

A Catalogue of Selected Waterbodies Adjacent to the **Northwest Territories Highway Systems, 1979-80**

M.M. Roberge and D.V. Gillman

Central and Arctic Region Department of Fisheries and Oceans Winnipeg, Manitoba R3T 2N6

November 1986

Canadian Data Report of Fisheries and Aquatic Sciences No. 613



Canadian Data Report of Fisheries and Aquatic Sciences

Data reports provide a medium for filing and archiving data compilations where little or no analysis is included. Such compilations commonly will have been prepared in support of other journal publications or reports. The subject matter of data reports reflects the broad interests and policies of the Department of Fisheries and Oceans, namely, fisheries and aquatic sciences.

Data reports are not intended for general distribution and the contents must not be referred to in other publications without prior written authorization from the issuing establishment. The correct citation appears above the abstract of each report. Data reports are abstracted in *Aquatic Sciences and Fisheries Abstracts* and indexed in the Department's annual index to scientific and technical publications.

Numbers 1-25 in this series were issued as Fisheries and Marine Service Data Records. Numbers 26-160 were issued as Department of Fisheries and the Environment, Fisheries and Marine Service Data Reports. The current series name was introduced with the publication of report number 161.

Data reports are produced regionally but are numbered nationally. Requests for individual reports will be filled by the issuing establishment listed on the front cover and title page. Out-of-stock reports will be supplied for a fee by commercial agents.

Rapport statistique canadien des sciences halieutiques et aquatiques

Les rapports statistiques servent à classer et à archiver les compilations de données pour lesquelles il y a peu ou point d'analyse. Ces compilations auront d'ordinaire été préparées à l'appui d'autres publications ou rapports. Les sujets des rapports statistiques reflètent la vaste gamme des intérêts et des politiques du ministère des Pêches et des Océans, c'est-à-dire les sciences halieutiques et aquatiques.

Les rapports statistiques ne sont pas destinés à une vaste distribution et leur contenu ne doit pas être mentionné dans une publication sans autorisation écrite préalable de l'établissement auteur. Le titre exact paraît au-dessus du résumé de chaque rapport. Les rapports statistiques sont résumés dans la revue Résumés des sciences aquatiques et halieutiques, et ils sont classés dans l'index annuel des publications scientifiques et techniques du Ministère.

Les numéros I à 25 de cette série ont été publiés à titre de relevés statistiques, Services des pêches et de la mer. Les numéros 26 à 160 ont été publiés à titre de rapports statistiques du Service des pêches et de la mer, ministère des Pêches et de l'Environnement. Le nom actuel de la série a été établi lors de la parution du numéro 161.

Les rapports statistiques sont produits à l'échelon régional, mais numérotés à l'échelon national. Les demandes de rapports seront satisfaites par l'établissement auteur dont le nom figure sur la couverture et la page du titre. Les rapports épuisés seront fournis contre rétribution par des agents commerciaux.

Canadian Data Report of Fisheries and Aquatic Sciences 613

od Fuheries & Ocean MAR 2 1987 Pegional Library

November 1986

A CATALOGUE OF SELECTED WATERBODIES

ADJACENT TO THE NORTHWEST TERRITORIES

HIGHWAY SYSTEMS, 1979-80

by

M.M. Roberge and D.V. Gillman

Central and Arctic Region

Department of Fisheries and Oceans

Winnipeg, Manitoba R3T 2N6

This is the 4th Data Report from the Central and Arctic Region, Winnipeg



© Minister of Supply and Services Canada 1986

Cat. no. Fs 97-13/613E

ISSN 0706-6465

Correct citation for this publication is:

Roberge, M.M., and D.V. Gillman. 1986. A catalogue of selected waterbodies adjacent to the Northwest Territories highway systems, 1979-80. Can. Data Rep. Fish. Aquat. Sci. 613: v + 40 p.

TABLE OF CONTENTS		Table	Page
	<u>Page</u>	7 Summary of information on location surface area, maximum depth, mea temperature and classification fo	in
ABSTRACT/RÉSUMÉ	iii	water bodies situated along North west Territorial Highway No. 1 fro	1 ~ om
INTRODUCTION	1	the Hay River Junction south to th NWT-Alberta boundary, 1980	
MATERIALS AND METHODS Study area	1 1 1	8 Summary of information on location surface area, maximum depth, mea temperature and classification for water bodies situated along North west Territorial Highway No. 5 from the Hay River Junction east to For Smith, 1980	or or om
REFERENCES	4	9 Summary of information on location surface area, maximum depth, mea temperature and classification for water bodies situated along North west Territorial Highway No. 6 fro	in or i- om
Table	Page	Pine Point Junction east to For Resolution, 1980	
Summary of information on location, surface area, maximum depth, mean temperature and classification for water bodies situated in the Yellow-knife area, NWT, 1979-80	5	Summary of information on location surface area, maximum depth, mea temperature and classification for water bodies situated along the Dempster Highway from Inuvik to the NWT-Yukon boundary, 1979 11 Number, mean length and weight of fish, by species, caught by experimental gillnets from waterbodies situated in the Yellowknife area 1979-80	en e e e e e e e e e e e e e e e e e e
3 Summary of information on location, surface area, maximum depth, mean temperature and classification for water bodies situated along Northwest Territorial Highway No. 1 from Fort Providence Junction to Fort		LIST OF FIGURES Figure	<u>Page</u>
Simpson, 1980	9	 Map of the Northwest Territoria Highway System illustrating th individual survey sections, 1979-80 Map of Survey Section 1 showing th location of water bodies surveye within an 8 km radius of Yellowknif 	e e d
Fort Simpson north to Camsell Bend, 1980	10	City, 1979-80	. 20
Summary of information on location, surface area, maximum depth, mean temperature and classification for water bodies situated along the Liard Highway from the junction with Northwest Territorial Highway No. 1 west to the Blackstone River, 1980.	11	 Map of Survey Section 1 showing th location of water bodies surveye along the Cestaurum Road, 1979-80 Map of Survey Section 2 showing th locations of water bodies situate along Northwest Territorial Highwa No. 3 from Yellowknife to For 	d • 21 e d y t
6 Summary of information on location, surface area, maximum depth, mean temperature and classification for water bodies situated along Northwest Territorial Highway No. 1 from Enterprise to the Fort Providence	12	Providence Junction, 1980	e d y n

Figur	<u>re</u>	Page
6	Map of Survey Section 4 showing the locations of water bodies situated along Northwest Territorial Highway No. 1 from Fort Simpson to Camsell Bend, 1980	24
7	Map of Survey Section 5 showing the locations of water bodies situated along the Liard Highway to the Blackstone River, 1980	25
8	Map of Survey Section 6 showing the locations of water bodies situated along Northwest Territorial Highway No. 1 from Enterprise to the Fort Providence Junction, 1980	26
9	Map of Survey Section 7 showing the locations of water bodies situated along Northwest Territorial Highway No. 1 from the Hay River Junction to the NWT-Alberta boundary, 1980	27
10	Map of Survey Section 8 showing the locations of water bodies situated along Northwest Territorial Highway No. 5 from the Hay River Junction to Fort Smith, 1980	28
11	Map of Survey Section 9 showing the locations of water bodies situated along Northwest Territorial Highway No. 6 from Pine Point Junction to Fort Resolution, 1980	29
12	Map of Survey Section 10 showing the locations of water bodies situated along the Dempster Highway from Inu- vik to the MWT-Yukon boundary, 1979.	30
13	Bathymetric map of Daigle Lake	31
14	Vertical profiles of temperature and dissolved oxygen for Daigle Lake, 1980	32
15	Bathymetric map of Fault Lake	33
16	Bathymetric map of Fiddlers Lake .	34
17	Vertical profiles of temperature and dissolved oxygen for Fiddlers Lake, 1980	35
18	Bathymetric map of Finger Lake	36
19	Bathymetric map of Frame Lake	37
20	Bathymetric map of Stock Lake	38
21	Vertical profiles of temperature and dissolved oxygen for Stock Lake, 1980–81	39

ABSTRACT

ROBERGE, M.M., and D.V. GILLMAN. 1986. A catalogue of selected waterbodies adjacent to the Northwest Territories highway systems, 1979-80. Can. Data Rep. Fish. Aquat. Sci. 613: v + 40 p.

A survey of the Northwest Territories highway system was conducted during July to September, 1979 and 1980 to determine the location and types of water bodies in proximity to the highways. A total of 1 686 kilometers were surveyed and 564 lakes, ponds, rivers or streams recorded. Preliminary assessments were made on the potential of enclosed water bodies for future fisheries development. Physical, chemical and biological investigations were conducted on a limited basis for a small percentage of the observed systems.

Key words: fishery development potential; fishery surveys; lake morphology; oxygen/temperature profiles.

RÉSUMÉ

ROBERGE, M.M., and D.V. GILLMAN. 1986. A catalogue of selected waterbodies adjacent to the Northwest Territories highway systems, 1979-80. Can. Data Rep. Fish. Aquat. Sci. 613: v + 40 p.

Une étude du réseau routier des Territoires du Nord-Ouest a été effectuée de juillet à septembre, en 1979 et en 1980, afin déterminer à quel endroit il y avait des plans d'eau à proximité des routes et quel en était le type. Au total, 1 686 kilomètres de route ont été parcourus et 564 lacs, étangs, rivières et ruisseaux ont été recensés. Des évaluations préliminaires ont été faites en vue d'établir le potentiel de développement futur des pêches dans des systèmes fermés de plans d'eau intérieurs. Des études physiques, chimiques et biologiques ont été effectuées à petite échelle sur un faible pourcentage des systèmes observés.

Mots-clés: potentiel de développement des pêches; évaluations des pêcheries; morphologie des lacs; profils de température/oxygène.

INTRODUCTION

Road access sport fisheries in the vicinities of the major communities throughout the Northwest Territories (NWT) are limited since road development is not extensive (Fig. 1). The limited number of angling opportunities and an ever increasing number of sport fishermen may lead to local over-fishing and a decline in fishing quality which is compounded by the fact of the non-resilient nature of northern game fish species (Falk 1981). Continued construction and upgrading of the highway system in the NWT will provide access to numerous lakes and streams which had previously received limited or no fishing pressure.

In 1979, a two-year study was initiated to investigate the possibility of creating new fishing opportunities away from community areas by dispersement of present fishing effort over a wider area and/or the creation of new angling opportunities. This involved the identifying and cataloguing of present or potential sport fishing opportunities in proximity to the NWT highway system. Limited baseline limnological and biological data was collected. These data as well as an assessment of the water bodies potential as a new angling opportunity is presented in this report in tabular and graphic form. Information collected during this study on 41 lakes along the Ingraham Trail is presented in Roberge and Gillman (1984).

MATERIALS AND METHODS

STUDY AREA

The survey encompassed all the highways of the Northwest Territories from the Alberta and Yukon borders to the limit of maintained roadway (Fig. 1). For convenience the highway system was broken into 10 distinct sections which were individually surveyed and are described in detail in this section under the heading 'Survey Divisions'.

SURVEY TECHNIQUES

The water bodies within each section were located using a vehicle and mileages were assigned separately from a designated starting point, usually a junction or major population center. As individual lakes, ponds, streams, rivers and borrow pits were observed the mileage and direction from the road were recorded. An approximate surface area was determined either by pacing or visual estimate and depths determined by sounding and/or observation. Observations were also made on the type and density of aquatic vegetation, bank cover and forest cover in the immediate area. Following these preliminary observations additional physical, chemical and biological sampling was completed if the location was considered worthy of further examination. The survey concentrated on enclosed systems, namely small lakes, ponds and borrow pits as larger lakes, rivers and streams would require intensive and prolonged surveys to accurately assess their potential. Therefore

these larger lakes, rivers and streams were recorded only as to location. The remaining water bodies were separated into three fishery development potential classifications as follows:

- I. No development potential water surface area estimated to be less than 0.02 ha; dry or depth less than 2 m; poorly defined or shallow bank construction; presence of fish non-existent.
- II. Limited development potential water surface area estimated to be greater than 0.02 ha; water depth 2-3 m or capacity for greater depth; well-defined banks and basin; resident benthic and zooplankton populations present as well as the possibility of fish populations.
- III. Development potential water surface area estimated to be greater than 0.02 ha; water depth greater than 3 m or capacity for greater depth; resident benthic and zooplankton populations present while fish populations may or may not be present; requires further investigation to determine full potential as to suitability as a new fishing opportunity.

LIMNOLOGICAL INVESTIGATION

Lakes, ponds and borrow pits that required more intensive surveys were mapped as to shoreline while the presence or absence of islands, inlets and outlets, surrounding land features and type of forest cover were noted. Depth soundings were conducted using a lead line marked in meters for spot soundings and in deeper lakes, a Lowrance Model D51 depth sounder was utilized to determine bottom contour formation. Depth soundings were plotted for each lake and bathymetric contours were drawn at 1-2 m intervals. Surface temperatures were taken using a pocket thermometer and a Wahl direct reading thermister. Single readings of dissolved oxygen content were determined by use of a Hach kit (Model AL-36B). Profiles of dissolved oxygen content and temperature at 1 m intervals were obtained using a Yellow Springs Model D400 oxygen-temperature meter. A Beckman pH meter was used to obtain pH readings while water transparency was determined using a Secchi disc (20 cm).

BIOLOGICAL INVESTIGATION

At least one experimental gillnet set was made at each lake with a maximum depth >1.0 m. Experimental gillnets were 150 m in length and composed of five equal length panels of 38 mm, 64 mm, 89 mm, 108 mm and 139 mm mesh size (stretched measure). Catch was recorded by mesh size and by species. A beach seine (10 mm mesh) was used to catch small fish which would otherwise escape the experimental gillnets. In some lakes minnow traps and dipnets were used to capture these fish in the instances where the shoreline or depth precluded seining. In streams or rivers known to have resident fish populations, experimental angling was conducted and catch-effort data collected.

Fish obtained from the above collection methods were sampled for fork length (± 1 mm), round weight (± 50 g), sex and maturity, and age (scales). Sex and relative stage of maturity were determined by examination of the gonads. Relative stages of maturity were coded according to the stages described in Roberge and Read (1986).

Scales were taken from lake whitefish and northern pike as described by Hatfield et al. (1972). Results of the age determinations are not complete and therefore not presented in this report.

Benthic samples were collected using an Eckman dredge (15 cm square) and organisms were identified in the field to various taxonomic groups. Plankton samples collected with a Wisconsin plankton net and preserved in 10% formalin are pending analysis.

Scientific names for fish species follow Scott and Crossman (1973) as: lake whitefish, Coregonus clupeaformis (Mitchill); northern pike, Esox lucius (Linnaeus); and lake cisco, Coregonus artedii Lesueur.

SURVEY DIVISIONS

Section 1. Yellowknife Area

During the summer of 1979 and 1980, a number of lakes and ponds were surveyed within the Yellowknife area. For convenience the area surveyed was divided into three subdivisions; within an 8 km radius of Yellowknife City (excluding the Cestaurum Road and the Ingraham Trail); the Cestaurum Road immediately north of the city; and the Ingraham Trail. Four lakes were surveyed within the 8 km radius of Yellowknife City area (Fig. 2) and four along the 9.8 km length of the Cestaurum Road (Fig. 3). Forty-one lakes and ponds along the 64 km Ingraham Trail were surveyed and reported in Roberge and Gillman (1984).

Topography throughout the area is similar and typical of the Precambrian Shield with low rocky hills covered with light growths of black spruce interspersed with scattered areas of poplar and birch. Lakes and ponds were frequent and varied in size and depth (Table 1). Borrow pits were infrequent as surface material was used for road construction.

Section 2. Yellowknife to Fort Providence Junction

This section of the Northwest Territories highway system was surveyed during August, 1980, from the Yellowknife airport (62-27N, 114-20W) (km 0) to Fort Providence Junction located at the junction of Highway Nos. 1 and 3 (61-05N, 117-32W), a distance of 352 km (Fig. 4). The area from Yellowknife to Edzo (km 101) is typical of the Precambrian Shield with many small shallow lakes and ponds scattered among abrupt rock outcrops. Spruce, birch and poplar of light density provide forest cover. The topography changes dramatically south of Edzo to lightly forested low rolling hills and near the

Mackenzie River to a low-lying forested plain. Forest cover increases in size and density south across the Mackenzie River while the number of lakes and streams situated near the highway declines.

Along this highway section borrow pits were not suitable for development as construction techniques favored shallow surface scraping and removal of roadside materials rather than the construction of large deep pits (Table 2). Lakes adjacent to the highway were generally shallow, of small surface area and demonstrated heavy vegetative growth. Several larger lakes occur toward the south end of the highway, however they were extremely shallow, alkaline and offered little development potential.

Section 3. Fort Providence Junction to Fort Simpson

This section of the Mackenzie Highway was surveyed during September, 1980, from Fort Providence Junction at the junction of Highway Nos. 1 and 3 (61-05N, 117-32W) (km 0) north to Fort Simpson (61-52N, 121-20W), a distance of 295 km (Fig. 5). The highway passes through a mixture of areas ranging from extensive muskeg flats to ridges and heavily forested hills. Water levels were extremely low at the date of the survey and many small creek beds and borrow pits were dry and subsequently not recorded. Borrow pits along this section of the highway were generally shallow and of limited potential for development (Table 3). No major pits of a favorable surface area size and water content were noted. Few lakes or ponds were noted in the area; however, the highway does cross several major rivers and creeks and mileages were recorded.

Section 4. Fort Simpson to Camsell Bend

The 78 km section of Mackenzie Highway No. 1 from Fort Simpson (61-52N, 121-20W) (km 0) north to Camsell Bend (62-17N, 123-23W) was surveyed during August, 1980 (Fig. 6). This section of the road was used by local traffic only and was not being kept in repair at the time of the survey. No further road survey was attempted to the north of the Mackenzie River as ferry service across the Mackenzie River was not available during the survey.

The area adjacent to this section of the highway was predominantly muskeg with shallow ponds, a few small lakes and numerous small creeks flowing eastward to the Mackenzie River. Borrow pits were infrequent as roadside materials appeared to have been used for bed construction. However, several large gravel pits of good depth and surface area size were noted and although not completely filled with water at the time of the survey could have future development potential (Table 4).

Section 5. Liard Highway

The Liard Highway was surveyed during August, 1980 from the junction with Highway No. 1 (61-26N, 121-15W) (km 0) westward to the Blackstone River (61-06N, 122-55W), a distance

of 101 km (Fig. 7). Further road survey was not attempted past the Blackstone River as the river bridge was incomplete at the time of the survey.

The survey was restricted to borrow pits as few lakes exist in the area and streams and rivers transecting the highway have been the basis of an impact study in conjunction with the construction of the highway. Detailed information on these streams including topographic descriptions, physical and chemical data, and presence and composition of benthic and fish populations is available in McKinnon and Hnytka (1979). However only the locations of the major streams and rivers have been included in this report (Table 5).

Some of the borrow pits along the Liard Highway appear to have a limited potential for development as construction techniques favor deep, steep-sided pits, while bank and base materials appear favorable for water retention (Table 5). Estimated sizes ranged from 25-50~m in width, 100-150~m in length and 2-15~m in depth. The pits, with the exception of the section east of the Poplar River, are of recent excavation (1976 to 1980) and are not completely filled with water. Those filled or partially filled exhibited clear, cold, well-oxygenated water and some vegetative and insect life according to the duration from pit construction. Pit banks were generally clay-gravel mixtures with shale bottoms (observed in recent excavations). Bank cover was a mixture of spruce, birch and poplar trees and ranged from medium to heavy in density in some locations. All pits were located within walking distance of the highway.

Section 6. Enterprise to Fort Providence Junction

This section of the highway, surveyed during August, 1980, begins at Enterprise (60-33N, 116-08W) (km 0) at the junction of Highway Nos. 1 and 2 and ends 104 km to the west at the Fort Providence Junction (61-05N, 117-32W) at the junction of Highway Nos. 1 and 3 (Fig. 8).

Topography of this section was initially a low forested plain that gradually changed to gently sloping ridges and small hills in the western section. Forest cover was of medium density and consisted of black spruce, poplar and birch. Gravel and sandy clays provided ideal roadbed material and therefore borrow pits were generally shallow in depth with gently sloping sides and of small size averging approximately 20-30 m in width and 100 m in length. Lakes were infrequent and shallow. No lakes or pits with development potential were noted along this section of the highway. Rivers and streams were recorded as to location only (Table 6).

Section 7. Hay River Junction to NWT-Alberta Boundary

During August, 1980, a 116 km section of highway was surveyed from the junction of Highway Nos. 2 and 5 (60-47N, 115-50W) (km 0) south to the Northwest Territories-Alberta boundary (60-00N, 116-59W) (Fig. 9). The highway follows

the west side of the Hay River valley along its entire length to the border. Topography is similar throughout and typical of the forested Mackenzie lowlands. Black spruce, poplar and birch occur in medium to heavy densities with a thick undercover in most areas. Small lakes, streams and borrow pits are abundant. Borrow pits were generally small (estimated surface area <0.2 ha and 2-3 m in depth) and with little water content. Few water bodies demonstrated sufficient size or depth to be classified as having a potential for future development. However during years of greater rainfall a couple of the pits in the Enterprise area may have limited potential for fisheries development (Table 7).

Section 8. Hay River Junction to Fort Smith

Northwest Territories Highway No. 5 runs from the Hay River Junction, located at the junction of Highway Nos. 2 and 5 (60-47N, 115-50W) (km 0), east for a distance of 261 km to Fort Smith (60-01N, 111-55W) (Fig. 10). Water bodies adjacent to the highway were surveyed during August, 1980. The highway runs through a heavily wooded low-lying plain immediately south of Great Slave Lake. Black spruce, poplar and birch are the dominant cover species. Past the Little Buffalo River the forest cover is occasionally broken by open marshes and grassy meadows.

Construction techniques precluded any potential fisheries development of the borrow pits along the highway (Table 8). Pits and the few lakes noted in the area were extremely shallow and often dry. Major rivers and streams along the highway were noted and recorded only as to location and mileage.

Section 9. Pine Point Junction to Fort Resolution

Northwest Territories Highway No. 6, surveyed during August, 1980, runs from the junction at Highway No. 5 (60-44N, 114-50W) (km 0) to Fort Resolution (61-10N, 113-45W), a distance of 91 km (Fig. 11). The highway follows the south shore of Great Slave Lake through a low-lying forested area of black spruce, poplar and birch, and open marshy areas adjacent to the lake shore as it nears Fort Resolution. Water bodies were infrequent and borrow pits and ponds were shallow and exhibited no potential for development (Table 9). Only one river, the Little Buffalo, was recorded on this section of the highway. Streams encountered were noted and recorded only as to location and mileage.

Section 10. Dempster Highway

The Dempster Highway was surveyed during August, 1979, from Inuvik (68-22N, 133-52W) (km 0) to the MWT-Yukon Boundary (64-05N, 141-00W) a distance of 258 km (Fig. 18). The highway remains on the east side of the Mackenzie River to Arctic Red River at which point ferry service is used to cross the Mackenzie River from Inuvik and the road continues uninterrupted to the Peel River ferry crossing at Fort McPherson. This area is a low-lying plain of muskeg flats and small rocky ridges, both covered with a thin

growth of stunted black spruce. Once past the Peel River the highway enters the Richardson Mountains, an area of barren alpine meadows and rock escarpments with only occasional small growths of black spruce. There are few lakes and borrow pits along the length of the Dempster Highway none of which demonstrated any potential for development (Table 10). There are several major streams and rivers, particularly on the east side of the Mackenzie River, which had good flow rates and clear waters. Names and locations of these and other water bodies along the Dempster were recorded and noted.

ACKNOWLEDGMENTS

The authors appreciate the assistance in the collection of data during the 1979 and 1980 survey from the following: B. Mackenzie, B. Stirling, D. Remnant, R. Mulders, L. Dahlke, T. Stephenson, T. Davidson, R. Feland, B. Mills and B. Burns. The study was initiated and under the supervision of M.R. Falk and D.V. Gillman. The assistance and support of the staff of the Yellowknife and Hay River offices of Fisheries and Oceans is appreciated. Figures were prepared by Graphic Services, Freshwater Institute J. Johnson and B. Burns. Assistance in completing this report was provided by C. Catt. J.B. Dunn reviewed the report.

REFERENCES

- FALK, M.R. 1981. A questionnaire survey of sport fishing in the Yellowknife and Hay River areas, Northwest Territories, 1979. Can. Manuscr. Rep. Fish. Aquat. Sci. 1584: iv + 19 p.
- HATFIELD, C.T., J.N. STEIN, M.R. FALK, and C.S. JESSOP. 1972. Fish resources of the Mackenzie River Valley. Interim Report 1. Volume 1. Department of the Environment, Fisheries Service, Winnipeq. 247 p.
- McKINNON, G.A., and F.N. HNYTKA. 1979. A survey of the fish resources of the Liard River tributaries as related to highway construction and operation, 1976-77. Can. Fish. Mar. Serv. Manuscr. Rep. 1483: vii + 84 p.
- ROBERGE, M.M., and D.V. GILLMAN. 1984. Limnological and biological data from 41 lakes along the Ingraham Trail, Northwest Territories, 1979-80. Can. Data Rep. Fish. Aquat. Sci. 473: iv + 56 p.
- ROBERGE, M.M., and C.J. READ. 1986. Creel census and biological investigation of Gordon Lake, Northwest Territories, 1981. Can. Data Rep. Fish. Aquat. Sci. 569: v + 43 p.
- SCOTT, W.B., and E.J. CROSSMAN. 1973. Freshwater fishes of Canada. Bull. Fish. Res. Board Can. 184: xi + 966 p.

Table 1. Summary of information on location, surface area, maximum depth, mean temperature and classification for water bodies situated in the Yellowknife area, NWT, 1979-80.

Location No.	Water Body	Distance (km)	Direction from road	Surface Area (ha)	Max. Depth (m)	Mean Temp. (°C)	Classification
YK A <u>rea</u>						,	
1	Fiddler Lake	8.5	R	_	7	18.0	ΙΙ
2	Frame Lake	-	~	_	6	_	ΙΙ
3	Stock Lake	_	_	_	>9	-	III
4	Fault Lake	2.0	R	-	1	-	I
Cestaurum R	oad						
5	Trapper Lake	1.4	L	_	<1	_	I
6	Rater Lake	7.1	Ĺ	-	<1	_	Ĭ
7	Finger Lake	9.2	R	_	3	_	I
8	Daigle Lake	9.9	R	-	17	18.2	ΙΙ

Table 2. Summary of information on location, surface area, maximum depth, mean temperature and classification for water bodies situated along Northwest Territorial Highway No. 3 from Yellowknife to Fort Providence Junction, 1980.

Location No.	Water Body	Distance (km)	Direction from road	Surface Area (ha)	Max. Depth (m)	Mean Temp. (°C)	Classification
1	Pond	6.4	R	0.4	1		I
2	Pond	6.8	R	0.4	1	-	I
3	Borrow Pit	8.3	R	0.4	1	-	I
4	Borrow Pit	8.4	L	0.4	1	-	I
5	Pond	8.6	R	0.4	1	-	I
6	Pond	9.1	L	8.1	0	-	I
7	Borrow Pit	9.1	L	0.4	1	-	I
8	Pond	10.2	R	0.4	1	-	I
9	Borrow Pit	10.4	L	0.4	1	-	I
10	Borrow Pit	11.9	R	0.4	1	-	I
11	Pond	12.1	R	0.4	1	-	I
12	Borrow Pit	14.3	R	0.4	1	-	I
13	Borrow Pit	14.5	R	0.4	1	-	I
14	Borrow Pit	14.9	R	0.4	1	-	I
15	Pond	15.5	R	0.4	ī	_	Ī
16	Pond	16.4	R	1.2	ī	-	Ĭ
17	Pond	16.6	R	0.4	î	_	Ī
18	Pond	18.7	R	0.4	î	_	i
19	Pond	19.0	R R	0.4	î	_	Î
20	Pond	19.1	R	0.4	î	_	Ĭ
21	Pond	20.6	ï	0.4	î	_	î
22	Pond	21.4	i	0.4	î	_	Ť
23	Unnamed Lake	22.4	ī	2.0	Ô	_	Ť
24	Pond	23.2	R	0.4	í	_	i
25	Borrow Pit	23.5	R	0.4	1	_	Ţ
26	Pond	24.0	1	1.2	1	_	Ť
27	Borrow Pit	24.8	L	0.4	1	-	T T
28	Pond	24.9	R	0.4	1	-	T T
29	Borrow Pit	26.6	R	0.4	1	-	1
30	Pond	26.6	r.	0.4	1	-	1 T
	Borrow Pit		R	0.4	1	-	1
31		29.3	R R		1	-	1 Y
32	Borrow Pit	31.5	**	0.4	1	-	1
33	Pond	32.6	L	0.4	1	-	1
34	Pond	32.9	L	0.4	1	-	1
35	Pond	33.1	R	0.4	1	-	1
36	Pond	34.0	L	0.4	1	-	1
37	Boundary Crk.	34.1	-	0.4	-	-	~ Y
38	Borrow Pit	35.7	L	0.4	1	-	1
39	Pond	36.0	L		1	-	1
40 41	Pond Pond	36.5 36.3	R	0.4 0.4	1	-	i T
41			K L	0.4	1	-	1 T
	Pond	38.3			1	-	i T
43	Pond	40.0	L	<1.2	1	-	j. T
44 45	Pond	40.5 41.6	R R	<1.2 2.0	1	-). T
	Pond		k L	0.4	1	-	1
46	Pond	43.2 44.0	R R	2.0	1	-	1 T
47	Pond		ĸ		1	-	1
48	Unnamed Stream	47.0	-	0.4	-	-	-
49	Pond	49.4	L		1	-	I
50	Borrow Pit	49.6	R	0.4	1	-	1
51	Pond	50.2	L	0.4	1	-	i *
52	Borrow Pit	51.2	L	0.4	1	-	I
53	Pond	53.3	Ĺ	0.4	1	-	i T
54	Pond	53.4	R	0.4	1	-	Ţ
55	Pond	53.5	Ļ.	0.4	1	-	Ĭ
56	Pond	55.7	L	0.4	1	-	1
57	Fishing Creek	57.1	_	-	_	_	-

Table 2 Continued.

Location No.	Water Body	Distance (km)	Direction from road	Surface Area (ha)	Max. Depth (m)	Mean Temp. (°C)	Classification
58	Pond	58.1	R	0.4	1		I
59	Pond	59.8	R	0.4	1	_	İ
60	Pond	60.8	R	0.4	ī	_	Ī
61	Pond	61.8	R	0.4	ī	-	I
62	Pond	62.2	Ĺ	0.4	1	-	I
63	Pond	64.2	L	0.4	1	-	I
64	Pond	65.0	L	0.4	1	-	I
65	Pond	65.4	R	0.4	1	-	I
66	Pond	66.1	L	0.4	1	-	I
67	Pond	66.6	R	0.4	1	-	I
68	Pond	67.4	R	0.4	1	-	I
69	Pond	67.8	R	<1.2	1	-	I
70	Pond	69.1	Ĺ	0.4	1	-	I
71	Pond	73.1	R	<1.2	1	-	1
72 73	Pond Pond	74.9 75.0	R	0.4 <1.2	1	-	I T
73 74	Pond	75.0 75.2	L L	<1.2	1	<u>-</u>	I T
75	Pond	77.4	1	<1.2	1	_	1
76	Pond	80.5	i	0.4	î	_	Ť
77	Jackfish Crk.	82.6	-	-	-	_	-
78	Pond	83.0	R	0.4	1	_	I
79	Pond	83.7	R	0.4	ī	_	Ī
80	Stagg River	84.3	-	_	_	-	-
81	Pond	85.3	R	0.4	1	-	I
82	Pond	88.6	L	0.4	1	-	I
83	Pond	89.9	L	<1.2	1	-	I
84	Pond	92.5	R	0.4	1	-	I
85	Pond	92.7	L	<1.2	1	-	I
86	Pond	93.1	L	0.4	1	-	I
87	Frank Channel	96.0	-	-	-	-	-
88	Pond	99.0	R	0.4	1	-	Į,
89	Pond	101.6	R R	<1.2	1	-	1
90 91	Borrow Pit Mosquito Crk.	101.9 109.6	ĸ	<0.8	2	-	1
92	Borrow Pit	114.6	ī	0.4	1	-	-
93	Pond	121.7	R	0.8	1	-	Ī
94	Pond	123.8	ì	0.4	î	_	Ť
95	Pond	125.6	ĭ	<2.0	i		Ī
96	Pond	126.7	i	0.8	î	_	Ť
97	Pond	131.0	R	203.0	-	_	Ī
98	Borrow Pit	184.5	L	0.6	1	-	I
99	Pond	185.6	R	-	0	-	I
100	Pond	189.9	L	-	0	-	I
101	Unnamed Lake	192.3	L	203.0	0	-	I
102	Pond	195.7	R	121.5	0	-	Ī
103	Pond	210.4	R	-	0	-	I •
104	Pond Pond	211.5	R R	0.2	0 1	-	I T
105 106	Birch Lake	214.9 216.8	R R	0.2	-	-	1 7
107	Pond	220.3	ì	12.2	0	_	Ť
108	Pond	225.4	R	0.4	0.5	-	Ť
109	Borrow Pit	227.2	R	0.4	0.5	-	i
110	Borrow Pit	227.7	R	0.4	0.5	_	Ī
111	Borrow Pit	229.8	Ĺ	0.4	0.5	-	Ĭ
112	Borrow Pit	231.4	R	0.4	0.5	-	Ī
113	Borrow Pit	232.8	R	0.4	0.5	-	I
114	Borrow Pit	235.2	L	0.4	0.5	-	Ī
115	Borrow Pit	235.6	L	0.4	0.5	-	I
116	Borrow Pit	236.6	R	0.4	0.5	-	I

Table 2 Continued.

Location No.	Water Body	Distance (km)	Direction from road	Surface Area (ha)	Max. Depth (m)	Mean Temp. (°C)	Classification
117	Borrow Pit	237.4		0.4	0.5		
117	Borrow Pit	238.1	r D	0.4	1	-	1
	Borrow Pit	240.1	K I	0.4	1	-	1
119		240.6	Ĺ	0.4	1	-	ž.
120	Borrow Pit		L		1	-	1
121	Borrow Pit	245.9	K	0.4	1	-	1 7
122	Borrow Pit	247.2	L	0.4	1	-	1
123	Borrow Pit	248.6	L	0.4	1	-	1
124	Borrow Pit	250.6	R	0.4	1	-	1
125	Borrow Pit	255.0	L	0.4	1	-	I
126	Caen Lake	259.4	-	-	-	-	I
127	Borrow Pit	264.3	R	0.4	1	-	I
128	Borrow Pit	273.7	R	0.4	1	-	I
129	Borrow Pit	275.0	R	0.4	1	-	I
130	Borrow Pit	276.0	R	0.4	1	-	I
131	Borrow Pit	280.5	L	0.4	1	-	I
132	Bluefish Crk.	297.4	-	_	_	-	-
133	Borrow Pit	322.7	L	-	-	_	I
134	Borrow Pit	322.9	Ĺ	_	_	_	I
135	Mackenzie R.	323.8	-	-	-	_	_
136	Borrow Pit	324.7	L	-	-	_	I

Table 3. Summary of information on location, surface area, maximum depth, mean temperature and classification for water bodies situated along Northwest Territorial Highway No. 1 from Fort Providence Junction to Fort Simpson, 1980.

ocation No.	Water Body	Distance (km)	Direction from road	Surface Area (ha)	Max. Depth (m)	Mean Temp. (°C)	Classificatio
1	Pond	14.2	L	4.1	0	-	I
2	Pond	17.4	R	-	n	-	I
3	Pond	20.4	L	-	0	-	Ī
4	Pond	21.6	R	-	-	-	Ī
5	Borrow Pit	25.5	R	-	-	-	ļ
6	Borrow Pit	26.1	L	-	-	-	I T
7 8	Borrow Pit Borrow Pit	27.0 31.7	R	-	0	-	1
9	Borrow Pit	34.0	R	-	-	- -	Ţ
10	Borrow Pit	37.0	R	_	-	_	Ť
11	Borrow Pit	41.0	ì	_	_	-	Ĭ
12	Borrow Pit	42.0	ĩ	-	_	_	Î
13	Borrow Pit	45.9	Ĺ	_	_	_	Ī
14	Borrow Pit	49.1	Ĺ	-	0	-	Ì
15	Borrow Pit	50.6	Ř	-	-	_	I
16	Borrow Pit	52.4	L	-	-	~	I
17	Unnamed Stream	54.5	-	-	-	-	-
18	Unnamed Stream	68.5	-	-	-	-	-
19	Borrow Pit	69.3	R	-	-	-	I
20	Borrow Pit	76.3	R	-	0	-	I
21	Borrow Pit	77.6	R	-	-	-	I
22	Unnamed Stream	80.0	-	-	-	-	-
23	Bouvier River	97.2	-	-	-	-	-
24	Wallace Crk.	109.7	-	-	_	-	-
25a	Redknife River	115.7	-	-	<1	9.6	-
25b	Borrow Pit	121.2	R		-	_	1
26	Morrisey River	134.1	-	-	-	-	-
27	Borrow Pit	136.4	L	-	0	-	l T T
28	Borrow Pit	137.3	L	-	0 0	_	ΙΙ
29 30	Borrow Pit Borrow Pit	138.7 139.3	K I	-	U	-	I T
31	Borrow Pit	140.0	L I	_	_	_	Ţ
32	Borrow Pit	141.3	1	_	0	_	Ţ
33	Borrow Pit	142.4	1	_	-	_	Ť
34	Borrow Pit	144.6	ī	0.5	4	-	ΙÎ
35	Trout River	145.8	-	-	<u>.</u>	_	-
36	Borrow Pit	154.2	L	_	_	_	I
37	Borrow Pit	155.8	Ĺ	_	-	-	ΙĪ
38	Borrow Pit	157.7	Ĺ	_	-	-	Ī
39	Borrow Pit	162.3	R	-	_	-	I
40	Borrow Pit	162.8	L	-	0	-	I
41	Borrow Pit	164.2	L	-	0	-	I
42	Borrow Pit	165.3	R	_ -	0	-	I
43	Borrow Pit	166.1	Ļ	0.4	2	-	ΙΙ
44	Borrow Pit	166.8	L	-	-	-	Ī
45	Borrow Pit	176.9	L	-	-	-	Ĭ
46	Borrow Pit Borrow Pit	181.4 182.0	L 1	-	-	-	Į Ŧ
47 48	Borrow Pit	182.0	Ĺ	-	0	_	1 7
49	Borrow Pit	186.1	1	_	-	<u>-</u>	I T
50	Borrow Pit	194.1	ĺ	-	-	-	Ť
51	Borrow Pit	205.9	ĩ	_	_	_	Ĭ
52	Borrow Pit	216.4	ĩ	_	_	_	Ī
53	Borrow Pit	219.9	Ĺ	_	-	_	Î
54	Borrow Pit	221.6	ī	_	-	_	Ī
55	Borrow Pit	223.4	R	0.2	_	-	Ī
56	Borrow Pit	224.8	L	_	_	-	Ī
57	Borrow Pit	227.5	L	0.2	3	-	I
58	Jean Marie R.	235.5	-	-	1	-	-
59	Borrow Pit	244.8	L	_	1	8.6	ΙΙ
60	Borrow Pit	248.5	L	-	-	-	I
61	Liard River	283.0	-	-	_	-	-

Table 4. Summary of information on location, surface area, maximum depth, mean temperature and classification for water bodies situated along Northwest Territorial Highway No. 1 from Fort Simpson north to Camsell Bend, 1980.

Location No.	Water Body	Distance (km)	Direction from road	Surface Area (ha)	Max. Depth (m)	Mean Temp. (°C)	Classification
1	Unnamed Stream	15.0	_	_	_	_	I
2	Martin River	18.1	-	-	1	8.7	-
3	Unnamed Stream	21.4	-	-	-	-	-
4	Pond	24.8	L	-	-	-	I
5	Pond	32.6	L	-	-	-	I
6	Unnamed Stream	33.2	-	-	-	-	-
7	Unnamed Stream	39.5	-	-	-	-	-
8	Unnamed Stream	41.8	-	-	-	-	-
9	Unnamed Stream	48.6	-	-	-	-	_
10	Borrow Pit	49.2	R	-	-	-	I
11	Borrow Pit	49.4	L	-	-	-	I
12	Unnamed Stream	50.2	-	-	-	-	-
13	Unnamed Stream	51.5	-	-	-	-	-
14	Unnamed Stream	52.8	-	-	-	-	-
15	Unnamed Stream	53.3	-	-	-	-	~
16	Unnamed Stream	54.6	-	-	-	-	-
17	Unnamed Stream	56.5	-	-	-	-	-
18	Unnamed Stream	58.1	-	-	-	-	-
19	Borrow Pit	58.2	R	-	-	-	I
20	Borrow Pit	58.2	R	-	-	-	I
21	Borrow Pit	58.2	R	-	-	-	Ĭ
22	Unnamed Stream	58.6	-	-	-	-	-
23	Shale Creek	59.4	-	-	1	8	-
24	Borrow Pit	61.7	R	-	-	-	-
25	Unnamed Stream	61.9	-	-	-	~	-
26	Unnamed Stream	63.4	-	-	-	-	-
27	Unnamed Stream	65.6	-	-	-	-	-
28	Unnamed Stream	65.9	-	-	-	-	-
29	Unnamed Stream	67.9	-	-	-	-	-
30	Unnamed Stream	70.1	-	-	-	-	-
31	Unnamed Stream	74.2	-	-	-	-	-
32	Unnamed Stream	74.6	-	-	-	-	-
33	Borrow Pit	75.9	L	-	-	-	I
34	Unnamed Stream	75.7	-	-	-	-	-
35	Borrow Pit	78.2	-	-	-	-	-

Table 5. Summary of information on location, surface area, maximum depth, mean temperature and classification for water bodies situated along the Liard Highway from the junction with Northwest Territorial Highway No. 1 west to the Blackstone River, 1980.

Location No.	Water Body	Distance (km)	Direction from road	Surface Area (ha)	Max. Depth (m)	Mean Temp. (°C)	Classification
1	Borrow Pit	1.8	L	~	_		I
2	Borrow Pit	3.3	R	-	_	-	I
3	Borrow Pit	3.9	R	-	-	-	I
4	Borrow Pit	6.1	L	0.3	0	-	I
5	Borrow Pit	6.1	L	0.1	0.3	-	I
6	Borrow Pit	7.2	R	-	0.3	-	I
7	Borrow Pit	8.1	R	0.3	1	-	I
8	Borrow Pit	9.4	L	1.0	2	-	I
9	Borrow Pit	12.2	R	0.3	1	-	I
10	Unnamed Stream	12.8	-	-	-	-	-
11	Borrow Pit	12.9	R	0.2	1	-	I
12	Borrow Pit	13.2	R	-	-	-	I
13	Borrow Pit	14.5	R	0.5	2	-	I
14	Borrow Pit	15.4	R	0.2	1	-	I
15	Borrow Pit	16.7	R	0.4	2	-	I
16	Borrow Pit	17.1	R	-	0	-	I
17	Borrow Pit	17.8	L	0.7	2	-	I
18	Borrow Pit	19.3	R	0.1	1	-	Ι
19	Borrow Pit	20.4	L	-	-	-	I
20	Unnamed Stream	21.6	=.	-	-	-	-
21	Borrow Pit	21.8	R	0.2	2	-	I
22	Borrow Pit	22.0	R	-	0	-	I
23	Borrow Pit	22.8	R	-	-	-	I
24	Borrow Pit	25.7	R		-	-	I
25	Borrow Pit	27.2	R	0.7	2	-	ΙΙ
26	Borrow Pit	28.4	L	0.1	2	-	I
27	Borrow Pit	32.1	R	0.2	2	-	I
28	Poplar River	34.4	-	-	2	11.2	-
29	Borrow Pit	36.2	L	-	-	-	I
30	Borrow Pit	37.3	R	-	-	-	II
31	Borrow Pit	38.0	R	-	-	-	I
32	Borrow Pit	40.0	-	-	-	-	
33	Borrow Pit	41.4	R	-	-	-	III
34	Unnamed Stream	42.4	-	-	-	-	-
35	Borrow Pit	45.0	R	-	-	-	I
36	Borrow Pit	50.3	R	-		-	ΙΙ
37	Birch River	52.0	-	-	1	-	-
38	Borrow Pit	53.2	L	-	-	-	Ī
39	Borrow Pit	53.9	Ĺ	-	-	-	I
40	Borrow Pit	61.2	R	-	-	-	I
41	Borrow Pit	63.8	R	-	-	-	I 1
42	Borrow Pit	65.9	L	-	-	-	ΙΪ
43	Borrow Pit	73.1	К	-	2	-	1
44	Borrow Pit	74.4	R	-	- 2	-	l T
45	Borrow Pit	83.2	L	-	0.3	-	Ĭ
46	Borrow Pit Borrow Pit	83.9	L	_ ^ 2	-	-	I
47 48	Borrow Pit	91.2 94.0	R	0.3	-	-	II
48	Borrow Pit	94.0 96.6	L D	4.0	-	-	II
50	Blackstone R.		R	4.0	1	-	II
30	DIACKSLUTE K.	101.0	-	-	-	-	-

_

Table 6. Summary of information on location, surface area, maximum depth, mean temperature and classification for water bodies situated along Northwest Territorial Highway No. 1 from Enterprise to the Fort Providence Junction, 1980.

Location No.	Water Body	Distance (km)	Direction from road	Surface Area (ha)	Max. Depth (m)	Mean Temp. (°C)	Classification
1	Borrow Pit	13.7	 R	-	_	_	I
2	Borrow Pit	21.2	R	_	_	_	I
3	Pond	24.2	L	_	_	_	I
4	Borrow Pit	30.1	R	_	-	_	I
5	McGillvray Crk.	35.0	-	-	-	-	-
6	Pond	43.3	L	0.8	-	_	I
7	Pond	49.4	R	0.8	-	-	I
8	Unnamed Stream	50.2	-	-	-	_	-
9	Borrow Pit	65.0	L	0.4	_	-	I
10	Borrow Pit	66.8	R	0.8	_	-	I
11	Pond	76.4	L	0.8	_	-	I
12	Borrow Pit	82.8	L	0.4	_	_	I
13	Unnamed Stream	83.4	R	_	_	-	-
14	Kakisa River	85.0	-	-	-	_	-
15	Po n d	88.2	R	0.8	0	-	I
16	Pond	91.2	L	0.4	0	-	I
17	Pond	93.4	L	2.0	0	-	I
18	Pond	101.3	R	0.4	0	-	I
19	Pond	101.8	L	1.0	0	_	I

Table 7. Summary of information on location, surface area, maximum depth, mean temperature and classification for water bodies situated along Northwest Territorial Highway No. 1 from the Hay River Junction south to the NWT-Alberta boundary, 1980.

Location No.	Water Body	Distance (km)	Direction from road	Surface Area (ha)	Max. Depth (m)	Mean Temp. (°C)	Classification
1	Borrow Pit	0.6	l	<0.1	0		I
2	Borrow Pit	2.8	L	0.1	0	-	I
3	Borrow Pit	4.3	R	0.1	0	~	I
4	Borrow Pit	6.3	L	0.1	0	-	I
5	Borrow Pit	6.5	Ļ	0.1	0	-	Ī
6	Borrow Pit	8.0	L	0.2	-	-	1
7	Borrow Pit	8.7	Ļ	0.3	-	-	1
8	Borrow Pit	9.1	L I	0.3	0	-	1
9 10	Borrow Pit	9.6	L	0.5 0.3	0 0	-	1 T
11	Borrow Pit Borrow Pit	10.1 10.6	R	0.7	0	-	I T
12	Borrow Pit	11.3	I.	0.2	0	_	Ţ
13	Borrow Pit	11.7	R	<0.1	-	_	Ţ
14	Borrow Pit	11.8	I I	<0.1	0	_	Ţ
15	Borrow Pit	13.2	i	0.1	ő	_	Ť
16	Borrow Pit	15.1	Ī	0.1	Ö	-	Ť
17	Borrow Pit	15.9	Ĺ	0.1	ŏ	_	Ť
18	Borrow Pit	16.1	R	0.1	Ŏ	_	Î
19	Borrow Pit	16.9	Ë	<0.1	0	_	Ī
20	Borrow Pit	17.5	Ĺ	<0.1	-	_	Ī
21	Borrow Pit	18.2	L	0.1	-	_	Ī
22	Borrow Pit	18.7	R	0.1	0	-	I
23	Borrow Pit	18.7	R	0.2	0	-	II
24	Borrow Pit	18.9	R	0.2	3	-	ΙΙ
25	Borrow Pit	19.1	L	<0.1	-	-	I
26	Borrow Pit	19.6	L	0.1	-	-	I
27	Borrow Pit	21.8	L	-	0	-	I
28	Borrow Pit	22.5	L	0.1	0	-	I
29	Borrow Pit	23.2	Ļ	0.1	0	-	Ī
30	Borrow Pit	24.3	R	0.1	-	-	I
31	Borrow Pit	25.5	R	0.1	-	-	I
32	Borrow Pit	25.7	Ļ	0.1	-	-	1
33	Borrow Pit	26.1	Ļ	0.1	0	-	I .
34	Borrow Pit	27.7	L	0.1	0	-	1
35 36	Borrow Pit	28.7	L	0.1	-	-	1
	Borrow Pit	28.7	K I	0.1	-	-	1
37 38	Borrow Pit Borrow Pit	28.7 28.9	R	<0.1 <0.1	-	-	1 7
39	Borrow Pit	29.8	T.	<0.1	0	-	T
40	Borrow Pit	30.9	R	0.2	-	_	Ť
41	Borrow Pit	30.9) I	0.2	-	_	Ť
42	Borrow Pit	31.5	Ī	0.2	-	-	Ţ
43	Borrow Pit	33.5	Ĺ	-	0	_	Ĭ
44	Borrow Pit	39.3	Ĺ	0.2	ő	_	Î
45	Escarpment Crk.		_	-	-	_	
46	Borrow Pit	43.9	L	0.2	0	-	I
47	Borrow Pit	44.5	L	0.2	0	_	Ī
48	Borrow Pit	45.0	L	0.1	0	-	I
49	Borrow Pit	48.3	R	0.1	0	-	I
50	Mink Creek	50.8	-		-	-	-
51	Borrow Pit	53.3	R	<0.1	0	-	I
52	Borrow Pit	54.3	Ļ	<0.1	0	-	Ī
53	Borrow Pit	54.8	Ļ	<0.1	0	-	I
54	Borrow Pit	55.9	R	0.1	-	-	Ĭ
55	Borrow Pit	56.4	Ļ	0.1	-	-	Ĭ
56 57	Borrow Pit Borrow Pit	56.7 59.5	R R	<0.1 <0.1	0 0	-	I

Table 7 Continued.

Location No.	Water Body	Distance (km)	Direction from road	Surface Area (ha)	Max. Depth (m)	Mean Temp. (°C)	Classification	
58	58 Borrow Pit		L	0.1	0		I	
59	Borrow Pit	60.2 65.7	R	<0.1	_	_	Ī	
60	Borrow Pit	67.8	R	0.1	_	-	Ī	
61	Borrow Pit	68.5	R	-	0	_	Ĭ	
62	Borrow Pit	69.4	Ĺ	_	0	_	Ī	
63	Borrow Pit	70.6	R	_	0	_	Ĭ	
64	Borrow Pit	72.3	R	0.1	0	_	Ĭ	
65	Borrow Pit	72.8	R	0.1	0	_	Ī	
66	Borrow Pit	73.8	R	<0.1	0	_	Ī	
67	Swede Creek	75.0	-	-	_	_		
68	Borrow Pit	78.9	R	0.1	0	_	1	
69	Borrow Pit	80.0	R	0.1	0	_	Ť	
70	Borrow Pit	80.6	R	0.2	Ô	_	i	
71	Borrow Pit	82.6	R	0.2	Ô	_	i	
72	Borrow Pit	99.5	Ë	0.2	Ŏ	_	i	
73	Borrow Pit	100.9	Ĺ	<0.1	_	_	ĺ	
74	Borrow Pit	103.7	Ř	1.5	0	_	Ĩ	
75	Borrow Pit	109.7	R	0.2	0	-	Ī	
76	Borrow Pit	110.9	R	0.1	0	_	I	
77	Borrow Pit	111.5	R	1.0	0	_	I	
78	Borrow Pit	111.9	R	0.1	Ö	-	I	
79	Reindeer Crk.	113.6	_	-	-	-	-	

Table 8. Summary of information on location, surface area, maximum depth, mean temperature and classification for water bodies situated along Northwest Territorial Highway No. 5 from the Hay River Junction east to Fort Smith, 1980.

ocation No.	Water Body	Distance (km)	Direction from road	Surface Area (ha)	Max. Depth (m)	Mean Temp. (°C)	Classification	
1	Hay River	2.0	-		3	14		
2	Sandy Creek	8.7	-	-	2	15	-	
3	Borrow Pit	8.9	R	0.1	0	-	I	
4	Borrow Pit	9.0	L	0.1	0	-	I	
5	Borrow Pit	10.2	L	0.1	0	-	I	
6	Borrow Pit	10.3	L	<0.1	0	_	I	
7	Borrow Pit	10.3	R	<0.1	0	-	I	
8	Borrow Pit	10.3	R	<0.1	0	-	I	
9	Borrow Pit	12.5	R	0.1	0	-	I	
10	Borrow Pit	12.6	L	0.1	0	-	I	
11	Borrow Pit	13.5	R	0.1	0	-	I	
12	Borrow Pit	13.8	L	0.2	0	-	I	
13	Borrow Pit	13.9	R	0.1	0	-	I	
14	Borrow Pit	13.9	R	0.1	0	-	I	
15	Borrow Pit	14.1	L	0.1	0	-	I	
16	Borrow Pit	14.4	L	0.1	0	-	I	
1.7	Borrow Pit	14.8	R	0.2	0	-	I	
18	Borrow Pit	16.0	R	0.2	0	-	I	
19	Borrow Pit	16.5	R	0.1	0	-	I	
20	Borrow Pit	16.5	R	0.1	0	-	I	
21	Borrow Pit	16.9	L	0.2	0	-	I	
22	Borrow Pit	17.4	R	<0.1	0	-	I	
23	Borrow Pit	17.9	L	0.1	0	-	I	
24	Borrow Pit	18.4	R	0.1	0	-	I	
25	Borrow Pit	18.9	R	0.2	0	-	I	
26	Borrow Pit	20.1	R	0.1	0	-	I	
27	Borrow Pit	20.1	R	0.1	0	-	I	
28	Borrow Pit	20.5	L	0.1	0	-	I	
29	Borrow Pit	20.9	R	<0.1	0	-	I	
30	Borrow Pit	21.4	R	<0.1	0	_	I	
31	Borrow Pit	21.6	R	0.4	n	-	I	
32	Borrow Pit	21.9	R	0.1	0	-	I	
33	Borrow Pit	22.8	L	0.1	0	-	I	
34	Borrow Pit	23.0	R	0.2	0	-	I	
35	Borrow Pit	24.6	R	<0.1	0	-	I	
36	Borrow Pit	27.6	R	0.1	0	_	I	
37	Birch Creek	28.0	-	_	-	-	_	
38	Borrow Pit	28.1	R	<0.1	0	-	I	
39	Borrow Pit	29.3	L	0.1	0	-	I	
40	Borrow Pit	29.7	R	0.1	0	-	I	
41	Borrow Pit	30.0	L	<0.1	0	-	Ĭ	
42	Borrow Pit	30.5	L	0.1	0	-	Ī	
43	Borrow Pit	31.9	R	0.1	0	-	I	
44	Borrow Pit	32.8	L	0.2	0	-	I	
45	Borrow Pit	33.4	R	0.2	0	-	I	
46	Borrow Pit	34.3	L	0.2	0	-	I	
47	Borrow Pit	35.0	R	0.1	0	-	I	
48	Borrow Pit	36.4	L	<0.1	0	-	I	
49	Borrow Pit	36.7	L	<0.1	0	-	I	
50	Borrow Pit	36.8	L	<0.1	0	-	I	
51	Borrow Pit	37.2	R	-	-	-	I	
52	Borrow Pit	37.6	L	0.1	0	-	I	
53	Borrow Pit	38.1	L	0.2	0	-	I	
54	Twin Creek	39.1	-	-	_	_	-	
55	Borrow Pit	39.9	L	0.1	0	_	I	
56	Borrow Pit	40.3	R	<0.1	0	-	Ĭ	
57	Borrow Pit	40.6	L	0.1	0		Ī	

Table 8 Continued.

Location No.	Water Body	Distance (km)	Direction from road	Surface Area (ha)	Max. Depth (m)	Mean Temp. (°C)	Classification	
58	Borrow Pit	41.5	L	0.1	0	_	ĭ	
59	Borrow Pit	41.9	R	0.1	0	-	I	
60	Borrow Pit	44.2	L	0.1	0	-	I	
61	Borrow Pit	44.5	L	<0.1	0	-	Ţ	
62	Borrow Pit	47.5	R	0.2	0	-	I	
63	Borrow Pit	49.9	L	<0.1	0	-	I	
64	Borrow Pit	51.7	R	<0.1	0	-	Ţ	
65	Borrow Pit	51.7	R	<0.1	0	-	1	
66	Borrow Pit	53.1	R	0.1	0	-	l T	
67	Borrow Pit	54.1	R	4.5	0	-	1	
68 69	Borrow Pit Borrow Pit	54.6	L R	<0.1 <0.1	0 0	-	1	
70	Borrow Pit	54.7 55.2	R R	<0.1	0	-	1	
71	Buffalo River	56.3	ĸ	(0.1	1	19	1	
72	Borrow Pit	58.5	R	0.1	0	-	- 1	
73	Borrow Pit	60.0	ì	<0.1	0	_	Ť	
74	Borrow Pit	68.5	Ŕ	0.1	ő	_	Ť	
75	Borrow Pit	69.9	R	<0.1	Ŏ	-	Î	
76	Borrow Pit	70.7	R	0.2	Ŏ	_	Ī	
77	Borrow Pit	71.8	R	0.4	0	_	Ī	
78	Borrow Pit	72.9	R	0.1	0	-	I	
79	Borrow Pit	74.4	R	0.1	0	-	I	
80	Borrow Pit	77.5	L	<0.1	0	-	I	
81	Borrow Pit	78.4	L	0.2	0	-	I	
82	Borrow Pit	87.3	L	<0.1	0	-	I	
83	Borrow Pit	88.0	L	<0.1	0	-	I	
84	Borrow Pit	93.7	R	<0.1	0	-	I	
85	Borrow Pit	96.9	R	<0.1	0	-	I	
86	Borrow Pit	100.4	L	0.2	0	-	1	
87	Borrow Pit	103.0	L	0.1	0	-	Ţ	
88	Borrow Pit	105.2	R	-	0	-	1	
89	Nyarling River	122.1	-	- 1	-	-	- 1	
90	Borrow Pit	129.0	R R	0.1	0	-	I Y	
91 92	Borrow Pit Borrow Pit	129.8 132.8	R R	0.1 0.1	0	-	1	
93	Borrow Pit	133.2	R	0.2	0	_	I T	
94	Borrow Pit	141.4	R	0.1	-	_	Ţ	
95	Borrow Pit	142.7	R	0.2	0	_	Ť	
96	Borrow Pit	143.8	Ŕ	0.3	ő	_	İ	
97	Borrow Pit	147.1	Ĺ	<0.1	0	_	Ī	
98	Borrow Pit	148.9	L	<0.1	0	-	I	
99	Borrow Pit	151.0	L	<0.1	0	-	I	
100	Borrow Pit	151.7	L	<0.1	0	-	1	
101	Unnamed Pond	151.9	R	0.2	0	-	I	
102	Unnamed Pond	154.9	Ĺ	0.2	0	-	I	
103	Unnamed Pond	156.5	R	0.1	0	-]	
104	Unnamed Pond	167.8	R	<0.1	0	-	Ī	
105	Unnamed Pond	180.5	R	0.1	0	-	I	
106	Sass River	181.6	-	-	-	-	-	
107	Preble Creek	190.2	-	0_4	-	-	- 1	
108	Borrow Pit	199.4	R	0.4	0 0	-	I I	
109	Borrow Pit Little	211.5	R	<0.1	U	-	1	
110		21/ 7			2	14		
111	Buffalo River Salt River	214.7 241.7	-	-	۷	14	-	

Table 9. Summary of information on location, surface area, maximum depth, mean temperature and classification for water bodies situated along Northwest Territorial Highway No. 6 from Pine Point Junction east to Fort Resolution, 1980.

Location No.	Water Body	Distance (km)	Direction from road	Surface Area (ha)	Max. Depth (m)	Mean Temp. (°C)	Classification
1	Borrow Pit	8.9	L	0.6	0	-	I
2	Borrow Pit	11.7	R	0.1	0	-	Ĭ
3	Borrow Pit	11.7	R	<0.1	0	-	I
4	Unnamed Stream	12.3	-	_	-	_	-
5	Borrow Pit	26.9	R	0.3	0	-	I
6	Borrow Pit	28.7	R	0.2	0	-	I
7	Borrow Pit	30.7	R	0.5	4	-	I
8	Borrow Pit	32.9	L	0.3	3	-	I
9	Unnamed Stream	56.7	_	_	_	-	_
10	Borrow Pit	57.5	L	0.1	-	-	I
11	Pond	57.7	Ĺ	<0.1	0	-	I
12	Borrow Pit	66.4	R	0.1	-	-	I
13 14	Borrow Pit Little	66.4	L	<0.1	-	-	I
	Buffalo River	68.9	-	-	-	-	-

Table 10. Summary of information on location, surface area, maximum depth, mean temperature and classification for water bodies situated along the Dempster Highway from Inuvik to the NWT-Yukon boundary, 1979.

ocation No.	Water Body	Distance (km)	Direction from road	Surface Area (ha)	Max. Depth (m)	Mean Temp. (°C)	Classification
1	Campbell Creek	6.4			_		_
2	Cabin Creek	10.2	-	_	-	-	-
3	Caribou Creek	33.5	_	-	-	-	-
4	Rengleng River	76.8	-	-	-	-	_
5	Arctic Red R.	110.0	_	-	-	_	_
6	Frog Creek	131.2	-	-	-	-	-
7	Nigger Lake	144.0	-	-	-	_	_
8	Unnamed Lake	166.0	-	-	-	_	-
9	Peel River	181.0	-	-	-	-	_
10	Midway Lake	214.0	-	_	-	-	_
11	Unnamed Stream	237.0	-	-	-	-	-
12	Unnamed Stream	254.0	-	-	-	-	_

Table 11. Number, mean length and weight of fish, by species, caught by experimental gillnets from waterbodies situated in the Yellowknife area, 1979-80.

	Lake Whitefish			Lake Cisco			Northern Pike		
Lake	No.	Mean Length (mm)	Mean Weight (g)	No.	Mean Length (mm)	Mean Weight (g)	No.	Mean Length (mm)	Mean Weight (g)
YK Area				_					
Fault	_			_			_		
Fiddler	24	316	567	-			10	584	1590
Frame	-			-			-		
Stock	6	535	2517	-			18	613	1603
Cestaurum Road									
Daigle	_			16	156	50	_		
Finger	_			-			-		
Rater	~			-			-		
Trapper	-			-			-		

ω

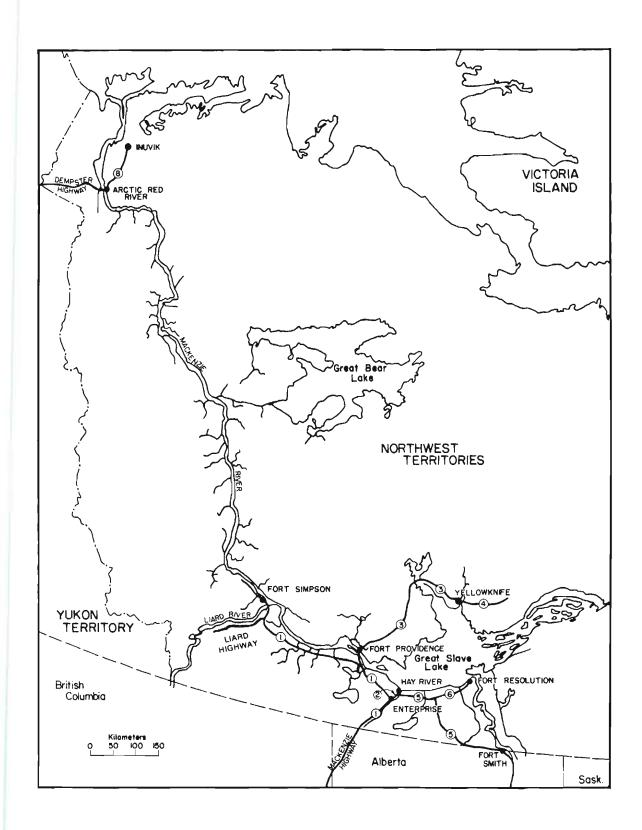


Fig. 1. Map of the Northwest Territorial Highway System illustrating the individual survey sections, 1979-80.

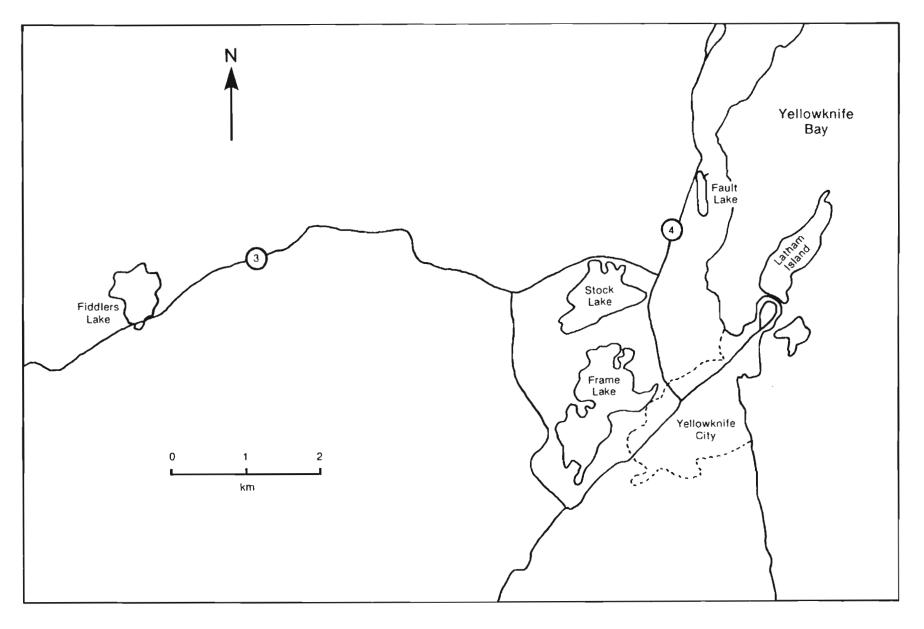


Fig. 2. Map of Survey Section 1 showing the location of water bodies surveyed within an 8 km radius of Yellowknife City, 1979-80.

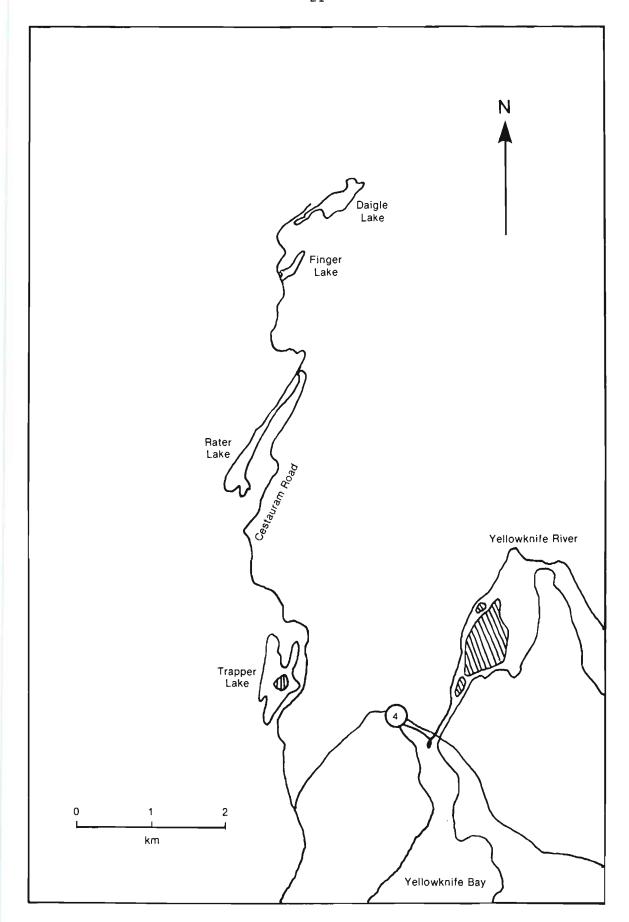


Fig. 3. Map of Survey Section 1 showing the location of water bodies surveyed along the Cestaurum Road, 1979-80.

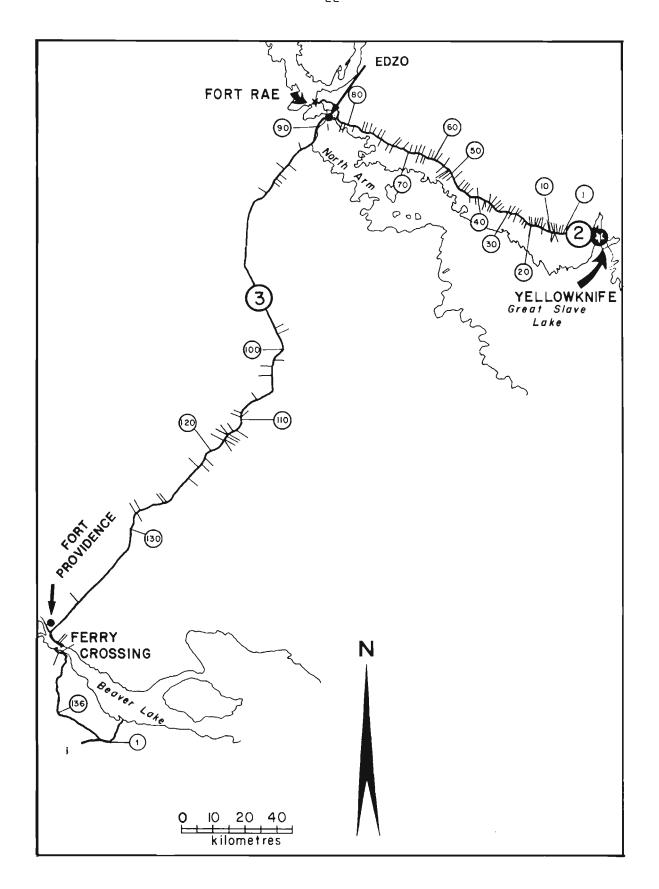


Fig. 4. Map of Survey Section 2 showing the locations of water bodies situated along Northwest Territorial Highway No. 3 from Yellowknife to Fort Providence Junction, 1980.

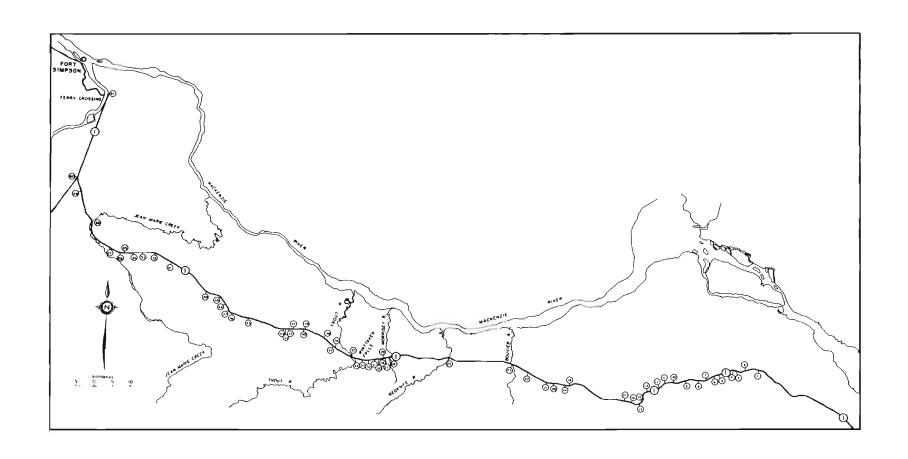


Fig. 5. Map of Survey Section 3 showing the locations of water bodies situated along Northwest Territorial Highway No. 1 from Fort Providence Junction to Fort Simpson, 1980.

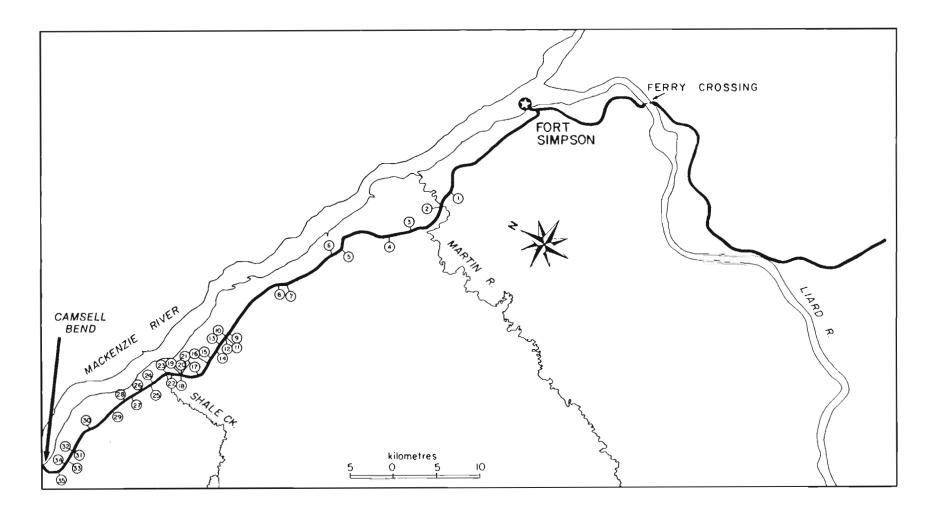


Fig. 6. Map of Survey Section 4 showing the locations of water bodies situated along Northwest Territorial Highway No. 1 from Fort Simpson to Camsell Bend, 1980.

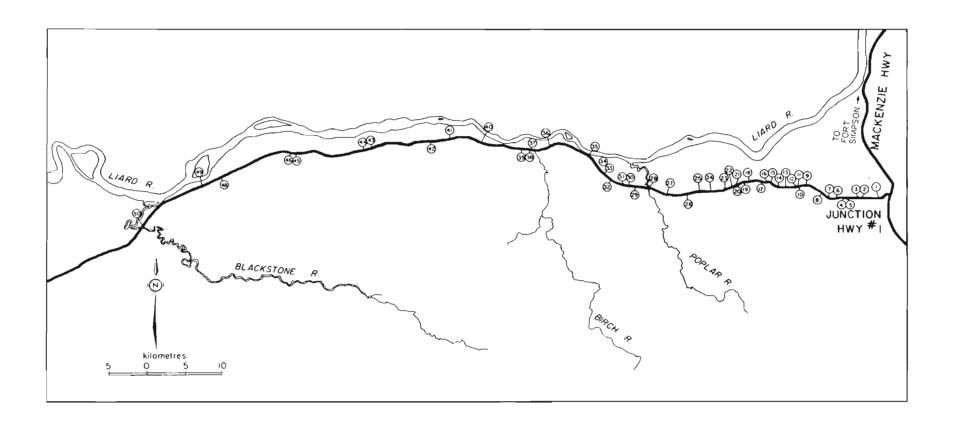


Fig. 7. Map of Survey Section 5 showing the locations of water bodies situated along the Liard Highway to the Blackstone River, 1980.

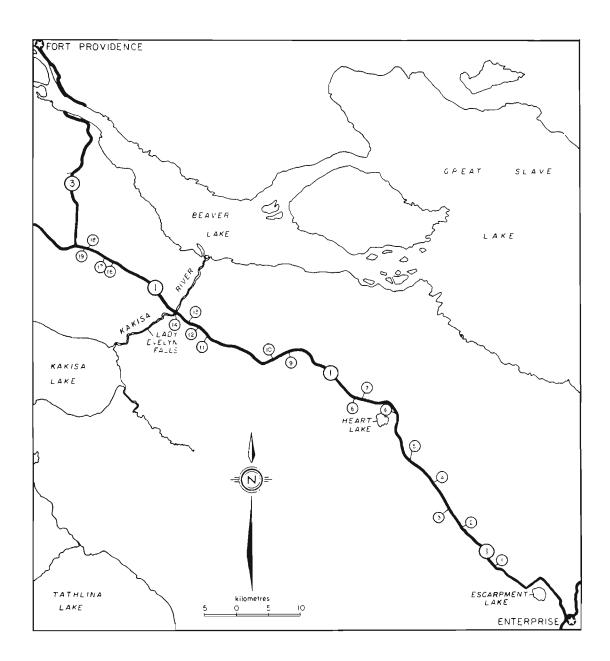


Fig. 8. Map of Survey Section 6 showing the locations of water bodies situated along Northwest Territorial Highway No. 1 from Enterprise to the Fort Providence Junction, 1980.

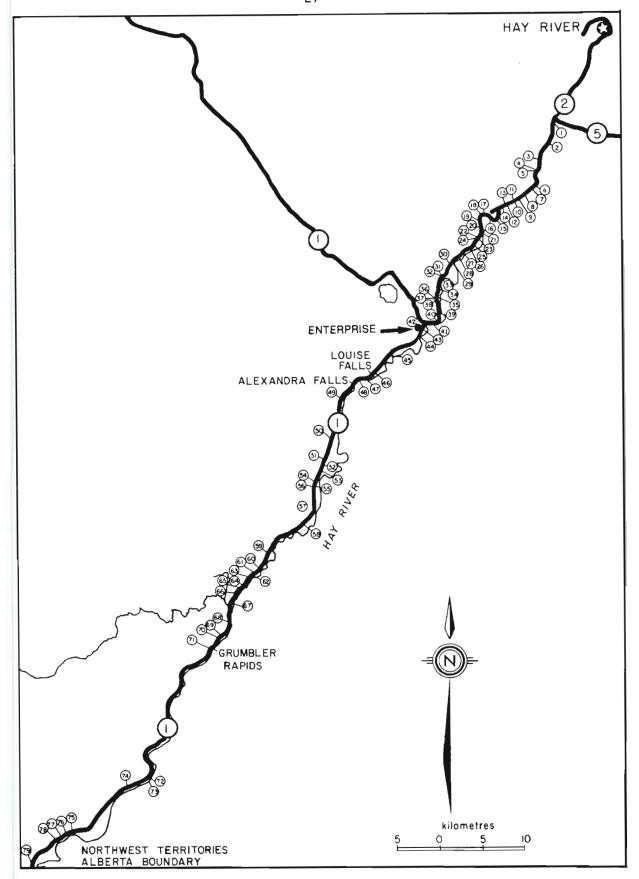


Fig. 9. Map of Survey Section 7 showing the locations of water bodies situated along Northwest Territorial Highway No. 1 from the Hay River Junction to the NWT-Alberta boundary, 1980.

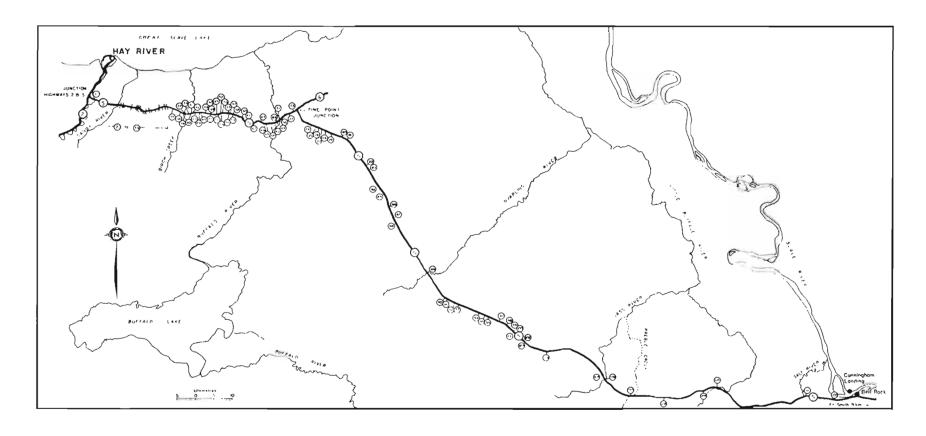


Fig. 10. Map of Survey Section 8 showing the locations of water bodies situated along Northwest Territorial Highway No. 5 from the Hay River Junction to Fort Smith, 1980.

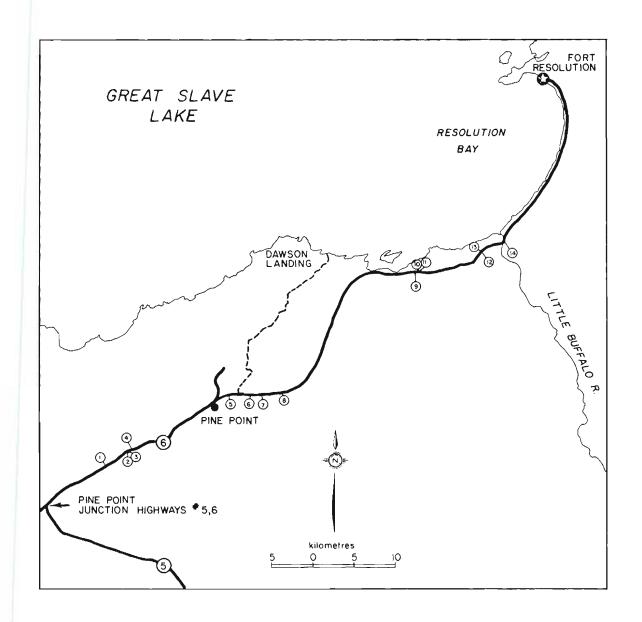


Fig. 11. Map of Survey Section 9 showing the locations of water bodies situated along Northwest Territorial Highway No. 6 from Pine Point Junction to Fort Resolution, 1980.

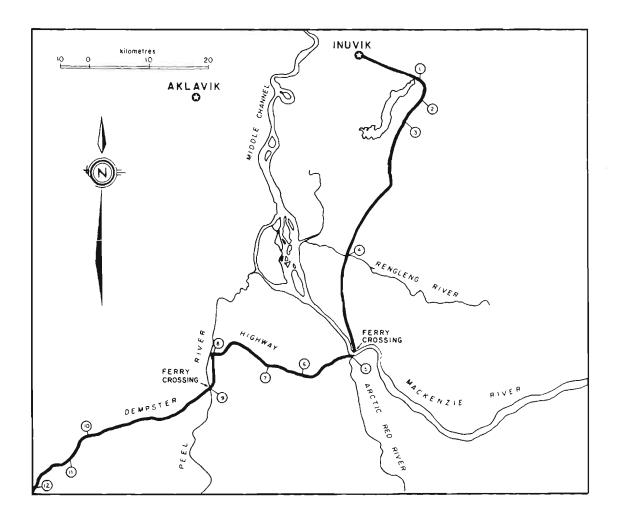


Fig. 12. Map of Survey Section 10 showing the locations of water bodies situated along the Dempster Highway from Inuvik to the NWT-Yukon boundary, 1979.

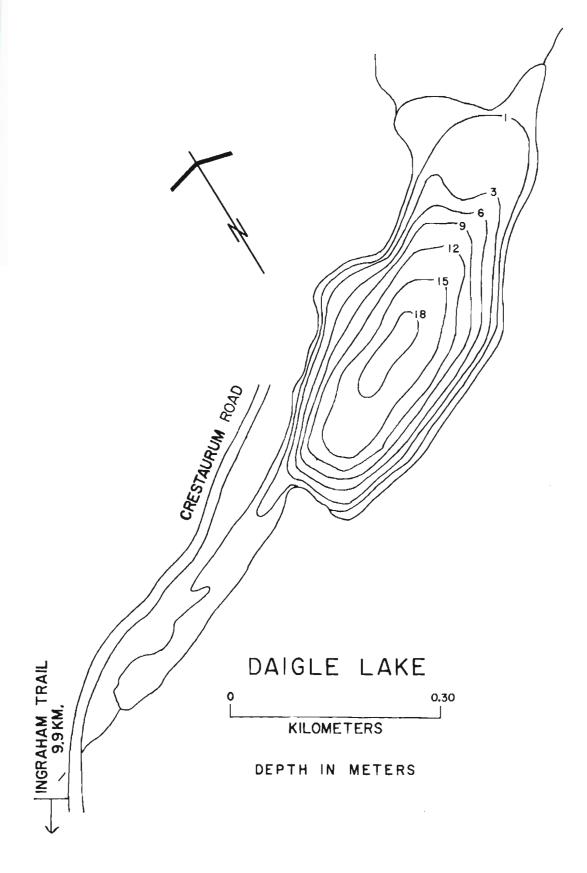


Fig. 13. Bathymetric map of Daigle Lake.

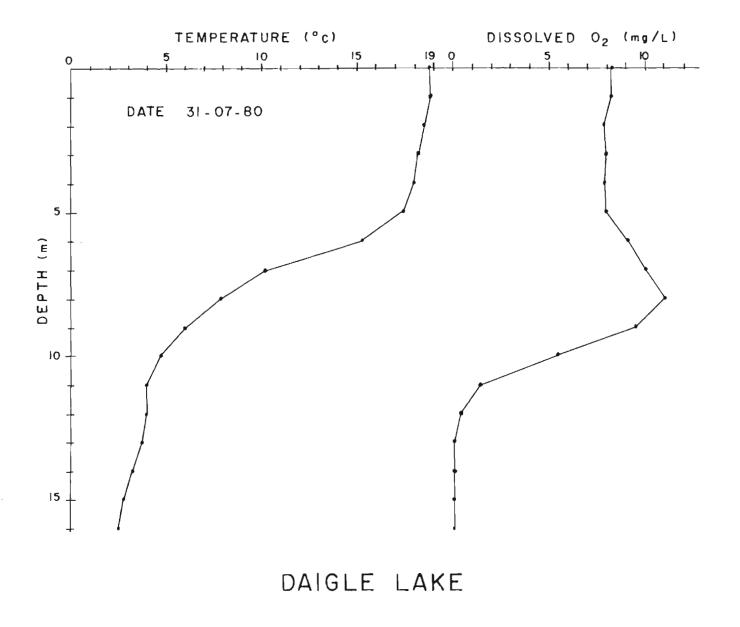
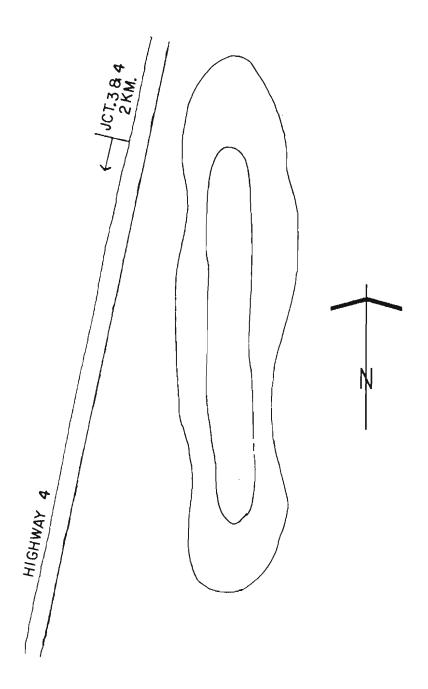


Fig. 14. Vertical profiles of temperature and dissolved oxygen for Daigle Lake, 1980.

•



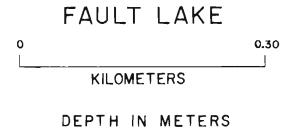


Fig. 15. Bathymetric map of Fault Lake.

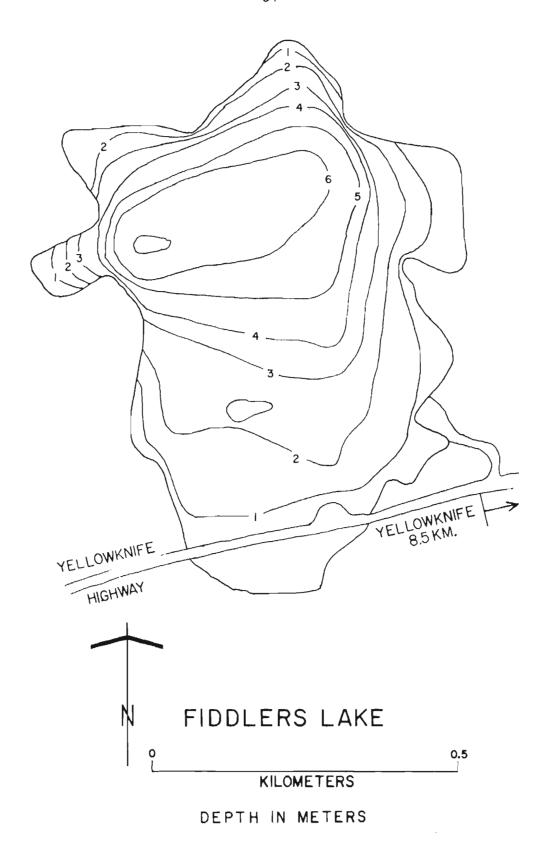


Fig. 16. Bathymetric map of Fiddlers Lake.

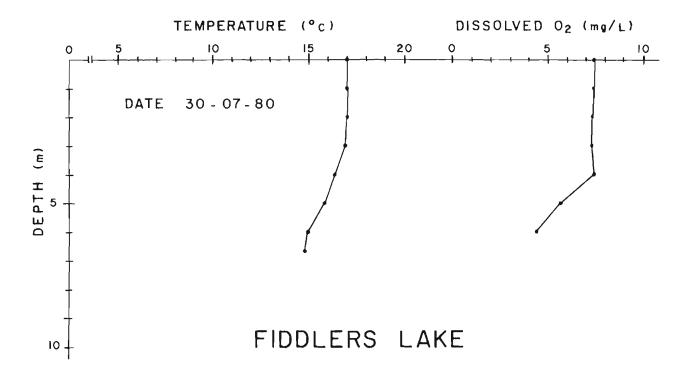
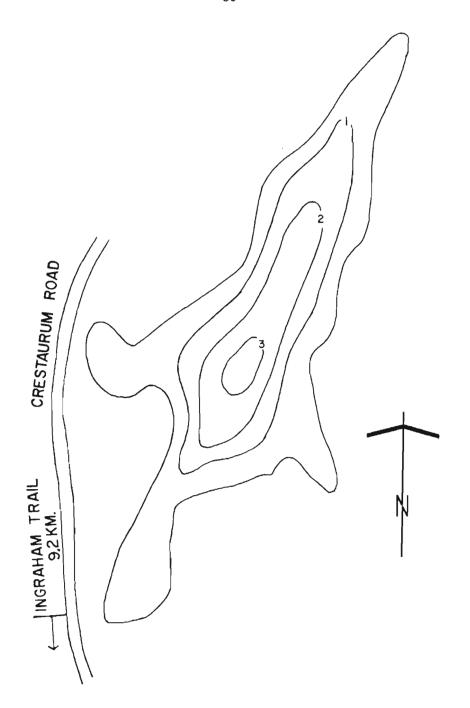


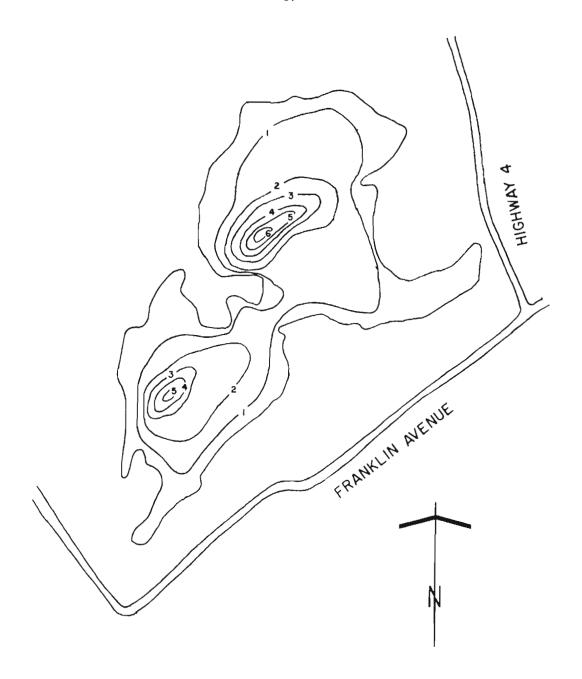
Fig. 17. Vertical profiles of temperature and dissolved oxygen for Fiddlers Lake, 1980.





DEPTH IN METERS

Fig. 18. Bathymetric map of Finger Lake.



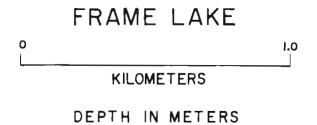
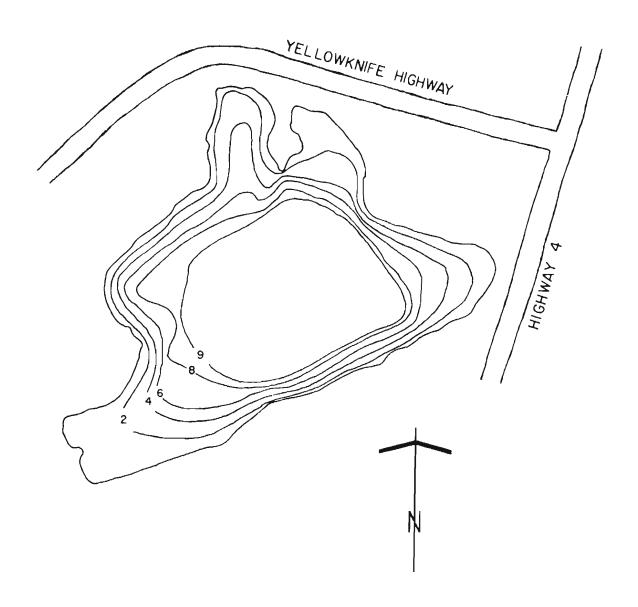


Fig. 19. Bathymetric map of Frame Lake.



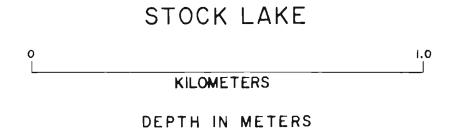
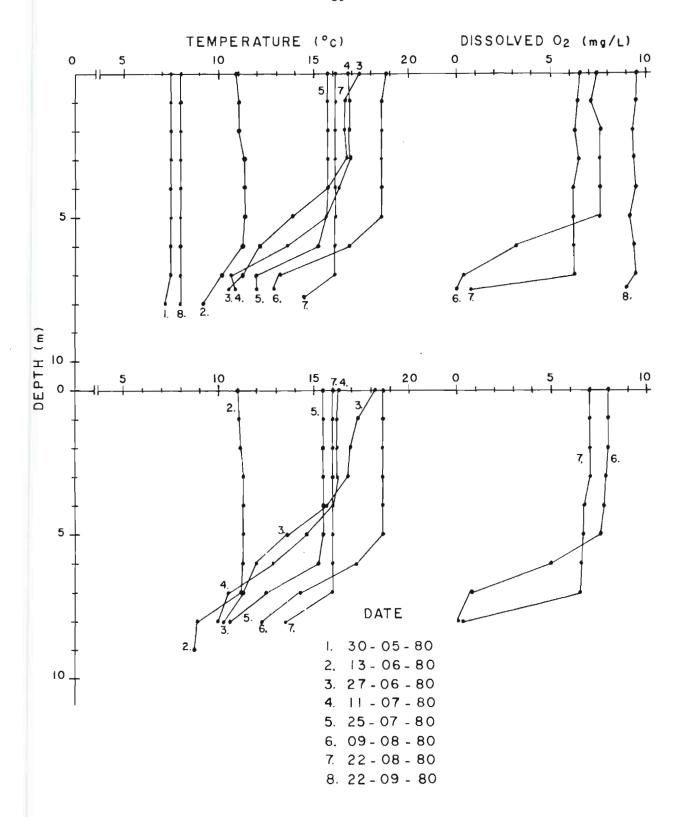
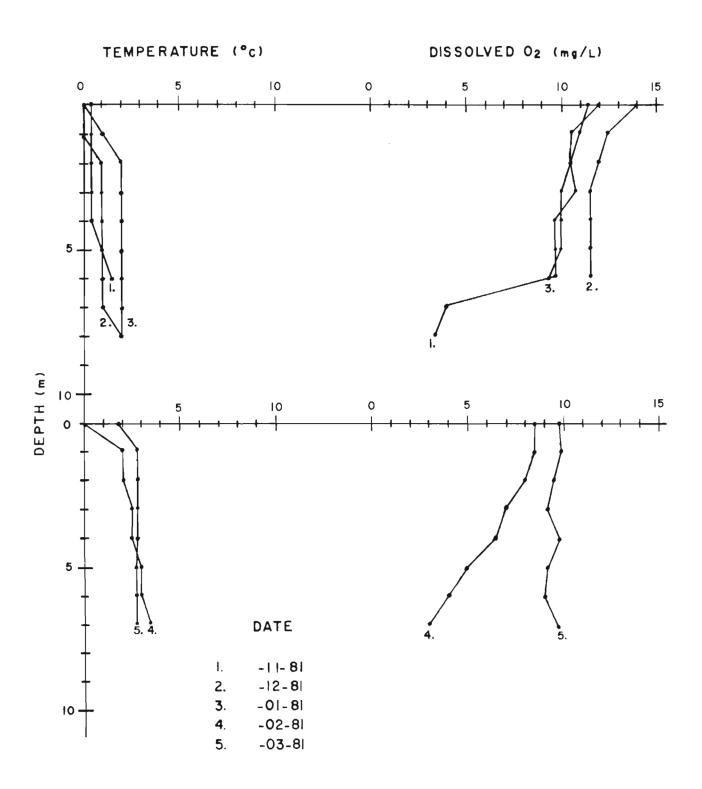


Fig. 20. Bathymetric map of Stock Lake.



STOCK LAKE

Fig. 21. Vertical profiles of temperature and dissolved oxygen for Stock Lake, 1980-81.



STOCK LAKE

Fig. 21. Cont'd.