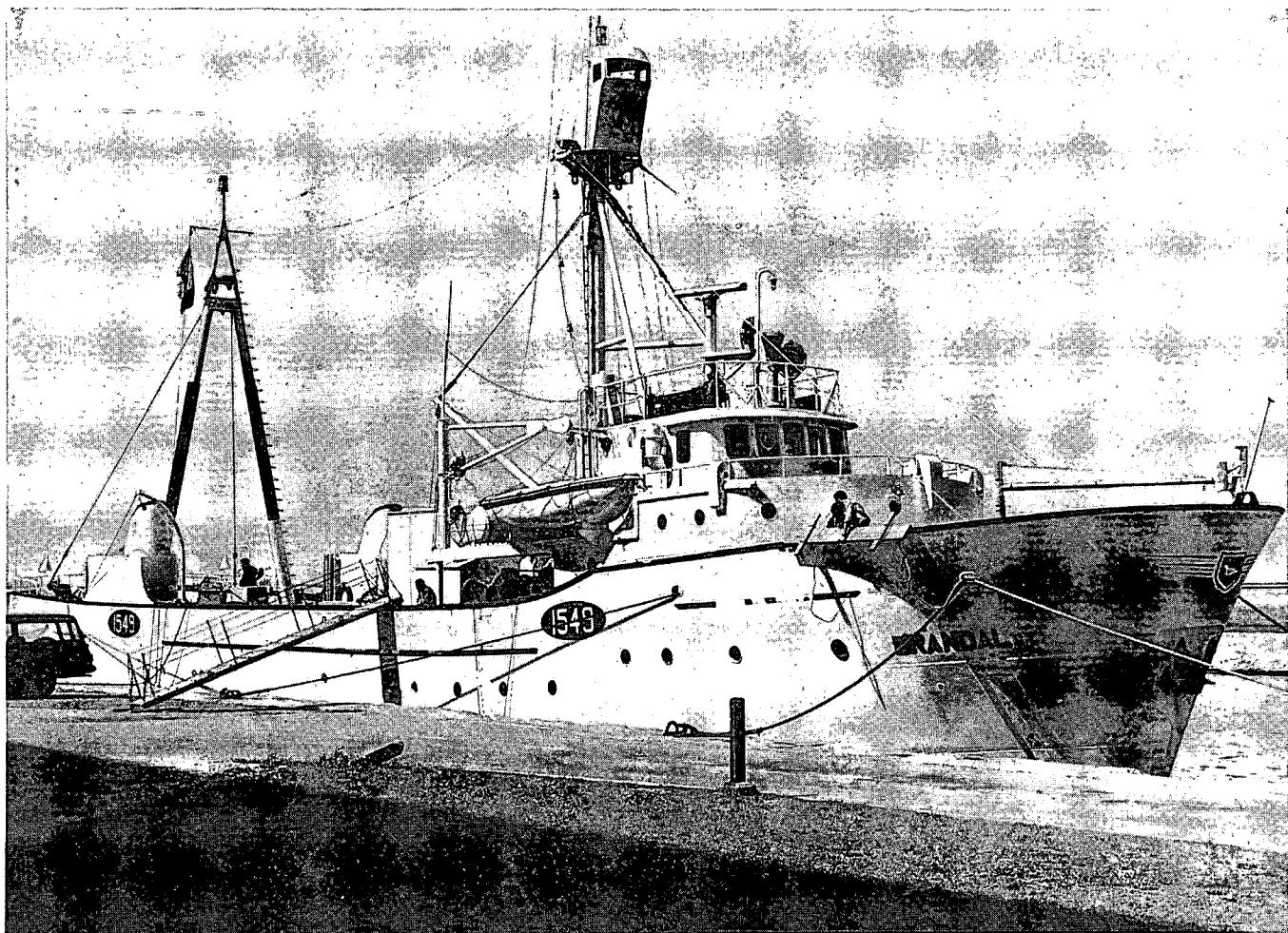
DEPARTMENT of ENERGY, MINES & RESOURCES

and

PUBLIC HEALTH ENGINEERING DIVISION

DEPARTMENT of NATIONAL HEALTH & WELFARE

CANADA



M.V. "Brandal"



LIMNOLOGICAL DATA REPORT NO.8

LAKE ERIE

CRUISE 66 - 11, AUGUST 8 - 14

1966

**CANADA CENTRE FOR INLAND WATERS
BURLINGTON, ONTARIO**

Published by
CANADIAN OCEANOGRAPHIC DATA CENTRE
1969

FOREWORD

This report contains limnological data gathered for research and monitoring purposes, primarily to provide data required in connection with the IJC reference on pollution of Lakes Erie and Ontario.

The agencies involved were:

Department of Energy, Mines and Resources
Department of National Health and Welfare

The joint reference of the Governments of Canada and the United States to the International Joint Commission was for information on the following questions:

- (1) Are the waters of Lake Erie, Lake Ontario and the International Section of the St. Lawrence River being polluted on either side of the boundary to an extent which is causing or is likely to cause injury to health or property on the other side of the boundary?
- (2) If the foregoing question is answered in the affirmative, to what extent, by what causes, and in what localities is such pollution taking place?
- (3) If the Commission should find that pollution of the character just referred to is taking place, what remedial measures would, in its judgement, be most practicable from the economic, sanitary and other points of view and what would be the probable cost thereof?

These data have been made available to International Joint Commission agencies, federal and provincial, operating under the respective Boards: The International Lake Erie Water Pollution Board and the International Lake Ontario - St. Lawrence River Water Pollution Board.

In view of their interest to limnological research workers who are not formally charged with studies on behalf of the International Joint Commission, these data are distributed widely in this report. Because of difficulties in interpretation, anyone using these data in the preparation of a paper or report which draws conclusions pertaining to the three questions posed above, is requested by the IJC Pollution Reference Boards to discuss the data interpretation with the agencies concerned before publishing the report or paper. Such discussion can be arranged through the Canada Centre for Inland Waters, P.O. Box 5050, Burlington, Ontario.

In all other respects, the data are free to be used for scientific research and studies and should be acknowledged in accordance with the usual scientific practice.

INTRODUCTION

This report is one of a series listing chemical, bacteriological and physical data for waters of Lake Ontario and Lake Erie, observed by Government of Canada agencies. The first twelve reports cover the year 1966, during which Lake Ontario was surveyed from June 1 to October 3, and Lake Erie, from August 8 to August 14.

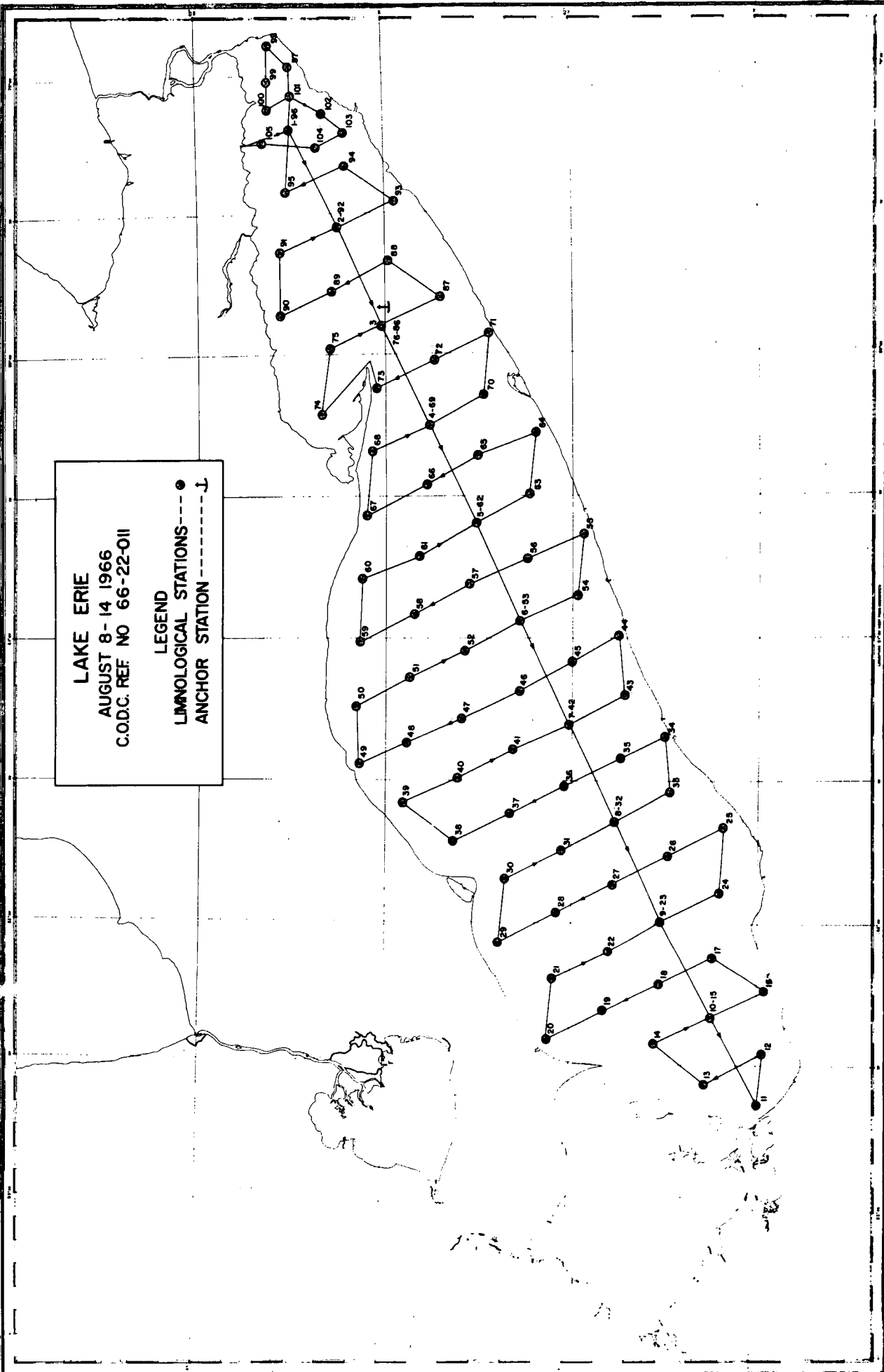
The 1966 surveys were carried out by the Great Lakes Division (Inland Waters Branch) and the Canadian Hydrographic Service (Marine Sciences Branch), both of which are Branches of the Department of Energy, Mines and Resources, and by the Public Health Engineering Division of the Department of National Health and Welfare. Staff from the three agencies carried out the work aboard the 140-foot stern trawler "Brandal", chartered by the Department of Energy, Mines and Resources.

Water-quality data gathered during eighteen cruises in 1966 are contained in twelve separate reports in the present series. Not reported on is a nineteenth cruise, from August 23 to 28, which was for seismic purposes only. Supplementary bathythermograph data and weather data are available on request from the Canada Centre for Inland Waters, P.O. Box 5050, Burlington, Ontario.

The Canadian Government's program developed in response to a request directed to the International Joint Commission by the Governments of Canada and the United States, that information relating to pollution of Lake Ontario, Lake Erie, and the international section of the St. Lawrence River be gathered. Preliminary listings of the data have already been made available to agencies preparing a report for the International Joint Commission.

The bacteriological data have already been published in Manuscript Report No. 67-1 of the Public Health Engineering Division, Department of National Health and Welfare. These data are again published in the present series of reports to facilitate comparison with the chemical and physical data.

Figure 1 shows the geographical locations of the observations listed in this data record, together with the vessel's track and the locations of bathythermograph lowerings.



LAKE ERIE
 AUGUST 8-14 1966
 C.O.D.C. REF NO 66-22-011
LEGEND
 LIMNOLOGICAL STATIONS---●
 ANCHOR STATION---┴

Summary of the cruises and data listed in Data Reports Nos. 1 to 12. (An "X" indicates that the parameter is reported for one or more stations in the particular cruise).

Data Report No.	1		2	3	4	5	6	
Cruise No.	66-1	66-2	66-3	66-4	66-5	66-6	66-7	66-8
Dates (1966)	June 1 -June 5	June 7 -June 10	June 15 -June 19	June 21 -June 25	June 26 -June 30	July 4 -July 10	July 12 -July 15	July 19 -July 24
Cruise type	Physical	Monitor	Physical	Monitor	Coastal	Monitor	Geology	Monitor
Lake	Ontario	Ontario	Ontario	Ontario	Ontario	Ontario	Ontario	Ontario
Vessel	Brandal	Brandal	Brandal	Brandal	Brandal	Brandal	Brandal	Brandal
No. of stations	35	39	107	88	113	125	75	88
No. of BT slides	133	39	120	88	115	125	76	116

Station data:

Date/time	X	X	X	X	X	X	X	X
Sounding	X	X	X	X	X	X	X	X
BT slide no.	X	X	X	X	X	X	X	X
Secchi depth	X	X	X	X	X	X		X
Sample depth	X	X	X	X	X	X	X	X
Temperature	X	X	X	X	X	X		X
Conductance, 18°C.	X	X		X	X	X	X	X
Dissolved oxygen				X	X	X	X	X
pH at 25°C.				X	X	X	X	X
Turbidity					X			X
B.O.D.						X		X
Total alkalinity		X		X	X	X		X
Hardness					X	X		X
Chloride					X	X		X
Nitrate + nitrite								
Nitrite				X	X	X		X
Reactive phosphate								
Phenol					X	X		X
Total residue								
M ⁺ coliforms	X	X		X	X	X		X
M ⁺ enterococci	X	X		X	X	X		X
20°C standard plate count		X			X	X		X
35°C standard plate count		X			X	X		X

Description of the Data Record

Information in the headings for each station:

1. C-REF-No.	5. LAT.	7. YEAR	11. No. DEPTHS
2. CONS. No.	6. LON.	8. MONTH	12. SOUNDING
3. COUNTRY		9. DAY	13. BT SLIDE No.
4. INSTITUTE		10. TIME	

Explanations:

- (1) Cruise number: the 1966 cruises are numbered consecutively from 01 to 19, without regard for the lake involved. (In following years, consecutive numbers will be assigned to each lake separately).
- (2) Consecutive station number: the stations within each cruise are numbered in chronological order.
- (4) Institute: For filing purposes, the institute code was 22 (Inland Waters Branch, Department of Energy, Mines and Resources).
- (5) and (6) indicate the latitude and longitude of the vessel, in degrees, minutes and seconds, at the time of the observations.
- (7), (8) and (9) indicate the date of the observations, according to Greenwich Mean Time.
- (10) Indicates the messenger time in hours and minutes (Greenwich Mean Time) for the first bottle cast at the station. The hours of each day are numbered from 00 to 23.
- (11) The number of depths at which observations were made. This should correspond to the number of depths actually listed. The count is listed to reveal omissions due to the loss of punch-cards.
- (12) The sounding is listed in meters, to the nearest meter.
- (13) Indicates the bathythermograph slide number corresponding to the particular station. The slides are numbered consecutively within each cruise.

Explanation of the data listing for each station

Parameter Name	Abbreviation (column heading)	Units used in the Data Reports	No. of decimals printed	1966 processing code	1967 (Star System) code
Secchi depth	SECCHI	meters	1	026	030
Sample depth	DEPTH	meters	1	998	001
Temperature	TEMP	°C	2	004	100
Conductance, 18°C.	CON 18	µmhos	0	014	no equivalent
Dissolved oxygen	D 02	mg/L	2	003	245
pH at 25°C.	PH 25	pH units	3	055	215
Turbidity	TURB	Jackson units	1	015	123
B.O.D.	BOD	mg O ₂ /L/5 days	1	001	239
Total alkalinity	T ALK	mg CaCO ₃ /L	1	051	220
Hardness	HARD	mg CaCO ₃ /L	1	050	300
Chloride	CL	mg/L	1	057	290
Nitrate + nitrite	NO3NO2	mg N/L	3	022	275
Nitrite	NO2	mg N/L	3	021	273
Reactive phosphate	R PO4	mg PO ₄ /L	3	028	262
Phenol	PHEN	mg C ₆ H ₅ OH/L	3	024	410
MF coliforms	MF COL	colonies/100 ml.	*	080	700
MF enterococci	MF ENT	colonies/100 ml.	*	084	706
20°C standard plate count	SPC 20	colonies/ml.	*	082	720
35°C standard plate count	SPC 35	colonies/ml.	*	083	721

Note: The four bacteriological parameters are listed in exponential form: * Exponential Notation

130E02 = 1.30 X 10² = 130.
 100E00 = 1.00 X 10⁰ = 1.
 000E00 = 0.00 X 10⁰ = 0.

Note: For some parameters, the analytical methods listed in the Star System manual (Glennie and MacLeod 1967, pp. 25-35) are not the methods used for Data Reports Nos. 1-12.

Methods of Sampling and Measurement

Water sampling was carried out on the port side of the vessel, amidships, where a davit and a "chains" platform were installed. A small wooden deckhouse provided shelter for reading the thermometers and for transferring water from the primary sampling devices to small bottles which were taken to the shipboard laboratory. The sampling procedure together with photographs of the equipment are published in Manuscript Report No. 67-1 of the Public Health Division, Department of National Health and Welfare.

Samples were collected at standard depths of 1, 10, 20, 30, 50, 75, 100, 150 and 200 meters, where the depth of water permitted. The water sampling devices were metal Knudsen bottles with a capacity of 1.2 liters, and polyvinylchloride Van Dorn bottles with capacities of 2 and 3 liters. Oceanographic reversing thermometers, and rubber bulbs for bacteriological sampling, were mounted on the Knudsen bottles.

For bacteriological sampling, a sterile deflated pear-shaped rubber bulb was attached to a Knudsen bottle. A brass plug in the opening of the rubber bulb was pulled out by the reversing Knudsen bottle. (I.J.C. agencies 1966, pp 88-90).

Position (Latitude and longitude) was determined using radar ranges and bearings on identifiable shoreline features. Occasionally, dead-reckoning had to be used when the vessel was far from shore.

Sounding The depth of water at each station was measured with the ship's echo sounder. Corrections for the transducer depth have been applied.

Secchi depth is the depth of disappearance of a white disc, 30 centimeters in diameter, when it is lowered slowly into the water.

Sample depth The length of wire was measured with a meter wheel, using the water surface as the reference level. Wire-angle corrections were applied whenever depths were one meter or more.

Temperature Oceanographic reversing thermometers manufactured by Yoshino Keiko Co. of Japan were lowered in series to all the required depths, and were turned over after five minutes. Later, each thermometer was read twice in the vessel's deckhouse. Scale corrections and thermal-expansion corrections were applied to the readings. There were usually two thermometers on each Knudsen bottle. A single mean temperature value is reported in this final data record, but the individual readings are kept on file at the Canada Centre for Inland Waters. The difference between readings of paired thermometers was usually less than 0.05°C. (U.S. hydrographic Office 1955).

Additional temperature measurements were made with bathythermographs, and with a thermistor thermometer towed at a depth of one meter while the ship was underway. The BT and thermistor data are available on request from the Canada Centre for Inland Waters.

Storage conditions for the chemical samples Most of the analyses reported here were done in the ship's laboratory and were completed within about 12 hours after sampling.

Conductance at 18°C The electrical conductance was measured at laboratory temperature with an "Industrial Instruments" Model RC 16 B2 bridge and a dip cell with cell constant 1.00. At the time of the measurement, the temperature of the sample was measured with a mercury thermometer and recorded to the nearest 0.1°C. These temperature readings varied throughout the survey period, with a range of from 15 to 28°C.

Conductance at 18.0°C listed in the Data Reports Nos. 1 to 12, was computed from Dr. G.K. Rodgers' correction tables for Great Lakes Waters (I.J.C. agencies 1966, p. 51). However, 25°C will be the reference temperature used in future data reports in this series. To convert the conductance at 18.0°C to conductance at 25.0°C, multiply by 1.176.

Dissolved oxygen was measured using the Winkler iodometric method. One milliliter of each reagent was added to each sample. In 1966, the alkaline iodide solution contained 700 grams potassium hydroxide and 150 grams potassium iodide per liter. Azide was not used. (I.J.C. agencies 1968, pp. 67-78).

Oxygen percent saturation may be computed (Dobson 1967) from the measured oxygen concentration and the temperature, using the following equations:

Oxygen percent saturation (Lake Erie and upper Great Lakes)

$$= \frac{100 \text{ (oxygen in mg/L)}}{(14.380 - 0.4105 T + 0.008800 T^2 - 0.00009500 T^3)} \%$$

Oxygen percent saturation (Lake Ontario)

$$= \frac{98.8 \text{ (oxygen in mg/L)}}{(14.380 - 0.4105 T + 0.008800 T^2 - 0.00009500 T^3)} \%$$

A graph showing percent saturation as a function of oxygen concentration and temperature, according to either of these equations, provides a convenient way to evaluate percent saturation.

pH The pH is an approximate measure of $(-\log H^+)$ where H^+ is the hydrogen ion concentration.

<u>pH</u>	<u>H⁺</u>	
7.0	100. X 10 ⁻⁹	gm atoms/liter
7.2	63. X 10 ⁻⁹	gm atoms/liter
7.5	32. X 10 ⁻⁹	gm atoms/liter
8.0	10. X 10 ⁻⁹	gm atoms/liter
8.2	6.3 X 10 ⁻⁹	gm atoms/liter
8.5	3.2 X 10 ⁻⁹	gm atoms/liter
9.0	1.0 X 10 ⁻⁹	gm atoms/liter

Samples were analysed for pH about 10 to 20 hours after sampling. Changes in pH during the storage interval were probably ±0.1 to 0.3 pH units.

The pH near 25°C was measured using a Corning Model 10 meter, and glass and reference electrodes, calibrated with pH 7.4 (phosphate) and pH 9.2 (borax) standard solution. (I.J.C. agencies 1966, pp. 112-120).

Turbidity was measured within 24 hours after sampling, using a Hellige turbidimeter.

B.O.D. (Biochemical oxygen demand) One-liter samples were stored for a few hours so that they attained laboratory temperature. Then air was bubbled through each sample to produce oxygen concentrations near the equilibrium value for that temperature. Two 300-ml B.O.D. bottles were filled from each sample by means of a siphon. Dissolved oxygen in the sample of one of the B.O.D. bottles was measured immediately by the Winkler method. The sample in the other bottle was stored in the dark at 20°C, and after 5 days, its final oxygen concentration was measured. The "B.O.D." was the difference between the initial and final oxygen concentrations. A water seal was maintained around the top of each bottle during incubation. The dilution and seeding procedures of the American Public Health Association (1965, p. 415), were not included.

Alkalinity was measured using an Auto-Analyzer colorimetric instrument system. Samples were mixed with a buffered acidic methyl orange indicator solution. The final color was measured at 550 millimicrons. Standard solutions contained sodium bicarbonate. (I.J.C. agencies 1968, pp. 34-36). The unit for alkalinity in this report is mg CaCO₃/liter. The constituents reacting with the hydrogen ion during the alkalinity measurement were assumed to be CO₃⁻², and an equivalent amount of Ca⁺⁺ was arbitrarily assumed to be present. Actually most of the alkalinity in Great Lakes waters is HCO₃⁻. Conversion factor for alkalinity: 1 mg CaCO₃/liter = 1.219 mg HCO₃⁻/liter.

Hardness (Ca⁺⁺ + Mg⁺⁺) was measured using an Auto-Analyzer. The sample was mixed with disodium magnesium EDTA + disodium EDTA, then with Eriochrome Black T + pH 10.3 buffer. The resulting color was measured at 520 millimicrons. Standard solutions contained calcium. (I.J.C. agencies 1966, pp. 91-93). Lake-water samples contained some magnesium as well as calcium. The conventional unit, mg CaCO₃/L, used in Data Reports Nos. 1 to 12, gives information for (Ca⁺⁺ + Mg⁺⁺), but not for Ca⁺⁺ or CO₃⁻². Conversion factor for hardness: 1 mg CaCO₃/L = 0.0200 milliequivalents (Ca⁺⁺ + Mg⁺⁺)/L.

Chloride was measured using an Auto-Analyzer. Unfiltered samples were mixed with ferric ammonium sulfate + nitric acid + mercuric thiocyanate. The resulting color was measured at 480 millimicrons. (I.J.C. agencies 1966, pp. 97-98).

Nitrate + nitrite was measured using an Auto-Analyzer. Samples were not filtered. Nitrate was reduced to nitrite by adding sodium hydroxide, hydrazine sulfate, and copper sulfate. The mixture was passed through a 38°C heating bath. Then total nitrite was measured by adding orthophosphoric acid + sulfanilamide + N-(1-naphthyl) ethylenediamine dihydrochloride, and measuring the resulting color at 520 millimicrons. (I.J.C. agencies 1966, pp. 102-104).

(NO₃ + NO₂) was sampled on cruises 5, 6, 8 and 10, but the results for the 4°C water in Lake Ontario on those cruises were near 0.5 mg N/L, about 2½ times the values found on cruise 66-12 and subsequent cruises in 1966 and 1967. The (NO₃ + NO₂) results for cruises 5, 6, 8 and 10 are probably in error and have been omitted from these final Data Reports. The (NO₃ + NO₂) data for cruise 66-11 on Lake Erie include values near 0.1 mg N/L for the eastern bottom water, which is in agreement with the 1967 data. Therefore the (NO₃ + NO₂) data from cruise 66-11 are probably correct, and have been printed in Data Report No. 8. For cruise 66-12 and following cruises on Lake Ontario, the (NO₃ + NO₂) data for the 4°C water have values near 0.2 mg N/L, which is also in agreement with 1967 results. Therefore the data for cruise 66-12 and later cruises are probably correct, and are included in the final Data Reports.

Nitrite Nitrite in unfiltered samples was measured, using an Auto-Analyzer, by adding sodium hydroxide + ortho-phosphoric acid + sulfanilamide + N-(1-naphthyl) ethylenediamine dihydrochloride. The resulting color was measured at 520 millimicrons. (I.J.C. agencies 1966, pp. 102-104).

Reactive phosphate Phosphate in unfiltered samples was measured, using an Auto-Analyzer, by adding ammonium molybdate + hydrochloric acid + stannous chloride, and measuring the resulting color at 660 millimicrons. (I.J.C. agencies 1966, pp. 94-96).

Ammonia was measured during 1966 on cruises 8, 10, 11, 12, 14, 16, 17 and 18. The maximum value was .072 mg N/L. There were very many results of .000 mg N/L, except for cruise 10 for which the minimum was .020 mg N/L. There was no obvious spatial distribution of the higher values. These data have not been included in the Data Reports Nos. 1 to 12.

Phenol and related substances. The pH of the sample was adjusted to 4.0 by adding ortho-phosphoric acid, and copper sulfate was also added, immediately after sampling. Analyses were done up to one week later. The sample was distilled, and phenol in the distillate was measured by adding ammonium chloride; then, ammonium hydroxide (to produce pH 10.0 ± 0.2), 4-aminoantipyrine and potassium ferricyanide were also added. The resulting color was extracted into chloroform and measured at 460 millimicrons (American Public Health Association 1965, pp. 516-520, distillation step and method A).

Storage conditions for bacteriological samples The analyses began within one or two hours after sampling, except for samples collected between midnight and 7.30 a.m. These night-time samples were stored at 10°C for up to 8 hours before their analyses commenced.

Total coliform density determinations were obtained by membrane filtration techniques using Bacto-m Endo MF Broth. Membranes were incubated at 35°C for 20±2 hours (American Public Health Association 1965, p. 616, Method A).

Fecal Streptococcus density determinations were obtained by membrane filtration techniques using Bacto-m Enterococcus Agar. Membranes were

incubated at 39°C for 48±3 hours (American Public Health Association 1965, p. 619).

20°C and 35°C Standard Plate Counts were made using 1 ml samples mixed with liquified (45°C) Bacto-Plate Count Agar, allowed to solidify and then incubated at 20°C for 48±3 hours or at 35°C for 24±2 hours. (American Public Health Association 1965, p. 592).

Personnel (Great Lakes Division, Department of Energy, Mines and Resources; Canadian Hydrographic Service; Public Health Engineering Division, Department of National Health and Welfare).

Program co-ordination:

Dr. R.K. Lane (Acting Chief, Great Lakes Division)
H.H. Dobson (G.L.D.)
P.M. Higgins (N.H. & W.)
H.B. Macdonald (C.H.S.)
H.E. Sweers (G.L.D.)

Chemical analyses aboard "Brandal":

G. Baulne (N.H. & W.)
M. Charette (N.H. & W.)
H.H. Dobson (G.L.D.)
B. Hutcheon (N.H. & W.)
D. Ide (N.H. & W.)
D. Jenkinson (G.L.D.)
R. Orr (N.H. & W.)
R. Selcage (G.L.D.)

Bacteriology:

J.B. Bell (N.H. & W.)
A. Bruce (N.H. & W.)
B.J. Dutka (N.H. & W.)
J. Reid (N.H. & W.)
W. Winters (N.H. & W.)

Chemical analyses in shore laboratories:

C. McBratney (N.H. & W.)
W.J. Traversy (Water Quality Division, E.M. & R.)

Physical studies:

M. Nunez (G.L.D.)
H.E. Sweers (G.L.D.)
Dr. H.S. Weiler (G.L.D.)

Geology:

Dr. C.F.M. Lewis (Geological Survey of Canada)

Seismic surveys:

Dr. G.D. Hobson (Geological Survey of Canada)
E. Holzl (Geological Survey of Canada)

Operations and engineering support:

H.B. Macdonald (C.H.S.)	P. Davies (C.H.S.)
G. Armstrong (C.H.S.)	J. Heidt (G.L.D.)
K.N. Birch (G.L.D.)	M. Landry (C.H.S.)
P. Bishop (G.L.D.)	P. Lawrence (G.L.D.)
R. Boswell (C.H.S.)	D. Matte (C.H.S.)
E. Brignell (C.H.S.)	H. Savile (G.L.D.)
T. Charbonneau (C.H.S.)	W. Whyte (C.H.S.)

Data processing: (Great Lakes Division, Inland Waters Branch, E.M. & R.)

J.R. Chevrier
W. Nagel
Mrs. K. Schopf
G. Warren

Other Participating Agencies

The Canadian Oceanographic Data Centre produced and distributed the preliminary data records, and published final reports in the present series.

The Meteorological Branch of the Department of Transport provided meteorological instruments, and trained the personnel who carried out the weather observations.

Captain R. Caldwell and the crew of the "Brandal" operated the vessel in support of the limnological program.

References

- American Public Health Association. 1965. American Water Works Association, and Water Pollution Control Federation. Standard Methods for the Examination of Water and Wastewater, Twelfth Edition. 769 pp.
- Dobson, H.H. 1967. Principal ions and dissolved oxygen in Lake Ontario. Proceedings, Tenth Conference on Great Lakes Research, pp. 337-356.
- Glennie, C.J., and T.M. MacLeod. 1967. The Star system for storage and retrieval of scientific data. Canadian Oceanographic Data Centre, Ottawa. 43 pp.
- I.J.C. agencies. 1966. Working Committee on Methodology. A digest of analytical methods employed by laboratories associated with International Joint Commission Research on the Great Lakes. 135 pp.
- I.J.C. agencies. 1968. Working Committee on Methodology. Revised analytical methods employed by laboratories associated with International Joint Commission Research on the Great Lakes. 89 pp.
- U.S. Hydrographic Office. 1955. Publ. No. 607. Instruction Manual for Oceanographic Observations. Second Edition, 211 pp.

CRUISE 66-11, LAKE ERIE

C-REF-NO 011
 CONS. NO 001
 COUNTRY 18
 INSTITUTE 22

LAT 42-45-15N
 LON 079-11-42W

YEAR 1966
 MONTH 08
 DAY 08
 TIME 0618

NO. DEPTHS 04
 SOUNDING 0018
 BT SLIDE NO 001

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0		22.59	273	9.22	8.620	0.7	0.8	91.0
5.0		22.57	274	9.28	8.620	0.4		91.0
10.0		21.20	272	9.31	8.610	0.5	1.2	91.0
15.0			273	8.43	8.490	0.3	1.0	91.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	133.0			0.001	0.010		590E02	
5.0	135.0			0.001	0.010			
10.0				0.001	0.005		220E03	
15.0				0.001	0.020			

DEPTH	SPC 20	SPC 35
1.0	210E02	170E02
5.0		
10.0	500E01	250E01
15.0		

C-REF-NO 011
 CONS. NO 002
 COUNTRY 18
 INSTITUTE 22

LAT 42-37-54N
 LON 079-33-09W

YEAR 1966
 MONTH 08
 DAY 08
 TIME 0839

NO. DEPTHS 07
 SOUNDING 0031
 BT SLIDE NO 002

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0		22.84	272	9.37	8.710	0.6	0.7	92.0
5.0		22.78	271	9.29	8.720	0.4		93.0
10.0		21.92	270	9.14	8.660	0.4	0.8	93.0
15.0			273	8.28		0.2		93.0
20.0		15.52	274	7.50	8.150	0.8	0.7	93.0
25.0		9.37	276	7.87	7.950	1.2		93.0
30.0		9.34	281	6.79	7.400		0.4	93.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0				0.001	0.005		520E03	000E00
5.0				0.001	0.005			
10.0				0.001	0.020		270E04	
15.0				0.001	0.012			
20.0				0.003	0.020		100E03	
25.0				0.003	0.045			
30.0	131.0			0.010	0.135		100E02	

DEPTH	SPC 20	SPC 35
1.0	150E02	550E01
5.0		
10.0		
15.0		
20.0		
25.0		
30.0	190E03	350E02

C-REF-NO 011
 CONS. NO 003
 COUNTRY 18
 INSTITUTE 22

LAT 42-30-57N
 LON 079-54-00W

YEAR 1966
 MONTH 08
 DAY 08
 TIME 1159

NO. DEPTHS 10
 SOUNDING 0062
 BT SLIDE NO 003

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0		22.41	267	9.17	8.620	0.6	0.4	87.0
5.0		22.38	268	9.08	8.610	0.2		87.0
10.0		21.23	267	9.37	8.620	0.5	0.5	87.0
15.0		20.85	266	9.22	8.520	0.4		87.0
20.0		9.60	275	7.42	7.910	0.4	0.6	87.0
25.0		7.37	273	10.37	7.990	0.2		89.0
30.0		5.74	274	10.93	8.050	0.4	0.3	88.0
40.0		4.53	276	10.29	7.990	0.6	0.2	87.0
50.0		4.53	277	10.17	7.980	0.8	0.1	88.0
60.0		4.53	277	10.23	7.940	2.9	0.2	88.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	129.0	25.0		0.001	0.010		170E02	000E00
5.0	130.0	25.0		0.001	0.010			
10.0	130.0	25.0		0.001	0.010		200E02	
15.0	130.0	26.0		0.001	0.125			
20.0	132.0	26.0		0.001	0.025		160E02	
25.0	132.0	26.0		0.001	0.015			
30.0	132.0	26.0		0.003	0.025		100E01	
40.0	134.0	26.0		0.002	0.030		660E01	
50.0	135.0	26.0		0.002	0.035		170E02	
60.0	135.0	26.0		0.002	0.055		220E02	000E00

DEPTH	SPC 20	SPC 35
1.0	500E01	350E01
5.0		
10.0		
15.0		
20.0		
25.0		
30.0		
40.0		
50.0		
60.0	210E03	350E02

C-REF-NO 011
 CONS. NO 004
 COUNTRY 18
 INSTITUTE 22

LAT 42-23-09N
 LON 080-15-03W

YEAR 1966
 MONTH 08
 DAY 08
 TIME 1430

NO. DEPTHS 06
 SOUNDING 0031
 BT SLIDE NO 004

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0		22.02	265	9.59	8.690	0.7	0.7	87.0
5.0		21.98	265	10.04	8.710	0.3		87.0
10.0		20.73	264	9.51	8.690	0.5	1.2	87.0
15.0		13.10	273	7.59	8.020	1.0		88.0
20.0		7.08	276	8.59	7.940	1.0	0.3	89.0
25.0		5.95	279	8.79	7.940	2.9		89.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	130.0	25.0		0.001	0.005		100E02	600E00
5.0	130.0	25.0		0.001	0.010			
10.0	130.0	25.0		0.001	0.012		110E02	
15.0	135.0	25.0		0.001	0.012			
20.0	136.0	26.0		0.001	0.025		500E01	
25.0	137.0	26.0		0.001	0.055			

DEPTH	SPC 20	SPC 35
1.0	600E01	280E01
5.0		
10.0		
15.0		
20.0		
25.0		

G-REF-NO 011
 CONS. NO 005
 COUNTRY 18
 INSTITUTE 22

LAT 42-15-30N
 LGN 080-35-27W

YEAR 1966
 MONTH 08
 DAY 08
 TIME 1701

NO. DEPTHS 04
 SOUNDING 0018
 BT SLIDE NO 005

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	8.5	22.72	265	9.15	8.610	0.5	0.3	87.0
5.0		22.50	266	9.31	8.640	0.3		87.0
10.0		21.72	268	8.65	8.530	0.4	0.6	87.0
15.0		21.46	270	8.22	8.480	0.4	0.4	87.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	131.0	25.0		0.001	0.025		300E00	100E00
5.0	131.0	25.0		0.001	0.055			
10.0	132.0	25.0		0.001	0.020		740E01	
15.0	129.0	25.0		0.001	0.010			

DEPTH	SPC 20	SPC 35
1.0	700E01	300E01
5.0		
10.0		
15.0		

C-REF-NO 011
 CONS. NO 006
 COUNTRY 18
 INSTITUTE 22

LAT 42-08-12N
 LON 080-56-30W

YEAR 1966
 MONTH 08
 DAY 08
 TIME 1921

NO. DEPTHS 04
 SOUNDING 0020
 BT SLIDE NO 006

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	7.5	24.24	263	9.20	8.610	0.5	0.5	86.0
5.0		22.11	261	8.96	8.650	0.4		86.0
10.0		21.80	261	8.82	8.610	0.5	0.9	86.0
15.0		20.51	264	8.31	8.460	0.4		87.0

DEPTH	HARD	CL	NO3NO2	NO2	R P04	PHEN	MF COL	MF ENT
1.0	128.0	24.0		0.001	0.020		000E00	000E00
5.0	128.0	24.0		0.001	0.070			
10.0	128.0	24.0		0.004	0.025		290E02	
15.0	129.0	25.0		0.001	0.060			

DEPTH	SPC 20	SPC 35
1.0	160E02	350E01
5.0		
10.0		
15.0		

C-REF-NO 011
 CONS. NO 007
 COUNTRY 18
 INSTITUTE 22

LAT 42-00-30N
 LON 081-17-30W

YEAR 1966
 MONTH 08
 DAY 08
 TIME 2131

NO. DEPTHS 05
 SOUNDING 0021
 BT SLIDE NO 007

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		23.47	255	9.65	8.800	0.3	0.4	85.0
5.0		22.21	256	9.52	8.740	0.3		85.0
10.0		21.21	256	9.00	8.630	0.5	1.1	85.0
15.0		10.52	272	3.90	7.760	0.7		89.0
20.0		10.53	270	5.22	7.780	0.8	0.4	88.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	126.0	24.0		0.001	0.005		100E00	
5.0	126.0	24.0		0.001	0.005			
10.0	126.0	24.0		0.001	0.005		220E02	
15.0	133.0	25.0		0.017	0.165			
20.0	132.0	25.0		0.013	0.020		110E02	000E00

DEPTH	SPC 20	SPC 35
1.0	140E02	200E01
5.0		
10.0		
15.0		
20.0		

C-REF-NO 011
 CONS. NO 008
 COUNTRY 18
 INSTITUTE 22

LAT 41-50-03N
 LON 081-38-54W

YEAR 1966
 MONTH 08
 DAY 08
 TIME 2344

NO. DEPTHS 05
 SOUNDING 0022
 BT SLIDE NO 008

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	6.8	23.27	263	9.15	8.590	0.6	0.3	89.0
5.0		22.78	263	9.26	8.690	0.6		90.0
10.0		22.67	263	8.96	8.670	0.7	0.4	90.0
15.0		22.09	264	7.98	8.500	0.6		90.0
20.0			264	7.78		0.2	0.3	90.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	129.0	25.0		0.001	0.015		250E01	000E00
5.0	129.0	25.0		0.001	0.004			
10.0	130.0	25.0		0.001	0.010		550E01	
15.0	130.0	25.0		0.001	0.005			
20.0	130.0	25.0		0.003	0.002		400E01	

DEPTH	SPC 20	SPC 35
1.0	900E01	250E01
5.0		
10.0		
15.0		
20.0		

C-REF-NO 011	LAT 41-45-06N	YEAR 1966	NO. DEPTHS 04
CONS. NO 009	LON 081-59-12W	MONTH 08	SOUNDING 0019
COUNTRY 18		DAY 09	BT SLIDE NO 009
INSTITUTE 22		TIME 0208	

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		23.59	265	8.90	8.690	0.3	0.7	90.0
5.0		22.95	264	9.03	8.710	0.4		90.0
10.0		22.68	264	8.79	8.680	0.2	0.4	90.0
15.0		22.10	265	8.89	8.540	0.2		90.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	126.0	26.0		0.001	0.010		140E01	000E00
5.0	126.0	26.0		0.002	0.015			
10.0	127.0	26.0		0.004	0.005		440E02	
15.0	126.0	25.0		0.001	0.005			

DEPTH	SPC 20	SPC 35
1.0	800E01	300E01
5.0		
10.0		
15.0		

C-REF-NO 011
 CONS. NO 010
 COUNTRY 18
 INSTITUTE 22

LAT 41-37-33N
 LON 082-20-00W

YEAR 1966
 MONTH 08
 DAY 09
 TIME 0425

NO. DEPTHS 03
 SOUNDING 0011
 BT SLIDE NO 010

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0		23.20	271	8.79	8.590	0.7	0.6	89.0
5.0		23.17	272	8.79	8.600	0.4		89.0
8.0		22.76	275	8.92	8.640	0.5	0.5	89.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	128.0	27.0		0.001	0.055		190E02	
5.0	130.0	27.0		0.001	0.020			
8.0	130.0	28.0		0.004	0.050		600E00	000E00

DEPTH	SPC 20	SPC 35
1.0	390E03	100E04
5.0		
8.0		

C-REF-NO 011	LAT 41-29-54N	YEAR 1966	NO. DEPTHS 04
CONS. NO 011	LON 082-38-06W	MONTH 08	SOUNDING 0010
COUNTRY 18		DAY 09	BT SLIDE NO 011
INSTITUTE 22		TIME 0612	

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		23.29	267	9.03	8.740	0.8	0.6	88.0
3.0								
5.0		23.27	267	8.98	8.740	1.1		88.0
8.0		23.23	268	8.96	8.740	0.8	0.6	88.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	127.0	26.0		0.001	0.025		320E02	
3.0						0.002		
5.0	127.0	26.0		0.001	0.035			
8.0	127.0	26.0		0.001	0.010		190E02	

DEPTH	SPC 20	SPC 35
1.0	260E03	700E03
3.0		
5.0		
8.0		

C-REF-NO 011
 CONS. NO 012
 COUNTRY 18
 INSTITUTE 22

LAT 41-29-03N
 LGN 082-27-27W

YEAR 1966
 MONTH 08
 DAY 09
 TIME 0725

NO. DEPTHS 04
 SOUNDING 0011
 BT SLIDE NO 012

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		22.89	272	9.21	8.710	0.6	0.4	89.0
3.0								
5.0		22.79	272	9.18	8.720	0.4		89.0
8.0		22.68	272	9.21	8.730	0.5	0.9	89.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	128.0	27.0	0.069	0.001	0.010		470E02	
3.0						0.002		
5.0	128.0	27.0	0.069	0.001	0.030			
8.0	128.0	27.0	0.073	0.002	0.085		210E02	000E00

DEPTH	SPC 20	SPC 35
1.0		
3.0		
5.0		
8.0	600E02	600E01

C-REF-NO 011	LAT 41-38-12N	YEAR 1966	NO. DEPTHS 04
CONS. NO 013	LON 082-33-21W	MONTH 08	SOUNDING 0010
COUNTRY 18		DAY 09	BT SLIDE NO 013
INSTITUTE 22		TIME 0847	

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		23.08	269	8.42	8.680	0.8		88.0
3.0								
5.0		23.05	270	8.51	8.670	0.9		88.0
8.0		23.03	270	8.51	8.680	0.9	1.0	88.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	129.0	27.0		0.002	0.030		300E01	000E00
3.0						0.000		
5.0	128.0	27.0		0.002	0.030			
8.0	127.0	26.0		0.002	0.012		130E02	

DEPTH	SPC 20	SPC 35
1.0	110E02	450E01
3.0		
5.0		
8.0		

C-REF-NO 011
 CONS. NO 014
 COUNTRY 18
 INSTITUTE 22

LAT 41-46-30N
 LON 082-25-57W

YEAR 1966
 MONTH 08
 DAY 09
 TIME 1013

NO. DEPTHS 04
 SOUNDING 0010
 BT SLIDE NO 014

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		23.62	252	8.82	8.660	1.3	1.7	84.0
3.0								
5.0		23.58	253	8.81	8.660	1.3		84.0
8.0		23.48	254	8.51	8.600	1.3	1.4	84.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	124.0	23.0		0.008	0.020		170E01	
3.0						0.000		
5.0	124.0	23.0		0.008	0.015			
8.0	125.0	23.0		0.011	0.010		400E00	300E00

DEPTH	SPC 20	SPC 35
1.0	280E02	550E01
3.0		
5.0		
8.0		

C-REF-NO 011	LAT 41-37-45N	YEAR 1966	NO. DEPTHS 03
CONS. NO 015	LON 082-19-57W	MONTH 08	SOUNDING 0011
COUNTRY 18		DAY 09	BT SLIDE NO 015
INSTITUTE 22		TIME 1150	

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	5.5	22.87	274	8.79	8.650	0.9		88.0
5.0		22.84	276	8.97	8.650	0.9		88.0
10.0		22.58	278	8.82	8.640	0.9		88.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	130.0	28.0		0.001	0.010		140E02	300E00
5.0	130.0	28.0		0.001	0.015			
10.0	131.0	28.0		0.001	0.012		150E02	

DEPTH	SPC 20	SPC 35
1.0	140E02	250E01
5.0		
10.0		

C-REF-NO 011
 CONS. NO 016
 COUNTRY 18
 INSTITUTE 22

LAT 41-28-51N
 LON 082-14-06W

YEAR 1966
 MONTH 08
 DAY 09
 TIME 1328

NO. DEPTHS 03
 SOUNDING 0010
 BT SLIDE NO 016

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0	4.0	22.81	277	9.37	8.710	1.0	0.7	85.0
3.0								
9.0		16.56	280	4.23	7.910	1.1	0.2	88.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	128.0	28.0		0.001	0.015		900E00	
3.0						0.000		
9.0	132.0	28.0		0.006	0.020			

DEPTH	SPC 20	SPC 35
1.0	530E02	570E02
3.0		
9.0		

C-REF-NO 011	LAT 41-37-18N	YEAR 1966	NO. DEPTHS 05
CONS. NO 017	LGN 082-07-21W	MONTH 08	SOUNDING 0018
COUNTRY 18		DAY 09	BT SLIDE NO 017
INSTITUTE 22		TIME 1450	

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	4.0	22.66	264	8.98	8.660	0.8	0.2	90.0
3.0								
5.0		22.56	264	9.03	8.660	1.1		91.0
10.0		22.38	264	8.76	8.650	1.0	0.1	91.0
17.0		19.66	265	7.11	8.320	0.9		91.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	126.0	25.0		0.002	0.015		110E02	000E00
3.0						0.000		
5.0	127.0	25.0		0.002	0.015			
10.0	126.0	25.0		0.002	0.010		200E01	
17.0	126.0	25.0		0.004	0.025			

DEPTH	SPC 20	SPC 35
1.0	230E02	700E01
3.0		
5.0		
10.0		
17.0		

C-REF-NO 011
 CONS. NO 018
 COUNTRY 18
 INSTITUTE 22

LAT 41-45-54N
 LON 082-13-00W

YEAR 1966
 MONTH 08
 DAY 09
 TIME 1638

NO. DEPTHS 05
 SOUNDING 0016
 BT SLIDE NO 018

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	6.0	22.98	272	9.14	8.710	1.1	0.2	90.0
3.0								
5.0		22.89	272	10.46	8.740	0.9		90.0
10.0		21.49	268	8.28	8.530	0.6	0.6	90.0
15.0		18.55	270	6.18	8.200	0.6		90.0

DEPTH	HARD	CL	NO3NO2	NO2	R. PO4	PHEN	MF COL	MF ENT
1.0	130.0	28.0		0.001	0.025		180E02	
3.0						0.000		
5.0	129.0	28.0		0.001	0.015			
10.0	126.0	26.0		0.002	0.005		800E01	000E00
15.0	126.0	25.0		0.002	0.045			

DEPTH	SPC 20	SPC 35
1.0		
3.0		
5.0		
10.0	160E02	120E02
15.0		

C-REF-NO 011
 CONS. NO 019
 COUNTRY 18
 INSTITUTE 22

LAT 41-54-48N
 LON 082-18-51W

YEAR 1966
 MONTH 08
 DAY 09
 TIME 1814

NO. DEPTHS 05
 SOUNDING 0015
 BT SLIDE NO 019

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0	3.0	23.75	239	8.78	8.670	1.7	1.0	83.0
3.0								
5.0		23.73	238	8.79	8.690	1.6		83.0
10.0		23.45	246	7.99	8.570	1.6	1.0	85.0
13.0		13.73	275	0.81	7.600	1.2		94.0

DEPTH	HARD	CL	NO3NO2	NO2	R P04	PHEN	MF COL	MF ENT
1.0	124.0	21.0		0.008	0.045		210E02	
3.0						0.000		
5.0	124.0	21.0		0.009	0.100			
10.0	125.0	21.0		0.012	0.095		170E02	000E00
13.0	132.0	25.0		0.012	0.085			

DEPTH	SPC 20	SPC 35
1.0		
3.0		
5.0		
10.0	330E02	290E02
13.0		

C-REF-NO 011
 CONS. NO 020
 COUNTRY 18
 INSTITUTE 22

LAT 42-03-48N
 LON 082-25-00W

YEAR 1966
 MONTH 08
 DAY 09
 TIME 1940

NO. DEPTHS 04
 SOUNDING 0011
 BT SLIDE NO 020

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	3.2	23.10	227	9.10	8.640	1.1		82.0
5.0		22.65	230	8.42	8.600	1.3		82.0
10.0		11.30	272	1.69	7.660	1.5		94.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	124.0	20.0		0.003	0.185			
5.0	124.0	20.0		0.004	0.200			
10.0	130.0	24.0		0.011	0.200			

DEPTH	SPC 20	SPC 35
-------	--------	--------

1.0		
5.0		
10.0		

C-REF-NO 011
 CONS. NO 021
 COUNTRY 18
 INSTITUTE 22

LAT 42-03-00N
 LON 082-12-00W

YEAR 1966
 MONTH 08
 DAY 09
 TIME 2110

NO. DEPTHS 06
 SOUNDING 0018
 BT SLIDE NO 021

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	7.5	23.54	258	9.43	8.780	0.8	0.7	86.0
3.0								
5.0		23.49	256	9.41	8.780	0.6		86.0
10.0		22.99	259	9.11	8.700	0.4	0.4	88.0
15.0		21.69	270	7.74	8.460	0.5		90.0
17.0			272	7.63		0.3		90.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	124.0	25.0	0.097	0.003	0.020		000E00	000E00
3.0						0.000		
5.0	124.0	25.0	0.110	0.005	0.180			
10.0	125.0	25.0	0.122	0.003	0.200		120E01	
15.0	128.0	27.0	0.097	0.003	0.200			
17.0	128.0	27.0	0.110	0.005	0.200		000E00	

DEPTH	SPC 20	SPC 35
1.0	190E02	750E01
3.0		
5.0		
10.0		
15.0		
17.0		

C-REF-NO 011
 CONS. NO 022
 COUNTRY 18
 INSTITUTE 22

LAT 41-54-00N
 LON 082-06-00W

YEAR 1966
 MONTH 08
 DAY 09
 TIME 2255

NO. DEPTHS 06
 SOUNDING 0021
 BT SLIDE NO 022

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0		23.21	265	9.14	8.700	0.7	0.3	
3.0								
5.0		23.18	265	9.10	8.710	0.8		91.0
10.0		23.00	264	8.99	8.700	0.8	0.1	92.0
15.0		22.78	266	8.13	8.640	0.5		92.0
20.0			267	7.83		0.8	0.1	92.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	124.0	26.0	0.024	0.001	0.010		000E00	000E00
3.0						0.000		
5.0	124.0	26.0	0.019	0.001	0.005			
10.0	126.0	26.0	0.009	0.001	0.005		200E00	
15.0	126.0	26.0	0.009	0.001	0.015			
20.0	126.0	26.0	0.008	0.002	0.015		000E00	

DEPTH	SPC 20	SPC 35
1.0	170E02	900E01
3.0		
5.0		
10.0		
15.0		
20.0		

C-REF-NO 011
 CONS. NO 023
 COUNTRY 18
 INSTITUTE 22

LAT 41-45-18N
 LON 081-59-36W

YEAR 1966
 MONTH 08
 DAY 10
 TIME 0038

NO. DEPTHS 06
 SOUNDING 0021
 BT SLIDE NO 023

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		23.19	265	9.12	8.640	0.4	0.5	93.0
3.0								
5.0		23.16	264	9.14	8.630	0.2		93.0
10.0		22.95	262	9.11	8.680	0.2	0.3	93.0
15.0		21.99	264	8.36	8.550	0.2		92.0
20.0			264	7.79		0.2	0.3	92.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	126.0	25.0	0.009	0.001	0.005		000E00	000E00
3.0						0.000		
5.0	126.0	25.0	0.004	0.001	0.008			
10.0	126.0	25.0	0.008	0.002	0.200		000E00	
15.0	126.0	25.0	0.009	0.001	0.008			
20.0	126.0	25.0	0.009	0.001	0.005		000E00	

DEPTH	SPC 20	SPC 35
1.0	600E01	500E01
3.0		
5.0		
10.0		
15.0		
20.0		

C-REF-NO 011
 CONS. NO 024
 COUNTRY 18
 INSTITUTE 22

LAT 41-36-33N
 LON 081-53-30W

YEAR 1966
 MONTH 08
 DAY 10
 TIME 0204

NO. DEPTHS 05
 SOUNDING 0016
 BT SLIDE NO 024

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		22.85	261	8.86	8.680	0.2	0.7	91.0
3.0								
5.0		22.81	260	8.84	8.680	0.2		91.0
10.0		22.61	260	8.89	8.680	0.3		92.0
15.0		21.00	269	8.51	8.540	0.2	0.7	93.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	125.0	25.0	0.013	0.007	0.005		000E00	400E00
3.0						0.001		
5.0	125.0	25.0	0.007	0.003	0.015			
10.0	125.0	25.0	0.008	0.002	0.005			
15.0	127.0	26.0	0.009	0.001	0.010		000E00	

DEPTH	SPC 20	SPC 35
1.0	190E02	630E01
3.0		
5.0		
10.0		
15.0		

C-REF-NO 011	LAT 41-35-54N	YEAR 1966	NO. DEPTHS 04
CONS. NO 025	LOM 081-39-48W	MONTH 08	SOUNDING 0013
COUNTRY 18		DAY 10	BT SLIDE NO 025
INSTITUTE 22		TIME 0330	

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		22.82	278	9.28	8.680	0.2	0.7	93.0
3.0								
5.0		22.78	277	9.34	8.700	0.2		93.0
11.0		21.80	276	8.64	8.600	0.2	0.6	93.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	129.0	29.0	0.014	0.001	0.002		000E00	000E00
3.0						0.002		
5.0	129.0	28.0	0.009	0.001	0.005			
11.0	128.0	28.0	0.019	0.001	0.005		000E00	

DEPTH	SPC 20	SPC 35
1.0	750E01	300E01
3.0		
5.0		
11.0		

C-REF-NO 011
 CONS. NO 026
 COUNTRY 18
 INSTITUTE 22

LAT 41-44-51N
 LON 081-45-45W

YEAR 1966
 MONTH 08
 DAY 10
 TIME 0454

NO. DEPTHS 06
 SOUNDING 0021
 BT SLIDE NO 026

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		22.97	260	8.81	8.680	0.3	0.8	91.0
3.0								
5.0		22.93	259	8.82	8.670	0.2		91.0
10.0		22.87	258	8.70	8.670	0.3	0.6	91.0
15.0		22.61	260	8.47	8.620	0.2		91.0
20.0		12.87	271	4.94	7.810	0.6	0.6	94.0

DEPTH	HARD	CL	NO3NO2	NO2	R. PO4	PHEN	MF COL	MF ENT
1.0	125.0	24.0	0.009	0.001	0.045		000E00	000E00
3.0						0.002		
5.0	125.0	24.0	0.002	0.003	0.030			
10.0	125.0	24.0	0.004	0.006	0.060		000E00	
15.0	125.0	24.0	0.007	0.003	0.010			
20.0	128.0	25.0	0.018	0.002	0.020		000E00	

DEPTH	SPC 20	SPC 35
1.0	250E02	120E02
3.0		
5.0		
10.0		
15.0		
20.0		

C-REF-NO 011
 CONS. NO 027
 COUNTRY 18
 INSTITUTE 22

LAT 41-53-24M
 LON 081-52-00W

YEAR 1966
 MONTH 08
 DAY 10
 TIME 0630

NO. DEPTHS 06
 SOUNDING 0022
 BT SLIDE NO 027

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0		23.30	265	8.86	8.690	0.3	0.6	92.0
3.0								
5.0		23.25	265	8.90	8.720	0.2		92.0
10.0		23.26	264	8.90	8.710	0.5	0.5	92.0
15.0		22.87	265	8.56	8.640	0.3		93.0
20.0			267	7.78		0.2	0.7	93.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	126.0	26.0	0.009	0.001	0.030		000E00	
3.0						0.001		
5.0	126.0	26.0	0.009	0.001	0.165			
10.0	126.0	26.0	0.009	0.001	0.010		000E00	
15.0	127.0	26.0	0.009	0.001	0.025			
20.0	127.0	26.0	0.014	0.001	0.005		000E00	200E00

DEPTH	SPC 20	SPC 35
1.0		
3.0		
5.0		
10.0		
15.0		
20.0	800E01	950E01

C-REF-NO 011
 CONS. NO 028
 COUNTRY 18
 INSTITUTE 22

LAT 42-02-30N
 LON 081-57-54W

YEAR 1966
 MONTH 08
 DAY 10
 TIME 0804

NO. DEPTHS 05
 SOUNDING 0018
 BT SLIDE NO 028

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		23.01	265	8.86	8.640	0.3	0.6	93.0
3.0								
5.0		22.99	265	8.87	8.660	0.2		93.0
10.0		23.02	266	8.82	8.650	0.3	0.4	93.0
15.0		22.53	267	8.31	8.510	0.3		93.0

DEPTH	HARD	CL	NO3NO2	NO2	R P04	PHEN	MF COL	MF ENT
1.0	127.0	26.0	0.009	0.001	0.015		300E00	000E00
3.0						0.000		
5.0	126.0	26.0	0.013	0.002	0.075			
10.0	126.0	26.0	0.013	0.002	0.005		000E00	
15.0	127.0	26.0	0.009	0.001	0.005		000E00	

DEPTH	SPC 20	SPC 35
1.0	250E02	120E02
3.0		
5.0		
10.0		
15.0		

C-REF-NO 011
 CONS. NO 029
 COUNTRY 18
 INSTITUTE 22

LAT 42-11-36N
 LON 082-04-03W

YEAR 1966
 MONTH 08
 DAY 10
 TIME 0938

NO. DEPTHS 05
 SOUNDING 0016
 BT SLIDE NO 029

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		22.92	248	8.56	8.570	0.5	0.8	87.0
3.0								
5.0		22.87	249	8.51	8.580	0.5		87.0
10.0		22.30	253	7.84	8.440	0.4	1.0	88.0
15.0		10.26	274	3.75	7.580	0.5		95.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	118.0	23.0	0.003	0.002	0.180		000E00	100E00
3.0						0.001		
5.0	119.0	23.0	0.002	0.003	0.210			
10.0	121.0	24.0	0.002	0.003	0.210		000E00	
15.0	127.0	26.0	0.032	0.008	0.215		100E00	

DEPTH	SPC 20	SPC 35
1.0	440E02	170E02
3.0		
5.0		
10.0		
15.0		

C-REF-NO 011
 CONS. NO 030
 COUNTRY 18
 INSTITUTE 22

LAT 42-10-36N
 LON 081-50-24W

YEAR 1966
 MONTH 08
 DAY 10
 TIME 1059

NO. DEPTHS 05
 SOUNDING 0018
 BT SLIDE NO 030

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	3.5	22.05	242	8.54	8.560	0.9	0.8	86.0
3.0								
5.0		21.98	241	8.53	8.580	0.8		86.0
10.0		21.76	240	8.23	8.500	0.9	1.1	87.0
15.0		14.93	259	5.01	7.810	0.8		91.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	117.0	22.0	0.003	0.002	0.020		000E00	100E00
3.0						0.002		
5.0	117.0	22.0			0.200			
10.0	117.0	24.0	0.003	0.002	0.220		000E00	
15.0	124.0	26.0	0.041	0.009	0.085		000E00	

DEPTH	SPC 20	SPC 35
1.0	580E02	100E02
3.0		
5.0		
10.0		
15.0		

C-REF-NO 011
 CONS. NO 031
 COUNTRY 18
 INSTITUTE 22

LAT 42-01-57N
 LON 081-43-45W

YEAR 1966
 MONTH 08
 DAY 10
 TIME 1237

NO. DEPTHS 06
 SOUNDING 0022
 BT SLIDE NO 031

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	8.0	23.08	266	8.01	8.690	0.4	0.5	91.0
3.0								
5.0		23.06	267	8.83	8.710	0.3		91.0
10.0		23.05	266	8.25	8.680	0.3	0.5	91.0
15.0			267	8.59		0.2		91.0
20.0		10.78	267	3.08	7.720	2.8	0.3	93.0

DEPTH	HARD	CL	NO3NO2	NO2	R. PO4	PHEN	MF COL	MF ENT
1.0	127.0	26.0	0.004	0.001	0.002		100E00	000E00
3.0						0.004		
5.0	127.0	26.0	0.004	0.001	0.135			
10.0	126.0	26.0	0.007	0.003	0.020		000E00	
15.0	127.0	25.0	0.006	0.004	0.055			
20.0	127.0	25.0	0.034	0.006	0.225		000E00	

DEPTH	SPC 20	SPC 35
1.0	390E02	340E02
3.0		
5.0		
10.0		
15.0		
20.0		

C-REF-NO 011
 CONS. NO 032
 COUNTRY 18
 INSTITUTE 22

LAT 41-52-51N
 LUN 081-38-30W

YEAR 1966
 MONTH 08
 DAY 10
 TIME 1415

NO. DEPTHS 05
 SOUNDING 0022
 BT SLIDE NO 032

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	8.0	22.94	261	8.79	8.670	0.4	0.4	91.0
5.0		22.86	260	8.79	8.670	0.5		91.0
10.0		22.85	261	8.75	8.650	0.2	0.4	91.0
15.0		21.43	257	7.58	8.510	0.3		90.0
20.0		12.10	275	4.22	7.760		0.2	94.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	126.0	25.0	0.009	0.001	0.002		100E00	000E00
5.0	126.0	25.0	0.009	0.001	0.010			
10.0	124.0	25.0	0.014	0.001	0.005		000E00	
15.0	124.0	25.0	0.012	0.003	0.005			
20.0	128.0	26.0	0.032	0.003	0.135		100E00	

DEPTH	SPC 20	SPC 35
1.0	130E02	600E01
5.0		
10.0		
15.0		
20.0		

C-REF-NO 011
 CONS. NO 033
 COUNTRY 18
 INSTITUTE 22

LAT 41-44-00N
 LON 081-32-27W

YEAR 1966
 MONTH 08
 DAY 10
 TIME 1546

NO. DEPTHS 04
 SOUNDING 0016
 BT SLIDE NO 033

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	8.0	22.86	263	9.14	8.680	0.3	0.3	91.0
5.0		22.53	261	9.06	8.630	0.2		91.0
10.0		22.48	262	8.78	8.640	0.3	0.5	91.0
15.0		12.43	275	3.08	7.770	1.1		94.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	126.0	26.0	0.009	0.001	0.005		000E00	000E00
5.0	126.0	25.0	0.009	0.001	0.005			
10.0	126.0	25.0	0.009	0.001	0.010		000E00	
15.0	128.0	26.0	0.052	0.003	0.010		000E00	

DEPTH	SPC 20	SPC 35
1.0	900E01	500E01
5.0		
10.0		
15.0		

C-REF-NO 011
 CONS. NO 035
 COUNTRY 18
 INSTITUTE 22

LAT 41-52-12N
 LON 081-25-12W

YEAR 1966
 MONTH 08
 DAY 10
 TIME 1826

NO. DEPTHS 05
 SOUNDING 0021
 BT SLIDE NO 035

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	6.0	23.19	261	9.03	8.740	0.5	0.5	90.0
5.0		23.16	262	9.11	8.740	0.4		90.0
10.0		22.94	261	9.08	8.730	0.6	0.4	91.0
15.0		21.61	261	8.34	8.550	0.4		91.0
20.0		12.10	272	2.89	7.740	0.4	0.5	94.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	126.0	25.0	0.009	0.001	0.015		600E00	000E00
5.0	126.0	25.0	0.009	0.001	0.010			
10.0	126.0	25.0	0.008	0.002	0.010		000E00	
15.0	125.0	25.0	0.008	0.002	0.010			
20.0	128.0	26.0	0.030	0.005	0.015		200E00	

DEPTH	SPC 20	SPC 35
1.0	140E02	650E01
5.0		
10.0		
15.0		
20.0		

C-REF-NO 011
 CONS. NO 036
 COUNTRY 18
 INSTITUTE 22

LAT 42-01-09N
 LON 081-31-00W

YEAR 1966
 MONTH 08
 DAY 10
 TIME 1958

NO. DEPTHS 05
 SOUNDING 0022
 BT SLIDE NO 036

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	5.0	23.09	257	8.73	8.690	0.6	0.5	90.0
5.0			259	8.95	8.700	0.6		90.0
10.0		23.08	260	8.81	8.680	0.6	0.7	90.0
15.0		22.93	256	8.78	8.680	0.7		90.0
20.0		21.66	262	7.90	8.450	0.9	0.4	91.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	123.0	24.0	0.008	0.002	0.005		200E01	600E00
5.0	125.0	24.0	0.008	0.002	0.005			
10.0	125.0	24.0	0.022	0.003	0.005		800E00	
15.0	125.0	24.0	0.007	0.003	0.005			
20.0	126.0	24.0	0.009	0.001	0.010		200E00	

DEPTH	SPC 20	SPC 35
1.0	230E02	950E01
5.0		
10.0		
15.0		
20.0		

C-REF-NO 011
 CONS. NO 037
 COUNTRY 18
 INSTITUTÉ 22

LAT 42-10-03N
 LON 081-36-48W

YEAR 1966
 MONTH 08
 DAY 10
 TIME 2139

NO. DEPTHS 06
 SOUNDING 0021
 BT SLIDE NO 037

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	4.0	23.03	268	8.68	8.630	0.3	0.8	92.0
3.0								
5.0		23.00	267	8.81	8.620	0.5		92.0
10.0		23.02	267	8.68	8.640	0.7	0.7	92.0
15.0		22.41	267	7.73	8.490	0.3		92.0
20.0		11.49	269	2.62	7.640	0.7	0.5	94.0

DEPTH	HARD	CL	NO3ND2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	127.0	25.0	0.009	0.001	0.020		000E00	000E00
3.0						0.000		
5.0	127.0	25.0	0.009	0.001	0.020			
10.0	127.0	25.0	0.009	0.001	0.015		000E00	
15.0	127.0	25.0	0.009	0.001	0.010			
20.0	127.0	25.0	0.057	0.018	0.030		400E00	

DEPTH	SPC 20	SPC 35
1.0	200E02	130E02
3.0		
5.0		
10.0		
15.0		
20.0		

C-REF-NO 011
 CONS. NO 038
 COUNTRY 18
 INSTITUTE 22

LAT 42-19-03N
 LON 081-42-57W

YEAR 1966
 MONTH 08
 DAY 10
 TIME 2314

NO. DEPTHS 04
 SOUNDING 0018
 BT SLIDE NO 038

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0	3.5	20.83	243	9.45	8.570	1.4	1.9	87.0
5.0		14.43	261	5.83	7.830	0.9		92.0
10.0		11.48	274	4.53	7.650	1.1	0.6	95.0
15.0		9.78	272	3.61	7.570	0.7		94.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	118.0	23.0	0.008	0.002	0.010		500E00	000E00
5.0	126.0	24.0	0.011	0.004	0.020			
10.0	128.0	25.0	0.058	0.017	0.020		300E00	
15.0	128.0	25.0			0.020		000E00	

DEPTH	SPC 20	SPC 35
1.0	330E02	700E01
5.0		
10.0		
15.0		

C-REF-NO 011
 CONS. NO 039
 COUNTRY 18
 INSTITUTE 22

LAT 42-27-24N
 LON 081-34-54W

YEAR 1966
 MONTH 08
 DAY 11
 TIME 0050

NO. DEPTHS 04
 SOUNDING 0013
 BT SLIDE NO 039

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		20.78	255	9.76	8.680	1.4	1.3	90.0
3.0								
5.0		20.14	255	9.62	8.670	1.1		88.0
10.0		11.62	269	3.90	7.680	1.2	1.8	92.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	123.0	24.0	0.013	0.002	0.020		000E00	000E00
3.0						0.000		
5.0	122.0	24.0	0.028	0.002	0.050			
10.0	128.0	25.0	0.026	0.004	0.010		100E00	

DEPTH	SPC 20	SPC 35
1.0	230E02	250E01
3.0		
5.0		
10.0		

C-REF-NO 011
 CONS. NO 040
 COUNTRY 18
 INSTITUTE 22

LAT 42-18-33N
 LON 081-29-15W

YEAR 1966
 MONTH 08
 DAY 11
 TIME 0215

NO. DEPTHS 05
 SOUNDING 0020
 BT SLIDE NO 040

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		22.92	268	8.65	8.640	0.6	0.8	91.0
3.0								
5.0		22.89	267	8.59	8.650	0.4		88.0
10.0		22.91	267	8.75	8.640	0.6	0.6	89.0
17.0		22.16	264	7.54	8.470	0.9	0.4	87.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	127.0	26.0	0.004	0.001	0.005		000E00	000E00
3.0						0.000		
5.0	127.0	26.0	0.009	0.001	0.010			
10.0	127.0	26.0	0.008	0.002	0.005		000E00	
17.0	127.0	26.0	0.018	0.007	0.005		000E00	

DEPTH	SPC 20	SPC 35
1.0	120E02	180E03
3.0		
5.0		
10.0		
17.0		

C-REF-NO 011
 CONS. NO 041
 COUNTRY 18
 INSTITUTE 22

LAT 42-09-36N
 LON 081-23-39W

YEAR 1966
 MONTH 08
 DAY 11
 TIME 0345

NO. DEPTHS 06
 SOUNDING 0021
 BT SLIDE NO 041

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		22.74	264	8.67	8.620	0.2	0.8	90.0
3.0								
5.0		22.69	264	8.68	8.630	0.2		90.0
10.0		22.71	264	8.76	8.630	0.2	0.6	91.0
15.0		22.35	265	8.15	8.540	0.1		91.0
19.0		10.76	270	3.61	7.630	0.3	0.3	93.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	127.0	25.0	0.009	0.001	0.005		000E00	000E00
3.0						0.001		
5.0	127.0	25.0	0.009	0.001	0.005			
10.0	127.0	25.0	0.009	0.001	0.005		600E00	
15.0	127.0	25.0	0.009	0.001	0.020			
19.0	128.0	25.0	0.054	0.016	0.025		500E00	

DEPTH	SPC 20	SPC 35
1.0	180E02	100E02
3.0		
5.0		
10.0		
15.0		
19.0		

C-REF-NO 011
 CONS. NO 042
 COUNTRY 18
 INSTITUTE 22

LAT 42-00-48N
 LON 081-18-03W

YEAR 1966
 MONTH 08
 DAY 11
 TIME 0513

NO. DEPTHS 06
 SOUNDING 0021
 BT SLIDE NO 042

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		22.41	247	8.82	8.660	0.2	0.7	90.0
3.0								
5.0		22.42	261	8.84	8.650	0.2		90.0
10.0		22.40	261	8.87	8.650	0.2	0.7	90.0
15.0		21.66	260	8.48	8.540	0.3		90.0
20.0		10.28	271	4.07	7.590	0.4	0.5	93.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	125.0	24.0	0.009	0.001	0.002		000E00	300E00
3.0						0.000		
5.0	125.0	24.0	0.009	0.001	0.005			
10.0	125.0	24.0	0.009	0.001	0.005		000E00	
15.0	125.0	24.5	0.009	0.001	0.005			
20.0	127.0	25.0	0.041	0.004	0.025		000E00	

DEPTH	SPC 20	SPC 35
1.0	140E02	850E01
3.0		
5.0		
10.0		
15.0		
20.0		

C-REF-NO 011
 CONS. NO 043
 COUNTRY 18
 INSTITUTE 22

LAT 41-51-42N
 LON 081-11-48W

YEAR 1966
 MONTH 08
 DAY 11
 TIME 0653

NO. DEPTHS 05
 SOUNDING 0017
 BT SLIDE NO 043

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		22.37	266	8.86	8.620	0.1	0.6	91.0
3.0								
5.0		22.31	266	8.89	8.620	0.2		92.0
10.0		22.31	267	8.89	8.590	0.2	0.7	92.0
15.0		12.52	275	4.13	7.660	0.4	0.7	94.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	127.0	25.0	0.009	0.001	0.002		000E00	400E00
3.0						0.000		
5.0	127.0	25.0	0.009	0.001	0.015			
10.0	127.0	25.0	0.009	0.001	0.005		000E00	
15.0	129.0	25.0	0.039	0.006	0.008			

DEPTH	SPC 20	SPC 35
1.0	120E02	950E01
3.0		
5.0		
10.0		
15.0		

C-REF-NO 011
 CONS. NO 044
 COUNTRY 18
 INSTITUTE 22

LAT 41-52-39N
 LON 080-59-18W

YEAR 1966
 MONTH 08
 DAY 11
 TIME 0818

NO. DEPTHS 04
 SOUNDING 0011
 BT SLIDE NO 044

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		22.29	271	8.51	8.540	0.2	0.6	92.0
3.0								
5.0		22.28	271	8.45	8.490	0.2		92.0
10.0		11.34	278	3.41	7.590	0.6		95.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	128.0	26.0	0.008	0.002	0.002		500E00	000E00
3.0						0.000		
5.0	128.0	26.0	0.008	0.002	0.002			
10.0	130.0	26.0	0.046	0.004	0.008		100E00	

DEPTH	SPC 20	SPC 35
1.0	700E01	190E02
3.0		
5.0		
10.0		

C-REF-NO 011
 CONS. NO 045
 COUNTRY 18
 INSTITUTE 22

LAT 42-00-15N
 LON 081-04-39W

YEAR 1966
 MONTH 08
 DAY 11
 TIME 0936

NO. DEPTHS 06
 SOUNDING 0020
 BT SLIDE NO 045

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		22.33	263	8.68	8.590	0.2	0.6	91.0
3.0								
5.0		22.29	263	8.67	8.550	0.1		91.0
10.0		22.34	264	8.62	8.530	0.1	0.6	91.0
15.0		22.09	262	8.50	8.540	0.2		91.0
18.0		14.75	271	6.50	7.960	0.2	0.8	93.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	126.0	25.0	0.009	0.001	0.020		000E00	000E00
3.0						0.000		
5.0	126.0	25.0	0.029	0.001	0.002			
10.0	126.0	25.0	0.009	0.001	0.008		300E00	
15.0	126.0	25.0	0.007	0.003	0.008			
18.0	128.0	25.0	0.033	0.002	0.005		000E00	

DEPTH	SPC 20	SPC 35
1.0	120E02	100E02
3.0		
5.0		
10.0		
15.0		
18.0		

C-REF-NO 011
 CONS. NO 046
 COUNTRY 18
 INSTITUTE 22

LAT 42-08-57N
 LON 081-10-24W

YEAR 1966
 MONTH 08
 DAY 11
 TIME 1114

NO. DEPTHS 05
 SOUNDING 0020
 BT SLIDE NO 046

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	6.2	22.21	260	8.71	8.580	0.2	0.7	91.0
3.0								
5.0		22.19	259	8.71	8.620	0.2		91.0
10.0		22.23	261	8.71	8.620	0.1	0.8	90.0
15.0		12.57	276	4.60	7.670	0.3	0.6	95.0

DEPTH	HARD	CL	NO3NO2	NO2	R P04	PHEN	MF COL	MF ENT
1.0	125.0	25.0	0.009	0.001	0.010		300E00	300E00
3.0						0.000		
5.0	125.0	25.0	0.021	0.004	0.015			
10.0	124.0	25.0	0.014	0.001	0.015		000E00	
15.0	129.0	24.0	0.013	0.002	0.030		000E00	

DEPTH	SPC 20	SPC 35
1.0	950E01	550E01
3.0		
5.0		
10.0		
15.0		

C-REF-NO 011
 CONS. NO 047
 COUNTRY 18
 INSTITUTE 22

LAT 42-17-48N
 LON 081-16-42W

YEAR 1966
 MONTH 08
 DAY 11
 TIME 1310

NO. DEPTHS 06
 SOUNDING 0020
 BT SLIDE NO 047

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		22.37	259	8.57	8.640	0.2	0.9	90.0
3.0								
5.0		22.34	259	8.59	8.630	0.2		90.0
10.0		22.32	260	8.50	8.620	0.4	0.7	90.0
14.0		22.00	260	8.37	8.590	0.2		90.0
19.0			258	8.18		0.3	0.8	90.0

DEPTH	HARD	CL	NO3NO2	NO2	R PD4	PHEN	MF COL	MF ENT
1.0	125.0	24.0	0.008	0.002	0.010		000E00	000E00
3.0						0.000		
5.0	125.0	24.0	0.008	0.002	0.005			
10.0	125.0	24.0	0.008	0.002	0.005		000E00	
14.0	125.0	24.0	0.008	0.002	0.050			
19.0	124.0	24.0	0.007	0.003	0.030		300E00	

DEPTH	SPC 20	SPC 35
1.0	150E02	200E02
3.0		
5.0		
10.0		
14.0		
19.0		

C-REF-NO 011
 CONS. NO 048
 COUNTRY 18
 INSTITUTE 22

LAT 42-27-00N
 LON 081-21-45W

YEAR 1966
 MONTH 08
 DAY 11
 TIME 1437

NO. DEPTHS 05
 SOUNDING 0018
 BT SLIDE NO 048

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		22.03	249	8.36	8.490	0.7	1.2	84.0
3.0								
5.0		22.02	246	8.36	8.520	0.4		86.0
10.0		22.00	248	8.29	8.510	0.6	1.4	86.0
15.0		13.37	266	4.32	7.740	1.5	1.1	92.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	119.0	23.0	0.003	0.002	0.015		500E00	000E00
3.0						0.000		
5.0	119.0	23.0	0.008	0.002	0.010			
10.0	119.0	23.0	0.007	0.003	0.015		100E00	
15.0	127.0	24.0	0.036	0.009	0.040		000E00	

DEPTH	SPC 20	SPC 35
1.0	260E02	230E02
3.0		
5.0		
10.0		
15.0		

C-REF-NO 011
 CONS. NO 049
 COUNTRY 18
 INSTITUTE 22

LAT 42-34-15N
 LON 081-26-54W

YEAR 1966
 MONTH 08
 DAY 11
 TIME 1558

NO. DEPTHS 04
 SOUNDING 0010
 BT SLIDE NO 049

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	3.0	20.83	254	9.34	8.600	1.3		88.0
5.0		20.19	254	9.15	8.570	1.2		88.0
9.0		12.42	276	3.04	7.690	2.4		95.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	122.0	24.0	0.008	0.002	0.010			
5.0	122.0	24.0	0.008	0.002	0.010			
9.0	134.0	25.0	0.011	0.004	0.020			

DEPTH	SPC 20	SPC 35
1.0		
5.0		
9.0		

1.0
 5.0
 9.0

C-REF-NO 011
 CONS. NO 050
 COUNTRY 18
 INSTITUTE 22

LAT 42-35-09N
 LON 081-14-39W

YEAR 1966
 MONTH 08
 DAY 11
 TIME 1715

NO. DEPTHS 04
 SOUNDING 0013
 BT SLIDE NO 050

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	4.0	21.21	251	8.67	8.550	0.9	1.9	86.0
3.0								
5.0		21.16	249	8.75	8.510	0.4		86.0
10.0		19.46	256	4.21	8.330	0.7	1.4	88.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	120.0		0.003	0.002	0.010		000E00	000E00
3.0						0.001		
5.0	120.0	22.0						
10.0	123.0	23.0					100E00	

DEPTH	SPC 20	SPC 35
1.0	110E02	350E01
3.0		
5.0		
10.0		

C-REF-NO 011
 CONS. NO 051
 COUNTRY 18
 INSTITUTE 22

LAT. 42-26-15N
 LON. 081-08-06W

YEAR 1966
 MONTH 08
 DAY 11
 TIME 1853

NO. DEPTHS 06
 SOUNDING 0019
 BT SLIDE NO 051

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	4.5	22.56	258	8.65	8.570	0.3	0.8	87.5
3.0								
5.0		22.53	260	8.64	8.610	0.3		87.5
10.0		22.39	260	8.57	8.590	0.2	1.0	87.5
15.0		20.20	262	7.98	8.420	0.3		89.0
18.0		10.99	273	3.50	7.600	0.3	1.1	90.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	124.0	25.0	0.003	0.002			000E00	000E00
3.0						0.000		
5.0	124.0	25.0	0.003	0.002				
10.0	124.0	25.0	0.003	0.002			000E00	
15.0	125.0	25.0	0.003	0.002				
18.0	127.0	25.0	0.028	0.007			000E00	

DEPTH	SPC 20	SPC 35
1.0	200E01	550E01
3.0		
5.0		
10.0		
15.0		
18.0		

C-REF-NO 011
 CONS. NO 052
 COUNTRY 18
 INSTITUTE 22

LAT 42-17-06N
 LON 081-02-39W

YEAR 1966
 MONTH 08
 DAY 11
 TIME 2025

NO. DEPTHS 04
 SOUNDING 0018
 BT SLIDE NO 052

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	5.5	22.42	265	8.68	8.620	0.7	1.0	90.0
5.0		22.40	265	8.71	8.620	0.3		90.0
10.0		22.22	265	8.60	8.610	0.4	0.9	90.0
15.0		20.50		7.86	8.380	0.7	0.8	90.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	126.0	25.0	0.004	0.001			190E02	200E00
5.0	126.5	25.0	0.004	0.001				
10.0	125.5	25.0	0.009	0.001			700E01	
15.0		25.0	0.007	0.003			400E01	

DEPTH	SPC 20	SPC 35
1.0	140E02	500E01
5.0		
10.0		
15.0		

C-REF-NO 011	LAT 42-08-06N	YEAR 1966	NO. DEPTHS 06
CONS. NO 053	LON 080-56-42W	MONTH 08	SOUNDING 0020
COUNTRY 18		DAY 11	BT SLIDE NO 053
INSTITUTE 22		TIME 2203	

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		21.76	259	8.53	8.600	0.3	0.4	90.0
3.0								
5.0		21.73	260	8.59	8.600	0.2		90.0
10.0		21.77	260	8.51	8.600	0.2	0.5	90.0
15.0		20.37	262	8.01	8.480	0.3		90.0
18.0		12.23	277	4.29	7.680	0.9	0.5	93.0

DEPTH	HARD	CL	NO3NO2	NO2	R P04	PHEN	MF COL	MF ENT
1.0	125.0	24.0	0.004	0.001			300E00	000E00
3.0						0.000		
5.0	125.0	24.0	0.004	0.001				
10.0	125.0	24.0	0.014	0.001			510E02	
15.0	125.5	24.0	0.009	0.001				
18.0	130.0	25.0	0.017	0.003			000E00	

DEPTH	SPC 20	SPC 35
1.0	100E02	700E01
3.0		
5.0		
10.0		
15.0		
18.0		

C-REF-NO 011
 CONS. NO 054
 COUNTRY 18
 INSTITUTE 22

LAT 41-59-09N
 LON 080-50-57W

YEAR 1966
 MONTH 08
 DAY 11
 TIME 2343

NO. DEPTHS 05
 SOUNDING 0018
 BT SLIDE NO 054

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0	6.8	22.10	262	8.65	8.560	0.0	0.6	90.0
3.0								
5.0		22.08	261	8.64	8.630	0.2		90.0
10.0		22.08	260	8.59	8.660	0.2	0.6	90.0
15.0		15.83	270	6.55	8.110	0.4		92.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	125.0	24.0	0.009	0.001			340E02	000E00
3.0						0.000		
5.0	125.0	24.0	0.009	0.001				
10.0	125.0	24.0	0.008	0.002			210E02	
15.0	128.0	25.0	0.024	0.001			160E02	

DEPTH	SPC 20	SPC 35
1.0	850E01	500E01
3.0		
5.0		
10.0		
15.0		

C-REF-NO 011
 CONS. NO 055
 COUNTRY 18
 INSTITUTE 22

LAT 41-58-24N
 LON 080-37-18W

YEAR 1966
 MONTH 08
 DAY 12
 TIME 0110

NO. DEPTHS 04
 SOUNDING 0011
 BT SLIDE NO 055

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		22.33	267	8.40	8.580	0.2	0.6	91.0
3.0								
5.0		22.31	268	8.43	8.510	0.6		91.0
10.0		22.33	268	8.43	8.520	0.7	0.5	92.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	126.0	26.0	0.009	0.001			100E00	000E00
3.0						0.000		
5.0	126.0	26.0	0.009	0.001				
10.0	126.0	26.0	0.014	0.001			290E02	

DEPTH	SPC 20	SPC 35
1.0	750E01	700E01
3.0		
5.0		
10.0		

C-REF-NO 011
 CONS. NO 056
 COUNTRY 18
 INSTITUTE 22

LAT 42-07-36N
 LCN 080-43-03W

YEAR 1966
 MONTH 08
 DAY 12
 TIME 0237

NO. DEPTHS 06
 SOUNDING 0021
 BT SLIDE NO 056

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0		21.92	268	8.73	8.570	0.6	0.6	91.0
3.0								
5.0		21.91	267	8.80	8.570	0.3		91.0
10.0		21.93	267	8.71	8.570	0.3	0.7	91.0
15.0		21.88	267	8.74	8.570	0.3		91.0
20.0		10.25	277	5.99	7.870	2.1	0.4	93.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	126.0		0.009	0.001			500E01	000E00
3.0						0.000		
5.0	126.0	25.0	0.009	0.001				
10.0	126.0	25.0	0.009	0.001			270E02	
15.0	126.5	25.0	0.014	0.001				
20.0	138.0	26.0	0.057	0.003			900E01	

DEPTH	SPC 20	SPC 35
1.0	140E02	750E01
3.0		
5.0		
10.0		
15.0		
20.0		

C-REF-NO 011
 CONS. NO 057
 COUNTRY 18
 INSTITUTE 22

LAT 42-16-36N
 LON 080-48-24W

YEAR 1966
 MONTH 08
 DAY 12
 TIME 0409

NO. DEPTHS 05
 SOUNDING 0019
 BT SLIDE NO 057

DEPTH	SECCHI	TEMP	CON 18	O 02	PH 25	TURB	BOD	T ALK
1.0		20.34	261	8.36	8.440	0.4	0.8	89.0
3.0								
5.0		20.35	262	8.42	8.400	0.4		89.0
10.0		20.31	262	8.40	8.440	0.8	0.8	88.5
18.0		11.69	273	4.22	7.690	1.5	0.9	92.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	124.0	25.0	0.009	0.001			230E02	
3.0						0.005		
5.0	124.0	25.0	0.009	0.001				
10.0	124.0	25.0	0.022	0.003			300E02	
18.0	128.0	25.0	0.021	0.004			600E01	000E00

DEPTH	SPC 20	SPC 35
1.0	700E01	350E01
3.0		
5.0		
10.0		
18.0		

C-REF-NO 011
 CONS. NO 058
 COUNTRY 18
 INSTITUTE 22

LAT 42-25-42N
 LON 080-54-45W

YEAR 1966
 MONTH 08
 DAY 12
 TIME 0535

NO. DEPTHS 05
 SOUNDING 0018
 BT SLIDE NO 058

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		21.35	261	8.76	8.630	0.9	0.5	88.0
3.0								
5.0		21.34	260	8.76	8.640	0.6		89.0
10.0		21.03	260	8.64	8.620	0.7	0.6	89.0
15.0		11.84	274	4.01	7.710	1.1		91.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	124.0	24.0	0.014	0.001			290E02	000E00
3.0						0.000		
5.0	124.0	24.0	0.013	0.002				
10.0	124.0	24.0	0.014	0.001			290E02	
15.0	130.0	25.0	0.021	0.004				

DEPTH	SPC 20	SPC 35
1.0	450E01	450E01
3.0		
5.0		
10.0		
15.0		

C-REF-NO 011
 CONS. NO 059
 COUNTRY 18
 INSTITUTE 22

LAT 42-34-45N
 LON 081-00-42W

YEAR 1966
 MONTH 08
 DAY 12
 TIME 0657

NO. DEPTHS 05
 SOUNDING 0016
 BT SLIDE NO 059

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0		20.20	261	8.73	8.510	0.5	0.7	89.0
3.0								
5.0		20.20	261	8.73	8.520	0.7		89.0
10.0		20.17	260	8.73	8.520	0.8	0.9	88.0
15.0		12.61	276	3.80	7.760	1.6		94.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	124.0	24.0	0.009	0.001			310E02	
3.0						0.002		
5.0	125.0	24.0	0.009	0.001				
10.0	125.0	24.0	0.009	0.001			320E02	000E00
15.0	135.0	25.0	0.013	0.002				

DEPTH	SPC 20	SPC 35
1.0		
3.0		
5.0		
10.0	650E01	300E01
15.0		

C-REF-NO 011
 CONS. NO 060
 COUNTRY 18
 INSTITUTE 22

LAT 42-34-03N
 LON 080-47-36W

YEAR 1966
 MONTH 08
 DAY 12
 TIME 0816

NO. DEPTHS 04
 SOUNDING 0015
 BT SLIDE NO 060

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		20.32	262	8.65	8.550	1.2	1.0	89.0
3.0								
5.0		20.31	262	8.70	8.560	0.9		90.0
10.0		20.13	263	8.56	8.520	0.9	1.1	90.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	125.5	24.0	0.009	0.001			320E02	000E00
3.0						0.001		
5.0	126.0	24.0	0.004	0.001				
10.0	126.0	24.0	0.004	0.001			160E02	

DEPTH	SPC 20	SPC 35
1.0	850E01	800E01
3.0		
5.0		
10.0		

C-REF-NO 011
 CONS. NO 061
 COUNTRY 18
 INSTITUTE 22

LAT 42-25-00N
 LON 080-41-51W

YEAR 1966
 MONTH 08
 DAY 12
 TIME 0944

NO. DEPTHS 05
 SOUNDING 0018
 BT SLIDE NO 061

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0		21.30	262	8.71	8.580	0.6	0.9	90.0
3.0								
5.0		21.23	261	8.73	8.600	1.2		90.0
10.0		12.66	268	5.52	8.390	1.0	0.6	90.0
15.0		11.82	280	8.81	7.830	1.5		92.5

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	125.5	24.0	0.004	0.001			290E02	000E00
3.0						0.000		
5.0	126.0	24.0	0.009	0.001				
10.0	126.0	25.0	0.009	0.001			110E02	
15.0	132.0	25.0	0.048	0.002			220E02	

DEPTH	SPC 20	SPC 35
1.0	700E01	650E01
3.0		
5.0		
10.0		
15.0		

C-REF-NO 011
 CONS. NO 062
 COUNTRY 18
 INSTITUTE 22

LAT 42-15-57N
 LON 080-35-21W

YEAR 1966
 MONTH 08
 DAY 12
 TIME 1138

NO. DEPTHS 05
 SOUNDING 0018
 BT SLIDE NO 062

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0	6.0	21.54	259	8.59	8.640	0.6	0.7	89.0
3.0								
5.0		21.52	259	8.61	8.620	0.7		89.0
10.0		21.54	260	8.61	8.630	0.9	0.9	89.0
15.0		12.52	278	5.83	7.880	2.2		93.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	124.0	24.0	0.004	0.001			380E02	000E00
3.0						0.000		
5.0	124.0	24.0	0.004	0.001				
10.0	124.0	24.0	0.004	0.001			470E02	
15.0	136.0	25.0	0.033	0.002				

DEPTH	SPC 20	SPC 35
1.0	130E02	190E02
3.0		
5.0		
10.0		
15.0		

C-REF-NO 011
 CONS. NO 063
 COUNTRY 18
 INSTITUTE 22

LAT 42-06-45N
 LON 080-29-24W

YEAR 1966
 MONTH 08
 DAY 12
 TIME 1317

NO. DEPTHS 06
 SOUNDING 0020
 BT SLIDE NO 063

DEPTH	SECCHI	TEMP	CON 18	D. O2	PH 25	TURB	BOD	T ALK
1.0	6.0	22.07	269	8.51	8.560	0.5	0.8	90.0
3.0								
5.0		22.06	269	8.54	8.580	0.5		90.0
10.0		22.10	271	8.54	8.580	0.3	0.7	90.0
15.0		22.09	270	8.50	8.570	0.7		90.0
20.0		9.97	279	5.19	7.700	1.2	0.6	93.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	128.0	25.0	0.004	0.001			110E02	200E00
3.0						0.000		
5.0	128.0	25.0	0.004	0.001				
10.0	128.0	25.0	0.004	0.001			250E02	
15.0	128.0	25.0	0.004	0.001				
20.0	136.0	26.0	0.058	0.002			250E02	

DEPTH	SPC 20	SPC 35
1.0	200E02	600E01
3.0		
5.0		
10.0		
15.0		
20.0		

C-REF-NO 011
 CONS. NO 064
 COUNTRY 18
 INSTITUTE 22

LAT 42-06-00N
 LON 080-16-24W

YEAR 1966
 MONTH 08
 DAY 12
 TIME 1448

NO. DEPTHS 03
 SOUNDING 0007
 BT SLIDE NO 064

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0		22.35	270	8.45	8.610	1.5	0.8	89.5
3.0								
6.0		22.33	269	8.43	8.620	1.2	0.8	89.5

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	128.0	26.0	0.009	0.001			500E01	000E00
3.0						0.000		
6.0	128.0	26.0	0.009	0.001			400E01	

DEPTH	SPC 20	SPC 35
1.0	160E02	130E02
3.0		
6.0		

C-REF-NO 011
 CONS. NO 065
 COUNTRY 18
 INSTITUTE 22

LAT 42-15-21N
 LON 080-21-21W

YEAR 1966
 MONTH 08
 DAY 12
 TIME 1611

NO. DEPTHS 05
 SOUNDING 0016
 BT SLIDE NO 065

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	3.5	21.74	266	8.67	8.600	0.2	0.7	90.0
3.0								
5.0		21.73	266	8.68	8.650	0.2		90.0
10.0		21.73	267	8.68	8.630	0.2	0.7	89.0
15.0		17.76	271	7.94	8.390	0.3		90.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	128.0	26.0	0.004	0.001			600E01	300E00
3.0						0.000		
5.0	128.0	26.0	0.010	0.001				
10.0	126.0	26.0	0.009	0.001			210E02	
15.0	130.0	26.0	0.014	0.001			320E02	

DEPTH	SPC 20	SPC 35
1.0	170E02	160E02
3.0		
5.0		
10.0		
15.0		

C-REF-NO 011
 CONS. NO 066
 COUNTRY 18
 INSTITUTE 22

LAT 42-23-48N
 LON 080-27-12W

YEAR 1966
 MONTH 08
 DAY 12
 TIME 1739

NO. DEPTHS 05
 SOUNDING 0016
 BT SLIDE NO 066

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0	4.5	21.21	259	8.59	8.570	0.4	1.0	89.0
3.0								
5.0			261	8.64	8.590	0.6		89.0
10.0		21.19	259	8.59	8.580	0.4	0.8	89.0
15.0		21.13	260	8.54	8.570	0.5		89.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	125.0	24.0	0.004	0.001			300E01	000E00
3.0						0.000		
5.0	125.0	24.0	0.004	0.001				
10.0	125.0	24.0	0.004	0.001			700E01	
15.0	125.0	24.0	0.008	0.002			400E01	

DEPTH	SPC 20	SPC 35
1.0	950E01	160E02
3.0		
5.0		
10.0		
15.0		

C-REF-NO 011
 CONS. NO 068
 COUNTRY 18
 INSTITUTE 22

LAT 42-32-06N
 LON 080-20-39W

YEAR 1966
 MONTH 08
 DAY 12
 TIME 2046

NO. DEPTHS 03
 SOUNDING 0010
 BT SLIDE NO 068

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0	3.0	19.40	268	8.65	8.500	1.6		91.0
5.0		18.41	268	8.62	8.470	1.2		91.0
8.0		7.29	274	8.96	7.900	1.4		92.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	130.0	24.0	0.004	0.001				
5.0	130.0	24.0	0.004	0.001				
8.0	132.0	25.0	0.083	0.002				

DEPTH	SPC 20	SPC 35
1.0		
5.0		
8.0		

C-REF-NO 011
 CONS. NO 069
 COUNTRY 18
 INSTITUTE 22

LAT 42-23-15N
 LON 080-14-45W

YEAR 1966
 MONTH 08
 DAY 12
 TIME 2220

NO. DEPTHS 08
 SOUNDING 0031
 BT SLIDE NO 069

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0	3.5	21.03	265	9.06	8.560	0.9	0.5	89.0
3.0								
5.0		21.08	265	8.98	8.570	0.9		89.0
10.0		21.00	266	8.90	8.550	1.1	0.7	89.0
15.0		19.67	269	8.40	8.450	1.0		88.0
20.0		6.35	277	9.28	7.900	1.5	0.4	91.0
25.0		5.88	279	8.90	7.860	3.5		91.0
28.0		5.87	278	8.90	7.870	3.4	0.3	91.5

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	126.0	24.0	0.004	0.001			700E01	000E00
3.0						0.002		
5.0	126.0	24.0	0.004	0.001				
10.0	126.0	24.0	0.009	0.001			600E01	
15.0	128.0	24.0	0.004	0.001				
20.0	135.0	25.0	0.073	0.002			300E01	
25.0	138.0	25.0	0.102	0.003				
28.0	138.0	25.0	0.103	0.002			600E01	

DEPTH	SPC 20	SPC 35
1.0	100E02	850E01
3.0		
5.0		
10.0		
15.0		
20.0		
25.0		
28.0		

C-REF-NO 011
 CONS. NO 070
 COUNTRY 18
 INSTITUTE 22

LAT 42-14-03N
 LON 080-08-57W

YEAR 1966
 MONTH 08
 DAY 12
 TIME 2350

NO. DEPTHS 05
 SOUNDING 0019
 BT SLIDE NO 070

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0	7.0	22.14	271	8.72	8.620	0.3	0.4	89.0
3.0								
5.0		22.15	271	8.70	8.620	0.4		89.0
10.0		22.12	270	8.68	8.620	0.5	0.4	89.0
15.0		15.62	273	6.22	8.000	1.7		90.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	129.0	25.0	0.004	0.001			220E02	000E00
3.0						0.002		
5.0	130.0	25.0	0.004	0.001				
10.0	129.0	25.0	0.004	0.001			200E02	
15.0	132.0	25.0	0.027	0.003			100E01	

DEPTH	SPC 20	SPC 35
1.0	300E01	350E01
3.0		
5.0		
10.0		
15.0		

C-REF-NO 011	LAT 42-13-36N	YEAR 1966	NO. DEPTHS 04
CONS. NO 071	LON 079-55-45W	MONTH 08	SOUNDING 0011
COUNTRY 18		DAY 13	BT SLIDE NO 071
INSTITUTE 22		TIME 0119	

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0		22.25	272	8.22	8.470	1.9	0.6	89.0
3.0								
5.0		22.28	272	8.25	8.500	2.2		89.0
10.0		22.24	272	8.15	8.490	2.1	0.6	89.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	128.0	25.0	0.003	0.002			500E01	000E00
3.0						0.000		
5.0	128.0	25.0	0.004	0.001				
10.0	128.0	25.0	0.004	0.001			250E02	

DEPTH	SPC 20	SPC 35
1.0	190E02	140E02
3.0		
5.0		
10.0		

C-REF-NO 011
 CONS. NO 072
 COUNTRY 18
 INSTITUTE 22

LAT 42-22-24N
 LON 080-00-48W

YEAR 1966
 MONTH 08
 DAY 13
 TIME 0252

NO. DEPTHS 09
 SOUNDING 0037
 BT SLIDE NO 072

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		21.28	266	9.03	8.560	0.6	0.8	89.0
3.0								
5.0		21.31	266	8.75	8.570	0.4		89.0
10.0		21.26	265	8.95	8.570	0.5	0.8	89.0
15.0		21.25	265	9.00	8.580	0.4		89.0
20.0		6.73	277	8.87	8.050	1.1	0.5	93.0
25.0		5.74	279	9.08	8.000	1.7		94.0
30.0		5.70	278	9.15	8.000	1.7		95.0
35.0		5.65	278	9.06	8.020			92.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	126.0	24.0	0.005	0.001			250E02	000E00
3.0						0.000		
5.0	127.0	24.0	0.004	0.001				
10.0	127.0	24.0	0.004	0.001			190E02	
15.0	127.0	24.0	0.004	0.001				
20.0	132.0	25.0	0.048	0.002			210E02	
25.0	134.0	25.0	0.082	0.003				
30.0	136.0	25.0	0.082	0.003			250E02	
35.0	136.0	25.0	0.099	0.006				

DEPTH	SPC 20	SPC 35
1.0	900E01	700E01
3.0		
5.0		
10.0		
15.0		
20.0		
25.0		
30.0		
35.0		

C-REF-NO 011
 CONS. NO 073
 COUNTRY 18
 INSTITUTE 22

LAT 42-31-27N
 LON 080-06-30W

YEAR 1966
 MONTH 08
 DAY 13
 TIME 0429

NO. DEPTHS 04
 SOUNDING 0016
 BT SLIDE NO 073

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		19.02	269	8.92	8.410	0.8		92.0
5.0		18.00	270	8.68	8.330	1.7		93.0
10.0		16.80	270	8.75	8.250	1.8		93.0
15.0		8.64	276	8.53	8.040	2.1		93.5

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	128.0	25.0	0.004	0.001				
5.0	130.0	25.0	0.004	0.001				
10.0	130.0	25.0	0.014	0.001				
15.0	132.0	25.0	0.058	0.002				

DEPTH SPC 20 SPC 35

1.0
 5.0
 10.0
 15.0

C-REF-NO 011
 CONS. NO 074
 COUNTRY 18
 INSTITUTE 22

LAT 42-40-30N
 LON 080-12-57W

YEAR 1966
 MONTH 08
 DAY 13
 TIME 0637

NO. DEPTHS 04
 SOUNDING 0009
 BT SLIDE NO 074

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		20.00	272	8.87	8.470	0.7	0.8	92.5
3.0								
5.0		19.99	270	8.90	8.470	0.7		92.5
8.0		19.93	270	9.00	8.470	0.4	0.9	92.5

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	130.0	25.0	0.000	0.001			500E01	270E01
3.0						0.000		
5.0	130.0	25.0	0.000	0.001				
8.0	130.0	25.0	0.000	0.001			200E00	

DEPTH	SPC 20	SPC 35
1.0	350E01	300E01
3.0		
5.0		
8.0		

C-REF-NO 011
 CONS. NO 075
 COUNTRY 18
 INSTITUTE 22

LAT 42-39-21N
 LON 079-59-15W

YEAR 1966
 MONTH 08
 DAY 13
 TIME 0811

NO. DEPTHS 09
 SOUNDING 0036
 BT SLIDE NO 075

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0		20.18	270	8.59	8.460	0.3	0.7	91.0
3.0								
5.0		20.17	269	8.64	8.480	0.3		92.0
10.0		12.99	272	8.58	8.050	0.9	0.6	93.0
14.0		7.13	275	8.69	7.910	0.8		94.0
19.0		6.79	278	7.92	7.860	2.0	0.4	93.0
24.0		6.19	277	8.36	7.850	2.1		91.0
29.0		5.71	277	8.85	7.850	1.9	0.3	94.0
34.0		5.50						

DEPTH	HARD	CL	NO3ND2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	126.0	25.0	0.000	0.001			200E01	300E00
3.0						0.002		
5.0	126.0	25.0	0.000	0.001				
10.0	127.0		0.000	0.001			800E01	
14.0	128.0	25.0	0.109	0.001				
19.0	128.0	25.0	0.149	0.001			800E01	
24.0	128.0	25.0	0.149	0.001				
29.0	129.0	25.0	0.149	0.001			190E02	000E00
34.0								

DEPTH	SPC 20	SPC 35
1.0	300E01	350E01
3.0		
5.0		
10.0		
14.0		
19.0		
24.0		
29.0	550E01	170E01
34.0		

C-REF-NO 011
 CONS. NO 076
 COUNTRY 18
 INSTITUTE 22

LAT 42-31-21N
 LON 079-53-24W

YEAR 1966
 MONTH 08
 DAY 13
 TIME 1012

NO. DEPTHS 09
 SOUNDING 0062
 BT SLIDE NO 076

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0		21.47	268	8.68	8.570	0.2	0.4	91.0
5.0		21.45	268	8.69	8.570	0.2		91.0
10.0		21.41	267	8.77	8.570	0.2	0.4	92.0
15.0		20.27	268	8.80	8.530	0.3		92.0
20.0		13.27	274	8.32	8.070	0.5	0.6	93.0
25.0		7.44	276	9.77	7.970	0.3		92.0
30.0		5.31	276	10.37	7.950	0.7	0.5	93.0
40.0		4.99	278	9.55	7.340		0.3	93.0
49.0		4.93	278	9.58	7.360	1.3	0.6	93.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	127.0	25.0	0.000	0.001			240E02	100E00
5.0	127.0	25.0	0.000	0.001				
10.0	127.0	25.0	0.000	0.001			210E02	
15.0	127.0	25.0	0.000	0.001				
20.0	127.0	25.0	0.000	0.001			160E02	
25.0	128.0	25.0	0.049	0.001				
30.0	128.0	25.0	0.114	0.001			130E02	
40.0	128.0	25.0	0.148	0.002				
49.0	128.0	25.0	0.148	0.002			800E01	

DEPTH	SPC 20	SPC 35
1.0	100E02	450E01
5.0		
10.0		
15.0		
20.0		
25.0		
30.0		
40.0		
49.0	160E02	300E01

C-REF-NO 011	LAT 42-31-21N	YEAR 1966	NO. DEPTHS 02
CONS. NO 077	LON 079-53-24W	MONTH 08	SOUNDING 0062
COUNTRY 18		DAY 13	BT SLIDE NO 077
INSTITUTE 22		TIME 1116	

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
5.0		21.49	268	8.69	8.530	0.1		89.0
50.0		4.97	278	9.63	7.950	1.2		90.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
5.0	127.0	25.0	0.000	0.001			140E02	
50.0	128.0	25.0	0.114	0.001			190E02	

DEPTH	SPC 20	SPC 35
5.0		
50.0		

C-REF-NO 011
 CONS. NO 078
 COUNTRY 18
 INSTITUTE 22

LAT 42-31-21N
 LON 079-53-24W

YEAR 1966
 MONTH 08
 DAY 13
 TIME 1137

NO. DEPTHS 02
 SOUNDING 0062
 BT SLIDE NO

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
5.0		21.39	268	8.72	8.570	0.3		89.0
50.0		4.78	279	9.58	7.900	1.2		91.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
5.0	127.0	25.0	0.000	0.001			100E01	
50.0	128.0	25.0	0.114	0.001			100E02	

DEPTH	SPC 20	SPC 35
5.0		
50.0		

C-REF-NO 011
 CONS. NO 079
 COUNTRY 18
 INSTITUTE 22

LAT 42-31-21N
 LON 079-53-24W

YEAR 1966
 MONTH 08
 DAY 13
 TIME 1200

NO. DEPTHS 02
 SOUNDING 0062
 BT SLIDE NO

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
5.0		21.38	269	8.72	8.570	0.2		89.0
50.0		4.73	279	9.58	7.920	1.2		91.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
5.0	127.0	25.0	0.000	0.001			800E01	
50.0	128.0	25.0	0.114	0.001			100E02	

DEPTH	SPC 20	SPC 35
5.0		
50.0		

C-REF-NO 011
 CONS. NO 080
 COUNTRY 18
 INSTITUTE 22

LAT 42-31-21N
 LON 079-53-24W

YEAR 1966
 MONTH 08
 DAY 13
 TIME 1217

NO. DEPTHS 02
 SOUNDING 0062
 BT SLIDE NO

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
5.0		21.40	268	8.72	8.560	0.1		89.0
50.0		4.72	278	9.55	7.900	1.3		91.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
5.0	127.0	25.0	0.000	0.001			600E01	
50.0	128.0	25.0	0.114	0.001			160E02	

DEPTH	SPC 20	SPC 35
5.0		
50.0		

C-REF-NO 011
 CONS. NO 081
 COUNTRY 18
 INSTITUTE 22

LAT 42-31-21N
 LON 079-53-24W

YEAR 1966
 MONTH 08
 DAY 13
 TIME 1228

NO. DEPTHS 02
 SOUNDING 0062
 BT SLIDE NO

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
5.0		21.42	268	8.75	8.570	0.1		89.0
50.0		4.74	278	9.62	7.890	1.1		91.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
5.0	127.0	25.0	0.000	0.001			900E01	
50.0	128.0	25.0	0.114	0.001			250E02	

DEPTH	SPC 20	SPC 35
5.0		
50.0		

C-REF-NO 011
 CONS. NO 082
 COUNTRY 18
 INSTITUTE 22

LAT 42-31-21N
 LON 079-53-24W

YEAR 1966
 MONTH 08
 DAY 13
 TIME 1247

NO. DEPTHS 02
 SOUNDING 0067
 BT SLIDE NO

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
5.0		21.41	269	8.74	8.580	0.1		89.0
50.0		4.74	276	9.63	7.920	1.0		91.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
5.0	127.0	25.0	0.000	0.001			100E02	
50.0	128.0	25.0	0.114	0.001			900E01	

DEPTH	SPC 20	SPC 35
5.0		
50.0		

C-REF-NO 011
 CONS. NO 083
 COUNTRY 18
 INSTITUTE 22

LAT 42-31-21N
 LON 079-53-24W

YEAR 1966
 MONTH 08
 DAY 13
 TIME 1300

NO. DEPTHS 02
 SOUNDING 0062
 BT SLIDE NO

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
5.0		21.41	269	8.71	8.570	0.1		89.0
50.0		4.77	277	9.60	7.920	1.0		91.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
5.0	127.0	25.0	0.000	0.001			300E01	
50.0	128.0	25.0	0.114	0.001			110E02	

DEPTH SPC 20 SPC 35

5.0
 50.0

C-REF-NO 011
 CONS. NO 084
 COUNTRY 18
 INSTITUTE 22

LAT 42-31-21N
 LON 079-53-24W

YEAR 1966
 MONTH 08
 DAY 13
 TIME 1315

NO. DEPTHS 02
 SOUNDING 0062
 BT SLIDE NO

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
5.0		21.42	270		8.560	0.2		89.0
50.0		4.79	277		7.910	1.3		91.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
5.0	127.0	25.0	0.000	0.001			170E02	
50.0	128.0	25.0	0.114	0.001			800E01	

DEPTH	SPC 20	SPC 35
5.0		
50.0		

C-REF-NO 011
 CONS. NO 085
 COUNTRY 18
 INSTITUTE 22

LAT 42-31-21N
 LON 079-53-24W

YEAR 1966
 MONTH 08
 DAY 13
 TIME 1331

NO. DEPTHS 02
 SOUNDING 0062
 BT SLIDE NO

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
5.0		21.47	269		8.570	0.2		89.0
50.0		4.73	277		7.910	1.3		91.0

DEPTH	HARD	CL	NO3NO2	NO2	R P04	PHEN	MF CCL	MF ENT
5.0	127.0	25.0	0.000	0.001			500E01	
50.0	128.0	25.0	0.114	0.001			400E01	

DEPTH	SPC 20	SPC 35
5.0		
50.0		

C-REF-NO 011
 CONS. NO 086
 COUNTRY 18
 INSTITUTE 22

LAT 42-31-21N
 LON 079-53-24W

YEAR 1966
 MONTH 08
 DAY 13
 TIME 1342

NO. DEPTHS 02
 SOUNDING 0062
 BT SLIDE NO 078

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
5.0		21.46	269		8.560	0.2		
50.0		4.76	278		7.930	1.2		

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
5.0							500E01	
50.0							150E02	

DEPTH	SPC 20	SPC 35
5.0		
50.0		

C-REF-NO 011
 CONS. NO 087
 COUNTRY 18
 INSTITUTE 22

LAT 42-21-03N
 LON 079-48-03W

YEAR 1966
 MONTH 08
 DAY 13
 TIME 1543

NO. DEPTHS 08
 SOUNDING 0036
 BT SLIDE NO 079

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0	10.0	21.95	269	8.78	8.580	0.2	0.4	91.0
5.0		21.85	268	8.75	8.580	0.5		91.0
10.0		21.72	268	8.68	8.600	0.0	0.5	93.0
15.0		21.70	269	8.68	8.590	0.2		90.0
20.0		8.20	274	8.85	7.910	0.5	0.5	92.0
25.0		5.74	274	9.18	7.850	1.0		
30.0		5.53	274	9.19	7.830	1.2	0.1	92.0
35.0		5.47	274	9.16	7.820			91.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	127.0	25.0	0.000	0.001			100E01	000E00
5.0	127.0	25.0	0.000	0.001				
10.0	128.0	25.0	0.000	0.001			600E01	
15.0	127.0	25.0	0.000	0.001				
20.0	128.0	25.0	0.059	0.001			500E01	
25.0	128.0	25.0	0.139	0.001				
30.0	128.0	25.0	0.148	0.002			150E02	000E00
35.0	128.0	26.0	0.157	0.003				

DEPTH	SPC 20	SPC 35
1.0	750E01	550E01
5.0		
10.0		
15.0		
20.0		
25.0		
30.0		470E02
35.0		

C-REF-NO 011
 CONS. NO 088
 COUNTRY 18
 INSTITUTE 22

LAT 42-29-09N
 LON 079-40-30W

YEAR 1966
 MONTH 08
 DAY 13
 TIME 1718

NO. DEPTHS 09
 SOUNDING 0041
 BT SLIDE NO 080

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	9.0	22.53	270	8.71	8.630	0.4	0.3	91.0
5.0		22.04	272	8.80	8.630	0.3		91.0
10.0		21.90	271	8.74	8.630	0.3	0.3	91.0
15.0		21.88	270	8.61	8.620	0.2		91.0
20.0		21.20	271	8.44	8.570	0.3	0.2	91.0
25.0		6.07	274	9.41	7.900	0.7		92.0
30.0		5.54	274	9.68	7.860	0.9	0.7	92.0
35.0		5.53	274	9.54	7.830	0.9		92.0
40.0		5.48	274	9.61	7.810	0.7	0.3	92.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	127.0	26.0	0.000	0.001			100E01	000E00
5.0	127.0	26.0	0.000	0.001				
10.0	127.0	26.0	0.001	0.001			110E02	
15.0	127.0	26.0	0.000	0.001				
20.0	127.0	26.0	0.003	0.002			230E02	
25.0	127.0	26.0	0.123	0.002				
30.0	127.0	26.0	0.138	0.002			900E01	
35.0	127.0	26.0	0.138	0.002				
40.0	127.0	26.0	0.138	0.002			100E02	300E00

DEPTH	SPC 20	SPC 35
1.0	500E02	
5.0		
10.0		
15.0		
20.0		
25.0		
30.0		
35.0		
40.0	160E02	850E01

C-REF-NO 011
 CONS. NO 089
 COUNTRY 18
 INSTITUTE 22

LAT 42-38-48N
 LON 079-46-12W

YEAR 1966
 MONTH 08
 DAY 13
 TIME 1903

NO. DEPTHS 09
 SOUNDING 0037
 BT SLIDE NO 081

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	8.0	22.49	266	8.98	8.560	0.8	0.6	90.0
3.0								
5.0		21.20	265	9.08	8.560	0.7		90.0
10.0		20.57	266	8.90	8.500	0.3	0.5	91.0
15.0		20.21	266	8.75	8.470	0.4		91.0
20.0		16.34	271	8.28	8.200	0.4	0.2	91.0
25.0		7.45	275	7.72	7.850	0.7		92.0
30.0		7.15	275	8.09	7.800	1.3	0.2	92.0
35.0		7.01	275	8.40	7.840	1.5		92.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	126.0	25.0	0.000	0.001			000E00	000E00
3.0						0.000		
5.0	127.0	25.0	0.000	0.001				
10.0	127.0	25.0	0.000	0.001			000E00	
15.0	127.0	25.0	0.000	0.002				
20.0	128.0	25.0	0.018	0.002			100E00	
25.0	128.0	26.0	0.133	0.002				
30.0	127.0	26.0	0.133	0.002			500E00	000E00
35.0	127.0	26.0	0.132	0.003				

DEPTH	SPC 20	SPC 35
1.0	130E02	550E01
3.0		
5.0		
10.0		
15.0		
20.0		
25.0		
30.0	750E01	250E01
35.0		

C-REF-NO 011
 CONS. NO 090
 COUNTRY 18
 INSTITUTE 22

LAT 42-47-30N
 LON 079-51-36W
 YEAR 1966
 MONTH 08
 DAY 13
 TIME 2032

NO. DEPTHS 04
 SOUNDING 0011
 BT SLIDE NO 082

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		20.16	273	8.81	8.320	0.8		91.0
5.0		18.76	274	8.14	8.230	0.7		92.0
10.0		14.25	278	5.72	7.900	0.7		94.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	127.0	26.0	0.024	0.001				
5.0	127.0	26.0	0.014	0.001				
10.0	128.0	26.0	0.062	0.003				

DEPTH	SPC 20	SPC 35
1.0		
5.0		
10.0		

C-REF-NO 011
 CONS. NO 091
 COUNTRY 18
 INSTITUTE 22

LAT 42-47-15N
 LON 079-38-00W

YEAR 1966
 MONTH 08
 DAY 13
 TIME 2205

NO. DEPTHS 05
 SOUNDING 0019
 BT SLIDE NO 083

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	6.0	21.36	268	9.14	8.510	0.4	0.7	90.0
3.0								
5.0		20.82	269	9.26	8.510	0.4		90.0
10.0		20.56	270	9.09	8.500	0.5	0.6	91.0
15.0		20.39	270	8.84	8.480	0.6		91.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	127.0	25.0	0.000	0.001			100E01	000E00
3.0						0.000		
5.0	127.0	25.0	0.000	0.001				
10.0	127.0	25.0	0.000	0.001			100E01	
15.0	127.0	25.0	0.000	0.002			100E01	

DEPTH	SPC 20	SPC 35
1.0	130E03	290E02
3.0		
5.0		
10.0		
15.0		

C-REF-NO 011
 CONS. NO 092
 COUNTRY 18
 INSTITUTE 22

LAT 42-37-42N
 LON 079-33-33W

YEAR 1966
 MONTH 08
 DAY 13
 TIME 2339

NO. DEPTHS 08
 SOUNDING 0031
 BT SLIDE NO 084

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0	7.2	21.82	266	9.18	8.600	0.6	0.2	90.0
3.0								
5.0		21.60	265	9.16	8.620	0.5		
10.0		21.29	267	8.78	8.560	0.3	0.0	89.0
15.0		21.28	268	8.75	8.560	0.5		90.0
20.0		21.23	266	8.81	8.560	0.3	0.8	90.0
25.0		10.53	275	5.87	7.750	0.8		92.0
28.0		10.11	279	5.49	7.750	1.3	0.1	93.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	126.0	25.0	0.000	0.001			100E01	100E00
3.0						0.000		
5.0	126.0	25.0	0.000	0.001				
10.0	127.0	25.0	0.000	0.002			100E01	
15.0	127.0	25.0	0.000	0.002				
20.0	127.0	25.0	0.003	0.002			100E01	
25.0	128.0	25.0	0.107	0.003				
28.0	128.0	25.0	0.117	0.003			100E01	000E00

DEPTH	SPC 20	SPC 35
1.0	300E03	200E03
3.0		
5.0		
10.0		
15.0		
20.0		
25.0		
28.0	300E03	200E03

C-REF-NO 011	LAT 42-28-42N	YEAR 1966	NO. DEPTHS 05
CONS. NO 093	LGN 079-26-57W	MONTH 08	SOUNDING 0019
COUNTRY 18		DAY 14	BT SLIDE NO 085
INSTITUTE 22		TIME 0115	

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		22.27	269	8.95	8.570	0.3	0.6	90.0
3.0								
5.0		22.26	269	9.02	8.580	0.2		90.0
10.0		21.83	269	8.81	8.560	0.2	0.5	90.0
18.0		21.80	269	8.73	8.540	0.3	0.6	90.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	127.0	24.0	0.000	0.001			100E01	
3.0						0.001		
5.0	127.0	25.0	0.000	0.001				
10.0	127.0	25.0	0.000	0.001			100E01	000E00
18.0	127.0	25.0	0.000	0.001			100E01	

DEPTH	SPC 20	SPC 35
1.0		
3.0		
5.0		
10.0	500E00	900E00
18.0		

C-REF-NO 011
 CONS. NO 094
 COUNTRY 18
 INSTITUTE 22

LAT 42-36-54N
 LON 079-19-33W

YEAR 1966
 MONTH 08
 DAY 14
 TIME 0250

NO. DEPTHS 06
 SOUNDING 0026
 BT SLIDE NO 086

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0		22.17	270	8.88	8.520	0.3	0.7	90.0
5.0		22.21	270	8.88	8.580	0.4		90.0
10.0		22.02	270	8.91	8.540	0.6	0.4	90.0
15.0		21.76	268	8.62	8.530	0.3		90.0
20.0		21.64	269	8.56	8.530	0.9	0.4	90.0
25.0			274	6.51		1.0		90.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	128.0	25.0	0.000	0.001			100E01	000E00
5.0	127.0	25.0	0.009	0.001				
10.0	127.0	25.0	0.009	0.001			100E01	
15.0	127.0	25.0	0.009	0.001				
20.0	127.0	25.0	0.008	0.002			100E01	
25.0	128.0	25.0	0.038	0.002			100E01	000E00

DEPTH	SPC 20	SPC 35
1.0	170E01	300E00
5.0		
10.0		
15.0		
20.0		
25.0	120E02	140E02

C-REF-NO 011	LAT 42-45-57N	YEAR 1966	NO. DEPTHS 04
CONS. NO 095	LON 079-25-09W	MONTH 08	SOUNDING 0016
COUNTRY 18		DAY 14	BT SLIDE NO 087
INSTITUTE 22		TIME 0422	

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		21.17	269	8.95	8.580	0.4	0.6	90.0
5.0		21.20	270	8.91	8.570	0.5		90.0
10.0		21.05	270	8.89	8.570	0.2	1.0	90.0
15.0		20.25	272	8.54	8.590	0.2		90.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	127.0	25.0	0.000	0.001			100E01	000E00
5.0	127.0	25.0	0.000	0.001				
10.0	127.0	25.0	0.000	0.001			300E01	
15.0	127.0	25.0	0.000	0.002				

DEPTH	SPC 20	SPC 35
1.0	300E01	250E01
5.0		
10.0		
15.0		

C-REF-NO 011
 CONS. NO 096
 COUNTRY 18
 INSTITUTE 22

LAT 42-44-57N
 LON 079-11-39W

YEAR 1966
 MONTH 08
 DAY 14
 TIME 0602

NO. DEPTHS 05
 SOUNDING 0021
 BT SLIDE NO 088

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		21.50	272	8.62	8.560	0.1	0.8	90.0
5.0		21.54	272	8.64	8.550	0.1		90.0
10.0		21.53	271	8.54	8.550	0.2	0.6	90.0
15.0		21.52	272	8.39	8.510	0.1		90.0
20.0		21.45	272	8.40	8.510	0.2	0.7	90.0

DEPTH	HARD	CL	NO3NO2	NO2	R. PO4	PHEN	MF COL	MF ENT
1.0	127.0	25.0	0.004	0.001			100E01	300E00
5.0	127.0	25.0	0.004	0.001				
10.0	128.0	25.0	0.009	0.001			100E01	
15.0	128.0	25.0	0.009	0.001				
20.0	127.0	25.0	0.009	0.001			100E01	

DEPTH	SPC 20	SPC 35
1.0	230E02	900E01
5.0		
10.0		
15.0		
20.0		

C-REF-NO 011	LAT 42-45-06N	YEAR 1966	NO. DEPTHS 03
CONS. NO 097	LCN 078-58-06W	MONTH 08	SOUNDING 0011
COUNTRY 18		DAY 14	BT SLIDE NO 089
INSTITUTE 22		TIME 0730	

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		21.99	274	8.70	8.530	0.2	0.6	89.0
5.0		22.05	274	8.86	8.600	0.2		89.0
10.0		21.78	273	9.11	8.560	0.2	0.5	

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	127.0	26.0	0.004	0.001			100E01	100E00
5.0	127.0	26.0	0.004	0.001				
10.0	127.0	27.0	0.004	0.001			100E01	

DEPTH	SPC 20	SPC 35
1.0	380E02	100E02
5.0		
10.0		

C-REF-NO 011
 CONS. NO 098
 COUNTRY 18
 INSTITUTE 22

LAT 42-48-33N
 LON 078-53-36W

YEAR 1966
 MONTH 08
 DAY 14
 TIME 0824

NO. DEPTHS 02
 SOUNDING 0009
 BT SLIDE NO 090

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		22.10	274	8.47	8.560	0.3	0.7	94.0
5.0		22.18	274	8.39	8.560	0.3	0.5	94.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	131.0	26.0	0.004	0.001			100E01	000E00
5.0	132.0	26.0	0.004	0.001			100E01	

DEPTH	SPC 20	SPC 35
1.0	310E02	600E01
5.0		

C-REF-NO 011	LAT 42-48-51N	YEAR 1966	NO. DEPTHS 03
CONS. NO 099	LON 079-01-12W	MONTH 08	SOUNDING 0015
COUNTRY 18		DAY 14	BT SLIDE NO 091
INSTITUTE 22		TIME 0918	

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		21.57	273	8.59	8.530	0.2	0.5	94.0
5.0		21.60	274	8.56	8.520	0.2		94.0
10.0		21.52	274	8.48	8.510	0.2	0.4	95.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	130.0	26.0	0.000	0.001			100E01	000E00
5.0	131.0	26.0	0.000	0.001				
10.0	132.0	26.0	0.000	0.001			300E01	

DEPTH	SPC 20	SPC 35
1.0	850E01	250E01
5.0		
10.0		

C-REF-NO 011
 CONS. NO 100
 COUNTRY 18
 INSTITUTE 22

LAT 42-48-45N
 LON 079-07-06W

YEAR 1966
 MONTH 08
 DAY 14
 TIME 1013

NO. DEPTHS 03
 SOUNDING 0016
 BT SLIDE NO 092

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		21.51	274	8.64	8.510	0.3		94.0
5.0		21.52	274	8.62	8.520	0.2		94.0
10.0		21.49	274	8.61	8.490	0.3		94.0

DEPTH	HARD	CL	NO3NO2	NO2	R P04	PHEN	MF COL	MF ENT
1.0	132.0	25.0	0.000	0.001				
5.0	132.0	25.0	0.000	0.001				
10.0	132.0	26.0	0.003	0.002				

DEPTH	SPC 20	SPC 35
1.0		
5.0		
10.0		

C-REF-NO 011
 CONS. NO 101
 COUNTRY 18
 INSTITUTE 22

LAT 42-45-00N
 LON 079-04-12W

YEAR 1966
 MONTH 08
 DAY 14
 TIME 1108

NO. DEPTHS 03
 SOUNDING 0015
 BT SLIDE NO 093

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		21.37	275	8.45	8.510	0.2	0.5	94.0
5.0		21.42	273	8.47	8.520	0.2		94.0
10.0		21.40	273	8.48	8.530	0.1	0.4	94.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	132.0	26.0	0.004	0.001			100E01	100E00
5.0	132.0	26.0	0.004	0.001				
10.0	132.0	26.0	0.004	0.001			410E02	

DEPTH	SPC 20	SPC 35
1.0	100E02	550E01
5.0		
10.0		

C-REF-NO 011
 CONS. NO 102
 COUNTRY 18
 INSTITUTE 22

LAT 42-40-09N
 LON 079-08-09W

YEAR 1966
 MONTH 08
 DAY 14
 TIME 1209

NO. DEPTHS 03
 SOUNDING 0015
 BT SLIDE NO 094

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		21.79	273	8.48	8.540	0.2	0.5	94.0
5.0		21.82	273	8.47	8.570	0.2		94.0
10.0		21.78	273	8.45	8.520	0.3	0.4	94.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	132.0	26.0	0.004	0.001			200E01	000E00
5.0	132.0	26.0	0.005	0.001				
10.0	132.0	26.0	0.009	0.001			100E01	

DEPTH	SPC 20	SPC 35
1.0	190E02	650E01
5.0		
10.0		

C-REF-NO 011
 CONS. NO 103
 COUNTRY 18
 INSTITUTE 22

LAT 42-36-42N
 LON 079-12-12W

YEAR 1966
 MONTH 08
 DAY 14
 TIME 1301

NO. DEPTHS 04
 SOUNDING 0019
 BT SLIDE NO 095

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		21.78	271	8.56	8.570	0.1	0.3	
5.0		21.81	271	8.47	8.570	0.3		
10.0		21.77	272	8.54	8.580	0.3	0.4	94.0
18.0		21.75	272	8.58	8.520	0.2	0.4	94.0

DEPTH	HARD	CL	NO3NO2	NO2	R P04	PHEN	MF COL	MF ENT
1.0		25.0	0.004	0.001				
5.0		26.0	0.014	0.001				
10.0	130.0	25.0	0.004	0.001				
18.0	130.0	25.0	0.004	0.001				

DEPTH	SPC 20	SPC 35
1.0		
5.0		
10.0		
18.0		

C-REF-NO 011
 CONS. NO 104
 COUNTRY 18
 INSTITUTE 22

LAT 42-41-00N
 LON 079-15-30W

YEAR 1966
 MONTH 08
 DAY 14
 TIME 1355

NO. DEPTHS 05
 SOUNDING 0021
 BT SLIDE NO 096

DEPTH	SECCHI	TEMP	CON 18	D 02	PH 25	TURB	BOD	T ALK
1.0		21.28	271	8.53	8.510	0.1	0.6	94.0
5.0		21.31	271	8.58	8.520	1.0		94.0
10.0		21.30	271	8.59	8.510	0.3	0.5	94.0
15.0		21.29	271	8.61	8.550	0.1		94.0
20.0		21.32	271	8.59	8.450	0.2	0.5	94.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	131.0	25.0	0.004	0.001				
5.0	131.0	25.0	0.004	0.001				
10.0	131.0	25.0	0.009	0.001				
15.0	131.0	25.0	0.009	0.001				
20.0	132.0	25.0	0.009	0.001				

DEPTH	SPC 20	SPC 35
1.0		
5.0		
10.0		
15.0		
20.0		

1.0
 5.0
 10.0
 15.0
 20.0

C-REF-NO 011
 CONS. NO 105
 COUNTRY 18
 INSTITUTE 22

LAT 42-49-33N
 LON 079-14-33W

YEAR 1966
 MONTH 08
 DAY 14
 TIME 1510

NO. DEPTHS 04
 SOUNDING 0016
 BT SLIDE NO 097

DEPTH	SECCHI	TEMP	CON 18	D O2	PH 25	TURB	BOD	T ALK
1.0		21.21	273	8.47	8.500	0.3	0.4	94.0
5.0		21.27	273	8.54	8.490	0.1		94.0
10.0		21.22	274	8.61	8.500	0.3	0.4	94.0
15.0		21.23	273	8.47	8.480	0.2		94.0

DEPTH	HARD	CL	NO3NO2	NO2	R PO4	PHEN	MF COL	MF ENT
1.0	132.0	26.0	0.008	0.002				
5.0	132.0	26.0	0.009	0.001				
10.0	132.0	26.0	0.009	0.001				
15.0	134.0	26.0	0.009	0.001				

DEPTH	SPC 20	SPC 35
1.0		
5.0		
10.0		
15.0		