

# Annual Thaw Depths in Illisarvik, Northwest Territories, Version 1

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## USER GUIDE

### How to Cite These Data

As a condition of using these data, you must include a citation:

Burn, C. 2003. *Annual Thaw Depths in Illisarvik, Northwest Territories, Version 1*. [Indicate subset used]. Boulder, Colorado USA. NSIDC: National Snow and Ice Data Center.

<https://doi.org/10.7265/zvzx-wr28>. [Date Accessed].

FOR QUESTIONS ABOUT THESE DATA, CONTACT [NSIDC@NSIDC.ORG](mailto:NSIDC@NSIDC.ORG)

FOR CURRENT INFORMATION, VISIT <https://nsidc.org/data/GGD642>



National Snow and Ice Data Center

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# 1 DATA DESCRIPTION

Thaw-depth data were collected annually in August from 21 August 1979 to 18 August 1999, from 400-m, 600-m, and tundra transects at Illisarvik lake, Richards Island, Northwest Territories, Canada. Coordinates are 69 deg 30 min N, 134 deg 32 min W. Data are in tab-delimited ASCII text format, and are available via FTP.

## 1.1 File Information

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### 1.1.1 Format

Data are in tab-delimited ASCII text format, listed by date (row) and sampling location (column). Column headers indicate benchmark numbers at 25-m intervals along the bottom of the lake in the following directions:

- NE-SW direction along a 600-m course ("ggd642\_thawdepth\_600m.txt")
- NW-SE direction along a 400-m course ("ggd642\_thawdepth\_400m.txt")
- E-W direction along a 600-m tundra course ("ggd642\_thawdepth\_tundra.txt")

Geographic coordinates of sites are not available. Empty fields indicate missing data.goes here

### 1.1.2 File Size

ggd642\_thawdepth\_400m.txt: 2 KB

ggd642\_thawdepth\_600m.txt: 2 KB

ggd642\_thawdepth\_tundra.txt: 1 KB

### 1.1.3 Naming Convention

ggd642\_thawdepth\_400m.txt: Thaw depths (cm) along 400-m transect

ggd642\_thawdepth\_600m.txt: Thaw depths (cm) along 600-m transect

ggd642\_thawdepth\_tundra.txt: Thaw depths (cm) along tundra transect

## 1.2 Spatial Information

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### 1.2.1 Coverage

Data were collected from Illisarvik, 69° 30' N, 134° 32' W. Illisarvik is a small, drained tundra lake on Richards Island, 130 km north of Inuvik, Northwest Territories, Canada, at the Beaufort Sea coast. Illisarvik is northern Canada's longest-running field experiment. The lake was drained on 13 August 1978, and field studies have been conducted there continuously since. Illisarvik is 600 m long by 300 m wide. Before drainage it was up to 5 m deep, but most of the lake was between 2 m to 3 m deep. Lake-ice thickness on Richards Island is less than 2 m, so most of the lake bottom was unfrozen throughout the year. In the middle of the lake, unfrozen ground extended to 32 m depth. Permafrost started to develop in lake sediments in winter 1978-79, following drainage (Burns 2003).

## 1.3 Temporal Information

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### 1.3.1 Coverage

Data were collected once annually each August from 21 August 1979 to 18 August 1999.

## 2 CONTACTS AND ACKNOWLEDGMENTS

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## 3 REFERENCES

Burn, C. 2003. "About Illisarvik." The Illisarvik Bibliography.

<http://www.nwtresearch.com/illisarvik/about.asp>. Accessed 12 May 2003.

Mackay, J., and C. Burns. 2002. The first 20 years (1978/79 to 1998/99) of ice-wedge growth at the Illisarvik experimental drained lake site, western Arctic coast, Canada. *Canadian Journal of Earth Sciences* 39: 95-111.

Mackay, J.R. 1982. Active layer growth, Illisarvik experimental drained lake site, Richards Island, Northwest Territories. In *Current Research, Part A, Geological Survey of Canada, Paper 82-1A*, pp. 123-126.

## 4 DOCUMENT INFORMATION

### 4.1 Publication Date

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May 2003

### 4.2 Date Last Updated

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20 January 2021