**DATABASE SUMMARY**

Air Temperature (ºC): - Hourly air temperature (Mar. and Apr., 1972 to 2000, and Sep.

to Nov., 1971 to 1999) at the Fort McMurray Airport

* Hourly air temperature at the UA meteorological station (Mar. and Apr. 2001)
* Daily average air temperature (Dec. to Feb., 1944 to 2001, and Jan. 2000 to Aug. 2001) at the Fort McMurray Airport
* Hourly air temperature at the Fort McMurray Airport converted to UA meteorological station values in Fort McMurray (Mar. and Apr., 1972 to 2000)
* Daily maximum and minimum temperature (Mar. and Apr., 1972 to 2001) calculated with the UA readings and the converted Fort McMurray Airport data
* Minimum and maximum daily average (Mar. and Apr., 1972 to 2001) calculated with the UA readings and the converted Fort McMurray Airport data
* Degree-days of thaw up to breakup date and up to Apr. 30, and the degree-days accumulated in the 10 days preceding breakup date for the years of 1972 to 2001 calculated with the UA readings and the converted Fort McMurray Airport data
* Number of days prior to breakup with daily maximum temperature greater then zero calculated with the UA readings and the converted Fort McMurray Airport data

Ice Thickness: - Ice thickness in m measured on the Athabasca River near Fort

McMurray by Water Survey Canada (WSC) during winter surveys for

1972 to 2001

Snow: - Snow water equivalent (SWE) in mm for Dec. to Apr., 1972 to 1999 for the

Upper Athabasca River Basin, 2 stations in the Peace River Basin, and 2

stations in the North Saskatchewan Basin

* SWE in mm for Mar. 1 (1974 to 2001) and Apr. 1 (1974, 1977 to 2001) for the Upper Athabasca River Basin, 2 stations in the Peace River Basin, and 2 stations in the North Saskatchewan Basin
* Average SWE in mm over the Upper Athabasca River Basin for Mar. 1 (1974 to 2001) and Apr. 1 (1974, 1977 to 2001)
* Snow depth (cm) and SWE (mm) for the snow stations in Alberta

Sunshine: - Hours of bright sunshine measured with a sunshine ball at the Fort

McMurray Airport for Nov. 1, 1971 to Mar. 31, 1996

Sunshine (cont.): - Hours of bright sunshine measured with at sunshine ball at the UA meteorological station in Fort McMurray for Apr. 22 to Apr. 27, 2001

* Total global solar radiation in kW·h/m2 and daily average solar radiation flux in W/m2 from Golder Associates Aurora station for 1988, 1989, 1995 to 2001
* Daily average solar radiation flux in W/m2 from the UA meteorological station for Oct. 14, 2000 to Jun. 9, 2001
* Daily average solar radiation flux (W/m2) from the Aurora station converted to UA meteorological station readings (1988, 1989, 1995 to 2001)
* Hours of bright sunshine converted to daily average solar radiation flux (W/m2) at the UA meteorological station for Nov. 1, 1971 to Mar. 31, 1996
* Accumulated daily average solar radiation flux received the date degree-days accumulation was started up to breakup date for the UA meteorological station original and converted data for 1972 to 2001
* Accumulated daily average solar radiation flux received in the 4 days prior to breakup for the UA meteorological station original and converted data for the years of 1972 to 2001

Total Precipitation (Summer): - Soil moisture in mm for 1972 to 2000 calculated with

the summation of the daily total precipitation during

May 1 to Oct. 15 at the Fort McMurray Airport

WSC Gauge Below Fort McMurray: - Water level and elevation during breakup at the

WSC gauge below Fort McMurray (07DA001) for 1973 to 2001

* Water level and elevation during freeze-up at the WSC gauge below Fort McMurray for 1972 to 2000
* Water elevation before breakup, and maximum water elevation during breakup at the WSC gauge below Fort McMurray for 1973 to 2001
* Water elevation before freeze-up, maximum water elevation during freeze-up, and the increase in stage due to freeze-up at the WSC gauge below Fort McMurray for 1973 to 2001