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International Gauging Stations

Joint Review and Approval of Records

Pursuant to Article V of the International Joint Commission Order of October 4, 1921, the International Gauging Stations listed below have been operated and maintained by the Water Resources Branch and the United States Geological Survey on a joint basis.

It is hereby certified that the annexed records have been computed in accordance with standard procedures of each country and jointly reviewed and approved on this 19 day of February, 1992.

St. Mary River at International Boundary	05AE027
Lake Sherburne at Sherburne, Montana	05AE036
Swiftcurrent Creek at Sherburne, Montana	05AE033
St. Mary Canal at St. Mary Crossing	05AE029
Milk River at Western Crossing of International Boundary	11AA025
South Fork Milk River near Babb, Montana	11AA033
Milk River at Eastern Crossing of International Boundary	11AA031
North Fork Milk River near Browning, Montana	11AA032
North Milk River near International Boundary	11AA001
Milk River at Milk River, Alberta	11AA005
Verdigris Coulee near the Mouth	11AA038

Joe O. Marland
Field Representative for the United States

Field Representative for Canada

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION

05020500 ST MARY RIVER AT INTERNATIONAL BOUNDARY 05AE027

DISCHARGE, IN CUBIC METRES PER SECOND, CALENDAR YEAR 1991
MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	e2.12	e4.25	6.23	9.77	20.8	63.4	89.2	23.2	10.3	9.57	e3.40	e4.25
2	e2.27	e4.39	e5.95	6.09	17.2	69.7	91.5	23.3	9.97	10.1	e3.40	e4.25
3	e2.41	e4.39	e6.23	4.64	15.1	78.2	93.4	22.9	9.57	9.15	e3.68	e4.25
4	e2.55	e4.53	e6.51	4.87	14.2	85.2	96.6	22.1	8.95	8.10	e3.68	e4.25
5	e3.11	e4.67	6.99	8.41	12.9	90.9	98.8	21.2	8.64	7.33	e3.68	e4.53
6	e3.96	e4.81	6.71	12.7	12.1	96.3	98.0	21.1	8.95	6.71	e3.40	e4.53
7	e4.67	e4.67	6.68	12.2	11.7	92.9	94.0	21.9	10.4	6.17	e3.68	e4.53
8	e5.38	e4.53	6.57	12.5	13.3	86.7	83.5	21.7	10.3	5.83	e3.68	e4.25
9	e5.95	e4.39	6.23	12.5	17.4	83.8	72.8	21.3	10.8	5.58	e3.96	e4.25
10	e6.51	e4.39	6.20	12.9	19.4	82.7	66.3	20.8	10.1	5.41	4.67	e3.96
11	e6.80	e4.53	6.03	13.5	20.8	88.6	61.7	21.0	9.91	5.10	4.56	e3.40
12	e7.08	e4.81	5.92	15.8	24.6	109	56.4	22.7	9.54	4.81	5.27	e3.96
13	e7.36	e4.96	5.89	16.0	28.6	116	51.5	22.3	9.12	4.64	5.55	e3.96
14	e7.36	e5.10	5.78	16.1	34.8	108	49.0	20.0	9.80	4.59	5.15	e3.68
15	e7.36	e5.38	5.72	15.9	36.5	87.8	48.4	18.0	9.68	4.53	5.04	e3.40
16	e7.36	e5.52	5.86	14.7	41.3	69.1	48.7	16.4	9.23	4.81	5.58	e3.11
17	e7.08	e5.66	6.14	13.3	45.3	56.9	48.1	15.1	9.03	4.67	5.41	e3.11
18	e7.08	e5.66	6.12	11.5	54.9	47.0	48.1	14.1	8.67	4.50	5.35	e2.83
19	e7.08	e5.95	5.04	10.1	118	40.5	46.7	13.4	8.07	4.47	5.30	e2.83
20	e6.80	e6.23	5.27	9.60	146	89.8	43.6	13.4	7.42	4.42	5.52	e2.83
21	e6.51	e6.37	5.66	10.4	153	158	40.2	13.6	7.73	4.50	5.44	e3.11
22	e6.23	e6.51	6.60	11.3	148	152	37.7	13.9	7.96	4.47	5.10	e3.11
23	e5.95	e6.51	6.99	12.6	134	140	35.4	14.3	7.65	4.47	5.07	e3.11
24	e5.66	e6.51	6.20	15.4	120	116	32.0	14.3	7.59	4.53	5.49	e3.11
25	e5.38	e6.37	4.30	18.9	107	105	29.4	14.3	7.42	4.33	5.38	e3.11
26	e5.10	6.51	6.57	20.5	96.0	99.7	27.6	13.9	7.05	4.28	5.13	e3.40
27	e5.10	6.37	11.7	21.6	85.0	95.7	26.1	13.4	7.33	4.13	e4.81	e3.40
28	e4.81	6.12	10.2	22.5	76.2	92.6	24.7	12.7	8.18	4.05	e4.25	e3.40
29	e4.53	---	9.34	23.5	68.5	88.3	23.5	11.9	6.97	e3.82	e3.96	e3.40
30	e4.53	---	9.83	23.4	62.3	86.9	22.4	11.2	8.30	e3.82	e3.96	e3.11
31	e4.25	---	10.4	---	60.3	---	22.8	10.8	---	e3.68	---	e3.11
TOTAL	168.34	150.09	209.86	413.18	1815.2	2776.7	1708.1	540.2	264.63	166.57	138.55	111.53
MEAN	5.43	5.36	6.77	13.8	58.6	92.6	55.1	17.4	8.82	5.37	4.62	3.60
MAX	7.36	6.51	11.7	23.5	153	158	98.8	23.3	10.8	10.1	5.58	4.53
MIN	2.12	4.25	4.30	4.64	11.7	40.5	22.4	10.8	6.97	3.68	3.40	2.83
DAM3	14540	12970	18130	35700	156800	239900	147600	46670	22860	14390	11970	9640

FOR THE SEASON, MARCH TO OCTOBER:
TOTAL DISCHARGE: 731 000 DAM3.
MAX INST DISCH: 168 M3/S AT 0730 HRS ON JUNE 21 (G.H. 2.505 M).
MIN DAILY DISCH: 1.98 M3/S ON DECEMBER 29-31.

e--ESTIMATED.

APPROVED BY FIELD REPRESENTATIVES FOR THE UNITED STATES AND CANADA

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY

05015500 LAKE SHERBURNE AT SHERBURNE, MT 05AE036

Monthend gage heights and contents at 2400 hours

Date	Gage height (metres)	Contents (cubic decametres)	Change in contents (cubic decametres)
Sept. 30, 1990	15.170	23 230	
Oct. 31, 1990	16.145	27 070	+ 3 840
Nov. 30, 1990	20.327	45 730	+18 660
Dec. 31, 1990	21.482	51 480	+ 5 750
		1990 calendar year	+10 610
Jan. 31, 1991	22.189	55 270	+ 3 790
Feb. 28, 1991	22.592	57 500	+ 2 230
Mar. 31, 1991	21.150	49 780	- 7 720
Apr. 30, 1991	14.691	21 420	-28 360
May 31, 1991	21.339	50 740	+29 320
June 30, 1991	26.633	82 390	+31 650
July 31, 1991	26.572	81 970	- 420
Aug. 31, 1991	22.455	56 730	-25 240
Sept. 30, 1991	15.057	22 800	-33 930
		1991 water year	- 430
Oct. 31, 1991	15.850	25 880	+ 3 080
Nov. 30, 1991	16.889	30 140	+ 4 260
Dec. 31, 1991	17.560	33 010	+ 2 870
		1991 calendar year	-18 470

Maximum contents: 84 210 dam3 at 1730 hrs
on July 3 (gage height 26.896 m).

Minimum contents: 17 320 dam3 at 0900 hrs
on May 9 (gage height 13.561 m).

APPROVED BY FIELD REPRESENTATIVES OF THE UNITED STATES AND CANADA

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION

05016000 SWIFTCURRENT CREEK AT SHERBURNE, MT 05AE033

DISCHARGE, IN CUBIC METRES PER SECOND, CALENDAR YEAR 1991
MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	e.006	e1.05	10.5	11.6	12.7	16.3	10.8	16.3	.005	---	---
2	---	e.006	e1.10	12.6	11.0	13.6	19.9	12.3	16.1	.004	---	---
3	---	e.006	1.13	14.6	10.9	13.7	24.4	13.3	16.0	.004	---	---
4	---	e.006	1.13	14.6	10.8	16.8	27.6	13.3	15.9	.004	---	---
5	---	e.006	1.13	14.4	10.6	18.5	27.5	13.2	15.8	.004	---	---
6	---	e.006	1.13	14.4	10.5	18.0	27.1	14.6	17.1	.004	---	---
7	---	e.006	1.10	14.3	10.4	12.3	25.4	15.5	17.7	.004	---	---
8	---	e.006	1.10	14.2	10.4	9.57	17.2	15.4	17.5	.004	---	---
9	---	e.006	1.10	14.7	10.4	9.66	15.8	15.4	17.4	.004	---	---
10	---	e.006	1.10	15.0	10.4	12.7	15.8	15.3	17.3	.088	---	---
11	---	e.006	1.08	16.9	10.4	16.2	14.2	15.3	17.1	.031	---	---
12	---	e.232	1.08	17.7	10.5	19.7	12.5	15.3	17.0	.011	---	---
13	---	e.396	1.08	17.5	10.7	19.8	10.8	13.8	16.8	.004	---	---
14	---	e.708	1.08	17.3	11.3	15.0	10.9	12.9	16.6	.003	---	---
15	---	e.963	1.81	17.2	13.7	5.41	12.5	12.9	16.4	.003	---	---
16	---	e.963	2.38	16.9	13.5	2.75	13.4	12.8	16.2	.003	---	---
17	---	e.963	2.38	16.7	9.32	2.78	13.6	12.8	15.9	.003	---	---
18	---	e.963	2.35	16.5	5.41	1.93	13.7	12.7	15.8	.003	---	---
19	---	e.963	2.32	16.2	15.6	2.55	13.5	14.2	15.6	.003	---	---
20	---	e.963	2.32	16.0	18.3	20.1	13.5	15.1	15.3	.003	---	---
21	---	e.963	4.05	15.8	17.1	37.4	13.4	15.8	15.1	.004	---	---
22	---	e1.02	5.04	15.6	13.8	35.4	13.4	16.1	15.6	.005	---	---
23	---	e1.02	4.98	16.7	7.28	15.5	11.4	16.7	16.3	.004	---	---
24	---	e1.02	5.92	17.7	3.34	7.65	9.46	17.1	16.5	.004	---	---
25	---	e1.02	9.26	18.8	2.52	11.3	8.72	17.0	16.2	.004	---	---
26	---	e1.02	11.0	18.7	2.49	17.4	8.24	16.9	15.9	.004	---	---
27	---	e1.02	11.0	18.4	5.61	18.4	8.24	16.8	12.9	.004	---	---
28	---	e1.02	10.9	18.1	7.11	18.4	8.24	16.7	8.78	.004	---	---
29	---	---	10.8	17.8	4.33	17.4	8.24	16.6	6.74	.004	---	---
30	---	---	10.8	14.4	5.07	15.7	9.88	16.5	2.15	.003	---	---
31	---	---	10.6	---	9.63	---	10.8	16.3	---	e.003	---	---
TOTAL	---	15.283	123.30	480.2	304.01	438.30	455.62	459.4	455.97	0.235	---	---
MEAN	---	.55	3.98	16.0	9.81	14.6	14.7	14.8	15.2	.008	---	---
MAX	---	1.02	11.0	18.8	18.3	37.4	27.6	17.1	17.7	.088	---	---
MIN	---	.006	1.05	10.5	2.49	1.93	8.24	10.8	2.15	.003	---	---
DAM3	---	1320	10650	41490	26270	37870	39370	39690	39400	20	---	---

FOR THE SEASON, MARCH TO OCTOBER:
TOTAL DISCHARGE: 236 000 DAM3.
MAX INST DISCH: 37.9 M3/S AT 1530 HRS ON JUNE 22 (G.H. 2.167 M).
MIN DAILY DISCH: .003 M3/S ON OCTOBER 14-20,30,31.

e--ESTIMATED.

APPROVED BY FIELD REPRESENTATIVES FOR THE UNITED STATES AND CANADA

WATER SURVEY OF CANADA
JAN 09 1992 PAGE 7
CALGARY, ALTA 07:23

ST. MARY CANAL AT ST. MARY CROSSING

STATION NO. 05AE029

STREAM JAN/89

(PRELIMINARY) DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	6.55	18.9	18.4	15.7	18.1	16.9	3.37			1
2			0	10.7	18.8	18.5	15.7	18.2	16.9	0.394			2
3			0	13.2	18.7	18.2	15.7	18.4	16.9	0			3
4			0	14.9	18.6	17.5	15.6	18.3	16.9	0			4
5			0	15.8	18.6	17.7	15.6	18.3	16.9	0			5
6			0	15.1	18.5	16.3	15.5	18.0	16.3	0			6
7			0	15.7	18.5	16.7	15.6	17.6	15.2	0			7
8			0	16.5	17.6	17.9	17.2	17.6	15.2	0			8
9			0	16.9	15.0	17.8	17.7	17.6	15.4	0			9
10			0	17.1	12.9	17.8	17.5	17.6	15.6	0			10
11			0	17.6	12.9	18.0	17.4	17.6	15.6	0			11
12			0	17.6	13.1	18.3	17.3	17.7	15.6	0			12
13			0	17.7	13.0	18.4	18.0	17.6	15.6	0			13
14			0	17.7	13.1	18.3	18.0	17.5	15.5	0			14
15			0	17.9	16.6	18.0	18.0	17.4	15.2	0			15
16			0	18.1	18.0	17.5	18.1	17.3	15.1	0			16
17			0	18.2	18.8	17.2	18.5	17.2	15.1	0			17
18			0	18.7	18.9	16.9	18.5	17.2	15.1	0			18
19			0.013	19.3	15.6	16.8	18.5	17.1	15.0	0			19
20			2.62	19.8	15.8	17.5	18.4	17.1	15.0	0			20
21			1.77	19.7	16.2	14.1	18.3	17.1	15.0	0			21
22			1.60	19.5	16.9	13.2	18.3	17.1	15.0	0			22
23			1.76	19.6	18.1	14.4	18.2	17.2	15.0	0			23
24			2.69	19.7	17.8	14.4	18.1	17.2	14.9	0			24
25			4.71	19.0	17.5	15.2	18.0	17.2	14.9	0			25
26			2.87	19.1	17.3	14.4	17.9	17.1	14.9	0			26
27			2.12	19.0	17.2	14.1	17.9	17.1	14.3	0			27
28		0 A	4.04	19.0	17.3	14.7	17.9	17.1	11.8	0			28
29			5.36	19.0	17.9	16.0	17.9	17.0	10.7	0			29
30			5.36	19.0	18.4	15.9	18.1	17.0	7.29	0 A			30
31			5.46		18.4		18.1	17.0		0 E			31
TOTAL			40.373	517.65	524.9	500.1	541.2	541.5	448.79	3.764			TOTAL
MEAN			1.30	17.3	16.9	16.7	17.5	17.5	15.0	0.121			MEAN
DAM3			3490	44700	45400	43200	46800	46800	38800	325			DAM3
MAX			5.46	19.8	18.9	18.5	18.5	18.4	16.9	3.37			MAX
MIN			0	6.55	12.9	13.2	15.5	17.0	7.29	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 12.7 M3/S
TOTAL DISCHARGE, 270000 DAM3
MAXIMUM DAILY DISCHARGE, 19.8 M3/S ON APR 20
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

A-MANUAL GAUGE

E-ESTIMATED

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY OF CANADA
JAN 07 1992 PAGE 8
CALGARY, ALTA 13:49

MILK RIVER AT WESTERN CROSSING OF INTERNATIONAL BOUNDARY

STATION NO. 11AA025

STREAM JAN/89

(PRELIMINARY) DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0.882 B	6.45 B	7.20	6.21	20.2	0.935	0.429	0.748			1
2			0.884 B	7.25 B	6.03	5.78	12.1	1.02	0.401	0.716			2
3			0.902 B	8.56	5.23	5.37	8.05	1.21	0.366	0.755			3
4			0.925 B	7.07	4.97	5.14	6.79	1.35	0.350	0.750			4
5			0.947 B	7.83	5.40	5.37	5.89	1.16	0.349	0.769			5
6			0.965 B	9.34	5.10	6.50	5.16	1.20	0.355	0.866			6
7			0.974 B	10.2	4.84	9.53	4.59	1.43	0.363	0.890			7
8			0.984 B	8.13	5.65	7.99	4.23	2.39	0.385	0.865			8
9			0.995 B	6.39	6.44	6.53	4.15	2.42	0.431	0.819			9
10			1.00 B	5.37	6.52	5.64	4.03	1.57	0.470	0.783			10
11			1.09 B	5.03	5.98	5.06	3.98	1.42	0.704	0.752			11
12			1.19 B	4.24	7.59	4.86	3.86	1.35	0.800	0.724			12
13			1.24 B	4.12	11.5	5.98	3.53	2.37	0.706	0.704			13
14			1.23 B	5.13	9.06	5.29	3.24	3.82	0.738	0.690			14
15			1.20 B	5.68	8.68	4.58	2.94	2.60	0.707	0.683			15
16			1.26 B	5.44	8.32	4.17	2.68	1.93	0.794	0.661			16
17			1.38 B	4.53	8.00	3.88	2.47	1.59	1.03	0.680			17
18			1.43 B	3.70	8.00	3.62	2.26	1.47	0.927	0.707			18
19			1.42 B	3.31	9.45	3.56	2.08	1.25	0.910	0.822			19
20			1.53 B	3.32	21.2	6.28	1.96	1.27	0.974	1.02			20
21			1.58 B	4.50	20.0	33.8	1.86	1.02	0.944	0.985			21
22			1.47 B	5.81	12.5	75.7	1.75	0.845	0.889	0.965			22
23			1.36 B	6.62	10.9	36.8	1.63	0.733	0.914	0.826 B			23
24			1.27 B	7.64	9.72	20.3	1.57	0.668	1.29	0.805 B			24
25		0.960 B	1.25 B	8.40	9.33	13.9	1.53	0.620	1.13	0.780 B			25
26		0.969 B	1.08 B	8.07	8.60	14.8	1.43	0.585	0.951	0.769 B			26
27		0.953 B	0.979 B	6.95	7.74	11.4	1.32	0.525	0.859	0.759 B			27
28		0.929 B	1.00 B	7.01	7.10	10.5	1.23	0.503	0.814	0.750 B			28
29			2.25 B	7.31	6.83	16.4	1.16	0.479	0.791	0.742 B			29
30			3.60 B	7.71	6.54	15.7	1.07	0.461	0.765	0.734 B			30
31			4.82 B		6.27		0.978	0.443		0.732 B			31
TOTAL			43.087	191.11	260.69	360.64	119.718	40.637	21.536	24.251			TOTAL
MEAN			1.39	6.37	8.41	12.0	3.86	1.31	0.718	0.782			MEAN
DAM3			3720	16500	22500	31200	10300	3510	1860	2100			DAM3
MAX			4.82	10.2	21.2	75.7	20.2	3.82	1.29	1.02			MAX
MIN			0.882	3.31	4.84	3.56	0.978	0.443	0.349	0.661			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 4.33 M3/S
TOTAL DISCHARGE, 91700 DAM3
MAXIMUM DAILY DISCHARGE, 75.7 M3/S ON JUN 22
MINIMUM DAILY DISCHARGE, 0.349 M3/S ON SEP 5

B-ICE CONDITIONS

MAXIMUM INSTANTANEOUS DISCHARGE, 86.2 M3/S AT 0316 MST ON JUN 22

APPROVED BY THE FIELD REPRESENTATIVES FOR CANADA AND THE UNITED STATES

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION

06132200 SOUTH FORK MILK RIVER NEAR BABB, MT 11AA033

DISCHARGE, IN CUBIC METRES PER SECOND, CALENDAR YEAR 1991
MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	---	e.396	e1.84	2.52	3.34	6.68	1.08	.453	.510	---	---
2	---	---	e.340	e2.27	2.21	3.17	4.62	1.33	.425	.453	---	---
3	---	---	e.396	e2.32	2.01	3.14	4.05	1.16	.453	.510	---	---
4	---	---	e.425	e2.83	2.24	3.03	3.57	1.05	.481	.623	---	---
5	---	---	e.396	e4.25	2.21	3.82	3.31	1.02	.453	.651	---	---
6	---	---	e.425	5.07	2.15	6.65	3.06	1.33	.453	.623	---	---
7	---	---	e.425	3.54	2.44	4.98	2.97	3.57	.425	.566	---	---
8	---	---	e.453	2.58	2.75	3.91	2.94	1.64	.481	.566	---	---
9	---	---	e.481	2.18	2.94	3.40	2.83	1.19	.821	.538	---	---
10	---	---	e.566	1.81	2.63	3.11	2.78	1.08	.793	.510	---	---
11	---	---	e.510	1.27	2.75	3.20	2.72	1.25	.680	.481	---	---
12	---	---	e.481	1.53	4.53	4.33	2.52	2.27	.595	.481	---	---
13	---	---	e.510	1.93	3.91	3.40	2.38	2.58	.510	.481	---	---
14	---	---	e.538	2.21	3.99	3.00	2.27	1.61	.651	.481	---	---
15	---	---	e.566	2.01	3.96	2.80	2.18	1.30	.878	.453	---	---
16	---	---	e.566	1.47	3.91	2.63	2.10	1.13	.708	.453	---	---
17	---	---	e.566	1.25	3.91	2.49	1.98	1.05	.736	.566	---	---
18	---	---	e.651	1.10	4.64	2.46	1.84	1.25	.821	.680	---	---
19	---	---	e.850	1.22	15.8	2.63	1.76	.991	.708	.623	---	---
20	---	---	e1.25	1.95	10.3	13.4	1.61	.793	.566	.623	---	---
21	---	---	e1.13	2.66	7.05	22.1	1.50	.708	.623	.623	---	---
22	---	---	e1.08	3.00	6.34	13.2	1.44	.651	.991	.736	---	---
23	---	---	e.991	3.54	5.75	8.44	1.42	.651	.793	.765	---	---
24	---	---	e.906	4.05	5.49	5.97	1.36	.595	.708	.736	---	---
25	---	---	e.850	3.91	4.98	5.61	1.27	.595	.623	.765	---	---
26	---	---	e.708	3.09	4.36	5.07	1.25	.623	.623	e.623	---	---
27	---	---	e.623	2.78	3.99	4.42	1.16	.566	.595	e.566	---	---
28	---	---	e.566	2.72	3.82	8.78	1.16	.538	.538	e.566	---	---
29	---	---	e.566	2.75	3.65	7.93	1.10	.538	.538	e.510	---	---
30	---	---	e.680	2.94	3.54	12.1	1.08	.510	.538	e.510	---	---
31	---	---	e1.42	---	3.65	---	1.05	.453	---	e.510	---	---
TOTAL	---	---	20.311	76.07	134.42	172.51	71.96	35.102	18.661	17.782	---	---
MEAN	---	---	.66	2.54	4.34	5.75	2.32	1.13	.62	.57	---	---
MAX	---	---	1.42	5.07	15.8	22.1	6.68	3.57	.991	.765	---	---
MIN	---	---	.340	1.10	2.01	2.46	1.05	.453	.425	.453	---	---
DAM3	---	---	1750	6570	11610	14900	6220	3030	1610	1540	---	---

FOR THE SEASON, MARCH TO OCTOBER:
TOTAL DISCHARGE: 47 200 DAM3.
MAX INST DISCH: 25.7 M3/S AT 0230 HRS ON JUNE 21 (G.H. 1.820 M).
MIN DAILY DISCH: .340 M3/S ON MARCH 2.

e--ESTIMATED.

APPROVED BY FIELD REPRESENTATIVES OF THE UNITED STATES AND CANADA

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION

06135000 MILK RIVER AT EASTERN CROSSING OF INTERNATIONAL BOUNDARY 11AA031

DISCHARGE, IN CUBIC METRES PER SECOND, CALENDAR YEAR 1991
MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	---	e2.55	8.27	28.6	30.9	36.2	19.3	15.8	15.7	---	---
2	---	---	e1.98	8.83	28.9	31.7	37.1	20.6	16.0	13.9	---	---
3	---	---	e2.27	8.47	29.2	33.1	37.1	20.6	15.8	12.6	---	---
4	---	---	e2.55	15.2	27.0	34.0	34.5	20.1	15.7	11.9	---	---
5	---	---	e2.41	20.8	24.9	34.8	28.1	19.4	15.7	10.1	---	---
6	---	---	e2.27	28.6	23.6	39.1	24.8	19.1	15.8	7.90	---	---
7	---	---	e2.41	24.8	23.4	32.8	22.6	19.6	15.9	6.57	---	---
8	---	---	e2.41	25.4	24.5	28.9	20.7	19.8	16.6	5.41	---	---
9	---	---	e2.55	26.7	24.9	28.6	21.4	21.1	16.7	4.47	---	---
10	---	---	e2.55	25.0	24.9	28.9	21.3	20.4	16.1	4.02	---	---
11	---	---	e2.83	24.4	24.9	27.7	21.2	18.7	14.9	3.74	---	---
12	---	---	e2.69	23.0	35.1	26.7	22.2	20.8	14.9	3.34	---	---
13	---	---	e2.69	22.7	34.8	26.4	23.6	20.6	14.8	3.11	---	---
14	---	---	e2.69	22.8	31.4	25.1	23.6	22.5	14.9	2.86	---	---
15	---	---	e2.69	21.7	32.8	24.2	22.8	20.1	15.8	e2.69	---	---
16	---	---	e2.69	21.6	35.7	23.4	21.9	20.3	16.9	e2.55	---	---
17	---	---	e2.83	22.8	30.6	21.7	22.0	21.6	16.5	e2.41	---	---
18	---	---	e2.83	22.9	30.0	20.8	22.0	20.7	16.4	e2.27	---	---
19	---	---	e2.83	23.2	31.7	20.0	21.5	18.6	15.8	e2.12	---	---
20	---	---	e2.97	21.7	34.3	20.9	20.7	17.9	15.5	e1.98	---	---
21	---	---	3.31	21.2	39.9	31.4	21.1	17.2	15.6	e1.84	---	---
22	---	---	3.43	21.4	41.3	27.3	21.4	16.6	15.8	e1.70	---	---
23	---	---	3.45	23.3	49.0	66.0	21.5	16.4	16.2	e1.56	---	---
24	---	---	3.45	26.4	38.2	81.6	20.8	16.2	16.1	e1.42	---	---
25	---	---	e3.40	28.3	50.1	51.0	21.0	16.3	16.0	e1.27	---	---
26	---	---	e3.11	30.0	33.7	42.5	20.0	16.3	15.5	e1.13	---	---
27	---	---	e2.55	32.8	33.4	33.1	19.5	16.5	15.6	e.991	---	---
28	---	---	e2.12	36.0	32.0	33.7	19.6	16.8	15.8	e.850	---	---
29	---	---	4.22	34.8	30.6	34.0	18.7	16.6	15.6	e.680	---	---
30	---	---	6.85	29.7	29.4	30.3	18.7	16.2	15.7	e.623	---	---
31	---	---	6.88	---	30.0	---	18.6	15.9	---	e.566	---	---
TOTAL	---	---	94.46	702.77	988.8	990.6	726.2	582.8	474.4	132.270	---	---
MEAN	---	---	3.05	23.4	31.9	33.0	23.4	18.8	15.8	4.27	---	---
MAX	---	---	6.88	36.0	50.1	81.6	37.1	22.5	16.9	15.7	---	---
MIN	---	---	1.98	8.27	23.4	20.0	18.6	15.9	14.8	.566	---	---
DAM3	---	---	8160	60720	85430	85590	62740	50350	40990	11430	---	---

FOR THE SEASON, MARCH TO OCTOBER:
TOTAL DISCHARGE: 405 000 DAM3.
MAX INST DISCH: 104 M3/S AT 2245 HRS ON JUNE 23 (G.H. 2.262 M).
MIN DAILY DISCH: .566 M3/S ON OCTOBER 31.

e--ESTIMATED.

APPROVED BY FIELD REPRESENTATIVES FOR THE UNITED STATES AND CANADA

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION

06133500 NORTH FORK MILK RIVER ABOVE ST MARY CANAL, NEAR BROWNING, MT 11AA032

DISCHARGE, IN CUBIC METRES PER SECOND, CALENDAR YEAR 1991
MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	---	---	e.368	.765	.963	.623	.793	.396	.396	.481	---	---
2	---	---	e.311	.878	.793	.651	.651	.481	.396	.453	---	---
3	---	---	e.340	.765	.765	.595	.595	.453	.425	.510	---	---
4	---	---	e.340	.821	.850	.566	.538	.425	.425	.538	---	---
5	---	---	e.340	1.13	.821	.736	.538	.425	.425	.538	---	---
6	---	---	e.368	1.19	.821	.934	.481	.425	.425	.510	---	---
7	---	---	e.368	.850	.991	.680	.481	.425	.425	.481	---	---
8	---	---	e.396	.708	1.10	.595	.481	.425	.453	.481	---	---
9	---	---	e.396	.651	1.02	.595	.453	.425	.651	.481	---	---
10	---	---	e.425	.651	.850	.566	.510	.425	.510	.481	---	---
11	---	---	e.396	.623	.934	.566	.566	.425	.481	.510	---	---
12	---	---	e.368	.623	1.39	.595	.481	.425	.453	.510	---	---
13	---	---	e.368	.736	1.30	.510	.453	.425	.453	.510	---	---
14	---	---	e.368	.765	1.25	.481	.453	.425	.623	.510	---	---
15	---	---	e.396	.821	1.08	.453	.453	.425	.566	.510	---	---
16	---	---	e.425	.708	1.02	.453	.425	.425	.510	.510	---	---
17	---	---	e.453	.595	1.02	.453	.425	.425	.538	.538	---	---
18	---	---	e.510	.566	1.19	.453	.425	.425	.510	.538	---	---
19	---	---	e.566	.595	1.64	.453	.425	.396	.481	.538	---	---
20	---	---	e.708	.736	1.19	1.47	.425	.396	.481	.538	---	---
21	---	---	e.850	.850	.991	3.94	.396	.396	.538	.538	---	---
22	---	---	e.821	.934	.991	1.13	.396	.396	.623	.566	---	---
23	---	---	e.793	1.05	.878	.878	.425	.425	.538	.736	---	---
24	---	---	e.736	1.08	.963	.765	.396	.396	.510	.566	---	---
25	---	---	e.680	.991	.821	1.47	.396	.396	.481	.566	---	---
26	---	---	e.623	.850	.736	1.64	.396	.396	.481	.538	---	---
27	---	---	e.566	.878	.680	.934	.396	.396	.481	e.538	---	---
28	---	---	e.623	1.02	.651	1.27	.396	.396	.481	e.510	---	---
29	---	---	e.651	1.13	.651	1.05	.396	.396	.481	e.510	---	---
30	---	---	e.680	1.02	.651	1.27	.396	.425	.481	e.481	---	---
31	---	---	e.736	---	.623	---	.396	.396	---	e.481	---	---
TOTAL	---	---	15.969	24.980	29.624	26.775	14.437	12.911	14.722	16.196	---	---
MEAN	---	---	.52	.83	.96	.89	.47	.42	.49	.52	---	---
MAX	---	---	.850	1.19	1.64	3.94	.793	.481	.651	.736	---	---
MIN	---	---	.311	.566	.623	.453	.396	.396	.396	.453	---	---
DAM3	---	---	1380	2160	2560	2310	1250	1120	1270	1400	---	---

FOR THE SEASON, MARCH TO OCTOBER:
TOTAL DISCHARGE: 13 400 DAM3.
MAX INST DISCH: 6.88 M3/S AT 0745 HRS ON JUNE 21 (G.H. 1.049 M).
MIN DAILY DISCH: .311 M3/S ON MARCH 2.

e--ESTIMATED.

APPROVED BY FIELD REPRESENTATIVES OF THE UNITED STATES AND CANADA

WATER SURVEY OF CANADA
DEC 30 1991 PAGE 8
CALGARY, ALTA 10:06

NORTH MILK RIVER NEAR INTERNATIONAL BOUNDARY

STATION NO. 11AA001

STREAM JAN/89

(PRELIMINARY) DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0.408 B	9.95 B	19.9	20.0	16.4	19.4	16.8	7.21			1
2			0.359 B	10.4 B	19.5	19.9	16.1	19.4	16.7	4.36			2
3			0.361 B	12.9	19.6	19.8	16.1	19.5	16.7	2.46			3
4			0.376 B	15.0	19.7	18.9	15.9	19.6	16.7	1.64			4
5			0.393 B	16.8	19.5	19.2	15.9	19.6	16.7	1.24			5
6			0.420 B	16.9	19.5	18.9	15.9	19.5	16.8	1.11			6
7			0.445 B	16.0	19.6	17.2	16.0	18.9	15.8	1.06			7
8			0.478 B	16.7	19.7	18.0	16.4	18.4	15.4	0.901			8
9			0.502 B	17.2	18.2	18.4	18.0	18.3	15.5	0.882			9
10			0.508 B	17.5	14.8	18.5	18.5	18.3	15.4	0.742			10
11			0.496 B	18.2	13.8	18.7	18.5	18.3	15.5	0.740			11
12			0.450 B	18.3	15.1	18.8	18.1	18.8	15.5	0.725			12
13			0.371 B	18.4	15.4	18.6	18.3	18.5	15.5	0.730			13
14			0.410 B	18.4	14.2	18.7	18.9	18.2	15.8	0.732			14
15			0.485 B	18.4	14.9	18.3	19.0	18.0	15.4	0.716			15
16			0.575 B	18.4	18.0	18.0	18.9	17.8	15.0	0.708			16
17			0.622 B	18.2	19.7	17.3	19.3	17.6	15.0	0.745			17
18			0.672 B	18.3	21.1	16.8	19.6	17.6	15.0	0.764			18
19			0.715 B	19.0	21.5	16.8	19.7	17.4	14.9	0.768			19
20			0.745 B	20.1	17.2	19.9	19.8	17.2	14.8	0.758			20
21			0.773 B	20.6	17.4	27.1	19.8	17.3	15.1	0.742 B			21
22			0.820 B	20.6	17.6	14.8	19.7	17.2	15.1	0.718 B			22
23			0.851 B	20.4	18.9	14.3	19.7	17.2	14.9	0.689 B			23
24			0.839 B	20.5	20.1	14.9	19.6	17.2	14.8	0.653 B			24
25		0.463 B	2.57 B	20.3	19.5	16.8	19.5	17.1	14.7	0.628 B			25
26		0.468 B	2.82 B	19.6	19.0	16.9	19.3	17.1	14.6	0.602 B			26
27		0.460 B	3.92 B	19.9	18.7	15.0	19.1	17.0	14.7	0.578 B			27
28		0.450 B	5.70 B	20.0	18.7	15.5	19.1	17.0	13.3	0.550 B			28
29			11.0 B	20.7	19.2	16.3	19.0	16.9	11.5	0.512 B			29
30			10.8 B	20.3	19.7	17.2	19.0	16.8	10.1	0.481 B			30
31			9.40 B		20.1		19.3	16.8		0.475 B			31
TOTAL			59.284	537.95	569.8	539.5	568.4	557.9	453.7	35.619			TOTAL
MEAN			1.91	17.9	18.4	18.0	18.3	18.0	15.1	1.15			MEAN
DAM3			5120	46500	49200	46600	49100	48200	39200	3080			DAM3
MAX			11.0	20.7	21.5	27.1	19.8	19.6	16.8	7.21			MAX
MIN			0.359	9.95	13.8	14.3	15.9	16.8	10.1	0.475			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 13.6 M3/S
TOTAL DISCHARGE, 287000 DAM3
MAXIMUM DAILY DISCHARGE, 27.1 M3/S ON JUN 21
MINIMUM DAILY DISCHARGE, 0.359 M3/S ON MAR 2

B-ICE CONDITIONS

MAXIMUM INSTANTANEOUS DISCHARGE, 36.3 M3/S AT 0517 MST ON JUN 21

APPROVED BY THE FIELD REPRESENTATIVES FOR CANADA AND THE UNITED STATES

WATER SURVEY OF CANADA
JAN 13 1992 PAGE 11
CALGARY, ALTA 13:10

MILK RIVER AT MILK RIVER

STATION NO. 11AA005

STREAM JAN/89

(PRELIMINARY) DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1	0.168 B	2.00 B	2.90 B	8.10 B	28.9	25.4	36.7	19.0	17.2	11.1	0.840 B	1.10 B	1
2	0.155 B	2.70 B	2.93 B	16.5	27.0	25.0	33.7	19.2	17.2	8.99	0.980 B	1.11 B	2
3	0.141 B	2.88 B	2.67 B	20.8	25.7	24.4	27.0	19.1	17.1	6.91	0.975 B	1.18 B	3
4	0.136 B	2.78 B	2.42 B	25.4	25.0	24.0	24.7	19.3	17.2	5.35	0.925 B	1.28 B	4
5	0.112 B	2.53 B	2.25 B	23.2	24.9	23.6	23.3	19.4	17.1	4.18	0.930 B	1.44 B	5
6	0.091 B	2.28 B	2.22 B	25.3	24.9	24.9	21.8	19.8	17.1	3.44	0.994 B	1.60 B	6
7	0.073 B	2.29 B	2.12 B	27.1	24.3	26.2	20.8	20.1	17.1	3.02	1.11 B	1.78 B	7
8	0.043 B	2.39 B	2.03 B	26.1	24.6	26.2	20.5	19.2	16.2	2.80	1.27 B	1.87 B	8
9	0.031 B	2.37 B	2.06 B	25.0	25.4	25.0	20.8	19.9	16.1	2.77	1.38 B	1.89 B	9
10	0.064 B	2.31 B	2.14 B	23.8	24.3	24.2	22.4	19.4	16.0	2.59	1.48 B	1.84 B	10
11	0.059 B	2.26 B	2.22 B	24.4	21.3	23.7	22.5	19.3	15.9	2.23	1.68 B	1.75 B	11
12	0.053 B	2.30 B	2.18 B	24.4	21.5	23.2	22.2	19.3	16.2	2.17	1.72 B	1.57 B	12
13	0.075 B	2.35 B	2.11 B	23.1	27.6	23.3	21.9	19.5	16.3	1.80	1.70 B	1.37 B	13
14	0.133 B	2.31 B	2.17 B	23.8	26.8	24.0	21.7	20.8	16.6	1.79	1.60 B	1.23 B	14
15	0.245 B	2.30 B	2.21 B	24.7	23.6	23.0	21.6	21.4	16.5	1.77	1.53 B	1.16 B	15
16	0.440 B	2.45 B	2.20 B	24.8	23.9	22.3	21.4	19.9	16.0	1.63	1.41 B	1.14 B	16
17	0.462 B	2.70 B	2.16 B	24.3	26.0	21.7	21.1	19.3	15.8	1.52	1.28 B	1.14 B	17
18	0.442 B	2.88 B	2.20 B	23.4	27.1	21.2	21.1	19.1	15.9	1.51	1.20 B	1.15 B	18
19	0.365 B	2.92 B	2.32 B	23.0	28.9	20.8	20.9	18.7	15.8	1.57	1.14 B	1.17 B	19
20	0.178 B	2.89 B	3.32 B	23.3	31.9	24.0	20.7	18.4	15.7	1.68	1.11 B	1.20 B	20
21	0.162 B	2.81 B	4.45 B	24.2	38.9	42.0	20.5	18.2	15.8	1.89	1.11 B	1.21 B	21
22	0.182 B	2.79 B	4.27 B	25.8	31.8	81.5	20.3	18.0	16.1	1.98	1.14 B	1.19 B	22
23	0.176 B	2.82 B	4.45 B	26.7	28.8	66.1	20.1	17.8	15.7	1.58 B	1.26 B	1.18 B	23
24	0.169 B	2.87 B	4.70 B	27.7	28.8	40.0	19.9	17.7	15.4	1.38 B	1.40 B	1.17 B	24
25	0.148 B	2.88 B	4.78 B	28.7	28.9	32.7	19.9	17.7	15.6	1.23 B	1.47 B	1.16 B	25
26	0.136 B	2.81 B	5.12 B	28.9	27.8	32.3	19.8	17.5	15.4	1.05 B	1.41 B	1.14 B	26
27	0.124 B	2.73 B	5.35 B	28.2	26.7	31.5	19.5	17.4	15.2	0.920 B	1.38 B	1.12 B	27
28	0.118 B	2.51 B	4.92 B	28.8	25.7	28.4	19.3	17.4	15.1	0.760 B	1.29 B	1.11 B	28
29	0.130 B		5.25 B	28.7	25.0	29.7	19.1	17.4	13.9	0.725 B	1.23 B	1.09 B	29
30	0.360 B		5.22 B	29.0	25.1	34.0	18.9	17.4	12.4	0.765 B	1.13 B	1.07 B	30
31	0.765 B		5.28 B		25.4		18.9	17.3		0.815 B		1.05 B	31
TOTAL	5.936	72.11	100.62	737.20	826.5	894.3	683.0	583.9	479.6	81.915	38.074	40.46	TOTAL
MEAN	0.191	2.58	3.25	24.6	26.7	29.8	22.0	18.8	16.0	2.64	1.27	1.31	MEAN
DAM3	513	6230	8690	63700	71400	77300	59000	50400	41400	7080	3290	3500	DAM3
MAX	0.765	2.92	5.35	29.0	38.9	81.5	36.7	21.4	17.2	11.1	1.72	1.89	MAX
MIN	0.031	2.00	2.03	8.10	21.3	20.8	18.9	17.3	12.4	0.725	0.840	1.05	MIN

SUMMARY FOR THE MONTHS JAN TO DEC
MEAN DISCHARGE, 12.4 M3/S
TOTAL DISCHARGE, 393000 DAM3
MAXIMUM DAILY DISCHARGE, 81.5 M3/S ON JUN 22
MINIMUM DAILY DISCHARGE, 0.031 M3/S ON JAN 9

MAXIMUM INSTANTANEOUS DISCHARGE, 90.5 M3/S AT 1338 MST ON JUN 22

B-ICE CONDITIONS

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

VERDIGRIS COULEE NEAR THE MOUTH

STATION NO. 11AA038

STREAM JAN/89

(PRELIMINARY) DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0 B	0.045 B	0.003	0.286	0.586	0.275	0.314	0.456	0		1
2			0 B	0.065 B	0.001	0.288	0.556	0.270	0.338	0.441	0		2
3			0 B	0.093 B	0.002	0.280	0.530	0.298	0.364	0.446	0		3
4			0 B	0.069 B	0.002	0.290	0.512	0.284	0.362	0.454	0		4
5			0 B	0.025 B	0.001	0.321	0.535	0.261	0.349	0.437	0 A		5
6			0 B	0.033 B	0	0.375	0.528	0.267	0.345	0.426	0 E		6
7			0 B	0.029 B	0	0.387	0.532	0.260	0.341	0.436	0 E		7
8			0 B	0.023	0	0.345	0.539	0.262	0.343	0.440	0 E		8
9			0 B	0.013	0	0.344	0.528	0.259	0.370	0.428	0 E		9
10			0.007 B	0.052	0	0.339	0.525	0.283	0.369	0.425	0 E		10
11			0.013 B	0.110	0	0.342	0.523	0.311	0.352	0.420	0 E		11
12			0.005 B	0.019	0.206	0.346	0.521	0.355	0.353	0.096	0 E		12
13			0.006 B	0.006	0.172	0.341	0.505	0.375	0.360	0.047	0 E		13
14			0.003 B	0.002	0.062	0.338	0.495	0.451	0.410	0.034	0 E		14
15			0.006 B	0.047	0.068	0.346	0.486	0.421	0.433	0.029	0 E		15
16			0.009 B	0.013	0.045	0.348	0.486	0.412	0.414	0.022	0 E		16
17			0.008 B	0.008	0.031	0.332	0.484	0.414	0.417	0.012	0 E		17
18			0.004 B	0.004	0.036	0.359	0.464	0.409	0.419	0.009	0 E		18
19			0.005 B	0.001	0.138	0.347	0.472	0.404	0.404	0.008	0 E		19
20			0.008 B	0	0.170	0.400	0.474	0.420	0.398	0.007	0 E		20
21			0.016 B	0	0.170	0.703	0.455	0.420	0.424	0.006	0 E		21
22			0.021 B	0	0.234	0.549	0.430	0.409	0.439	0.003	0 E		22
23			0.019 B	0	0.247	0.456	0.433	0.390	0.435	0.002	0 E		23
24			0.015 B	0.001	0.243	0.472	0.416	0.369	0.443	0.001	0 E		24
25			0.009 B	0.004	0.259	0.477	0.392	0.373	0.442	0.001	0 E		25
26		0.005 B	0 B	0.024	0.274	0.485	0.363	0.356	0.433	0	0 E		26
27		0.004 B	0.002 B	0.144	0.279	0.495	0.347	0.346	0.435	0	0 E		27
28		0.004 B	0.006 B	0.337	0.274	0.506	0.331	0.341	0.430	0	0 E		28
29			0.015 B	0.041	0.286	0.512	0.305	0.324	0.438	0	0 E		29
30			0.033 B	0.007	0.285	0.604	0.279	0.329	0.448	0	0 E		30
31			0.043 B		0.289		0.288	0.321		0			31
TOTAL			0.253	1.215	3.777	12.013	14.320	10.669	11.822	5.086	0		TOTAL
MEAN			0.008	0.041	0.122	0.400	0.462	0.344	0.394	0.164	0		MEAN
DAM3			21.9	105	326	1040	1240	922	1020	439	0		DAM3
MAX			0.043	0.337	0.289	0.703	0.586	0.451	0.448	0.456	0		MAX
MIN			0	0	0	0.280	0.279	0.259	0.314	0	0		MIN

SUMMARY FOR THE MONTHS MAR TO NOV
MEAN DISCHARGE,0.215 M3/S
TOTAL DISCHARGE, 5110 DAM3
MAXIMUM DAILY DISCHARGE,0.703 M3/S ON JUN 21
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE, 0.778 M3/S AT 1226 MST ON JUN 21

A-MANUAL GAUGE
B-ICE CONDITIONS
E-ESTIMATED

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

International Gauging Stations

Joint Review and Approval of Records

Pursuant to Article V of the International Joint Commission Order of October 4, 1921, the International Gauging Stations listed below have been operated and maintained by the Water Resources Branch and the United States Geological Survey on a joint basis.

It is hereby certified that the annexed records have been computed in accordance with standard procedures of each country and jointly reviewed and approved on this 19 day of February, 1992.

Lodge Creek below McRae Creek at International Boundary	11AB083
Middle Creek near Saskatchewan Boundary	11AB009
Middle Creek Reservoir	11AB080
Middle Creek below Middle Creek Reservoir	11AB001
Middle Creek above Lodge Creek	11AB008
Middle Creek near Govenlock	11AB108
Altawan Reservoir near Govenlock	11AB089
Altawan Evaporation	11EV089
Spangler Ditch near Govenlock	11AB060
Battle Creek at International Boundary	11AB027
Gaff Ditch near Merryflat	11AB102
Cypress Lake West Inflow Canal	11AB078
Cypress Lake West Outflow Canal	11AB077
Cypress Lake West Inflow Canal Drain	11AB085
Vidora Ditch near Consul	11AB084
Richardson Ditch near Consul	11AB058
McKinnon Ditch near Consul	11AB044
Nashlyn Canal near Consul	11AB018
Lyons Creek at International Boundary	11AB075
Frenchman River at International Boundary	11AC041
Belanger Creek Diversion to Cypress Lake	11AC064
Cypress Lake	11AC037
Cypress Lake East Outflow Canal	11AC060
Eastend Reservoir	11AC055
Eastend Canal near Eastend	11AC052
Frenchman River below Eastend Reservoir	11AC001
Huff Lake	11AC063
Val Marie Evaporation	11EV063
Huff Lake Gravity Canal	11AC065
Huff Lake Pumping Canal	11AC066
Newton Lake	11AC056
Newton Lake Main Canal	11AC054
Frenchman River below Newton Lake	11AC062

Field Representative for the United States

Field Representative for Canada

WATER SURVEY OF CANADA
DEC 12 1991 PAGE 8
REGINA, SASK. 16:35

LODGE CREEK BELOW MCRAE CREEK AT INTERNATIONAL BOUNDARY

STATION NO. 11AB083

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	0	0.100	1.78	0.027	0.110	0.006	0			1
2			0	0	0.063	1.61	0.021	0.074	0.004	0			2
3			0	0.001	0.045	1.55	0.017	0.051	0.002	0			3
4			0	0.005	0.034	1.62	0.013	0.033	0.002	0			4
5			0	0.002	0.025	1.53	0.010	0.025	0.001	0			5
6			0	0.001	0.018	1.61	0.007	0.023	0.001	0			6
7			0	0.002	0.015	1.77	0.005	0.033	0.001	0			7
8			0	0.001	0.012	1.55	0.004	0.034	0.001	0			8
9			0	0.001	0.010	1.55	0.003	0.024	0.001	0			9
10			0	0.001	0.007	1.51	0.002	0.017	0.001	0			10
11			0	0.001	0.005	1.47	0.002	0.011	0	0			11
12			0	0.001	0.009	1.45	0.002	0.013	0	0			12
13			0	0.001	0.011	1.39	0.771	0.014	0	0			13
14			0	0.001	1.07	1.40	1.23	0.015	0	0			14
15			0	0.001	5.37	1.28	1.22	0.015	0	0			15
16			0	0.001	6.91	0.568	1.23	0.017	0	0			16
17			0	0.001	4.41	0.254	1.21	0.595	0.001	0			17
18			0	0.001	2.54	0.149	1.19	2.11	0	0			18
19			0	0.001	1.43	0.109	0.696	2.22	0	0			19
20			0	0	0.858	0.089	0.268	2.17	0	0			20
21			0	0	0.570	0.098	0.135	1.14	0	0			21
22			0	0	0.348	0.118	0.085	0.364	0	0			22
23			0	0	0.229	0.085	0.058	0.173	0	0			23
24			0	0	0.153	0.067	0.038	0.110	0	0			24
25			0	0	1.63	0.058	0.023	0.072	0	0			25
26			0	0	3.11	0.047	0.016	0.047	0	0			26
27			0	0	2.14	0.036	0.011	0.030	0	0			27
28			0	0	2.18	0.035	0.007	0.023	0	0			28
29			0	0	5.54	0.034	0.034	0.016	0	0			29
30			0	0.106	4.41	0.030	0.182	0.012	0	0			30
31			0		2.27		0.163	0.008		0			31
TOTAL			0	0.129	45.522	24.847	8.680	9.599	0.021	0			TOTAL
MEAN			0	0.004	1.47	0.828	0.280	0.310	0.001	0			MEAN
DAM3			0	11.1	3930	2150	750	829	1.81	0			DAM3
MAX			0	0.106	6.91	1.78	1.23	2.22	0.006	0			MAX
MIN			0	0	0.005	0.030	0.002	0.008	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE,0.362 M3/S
TOTAL DISCHARGE, 7670 DAM3
MAXIMUM DAILY DISCHARGE, 6.91 M3/S ON MAY 16
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE: 7.32 M3/S AT 07:45 CST ON MAY 16

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

STORAGE FACTORS AND EVAPORATION LOSSES
1991

MICHEL RESERVOIR 11AB091

PERIOD	MEAN ELEVATION	EVAPORATION		ELEVATION AT		STORAGE AT		CHANGE IN STORAGE
		Pan	Reservoir	Begining of Period	End of Period	Begining of Period	End of Period	
	(m)	(m)	(dam3)	(m)	(m)	(dam3)	(dam3)	(dam3)
1	303.866	0.000	0	303.862	303.870	759	762	4
2	303.879	0.000	0	303.870	303.888	762	771	8
3	303.977	0.000	0	303.888	304.052	771	821	50
4	304.211	0.024	4	304.052	304.441	821	909	88
5	304.523	0.030	5	304.441	304.577	909	939	31
6	304.605	0.046	8	304.577	304.617	939	948	9
7	304.700	0.036	6	304.617	304.806	948	991	42
8	304.834	0.008	1	304.806	304.795	991	988	−2
9	304.781	0.023	4	304.795	304.760	988	981	−8
10	304.758	0.030	5	304.760	304.760	981	981	0
11	304.755	0.054	9	304.760	304.724	981	972	−8
12	304.749	0.040	7	304.724	304.800	972	990	17
13	304.776	0.034	6	304.800	304.751	990	979	−11
14	304.738	0.073	12	304.751	304.725	979	973	−6
15	304.692	0.086	15	304.725	304.662	973	959	−14
16	304.637	0.063	11	304.662	304.623	959	950	−9
17	304.606	0.044	7	304.623	304.604	950	945	−4
18	304.580	0.075	13	304.604	304.553	945	934	−11
19	304.524	0.077	13	304.553	304.498	934	922	−12
20	304.351	0.055	9	304.498	304.104	922	833	−89
21	304.083	0.063	10	304.104	304.076	833	826	−6
22	304.064	0.033	5	304.076	304.062	826	823	−3
23	304.055	0.036	6	304.062	304.042	823	818	−5
24	304.033	0.004	1	304.042	304.031	818	816	−3

EVAPORATION STATION IS ALTAWAN

STORAGE FACTORS AND EVAPORATION LOSSES
1991

GREASEWOOD RESERVOIR 11AB092

PERIOD	MEAN ELEVATION (m)	EVAPORATION Pan (m)	EVAPORATION Reservoir (dam3)	ELEVATION AT Begining of Period (m)	ELEVATION AT End of Period (m)	STORAGE AT Begining of Period (dam3)	STORAGE AT End of Period (dam3)	CHANGE IN STORAGE (dam3)
1	26.795	0.000	0	26.760	26.830	15	16	1
2	26.965	0.000	0	26.830	27.100	16	20	4
3	27.315	0.000	0	27.100	28.563	20	55	35
4	29.032	0.024	1	28.563	29.500	55	92	37
5	29.620	0.030	1	29.500	29.740	92	104	12
6	29.742	0.046	2	29.740	29.745	104	105	0
7	29.900	0.036	1	29.745	30.200	105	144	39
8	30.171	0.008	0	30.200	30.142	144	138	−6
9	30.116	0.023	1	30.142	30.090	138	133	−5
10	30.085	0.030	1	30.090	30.080	133	132	−1
11	30.050	0.054	2	30.080	30.020	132	126	−6
12	29.950	0.040	2	30.020	29.700	126	102	−24
13	29.300	0.034	1	29.700	29.140	102	76	−26
14	29.048	0.073	2	29.140	29.020	76	71	−5
15	28.952	0.086	2	29.020	28.890	71	66	−5
16	26.500	0.063	1	28.890	24.445	66	0	−66
17	24.500	0.044	0	24.445	24.445	0	0	0
18	24.500	0.075	0	24.445	24.445	0	0	0
19	24.500	0.077	0	24.445	24.445	0	0	0
20	24.500	0.055	0	24.445	24.445	0	0	0
21	24.500	0.063	0	24.445	24.445	0	0	0
22	24.568	0.033	0	24.445	24.690	0	0	0
23	24.741	0.036	0	24.690	24.792	0	1	0
24	24.836	0.004	0	24.792	24.880	1	1	0

EVAPORATION STATION IS ALTAWAN

STORAGE FACTORS AND EVAPORATION LOSSES
1991

MASSY RESERVOIR 11AB104

PERIOD	MEAN ELEVATION (m)	EVAPORATION Pan (m)	EVAPORATION Reservoir (dam3)	ELEVATION AT Begining of Period (m)	ELEVATION AT End of Period (m)	STORAGE AT Begining of Period (dam3)	STORAGE AT End of Period (dam3)	CHANGE IN STORAGE (dam3)
1	27.266	0.000	0	27.240	27.295	78	82	4
2	27.312	0.000	0	27.295	27.450	82	94	11
3	27.623	0.000	0	27.450	28.646	94	197	103
4	28.886	0.024	2	28.646	28.952	197	228	32
5	28.919	0.030	3	28.952	28.908	228	224	−5
6	28.902	0.046	4	28.908	28.887	224	222	−2
7	28.945	0.036	3	28.887	29.029	222	236	15
8	29.019	0.008	1	29.029	28.934	236	227	−10
9	28.917	0.023	2	28.934	28.912	227	224	−2
10	28.902	0.030	3	28.912	28.924	224	225	1
11	28.933	0.054	5	28.924	28.895	225	223	−3
12	28.952	0.040	4	28.895	29.016	223	235	12
13	29.008	0.034	3	29.016	28.915	235	225	−10
14	28.901	0.073	6	28.915	28.884	225	221	−3
15	28.848	0.086	7	28.884	28.791	221	212	−10
16	28.711	0.063	5	28.791	28.464	212	179	−32
17	28.400	0.044	3	28.464	28.392	179	173	−7
18	28.232	0.075	5	28.392	27.856	173	125	−47
19	27.567	0.077	4	27.856	27.484	125	96	−29
20	27.465	0.055	3	27.484	27.448	96	93	−3
21	27.050	0.063	3	27.448	26.676	93	44	−50
22	26.663	0.033	1	26.676	26.657	44	43	−1
23	26.634	0.036	1	26.657	26.607	43	41	−2
24	26.592	0.004	0	26.607	26.583	41	39	−1

EVAPORATION STATION IS ALTAWAN

STORAGE FACTORS AND EVAPORATION LOSSES
1991

BARE CREEK RESERVOIR 11AB094

PERIOD	MEAN ELEVATION (m)	EVAPORATION Pan (m)	EVAPORATION Reservoir (dam3)	ELEVATION AT Begining of Period (m)	ELEVATION AT End of Period (m)	STORAGE AT Begining of Period (dam3)	STORAGE AT End of Period (dam3)	CHANGE IN STORAGE (dam3)
1	1134.958	0.000	0	1134.961	1134.966	1047	1049	2
2	1134.969	0.000	0	1134.966	1134.981	1049	1054	5
3	1135.232	0.000	0	1134.981	1135.412	1054	1200	147
4	1135.647	0.024	5	1135.412	1135.908	1200	1385	185
5	1135.938	0.030	7	1135.908	1135.956	1385	1404	19
6	1135.955	0.046	11	1135.956	1135.949	1404	1401	−3
7	1136.029	0.036	9	1135.949	1136.199	1401	1502	100
8	1136.681	0.008	2	1136.199	1137.002	1502	1863	361
9	1136.994	0.023	7	1137.002	1136.978	1863	1851	−12
10	1136.969	0.030	9	1136.978	1136.980	1851	1852	1
11	1136.955	0.054	17	1136.980	1136.920	1852	1823	−29
12	1136.919	0.040	12	1136.920	1136.944	1823	1834	12
13	1137.080	0.034	11	1136.944	1137.112	1834	1917	82
14	1137.093	0.073	24	1137.112	1137.075	1917	1898	−18
15	1137.035	0.086	28	1137.075	1137.004	1898	1864	−35
16	1136.980	0.063	20	1137.004	1136.964	1864	1844	−19
17	1136.942	0.044	14	1136.964	1136.895	1844	1811	−33
18	1136.583	0.075	21	1136.895	1136.496	1811	1629	−182
19	1136.469	0.077	21	1136.496	1136.444	1629	1606	−23
20	1136.423	0.055	15	1136.444	1136.402	1606	1588	−18
21	1136.383	0.063	17	1136.402	1136.371	1588	1574	−13
22	1136.354	0.033	9	1136.371	1136.336	1574	1559	−15
23	1136.329	0.036	9	1136.336	1136.308	1559	1547	−12
24	1136.295	0.004	1	1136.308	1136.288	1547	1539	−9

EVAPORATION STATION IS ALTAWAN

STORAGE FACTORS AND EVAPORATION LOSSES
1991

CRESSDAY RESERVOIR 11AB097

PERIOD	MEAN ELEVATION (m)	EVAPORATION Pan (m)	EVAPORATION Reservoir (dam3)	ELEVATION AT Begining of Period (m)	ELEVATION AT End of Period (m)	STORAGE AT Begining of Period (dam3)	STORAGE AT End of Period (dam3)	CHANGE IN STORAGE (dam3)
1	963.260	0.000	0	963.255	963.265	352	354	2
2	963.408	0.000	0	963.265	963.550	354	474	119
3	963.750	0.000	0	963.550	963.950	474	687	213
4	963.954	0.026	11	963.950	963.958	687	692	5
5	963.949	0.031	14	963.958	963.940	692	681	−11
6	963.924	0.049	21	963.940	963.908	681	663	−19
7	963.899	0.035	15	963.908	963.890	663	652	−11
8	963.932	0.011	5	963.890	963.975	652	702	50
9	963.960	0.009	4	963.975	963.945	702	684	−18
10	963.938	0.034	15	963.945	963.930	684	675	−9
11	963.905	0.062	6	963.930	963.880	675	646	−29
12	963.888	0.039	16	963.880	963.875	646	643	−3
13	963.872	0.038	16	963.875	963.870	643	640	−3
14	963.840	0.072	29	963.870	963.810	640	605	−35
15	963.775	0.086	32	963.810	963.740	605	564	−41
16	963.702	0.065	23	963.740	963.665	564	528	−36
17	963.647	0.040	13	963.665	963.630	528	511	−17
18	963.599	0.076	24	963.630	963.568	511	481	−30
19	963.539	0.077	23	963.568	963.510	481	458	−24
20	963.490	0.052	15	963.510	963.470	458	442	−16
21	963.455	0.065	18	963.470	963.440	442	430	−12
22	963.425	0.030	8	963.440	963.410	430	418	−12
23	963.388	0.037	10	963.410	963.370	418	400	−18
24	963.360	0.000	0	963.370	963.350	400	389	−11

EVAPORATION STATION IS ALTAWAN

STORAGE FACTORS AND EVAPORATION LOSSES
1991

MITCHELL RESERVOIR 11AB099

PERIOD	MEAN ELEVATION (m)	EVAPORATION Pan (m)	EVAPORATION Reservoir (dam3)	ELEVATION AT Begining of Period (m)	ELEVATION AT End of Period (m)	STORAGE AT Begining of Period (dam3)	STORAGE AT End of Period (dam3)	CHANGE IN STORAGE (dam3)
1	33.102	0.000	0	33.100	33.105	203	204	1
2	33.106	0.000	0	33.105	33.107	204	205	0
3	33.188	0.000	0	33.107	33.270	205	241	37
4	33.440	0.026	5	33.270	33.611	241	335	93
5	33.595	0.031	7	33.611	33.610	335	334	−0
6	33.623	0.049	10	33.610	33.635	334	342	8
7	33.645	0.035	8	33.635	33.730	342	373	31
8	34.172	0.011	3	33.730	34.615	373	745	372
9	34.592	0.009	3	34.615	34.570	745	721	−24
10	34.555	0.034	12	34.570	34.540	721	705	−16
11	34.518	0.062	22	34.540	34.495	705	681	−24
12	34.505	0.039	14	34.495	34.515	681	692	11
13	34.575	0.038	14	34.515	34.635	692	756	64
14	34.560	0.072	27	34.635	34.585	756	729	−27
15	34.568	0.086	32	34.585	34.550	729	710	−19
16	34.386	0.065	21	34.550	34.225	710	558	−152
17	34.072	0.040	11	34.225	33.920	558	438	−120
18	33.940	0.076	19	33.920	33.850	438	412	−26
19	33.820	0.077	18	33.850	33.805	412	397	−15
20	33.785	0.052	12	33.805	33.765	397	384	−13
21	33.740	0.065	15	33.765	33.715	384	368	−16
22	33.688	0.030	7	33.715	33.660	368	351	−18
23	33.638	0.037	8	33.660	33.615	351	336	−15
24	33.604	0.000	0	33.615	33.594	336	329	−7

EVAPORATION STATION IS ALTAWAN

STORAGE FACTORS AND EVAPORATION LOSSES
1991

JAYDOT RESERVOIR 11AB098

PERIOD	MEAN ELEVATION (m)	EVAPORATION Pan (m)	EVAPORATION Reservoir (dam3)	ELEVATION AT Begining of Period (m)	ELEVATION AT End of Period (m)	STORAGE AT Begining of Period (dam3)	STORAGE AT End of Period (dam3)	CHANGE IN STORAGE (dam3)
1	920.323	0.000	0	920.306	920.344	249	256	7
2	920.433	0.000	0	920.344	920.864	256	390	134
3	920.950	0.000	0	920.864	920.966	390	429	39
4	920.954	0.028	8	920.966	920.936	429	417	−12
5	920.927	0.031	9	920.936	920.915	417	409	−8
6	920.522	0.050	8	920.915	919.838	409	173	−236
7	919.813	0.032	3	919.838	919.804	173	169	−4
8	919.831	0.019	2	919.804	919.845	169	174	5
9	920.196	0.005	1	919.845	921.046	174	466	292
10	920.987	0.036	11	921.046	920.968	466	430	−36
11	920.946	0.063	18	920.968	920.930	430	415	−15
12	920.926	0.035	10	920.930	920.940	415	418	4
13	920.931	0.041	11	920.940	920.910	418	407	−11
14	920.884	0.074	19	920.910	920.850	407	385	−22
15	920.819	0.086	20	920.850	920.787	385	363	−22
16	920.759	0.067	14	920.787	920.736	363	348	−15
17	920.750	0.037	8	920.736	920.770	348	358	10
18	920.734	0.077	16	920.770	920.690	358	335	−23
19	920.660	0.076	14	920.690	920.632	335	319	−16
20	920.615	0.049	9	920.632	920.595	319	310	−9
21	920.597	0.067	12	920.595	920.583	310	307	−3
22	920.565	0.029	5	920.583	920.551	307	299	−8
23	920.529	0.032	5	920.551	920.506	299	288	−11
24	920.502	0.000	0	920.506	920.500	288	287	−1

EVAPORATION STATION IS ALTAWAN

MIDDLE CREEK NEAR SASKATCHEWAN BOUNDARY

STATION NO. 11AB009

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0.002 B	0.093	0.031	0.056	0.078	0.018	0.011	0.011			1
2			0.002 B	0.864	0.026	0.049	0.073	0.020	0.010	0.011			2
3			0.002 B	0.890	0.025	0.048	0.150	0.018	0.010	0.012			3
4			0.002 B	0.741	0.024	0.046	0.157	0.017	0.011	0.013			4
5			0.002 B	0.514	0.051	0.045	0.103	0.016	0.011	0.013			5
6			0.002 B	0.425	0.041	0.051	0.068	0.016	0.011	0.012			6
7			0.002 B	0.545	0.092	0.055	0.044	0.017	0.011	0.012			7
8			0.002 B	0.361	0.444	0.048	0.033	0.016	0.012	0.012			8
9			0.002 B	0.203	0.845	0.050	0.028	0.014	0.012	0.011			9
10			0.002 B	0.137	1.42	0.054	0.027	0.013	0.012	0.011			10
11			0.002 B	0.093	1.21	0.059	0.025	0.014	0.012	0.010			11
12		0.002 B	0.002 B	0.072	1.28	0.054	0.023	0.018	0.011	0.010			12
13		0.002 B	0.002 B	0.045	4.51	0.051	0.021	0.018	0.011	0.010			13
14		0.002 B	0.006 B	0.036	4.20	0.047	0.020	0.022	0.011	0.010			14
15		0.002 B	0.009 B	0.028	2.97	0.046	0.020	0.026	0.011	0.010			15
16		0.002 B	0.010 B	0.026	1.08	0.044	0.018	0.026	0.011	0.010			16
17		0.002 B	0.018 B	0.024	0.538	0.044	0.017	0.020	0.012	0.010			17
18		0.002 B	0.038 B	0.021	0.325	0.043	0.017	0.015	0.011	0.009			18
19		0.002 B	0.035 B	0.020	0.191	0.039	0.017	0.013	0.011	0.010			19
20		0.002 B	0.051 B	0.020	0.136	0.038	0.018	0.012	0.010	0.010			20
21		0.002 B	0.071 B	0.017	0.160	0.038	0.018	0.012	0.010	0.012 B			21
22		0.002 B	0.108 B	0.017	0.121	0.037	0.017	0.012	0.011	0.012 B			22
23		0.002 B	0.090 B	0.016	0.264	0.031	0.017	0.011	0.011	0.011 B			23
24		0.002 B	0.097 B	0.016	0.157	0.029	0.017	0.011	0.011	0.012 B			24
25		0.002 B	0.126 B	0.016	0.345	0.110	0.016	0.011	0.011	0.011 B			25
26		0.002 B	0.077 B	0.016	0.124	0.112	0.018	0.012	0.011	0.012 B			26
27		0.002 B	0.048	0.018	0.081	0.049	0.017	0.012	0.011	0.012 B			27
28		0.002 B	0.033	0.023	0.099	0.036	0.017	0.013	0.011	0.012 B			28
29			0.033	0.028	0.102	0.088	0.016	0.012	0.011	0.011 B			29
30			0.050	0.030	0.082	0.111	0.015	0.012	0.011	0.010 B			30
31			0.072		0.065		0.016	0.011		0.010 B			31
TOTAL			0.998	5.355	21.039	1.608	1.141	0.478	0.331	0.342			TOTAL
MEAN			0.032	0.179	0.679	0.054	0.037	0.015	0.011	0.011			MEAN
DAM3			86.2	463	1820	139	98.6	41.3	28.6	29.5			DAM3
MAX			0.126	0.890	4.51	0.112	0.157	0.026	0.012	0.013			MAX
MIN			0.002	0.016	0.024	0.029	0.015	0.011	0.010	0.009			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE,0.128 M3/S
TOTAL DISCHARGE, 2710 DAM3
MAXIMUM DAILY DISCHARGE, 4.51 M3/S ON MAY 13
MINIMUM DAILY DISCHARGE,0.002 M3/S ON MAR 1

B-ICE CONDITIONS

MAXIMUM INSTANTANEOUS DISCHARGE: 6.30 M3/S AT 15:17 CST ON MAY 13

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY OF CANADA
NOV 22 1991 PAGE 4
REGINA, SASK. 08:10

MIDDLE CREEK RESERVOIR

STATION NO. 11AB080

DAILY WATER LEVEL IN METRES FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1				1027.101	E1027.186	1027.421	1027.467	1027.339	E1027.296	E1027.196 E			1
2				1027.159	A1027.175	1027.416	1027.459	1027.332	E1027.292	E1027.193 E			2
3				1027.205	1027.163	1027.414	1027.465	1027.325	E1027.288	E1027.190 E			3
4				1027.239	1027.165	1027.411	1027.464	1027.318	E1027.284	E1027.186 E			4
5				1027.266	1027.167	1027.414	1027.467	1027.314	E1027.282	E1027.182 E			5
6				1027.281	1027.155	1027.419	1027.466	1027.312	E1027.279	E1027.179 E			6
7				1027.296	1027.154	1027.420	1027.470	1027.310	E1027.276	E1027.175 E			7
8				1027.316	1027.147	1027.420	1027.466	1027.309	E1027.273	E1027.171 E			8
9				1027.324	1027.175	1027.418	1027.462	A1027.308	A1027.270	E1027.167 E			9
10				1027.327	1027.195	1027.416	1027.461	E1027.308	E1027.268	E1027.162 A			10
11				1027.331	1027.225	1027.413	1027.460	E1027.308	E1027.265	E1027.155 E			11
12				1027.332	1027.292	1027.408	1027.458	E1027.308	E1027.263	E1027.148 E			12
13				1027.329	1027.393	1027.401	1027.456	E1027.307	E1027.258	E1027.141 E			13
14				1027.329	1027.476	1027.397	1027.455	E1027.307	E1027.254	E1027.134 E			14
15				1027.323	1027.562	1027.393	1027.453	E1027.307	E1027.249	E1027.128 E			15
16				1027.320	1027.584	1027.386	1027.450	E1027.307	E1027.244	E1027.121 E			16
17				1027.321	1027.573	1027.379	1027.446	E1027.307	E1027.240	E1027.114 E			17
18				1027.325	1027.558	1027.373	1027.443	E1027.306	E1027.236	E1027.108 E			18
19				1027.327	1027.549	1027.368	1027.439	E1027.307	E1027.232	E1027.101 E			19
20			1027.096	A1027.324	1027.528	1027.369	1027.435	E1027.307	E1027.229	E1027.093 E			20
21				1027.321	1027.518	1027.370	1027.430	E1027.307	E1027.225	E1027.086 E			21
22				1027.316	1027.494	1027.377	1027.423	E1027.307	E1027.222	E1027.078 E			22
23				1027.298	1027.467	1027.387	1027.414	E1027.307	E1027.218	E1027.071 E			23
24				1027.284	1027.449	1027.397	1027.406	E1027.307	E1027.214	E1027.064 E			24
25				1027.261	1027.451	1027.406	1027.399	E1027.307	E1027.211	E1027.058 E			25
26				1027.227	1027.440	1027.416	1027.391	E1027.307	E1027.207	E1027.051 E			26
27				1027.158	A1027.425	1027.417	1027.382	E1027.307	E1027.204	E1027.044 E			27
28				1027.145	A1027.426	1027.417	1027.373	E1027.307	E1027.202	E1027.038 E			28
29				1027.156	1027.429	1027.429	1027.364	E1027.307	A1027.200	E1027.031 E			29
30				1027.188	1027.427	1027.459	1027.356	E1027.303	E1027.198	E1027.024 A			30
31			1027.043 E		1027.428		1027.347	E1027.300 E		1027.020 E			31
TOTAL				30818.129	31848.376	30822.131	31850.427	31846.612	30817.379	31840.609			TOTAL
MEAN				1027.271	1027.367	1027.404	1027.433	1027.310	1027.246	1027.116			MEAN
MAX				1027.332	1027.584	1027.459	1027.470	1027.339	1027.296	1027.196			MAX
MIN				1027.101	1027.147	1027.368	1027.347	1027.300	1027.198	1027.020			MIN

SUMMARY FOR THE YEAR 1991

MAXIMUM DAILY WATER LEVEL, 1027.584 METRES ON MAY 16
MINIMUM DAILY WATER LEVEL, 1027.020 METRES ON OCT 31
MAXIMUM INSTANTANEOUS WATER LEVEL: 1027.598 METRES AT 12:50 CST ON MAY 17
WATER LEVELS ARE REFERRED TO G.S.C. DATUM
ADD +0.084 METRES TO CONVERT TO RECLAMATION SERVICE OF CANADA DATUM
MAXIMUM INSTANTANEOUS WATER LEVEL IS THE RESULT OF WIND SET-UP

A-MANUAL GAUGE
E-ESTIMATED

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

MIDDLE CREEK RESERVOIR BEDFORD OUTLET

STATION NO. 11AB114

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	0	0	0	0	0	0	0			1
2			0	0	0	0	0	0	0	0			2
3			0	0	0	0	0	0	0	0			3
4			0	0	0	0	0	0	0	0			4
5			0	0	0	0	0	0	0	0			5
6			0	0	0	0	0	0	0	0			6
7			0	0	0	0	0	0	0	0			7
8			0	0	0	0	0	0	0	0			8
9			0	0	0	0	0	0	0	0			9
10			0	0	0	0	0	0	0	0			10
11			0	0	0	0	0	0	0	0			11
12			0	0	0	0	0	0	0	0			12
13			0	0	0	0	0	0	0	0			13
14			0	0	0	0	0	0	0	0			14
15			0	0	0	0	0	0	0	0			15
16			0	0	0	0	0	0	0	0			16
17			0	0	0	0	0	0	0	0			17
18			0	0	0	0	0	0	0	0			18
19			0	0	0	0	0	0	0	0			19
20		0	0	0	0	0	0	0	0	0			20
21		0	0	0	0	0	0	0	0	0			21
22		0	0	0	0	0	0	0	0	0			22
23		0	0	0	0	0	0	0	0	0			23
24		0	0	0	0	0	0	0	0	0			24
25		0	0	0	0	0	0	0	0	0			25
26		0	0	0	0	0	0	0	0	0			26
27		0	0	0	0	0	0	0	0	0			27
28		0	0	0	0	0	0	0	0	0			28
29			0	0	0	0	0	0	0	0			29
30			0	0	0	0	0	0	0	0			30
31			0		0		0	0		0			31
TOTAL			0	0	0	0	0	0	0	0			TOTAL
MEAN			0	0	0	0	0	0	0	0			MEAN
DAM3			0	0	0	0	0	0	0	0			DAM3
MAX			0	0	0	0	0	0	0	0			MAX
MIN			0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 0 M3/S
TOTAL DISCHARGE, 0 DAM3
MAXIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1
MAXIMUM INSTANTANEOUS DISCHARGE: NO FLOW THIS SEASON

WATER SURVEY OF CANADA
JAN 15 1992 PAGE 4
REGINA, SASK. 16:27

MIDDLE CREEK RESERVOIR FLOOD SPILLWAY

STATION NO. 11AB115

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	0	0	0	0	0	0	0			1
2			0	0	0	0	0	0	0	0			2
3			0	0	0	0	0	0	0	0			3
4			0	0	0	0	0	0	0	0			4
5			0	0	0	0	0	0	0	0			5
6			0	0	0	0	0	0	0	0			6
7			0	0	0	0	0	0	0	0			7
8			0	0	0	0	0	0	0	0			8
9			0	0	0	0	0	0	0	0			9
10			0	0	0	0	0	0	0	0			10
11			0	0	0	0	0	0	0	0			11
12			0	0	0	0	0	0	0	0			12
13			0	0	0	0	0	0	0	0			13
14			0	0	0	0	0	0	0	0			14
15			0	0	0	0	0	0	0	0			15
16			0	0	0	0	0	0	0	0			16
17			0	0	0	0	0	0	0	0			17
18			0	0	0	0	0	0	0	0			18
19			0	0	0	0	0	0	0	0			19
20		0	0	0	0	0	0	0	0	0			20
21		0	0	0	0	0	0	0	0	0			21
22		0	0	0	0	0	0	0	0	0			22
23		0	0	0	0	0	0	0	0	0			23
24		0	0	0	0	0	0	0	0	0			24
25		0	0	0	0	0	0	0	0	0			25
26		0	0	0	0	0	0	0	0	0			26
27		0	0	0	0	0	0	0	0	0			27
28		0	0	0	0	0	0	0	0	0			28
29			0	0	0	0	0	0	0	0			29
30			0	0	0	0	0	0	0	0			30
31			0		0		0	0		0			31
TOTAL			0	0	0	0	0	0	0	0			TOTAL
MEAN			0	0	0	0	0	0	0	0			MEAN
DAM3			0	0	0	0	0	0	0	0			DAM3
MAX			0	0	0	0	0	0	0	0			MAX
MIN			0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 0 M3/S
TOTAL DISCHARGE, 0 DAM3
MAXIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE: NO FLOW THIS SEASON

MIDDLE CREEK BELOW MIDDLE CREEK RESERVOIR

STATION NO. 11AB001

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	0	0	0.958	0.086	0	0	0			1
2			0	0	0	0.075	0.012	0	0	0			2
3			0	0	0	0.005	0.002	0	0	0			3
4			0	0	0	0.023	0	0	0	0			4
5			0	0	0	0.004	0	0	0	0			5
6			0	0	0	0.002	0	0	0	0			6
7			0	0	0	0.002	0	0	0	0			7
8			0	0	0	0.004	0	0	0	0			8
9			0	0	0	0.001	0	0	0	0			9
10			0	0	0	0	0.057	0	0	0			10
11			0	0	0	0	0.121	0	0	0			11
12			0	0	0	0	0.011	0	0	0			12
13			0	0	0	0	0.002	0	0	0			13
14			0	0	0	0	0	0	0	0			14
15		0	0	0	0	0	0	0	0	0			15
16		0	0	0	0	0	0	0	0	0			16
17		0	0	0	0	0	0	0	0	0			17
18		0	0	0	0	0	0	0	0	0			18
19		0	0	0	0	0	0	0	0	0			19
20		0	0	0	0	0	0	0	0	0			20
21		0	0	0	0	0	0	0	0	0			21
22		0	0	0	0	0	0	0	0	0			22
23		0	0	0	0	0	0	0	0	0			23
24		0	0	0	0	0	0	0	0	0			24
25		0	0	0	0	0	0	0	0	0			25
26		0	0	0	0	0	0	0	0	0			26
27		0	0	0	0	0	0	0	0	0			27
28		0	0	0	0	0	0	0	0	0			28
29			0	0	0	0	0	0	0	0			29
30			0	0	0.751	0.136	0	0	0	0			30
31			0		1.55		0	0		0			31
TOTAL			0	0	2.301	1.210	0.291	0	0	0			TOTAL
MEAN			0	0	0.074	0.040	0.009	0	0	0			MEAN
DAM3			0	0	199	105	25.1	0	0	0			DAM3
MAX			0	0	1.55	0.958	0.121	0	0	0			MAX
MIN			0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE,0.016 M3/S
TOTAL DISCHARGE, 329 DAM3
MAXIMUM DAILY DISCHARGE, 1.55 M3/S ON MAY 31
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE: 1.67 M3/S AT 18:18 CST ON MAY 30

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY OF CANADA
NOV 12 1991 PAGE 6
REGINA, SASK. 14:06

MIDDLE CREEK ABOVE LODGE CREEK

STATION NO. 11AB008

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0 B	0	0	0.001	0.001	0	0	0			1
2			0 B	0	0	0	0.001	0	0	0			2
3			0 B	0	0	0	0	0	0	0			3
4			0 B	0	0	0	0	0	0	0			4
5			0 B	0	0	0	0	0	0	0			5
6			0 B	0	0	0.011	0	0	0	0			6
7			0 B	0	0	0.009	0	0	0	0			7
8			0 B	0	0	0.054	0	0	0	0			8
9			0 B	0	0	0.068	0	0	0	0			9
10			0 B	0	0	0.032	0	0	0	0			10
11			0 B	0	0	0.036	0	0	0	0			11
12			0 B	0	0	0.027	0	0	0	0			12
13			0 B	0	0	0.035	0	0	0	0			13
14			0 B	0	0	0.030	0	0	0	0			14
15			0 B	0	0	0.034	0	0	0	0			15
16			0 B	0	0	0.030	0	0	0	0			16
17			0 B	0	0	0.030	0	0	0	0			17
18			0 B	0	0	0.029	0	0	0	0			18
19			0 B	0	0	0.030	0	0	0	0			19
20		0 B	0 B	0	0	0.026	0	0	0	0			20
21		0 B	0 B	0	0	0.019	0	0	0	0			21
22		0 B	0 B	0	0	0.014	0	0	0	0			22
23		0 B	0 B	0	0	0.009	0	0	0	0			23
24		0 B	0 B	0	0	0.006	0	0	0	0			24
25		0 B	0 B	0	0.728	0.005	0	0	0	0			25
26		0 B	0 B	0	0.015	0.003	0	0	0	0			26
27		0 B	0 B	0	0.002	0.002	0	0	0	0			27
28		0 B	0 B	0	0.154	0.002	0	0	0	0			28
29			0	0	0.062	0.002	0	0	0	0			29
30			0	0	0.008	0.002	0	0	0	0			30
31			0		0.003		0	0		0			31
TOTAL			0	0	0.972	0.546	0.002	0	0	0			TOTAL
MEAN			0	0	0.031	0.018	0	0	0	0			MEAN
DAM3			0	0	84.0	47.2	0.173	0	0	0			DAM3
MAX			0	0	0.728	0.068	0.001	0	0	0			MAX
MIN			0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE,0.006 M3/S
TOTAL DISCHARGE, 131 DAM3
MAXIMUM DAILY DISCHARGE,0.728 M3/S ON MAY 25
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

B-ICE CONDITIONS

MAXIMUM INSTANTANEOUS DISCHARGE: 2.50 M3/S AT 01:22 CST ON MAY 25

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY OF CANADA
DEC 04 1991 PAGE 9
REGINA, SASK. 08:51

MIDDLE CREEK NEAR GOVENLOCK

STATION NO. 11AB108

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0.020 B	0.028 B	0.033	0.089	0.031	0 E	0 E	0 E			1
2			0.029 B	0.030 B	0.032	0.905	0.035	0.075 E	0 E	0 E			2
3			0.012 B	0.124 B	0.034	0.935	0.039	0.005 E	0 E	0 E			3
4			0.004 B	0.104 B	0.035	0.608	0.045 A	0.001 E	0 E	0 E			4
5			0.001 B	0.122 B	0.035	0.345	0.045 E	0	0 E	0 E			5
6			0 B	0.407 B	0.036	0.285	0.040 E	0	0 E	0 E			6
7			0 B	0.104 B	0.036	0.281	0.036 E	0	0 E	0 E			7
8			0 B	0.034	0.032	0.206	0.032 E	0 A	0 E	0 E			8
9			0 B	0.032	0.029	0.147	0.028 E	0 E	0 E	0 A			9
10			0.001 B	0.028	0.023	0.105	0.024 E	0 E	0 E	0			10
11			0.003 B	0.022	0.017	0.083	0.020 E	0.004 E	0 E	0			11
12			0.002 B	0.087	0.020	0.068	0.016 E	0.002 E	0 E	0			12
13		0 B	0.006 B	0.288	0.028	0.063	0.012 E	0.003 E	0 E	0			13
14		0 B	0.014 B	0.160	0.029	0.055	0.008 E	0.002 E	0 E	0			14
15		0.003 B	0.037 B	0.079	0.025	0.048	0.004 E	0.001 E	0 E	0			15
16		0.044 B	0.042 B	0.070	0.021	0.040	0.002 E	0.001 E	0 E	0			16
17		0.079 B	0.028 B	0.067	0.015	0.035	0.002 E	0 E	0 E	0			17
18		0.058 B	0.052 B	0.065	0.028	0.028	0.001 E	0 E	0 E	0			18
19		0.101 B	0.075 B	0.064	0.041	0.023	0.001 E	0 E	0 E	0			19
20		0.105 B	0.182 B	0.061	0.048	0.022	0 E	0 E	0 E	0			20
21		0.043 B	0.368 B	0.058	0.043	0.025	0 E	0 A	0 E	0			21
22		0.035 B	0.362 B	0.054	0.127	0.028	0 E	0 E	0 E	0			22
23		0.023 B	0.223 B	0.049	0.055	0.032	0 E	0 E	0 E	0			23
24		0.021 B	0.167 B	0.049	0.042	0.032	0 E	0 E	0 E	0			24
25		0.014 B	0.122 B	0.051	0.075	0.032	0 E	0 E	0 E	0			25
26		0.011 B	0.043 B	0.042	0.099	0.028	0 E	0 E	0 E	0 B			26
27		0.018 B	0.036 B	0.039	0.051	0.026	0 E	0 E	0 E	0.002 B			27
28		0.019 B	0.055 B	0.038	0.041	0.026	0 E	0 A	0 E	0.004 B			28
29			0.047 B	0.036	0.058	0.026	0 E	0 E	0 E	0.004 B			29
30			0.049 B	0.034	0.049	0.027	0 E	0 E	0 E	0.003 B			30
31			0.038 B		0.213		0 E	0 E		0.001 B			31
TOTAL			2.018	2.426	1.450	4.653	0.421	0.094	0	0.014			TOTAL
MEAN			0.065	0.081	0.047	0.155	0.014	0.003	0	0			MEAN
DAM3			174	210	125	402	36.4	8.12	0	1.21			DAM3
MAX			0.368	0.407	0.213	0.935	0.045	0.075	0	0.004			MAX
MIN			0	0.022	0.015	0.022	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE,0.045 M3/S
TOTAL DISCHARGE, 957 DAM3
MAXIMUM DAILY DISCHARGE,0.935 M3/S ON JUN 3
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 6

MAXIMUM INSTANTANEOUS DISCHARGE: 1.32 M3/S AT 14:26 CST ON JUN 2

A-MANUAL GAUGE
B-ICE CONDITIONS
E-ESTIMATED

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY OF CANADA
DEC 05 1991 PAGE 7
REGINA, SASK. 10:29

ALTAWAN EVAPORATION

STATION NO. 11EV089

DAILY EVAPORATION IN METRES FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1				0.001	0.003	0.006	0.005	0.008	0.008	0.002			1
2				0.002	0.006	0.006	0.007	-0.009	0.008	0.002			2
3				0.005	0.001	0.006	0.008	0.006	0.007	0.002			3
4				0.005	0.002	0.006	0.008	0.008	0.008	0.002			4
5				0.005	0.004	0.006	-0.006	0.009	0.007	0.002			5
6				0.006	0.005	-0.010	0.009	0.009	0.007	0.003			6
7				0.002	0.005	-0.002	0.009	0.010	0.007	0.003			7
8				0.002	0	0.006	0.006	0.010	0.007	0.005			8
9				0.004	0.005	0.006	0.006	0.009	0.006	0.004			9
10				0.004	0.002	0.006	0.007	-0.011	0.006	0.004			10
11				0.004	0	0.007	0.006	0.008	0.006	0.004			11
12				0	-0.019	0.006	0.007	-0.007	0.005	0.004			12
13				0.005	0.004	0.007	0.008	0.007	0.005	0.004			13
14				0.003	-0.002	0.006	0.008	0.006	0.005	0.004			14
15				0.003	0.006	0.006	0.008	0.006	0.004	0			15
16				0.003	0.007	0.006	0.008	0.006	0.004	0.004			16
17				0.003	0.008	0.006	0.008	0.006	0.004	0.004			17
18				0.002	0.008	0.007	0.008	0.007	0.004	0			18
19				0.002	0.007	0.007	0.008	0.008	0.007	0			19
20				0.005	-0.008	0.005	0.007	0.008	0.007	0			20
21				0.004	0.006	0.003	0.008	0.007	0.005	0			21
22				0.005	0.007	0.006	0.008	0.008	0.006	0			22
23				0.007	0.007	0	0.008	0.009	0.007	0			23
24				0.006	-0.018	0.008	0.009	0.009	0.007	0			24
25				0.006	0.004	-0.002	0.009	0.009	0.008	0			25
26				0.006	0.006	0	0.005	-0.005	0.008	0			26
27				0.006	-0.004	0.005	0.008	0.009	0.006	0			27
28				0.003	-0.006	0.003	0.008	0.007	0.006	0			28
29				0.003	0.004	-0.002	0.008	0.008	0.006	0			29
30				0.003	0.006	-0.003	0.008	0.009	0.002	0			30
31					0.006		0.008	0.008		0			31
TOTAL				0.115	0.062	0.117	0.222	0.182	0.183	0.053			TOTAL
MEAN				0.004	0.002	0.004	0.007	0.006	0.006	0.002			MEAN
DAM3				9.94	5.36	10.1	19.2	15.7	15.8	4.58			DAM3
MAX				0.007	0.008	0.008	0.009	0.010	0.008	0.005			MAX
MIN				0	-0.019	-0.010	-0.006	-0.011	0.002	0			MIN

SUMMARY FOR THE MONTHS APR TO OCT
MEAN EVAPORATION,0.004 M3/S
TOTAL EVAPORATION,0.934 M
MAXIMUM DAILY EVAPORATION,0.010 M3/S ON AUG 7
MINIMUM DAILY EVAPORATION,-.019 M3/S ON MAY 12

MAXIMUM INSTANTANEOUS EVAPORATION: NOT DETERMINED

STORAGE FACTORS AND EVAPORATION LOSSES
1991

ALTAWAN RESERVOIR 11AB089

PERIOD	MEAN ELEVATION (m)	EVAPORATION Pan (m)	EVAPORATION Reservoir (dam3)	ELEVATION AT Begining of Period (m)	ELEVATION AT End of Period (m)	STORAGE AT Begining of Period (dam3)	STORAGE AT End of Period (dam3)	CHANGE IN STORAGE (dam3)
1	897.634	0.000	0	897.640	897.628	3416	3402	−14
2	897.658	0.000	0	897.628	897.776	3402	3581	178
3	898.133	0.000	0	897.776	898.340	3581	4361	781
4	898.630	0.028	31	898.340	899.014	4361	5420	1059
5	899.151	0.031	36	899.014	899.219	5420	5761	341
6	899.246	0.050	59	899.219	899.242	5761	5800	39
7	899.291	0.032	38	899.242	899.484	5800	6212	412
8	899.948	0.019	24	899.484	899.931	6212	6996	784
9	899.717	0.005	6	899.931	899.496	6996	6232	−763
10	899.133	0.036	42	899.496	898.742	6232	4981	−1251
11	898.399	0.063	67	898.742	898.264	4981	4248	−733
12	898.305	0.035	36	898.264	898.545	4248	4672	425
13	899.077	0.041	48	898.545	899.386	4672	6044	1372
14	899.141	0.074	86	899.386	898.836	6044	5131	−913
15	898.715	0.086	95	898.836	898.429	5131	4495	−636
16	898.079	0.067	66	898.429	897.747	4495	3545	−950
17	897.494	0.037	30	897.747	896.918	3545	2619	−926
18	896.727	0.077	53	896.918	896.690	2619	2389	−229
19	896.658	0.076	52	896.690	896.632	2389	2333	−56
20	896.616	0.049	33	896.632	896.592	2333	2294	−39
21	896.579	0.067	45	896.592	896.567	2294	2271	−24
22	896.552	0.029	19	896.567	896.537	2271	2242	−29
23	896.515	0.032	21	896.537	896.479	2242	2187	−55
24	896.485	0.000	0	896.479	896.482	2187	2190	3

EVAPORATION STATION IS ALTAWAN

SPANGLER DITCH NEAR GOVENLOCK

STATION NO. 11AB060

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	0	0	0	0	0.977	0	0			1
2			0	0	0	0	0	0.948	0	0			2
3			0	0	0	0	0	0.937	0	0			3
4			0	0	0	0	0	0.920	0	0			4
5			0	0	0	0	0	0.903	0	0			5
6			0	0	0	0	0	0.893	0	0			6
7			0	0	0	0	0	0.873	0	0			7
8			0	0	0	0	0	0.817	0	0			8
9			0	0	0	0	0	0.538	0	0			9
10			0	0	0	0	0	0.546	0	0			10
11			0	0	0	0	0	0.534	0	0			11
12			0	0	0	0	0	0.529	0	0			12
13			0	0	0	0	0	0.510	0	0			13
14			0	0	0.695	0	0	0.491	0	0			14
15			0	0	1.06	0	0	0.282	0	0			15
16			0	0	1.04	0	0	0.320	0	0			16
17			0	0	1.04	0	0	0	0	0			17
18			0	0	1.01	0	0	0	0	0			18
19			0	0	0.990	0	0	0	0	0			19
20		0	0	0	0.977	0	0	0	0	0			20
21		0	0	0	0.965	0	0	0	0	0			21
22		0	0	0	0.966	0	0	0	0	0			22
23		0	0	0	0.969	0	0	0	0	0			23
24		0	0	0	0.968	0	0.460	0	0	0			24
25		0	0	0	0.455	0	0.835	0	0	0			25
26		0	0	0	0.051	0	0.798	0	0	0			26
27		0	0	0	0.640	0	0.783	0	0	0			27
28		0	0	0	0.943	0	0.674	0	0	0			28
29			0	0	0.441	0	0.986	0	0	0			29
30			0	0	0	0	0.984	0	0	0			30
31			0		0		0.985	0		0			31
TOTAL			0	0	13.210	0	6.505	11.018	0	0			TOTAL
MEAN			0	0	0.426	0	0.210	0.355	0	0			MEAN
DAM3			0	0	1140	0	562	952	0	0			DAM3
MAX			0	0	1.06	0	0.986	0.977	0	0			MAX
MIN			0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE,0.125 M3/S
TOTAL DISCHARGE, 2650 DAM3
MAXIMUM DAILY DISCHARGE, 1.06 M3/S ON MAY 15
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE: NOT DETERMINED

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

SQUAW COULEE NEAR WILLOW CREEK

STATION NO. 11AB103

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	0	0	0.088	0	0	0	0			1
2			0	0	0	0.046	0	0	0	0			2
3			0	0	0	0.028	0	0	0	0			3
4			0	0	0	0.019	0	0	0	0			4
5			0	0	0	0.012	0	0	0	0			5
6			0	0	0	0.012	0	0	0	0			6
7			0	0	0	0.014	0	0	0	0			7
8			0	0	0	0.011	0	0	0	0			8
9			0	0	0	0.007	0	0	0	0			9
10			0	0	0	0.005	0	0	0	0			10
11			0	0	0	0.004	0	0	0	0			11
12			0	0	0	0.002	0	0	0	0			12
13			0	0	0	0.001	0	0	0	0			13
14			0	0	0	0	0	0	0	0			14
15			0	0	0	0	0	0	0	0			15
16			0	0	0	0	0	0	0	0			16
17			0	0	0	0	0	0	0	0			17
18			0	0	0	0	0	0	0	0			18
19			0	0	0	0	0	0.002	0	0			19
20			0.021	0	0	0	0	0.018	0	0			20
21			0.038	0	0	0	0	0.016	0	0			21
22			0.025	0	0	0	0	0.013	0	0			22
23			0.013	0	0	0	0	0.008	0	0			23
24			0.005	0	0	0	0	0.005	0	0			24
25			0.001	0	1.48	0	0	0.002	0	0			25
26			0	0	0.736	0	0	0.001	0	0			26
27		0	0	0	0.276	0	0	0	0	0			27
28		0	0	0	0.378	0	0	0	0	0			28
29			0	0	3.02	0	0	0	0	0			29
30			0	0	0.590	0	0	0	0	0			30
31			0		0.205		0	0		0			31
TOTAL			0.103	0	6.685	0.249	0	0.065	0	0			TOTAL
MEAN			0.003	0	0.216	0.008	0	0.002	0	0			MEAN
DAM3			8.90	0	578	21.5	0	5.62	0	0			DAM3
MAX			0.038	0	3.02	0.088	0	0.018	0	0			MAX
MIN			0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE,0.029 M3/S
TOTAL DISCHARGE, 614 DAM3
MAXIMUM DAILY DISCHARGE, 3.02 M3/S ON MAY 29
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE: 4.68 M3/S AT 10:56 CST ON MAY 29

LODGE CREEK BASIN – SASKATCHEWAN
SURFACE WATER USE (MINOR DIVERSIONS) FOR 1991
cubic decametres

file	March			April			May			June			July			August			
number	1–10	11–20	21–31	1–10	11–20	21–30	1–10	11–20	21–31	1–10	11–20	21–31	1–10	11–20	21–31	1–10	11–20	21–31	Total
205		5	28	25	5														63
410																			
582		4																	4
787																			
788																			
831				47	9														56
832				54	11														65
1582																			
1583																			
4382																			
4446																			
6196																			
8250																			
8299																			
10600																			
10663																			
10789																			
10877																			
11727		1	2																3
11746		1	1																2
11768		2	2																4
12478																			
12479																			
12482				40	8														49
15028							10	33	7										49
Total Sask.		13	32	167	33		10	33	7										295

continued ...

LODGE CREEK BASIN – SASKATCHEWAN (continued)
SURFACE WATER USE (MINOR DIVERSIONS) FOR 1991
cubic decametres

file	March			April			May			June			July			August			
number	1–10	11–20	21–31	1–10	11–20	21–30	1–10	11–20	21–31	1–10	11–20	21–31	1–10	11–20	21–31	1–10	11–20	21–31	Total
370																			
412					12														12
415						41													41
2130				23															23
2935					16														16
3787																			
8097 & 397					64				27	23	28					−47	−21		75
9654																			
12719						18													18
13803						55													55
14535					16								−16						
14562																			
15617									30	32	36					−43	−18		36
16378																			
16878																			
303M &365M																			
920M																			
1830M																			
20452M																			
Total Alberta				23	109	115			57	55	64		−16			−90	−39		277
Total Sask.		13	32	167	33		10	33	7										295
Total Entire Basin		13	32	190	142	115	10	33	63	55	64		−16			−90	−39		572

Data supplied by Saskatchewan Water Corporation and Water Rights Branch, Alberta Environment. No usage after end of August.

WATER SURVEY OF CANADA
JAN 16 1992 PAGE 9
REGINA, SASK. 09:03

BATTLE CREEK AT INTERNATIONAL BOUNDARY

STATION NO. 11AB027

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0.005	0.578 B	0.266	2.68	0.722	0.001	0.069	0.127	0.180 B		1
2			0.025	0.578 B	0.327	2.22	0.680	0.001	0.060	0.109	0.175 B		2
3			0.122	1.05	0.447	1.93	0.519	0.001	0.065	0.081	0.180 B		3
4			0.074	1.06	0.465	1.36	0.517	0	0.085	0.061	0.180 B		4
5			0.099	1.26	0.414	0.845	0.466	0	0.075	0.135	0.179 B		5
6			0.079	1.20	0.394	0.835	0.479	0	0.066	0.151	0.178 B		6
7			0.087	1.26	0.590	0.813	0.373	0	0.057	0.156			7
8			0.055	1.20	0.600	0.808	0.270	0	0.040	0.142			8
9			0.038	0.963	0.549	0.878	0.221	0	0.033	0.123			9
10			0.034	0.493	0.480	0.673	0.181	0	0.025	0.112			10
11			0.035	0.597	0.433	0.471	0.166	0	0.025	0.166			11
12			0.030	0.590	0.821	0.324	0.141	0	0.026	0.227			12
13			0.036	0.383	1.53	0.272	0.121	0	0.025	0.234			13
14		0 B	0.073	0.292	1.68	0.251	0.108	0.109	0.031	0.273			14
15		0 B	0.562	0.321	2.05	0.281	0.093	0.156	0.030	0.280			15
16		0 B	1.35 B	0.526	2.01	0.238	0.078	0.159	0.035	0.268			16
17		0 B	0.689	0.495	1.80	0.204	0.064	0.250	0.032	0.258			17
18		0 B	0.430	0.399	1.61	0.164	0.047	0.810	0.033	0.261			18
19		0 B	0.421	0.387	1.44	0.126	0.042	0.925	0.039	0.252			19
20		0.001 B	0.485	0.263	1.28	0.170	0.027	0.964	0.038	0.254			20
21		0.001 B	0.655	0.208	1.12	0.181	0.020	0.909	0.030	0.265			21
22		0.001 B	0.841 B	0.206	0.902	0.256	0.016	0.619	0.043	0.259			22
23		0.001 B	0.798	0.194	1.65	0.365	0.014	0.475	0.074	0.285			23
24		0.001 B	0.643	0.167	2.17	0.614	0.010	0.387	0.074	0.284			24
25		0.001 B	0.590	0.161	2.48	0.748	0.007	0.305	0.073	0.282 B			25
26		0.002 B	0.236	0.148	2.12	0.728	0.008	0.239	0.092	0.220 B			26
27		0.003 B	0.292	0.145	1.78	1.01	0.012	0.188	0.082	0.170 B			27
28		0.004 B	0.329	0.255	2.63	1.07	0.009	0.154	0.086	0.180 B			28
29			0.274	0.296	5.19	0.814	0.007	0.127	0.141	0.190 B			29
30			0.269	0.300	3.90	0.797	0.004	0.109	0.148	0.140 B			30
31			0.538 B		3.25		0.003	0.090		0.185 B			31
TOTAL			10.194	15.975	46.378	22.126	5.425	6.978	1.732	6.130			TOTAL
MEAN			0.329	0.532	1.50	0.738	0.175	0.225	0.058	0.198			MEAN
DAM3			881	1380	4010	1910	469	603	150	530			DAM3
MAX			1.35	1.26	5.19	2.68	0.722	0.964	0.148	0.285			MAX
MIN			0.005	0.145	0.266	0.126	0.003	0	0.025	0.061			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE,0.469 M3/S
TOTAL DISCHARGE, 9930 DAM3
MAXIMUM DAILY DISCHARGE, 5.19 M3/S ON MAY 29
MINIMUM DAILY DISCHARGE, 0 M3/S ON AUG 4

B-ICE CONDITIONS

MAXIMUM INSTANTANEOUS DISCHARGE: 6.63 M3/S AT 15:30 CST ON MAY 29 AT A STAGE OF 1.523 m

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

STORAGE FACTORS AND EVAPORATION LOSSES
1991

REESOR RESERVOIR 11AB090

PERIOD	MEAN ELEVATION (m)	EVAPORATION Pan (cm)	EVAPORATION Reservoir (dam3)	ELEVATION AT Begining of Period (m)	ELEVATION AT End of Period (m)	STORAGE AT Beginning of Period (dam3)	STORAGE AT End of Period (dam3)	CHANGE IN STORAGE (dam3)
1	1226.274	0.000	0	1226.270	1226.277	1 553	1 556	4
2	1226.278	0.000	0	1226.277	1226.280	1 556	1 558	2
3	1226.282	0.000	0	1226.280	1226.285	1 558	1 561	3
4	1226.297	0.028	10	1226.285	1226.308	1 561	1 572	12
5	1226.324	0.031	11	1226.308	1226.340	1 572	1 589	16
6	1226.355	0.050	18	1226.340	1226.370	1 589	1 604	15
7	1226.386	0.032	12	1226.370	1226.403	1 604	1 621	17
8	1226.412	0.019	7	1226.403	1226.422	1 621	1 631	10
9	1226.420	0.005	2	1226.422	1226.419	1 631	1 630	−2
10	1226.417	0.036	13	1226.419	1226.415	1 630	1 628	−2
11	1226.412	0.063	23	1226.415	1226.410	1 628	1 625	−3
12	1226.407	0.035	13	1226.410	1226.404	1 625	1 622	−3
13	1226.418	0.041	15	1226.404	1226.431	1 622	1 636	14
14	1226.460	0.074	27	1226.431	1226.490	1 636	1 666	30
15	1226.485	0.086	31	1226.490	1226.480	1 666	1 661	−5
16	1226.475	0.067	24	1226.480	1226.470	1 661	1 656	−5
17	1226.474	0.037	13	1226.470	1226.478	1 656	1 660	4
18	1226.482	0.077	28	1226.478	1226.487	1 660	1 665	5
19	1226.478	0.076	28	1226.487	1226.470	1 665	1 656	−9
20	1226.463	0.049	18	1226.470	1226.455	1 656	1 648	−8
21	1226.448	0.067	24	1226.455	1226.440	1 648	1 640	−8
22	1226.431	0.029	11	1226.440	1226.422	1 640	1 631	−9
23	1226.410	0.032	12	1226.422	1226.401	1 631	1 620	−11
24	1226.395	0.000	0	1226.401	1226.390	1 620	1 615	−6

EVAPORATION STATION IS ALTAWAN

GAFF DITCH NEAR MERRYFLAT

STATION NO. 11AB102

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0 B	0.002 B	0.561	0.001	0.001	0 E	0.001	0	0 B		1
2			0 B	0.001 B	0.481	0	0.001	0 E	0.001	0	0 B		2
3			0 B	0 B	0.485	0	0.001	0 E	0 E	0	0 B		3
4			0 B	0.088 B	0.505	0	0.001	0 E	0 E	0	0 B		4
5			0 B	0.352 B	0.467	0	0	0 E	0 E	0			5
6			0 B	0.441 B	0.467	0	0	0 E	0 E	0			6
7			0 B	0.683	0.379	0	0	0 E	0 E	0			7
8			0 B	0.715	0.125	0	0	0 E	0 E	0			8
9			0 B	0.641	0.049	0	0	0 E	0 E	0			9
10			0 B	0.567	0.042	0	0	0 E	0 E	0			10
11			0 B	0.559	0.046	0	0	0 E	0 E	0			11
12			0 B	0.493	0.045	0	0	0 E	0 E	0			12
13			0 B	0.521	0.048	0 A	0	0 E	0 E	0			13
14			0 B	0.622	0.044	0 E	0	0 E	0 E	0			14
15			0 B	0.642	0.042	0 E	0	0 E	0 E	0			15
16			0 B	0.642	0.036	0 E	0	0 E	0 E	0			16
17			0 B	0.637	0.005	0 E	0	0 E	0 E	0			17
18			0 B	0.627	0.003	0 E	0	0 E	0 E	0			18
19			0 B	0.622	0.003	0 A	0	0 E	0 E	0			19
20			0 B	0.621	0.003	0.001	0	0 E	0 E	0			20
21			0 B	0.632	0.003	0.001	0	0 E	0 E	0			21
22			0 B	0.652	0.003	0.001	0	0 E	0 E	0			22
23			0 B	0.669	0.002	0	0 E	0 E	0 E	0			23
24			0 B	0.675	0.002	0	0 E	0 E	0 E	0			24
25			0 B	0.680	0.002	0	0 E	0 E	0 E	0 B			25
26			0 B	0.677	0.002	0	0 E	0 E	0 E	0 B			26
27			0 B	0.669	0.001	0	0 E	0 E	0 E	0 B			27
28			0.001 B	0.686	0.001	0	0 E	0 E	0 E	0 B			28
29			0.004 B	0.644	0.001	0	0 E	0.001 A	0 E	0 B			29
30			0.007 B	0.593	0.001	0.001	0 E	0.001	0 A	0 B			30
31			0.004 B		0.001		0 E	0.001		0 B			31
TOTAL			0.016	16.053	3.855	0.005	0.004	0.003	0.002	0			TOTAL
MEAN			0.001	0.535	0.124	0	0	0	0	0			MEAN
DAM3			1.38	1390	333	0.432	0.346	0.259	0.173	0			DAM3
MAX			0.007	0.715	0.561	0.001	0.001	0.001	0.001	0			MAX
MIN			0	0	0.001	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT

MEAN DISCHARGE,0.081 M3/S
TOTAL DISCHARGE, 1730 DAM3
MAXIMUM DAILY DISCHARGE,0.715 M3/S ON APR 8
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE: NOT DETERMINED

A-MANUAL GAUGE
B-ICE CONDITIONS
E-ESTIMATED

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY OF CANADA
JAN 14 1992 PAGE 8
REGINA, SASK. 16:23

CYPRESS LAKE WEST INFLOW CANAL

STATION NO. 11AB078

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1		0 B	0.040 B	0 B	1.28	0.836	2.10	0	0	0	0		1
2		0 B	0.055 B	0.015 B	1.72	0.834	2.32	0	0	0	0		2
3		0 B	0.057 B	0.036 B	1.85	0.834	2.24	0	0	0	0		3
4		0 B	0.058 B	0.020 B	1.32	0.860	1.84	0	0	0	0		4
5		0 B	0.058 B	0.030 B	0.622	0.849	1.62	0	0	0			5
6		0 B	0.058 B	0.009 B	0.261	0.831	1.46	0	0	0			6
7		0 B	0.058 B	0.004 B	0.206	0.822	1.33	0	0	0			7
8		0 B	0.037 B	0.001	0.438	0.820	1.01	0	0	0			8
9		0 B	0.027 B	0.001	0.413	0.829	0.660	0	0	0			9
10		0 B	0.026 B	0	0.222	0.818	0.611	0	0	0			10
11		0 B	0.015 B	0	0.158	0.700	0.665	0	0	0			11
12		0 B	0.008 B	0	0.768	0.367	0.764	0	0	0			12
13		0 B	0.008 B	0	1.78	0.380	0.902	0	0	0			13
14		0 B	0.003 B	0	2.07	0.389	0.712	0.021	0	0			14
15		0 B	0.005 B	0	3.28	0.394	0.608	0.004	0	0			15
16		0 B	0.019 B	0	3.40	0.378	0.565	0.003	0	0			16
17		0 B	0.010 B	0	0.987	0.279	0.507	0.001	0	0			17
18		0 B	0.001 B	0	0.423	0.297	0.449	0	0	0			18
19		0 B	0.001 B	0	0.237	0.340	0.428	0	0	0			19
20		0 B	0.001 B	0	0.044	0.387	0.423	0	0	0			20
21		0 B	0.034 B	0	0.022	0.391	0.379	0	0	0			21
22		0 B	0.089 B	0	0.007	0.388	0.356	0	0	0			22
23		0 B	0.086 B	0	0.781	0.397	0.321	0	0	0			23
24		0 B	0.021 B	0	0.971	0.797	0.325	0	0	0			24
25		0 B	0.008 B	0	0.347	0.977	0.264	0	0	0			25
26		0 B	0.004 B	0	0.397	0.856	0.007	0	0	0			26
27		0 B	0.001 B	0	0.173	1.51	0	0	0	0			27
28		0.002 B	0 B	0.002	0.140	1.56	0	0	0	0			28
29			0 B	0.009	0.114	1.45	0	0	0	0			29
30			0 B	0.203	0.041	1.65	0	0	0	0			30
31			0 B		0.110		0	0		0			31
TOTAL		0.002	0.788	0.330	24.582	22.220	22.866	0.029	0	0			TOTAL
MEAN		0	0.025	0.011	0.793	0.741	0.738	0.001	0	0			MEAN
DAM3		0.173	68.1	28.5	2120	1920	1980	2.51	0	0			DAM3
MAX		0.002	0.089	0.203	3.40	1.65	2.32	0.021	0	0			MAX
MIN		0	0	0	0.007	0.279	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE,0.289 M3/S
TOTAL DISCHARGE, 6120 DAM3
MAXIMUM DAILY DISCHARGE, 3.40 M3/S ON MAY 16
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 28

B-ICE CONDITIONS

MAXIMUM INSTANTANEOUS DISCHARGE: NOT DETERMINED

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

CYPRESS LAKE WEST OUTFLOW CANAL

STATION NO. 11AB077

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1		0 B	0 B	0.005	0.029	0.176	0.377	0	0	0	0		1
2		0 B	0 B	0.006	0.126	0.161	0.214	0.002	0	0	0		2
3		0 B	0 B	0.006	0.189	0.050	0.156	0.001	0	0	0		3
4		0 B	0 B	0.006	0.025	0.117	0.124	0	0	0	0		4
5		0 B	0 B	0.007	0.027	0.089	0.074	0	0	0			5
6		0 B	0 B	0.010	0.042	0.038	0.009	0	0	0			6
7		0 B	0 B	0.010	0.066	0.110	0.005	0	0	0			7
8		0 B	0 B	0.009	0.096	0.124	0.004	0	0	0			8
9		0 B	0 B	0.009	0.878	0.079	0.004	0	0	0			9
10		0 B	0.001 B	0.008	0.878	0.044	0.076	0	0	0			10
11		0 B	0.001 B	0.011	0.649	0.026	0.220	0	0	0			11
12		0 B	0.001 B	0.008	0.669	0.018	0.212	0	0	0			12
13		0 B	0.001 B	0.007	1.89	0.011	0.167	0	0	0			13
14		0 B	0.001 B	0.046	2.62	0.006	0.179	0	0	0			14
15		0 B	0.002 B	0.093	3.27	0.004	0.127	0	0	0			15
16		0 B	0.001 B	0.055	3.35	0.002	0.154	0	0	0			16
17		0 B	0 B	0.040	2.61	0	0.148	0	0	0			17
18		0 B	0 B	0.029	2.18	0	0.157	0	0	0			18
19		0 B	0 B	0.023	2.13	0	0.184	0	0	0			19
20		0 B	0 B	0.020	1.78	0.001	0.169	0	0	0			20
21		0 B	0 B	0.015	1.89	0.246	0.065	0	0	0			21
22		0 B	0.002 B	0.010	1.76	0.651	0.010	0	0	0			22
23		0 B	0.002 B	0.008	1.81	0.528	0.005	0	0	0			23
24		0 B	0.002 B	0.006	2.09	0.483	0.003	0	0	0			24
25		0 B	0.001 B	0.005	1.40	0.466	0.002	0	0	0			25
26		0 B	0.001 B	0.004	0.424	0.454	0.002	0	0	0			26
27		0 B	0.001 B	0.004	0.204	0.441	0.001	0	0	0			27
28		0 B	0.001 B	0.009	0.197	0.432	0.001	0	0	0			28
29			0.005 B	0.029	0.193	0.436	0	0	0	0			29
30			0.006 B	0.044	0.190	0.433	0	0	0	0			30
31			0.005 B		0.186		0	0		0			31
TOTAL		0	0.034	0.542	33.848	5.626	2.849	0.003	0	0			TOTAL
MEAN		0	0.001	0.018	1.09	0.188	0.092	0	0	0			MEAN
DAM3		0	2.94	46.8	2920	486	246	0.259	0	0			DAM3
MAX		0	0.006	0.093	3.35	0.651	0.377	0.002	0	0			MAX
MIN		0	0	0.004	0.025	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE,0.175 M3/S
TOTAL DISCHARGE, 3700 DAM3
MAXIMUM DAILY DISCHARGE, 3.35 M3/S ON MAY 16
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

B-ICE CONDITIONS

MAXIMUM INSTANTANEOUS DISCHARGE: NOT DETERMINED

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY OF CANADA
JAN 14 1992 PAGE 6
REGINA, SASK. 11:42

CYPRESS LAKE WEST INFLOW CANAL DRAIN

STATION NO. 11AB085

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1		0 B	0 B	0.004 E	0	0	0.002	0	0	0	0		1
2		0 B	0.003 B	0.003 E	0	0	0.001	0	0	0	0		2
3		0 B	0.007 B	0.003 A	0	0	0.001	0	0	0	0		3
4		0 B	0.017 B	0.003 E	0.004	0	0.001	0	0	0	0		4
5		0 B	0.040 B	0.003 E	0.005	0	0.001	0	0	0			5
6		0 B	0.055 B	0.002 E	0.005	0	0.001	0	0	0			6
7		0 B	0.070 B	0.002 E	0.004	0	0.001	0	0	0			7
8		0 B	0.089 B	0.002 E	0.004	0	0.001	0	0	0			8
9		0 B	0.101 B	0.001 E	0.003	0	0	0	0	0			9
10		0 B	0.113 B	0.001 E	0.003	0	0.001	0	0	0			10
11		0 B	0.082 B	0.001 E	0.002	0	0.001	0	0	0			11
12		0 B	0.080 B	0 E	0.003	0	0.001	0	0	0			12
13		0 B	0.072 B	0	0.002	0	0.001	0	0	0			13
14		0 B	0.068 B	0	0.001	0	0.001	0.001	0	0			14
15		0 B	0.039 B	0	0.002	0	0.001	0	0	0			15
16		0 B	0.024 B	0	0.002	0	0	0	0	0			16
17		0 B	0.024 B	0	0.001	0	0	0	0	0			17
18		0 B	0.023 B	0	0.001	0	0	0	0	0			18
19		0 B	0.023 B	0	0.001	0	0	0	0	0			19
20		0 B	0.023 B	0	0.001	0.001	0	0	0	0			20
21		0 B	0.023 B	0	0	0.001	0.001	0	0	0			21
22		0 B	0.023 B	0	0	0	0.001	0	0	0			22
23		0 B	0.023 B	0	0	0	0.001	0	0	0			23
24		0 B	0.018 B	0	0.001	0.001	0.001	0	0	0			24
25		0 B	0.015 B	0	0.001	0.001	0	0	0	0			25
26		0 B	0.012 B	0	0	0.001	0	0	0	0			26
27		0 B	0.010 B	0	0	0.001	0	0	0	0			27
28		0 B	0.008 B	0	0	0.001	0	0	0	0			28
29			0.007 B	0	0	0.001	0	0	0	0			29
30			0.006 B	0	0	0.001	0	0	0	0			30
31			0.005 B		0		0	0		0			31
TOTAL		0	1.103	0.025	0.046	0.009	0.019	0.001	0	0			TOTAL
MEAN		0	0.036	0.001	0.001	0	0.001	0	0	0			MEAN
DAM3		0	95.3	2.16	3.97	0.778	1.64	0.086	0	0			DAM3
MAX		0	0.113	0.004	0.005	0.001	0.002	0.001	0	0			MAX
MIN		0	0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE,0.005 M3/S
TOTAL DISCHARGE, 104 DAM3
MAXIMUM DAILY DISCHARGE,0.113 M3/S ON MAR 10
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE: NOT DETERMINED

A-MANUAL GAUGE
B-ICE CONDITIONS
E-ESTIMATED

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY OF CANADA
JAN 15 1992 PAGE 6
REGINA, SASK. 09:26

VIDORA DITCH NEAR CONSUL

STATION NO. 11AB084

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1		0 B	0 B	0 B	0	0.002	0.001	0	0	0	0		1
2		0 B	0 B	0 B	0	0.001	0.001	0	0	0	0		2
3		0 B	0 B	0 B	0.043	0.002	0	0	0	0	0		3
4		0 B	0 B	0 B	0.020	0.004	0	0	0	0	0		4
5		0 B	0 B	0 B	0.012	0	0	0	0	0			5
6		0 B	0 B	0 B	0.028	0	0	0	0	0			6
7		0 B	0 B	0 B	0.044	0	0	0	0	0			7
8		0 B	0 B	0 B	0.005	0	0	0	0	0			8
9		0 B	0 B	0 B	0.010	0	0	0	0	0			9
10		0 B	0 B	0 B	0.008	0	0	0	0	0			10
11		0 B	0 B	0 B	0.006	0	0.002	0	0	0			11
12		0 B	0 B	0 B	0.007	0	0.001	0	0	0			12
13		0 B	0 B	0 B	0.786	0	0	0	0	0			13
14		0 B	0 B	0 B	1.54	0	0	0	0	0			14
15		0 B	0 B	0.009 B	1.88	0	0	0	0	0			15
16		0 B	0 B	0.006 B	1.94	0	0	0	0	0			16
17		0 B	0 B	0.005	1.68	0	0	0	0	0			17
18		0 B	0 B	0.004	1.66	0	0	0	0	0			18
19		0 B	0 B	0.004	1.82	0	0	0	0	0			19
20		0 B	0 B	0.004	1.64	0	0	0	0	0			20
21		0 B	0 B	0.001	1.61	0.002	0	0	0	0			21
22		0 B	0 B	0	1.52	0.008	0	0	0	0			22
23		0 B	0 B	0	1.59	0.006	0	0	0	0			23
24		0 B	0 B	0	1.84	0.005	0	0	0	0			24
25		0 B	0 B	0	1.39	0.004	0	0	0	0			25
26		0 B	0 B	0	0.479	0.003	0	0	0	0			26
27		0 B	0 B	0	0.007	0.002	0	0	0	0			27
28		0 B	0 B	0	0.006	0.002	0	0	0	0			28
29			0 B	0	0.003	0.002	0	0	0	0			29
30			0 B	0	0.002	0.002	0	0	0	0			30
31			0 B		0.002		0	0		0			31
TOTAL		0	0	0.033	21.578	0.045	0.005	0	0	0			TOTAL
MEAN		0	0	0.001	0.696	0.002	0	0	0	0			MEAN
DAM3		0	0	2.85	1860	3.89	0.432	0	0	0			DAM3
MAX		0	0	0.009	1.94	0.008	0.002	0	0	0			MAX
MIN		0	0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE,0.088 M3/S
TOTAL DISCHARGE, 1870 DAM3
MAXIMUM DAILY DISCHARGE, 1.94 M3/S ON MAY 16
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

B-ICE CONDITIONS

MAXIMUM INSTANTANEOUS DISCHARGE: NOT DETERMINED

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY OF CANADA
JAN 15 1992 PAGE 5
REGINA, SASK. 12:49

RICHARDSON DITCH NEAR CONSUL

STATION NO. 11AB058

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1		0	0	0	0	0	0	0	0	0	0		1
2		0	0	0	0	0	0	0	0	0	0		2
3		0	0	0	0	0	0	0	0	0	0		3
4		0	0	0	0	0	0	0	0	0	0		4
5		0	0	0	0	0	0	0	0	0	0		5
6		0	0	0	0	0	0	0	0	0			6
7		0	0	0	0	0	0	0	0	0			7
8		0	0	0	0	0	0	0	0	0			8
9		0	0	0	0	0	0	0	0	0			9
10		0	0	0	0	0	0	0	0	0			10
11		0	0	0	0	0	0	0	0	0			11
12		0	0	0	0	0	0	0	0	0			12
13		0	0	0	0	0	0	0	0	0			13
14		0	0	0	1.35	0	0	0	0	0			14
15		0	0	0	1.66	0	0	0	0	0			15
16		0	0	0	1.68	0	0	0	0	0			16
17		0	0	0	1.90	0	0	0	0	0			17
18		0	0	0	2.01	0	0	0	0	0			18
19		0	0	0	1.22	0	0	0	0	0			19
20		0	0	0	0.942	0	0	0	0	0			20
21		0	0	0	0.016	0	0	0	0	0			21
22		0	0	0	0.006	0	0	0	0	0			22
23		0	0	0	0.004	0	0	0	0	0			23
24		0	0	0	0	0	0	0	0	0			24
25		0	0	0	0.004	0	0	0	0	0			25
26		0	0	0	0.001	0	0	0	0	0			26
27		0	0	0	0	0	0	0	0	0			27
28		0	0	0	0.003	0	0	0	0	0			28
29			0	0	0	0	0	0	0	0			29
30			0	0	0	0	0	0	0	0			30
31			0		0		0	0		0			31
TOTAL		0	0	0	10.796	0	0	0	0	0			TOTAL
MEAN		0	0	0	0.348	0	0	0	0	0			MEAN
DAM3		0	0	0	933	0	0	0	0	0			DAM3
MAX		0	0	0	2.01	0	0	0	0	0			MAX
MIN		0	0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE,0.044 M3/S
TOTAL DISCHARGE, 933 DAM3
MAXIMUM DAILY DISCHARGE, 2.01 M3/S ON MAY 18
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE: NOT DETERMINED

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY OF CANADA
JAN 15 1992 PAGE 5
REGINA, SASK. 08:34

MCKINNON DITCH NEAR CONSUL

STATION NO. 11AB044

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1		0	0	0	0	0	0	0	0	0	0		1
2		0	0	0	0	0	0	0	0	0	0		2
3		0	0	0	0	0	0	0	0	0	0		3
4		0	0	0	0	0	0	0	0	0	0		4
5		0	0	0	0	0	0	0	0	0	0		5
6		0	0	0	0	0	0	0	0	0			6
7		0	0	0	0	0	0	0	0	0			7
8		0	0	0	0	0	0	0	0	0			8
9		0	0	0	0	0	0	0	0	0			9
10		0	0	0	0	0	0	0	0	0			10
11		0	0	0	0	0	0	0	0	0			11
12		0	0	0	0	0	0	0	0	0			12
13		0	0	0	0	0	0	0	0	0			13
14		0	0	0	1.14	0	0	0	0	0			14
15		0	0	0	1.46	0	0	0	0	0			15
16		0	0	0	1.44	0	0	0	0	0			16
17		0	0	0	0.961	0	0	0	0	0			17
18		0	0	0	1.42	0	0	0	0	0			18
19		0	0	0	1.06	0	0	0	0	0			19
20		0	0	0	1.31	0	0	0	0	0			20
21		0	0	0	0.774	0	0	0	0	0			21
22		0	0	0	0.105	0	0	0	0	0			22
23		0	0	0	0.009	0	0	0	0	0			23
24		0	0	0	0.001	0	0	0	0	0			24
25		0	0	0	0.008	0	0	0	0	0			25
26		0	0	0	0.001	0	0	0	0	0			26
27		0	0	0	0	0	0	0	0	0			27
28		0	0	0	0.006	0	0	0	0	0			28
29			0	0	0.002	0	0	0	0	0			29
30			0	0	0	0	0	0	0	0			30
31			0		0		0	0		0			31
TOTAL		0	0	0	9.697	0	0	0	0	0			TOTAL
MEAN		0	0	0	0.313	0	0	0	0	0			MEAN
DAM3		0	0	0	838	0	0	0	0	0			DAM3
MAX		0	0	0	1.46	0	0	0	0	0			MAX
MIN		0	0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE,0.040 M3/S
TOTAL DISCHARGE, 838 DAM3
MAXIMUM DAILY DISCHARGE, 1.46 M3/S ON MAY 15
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE: NOT DETERMINED

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

NASHLYN CANAL NEAR CONSUL

STATION NO. 11AB018

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1		0 B	0 B	0.673	0	0	0	0	0	0.001	0		1
2		0 B	0 B	0.669	0	0	0	0	0	0	0		2
3		0 B	0 B	0.604	0	0	0	0	0	0	0		3
4		0 B	0 B	0.561	0	0	0	0	0	0	0		4
5		0 B	0 B	0.542	0	0	0	0	0	0	0		5
6		0 B	0 B	0.482	0	0	0	0	0	0			6
7		0 B	0 B	0.570	0	0	0	0	0	0			7
8		0 B	0.016 B	0.855	0	0	0	0	0	0			8
9		0 B	0.011 B	0.889	0.081	0	0	0	0	0			9
10		0 B	0.007 B	0.850	0.707	0	0	0	0	0			10
11		0 B	0.006 B	0.702	1.37	0	0	0	0	0			11
12		0 B	0.012 B	0.617	1.44	0	0	0	0	0			12
13		0 B	0.027 B	0.699	1.43	0	0	0	0	0			13
14		0 B	0.070 B	0.535	1.40	0	0	0	0	0			14
15		0 B	0.106 B	0.453	1.26	0	0	0	0	0			15
16		0 B	0.152 B	0.336	0.376	0	0	0	0	0			16
17		0 B	0.149 B	0.352	0.022	0	0	0	0	0			17
18		0 B	0.140 B	0.442	0.006	0	0	0	0	0			18
19		0 B	0.160 B	0.462	0.003	0	0	0	0	0			19
20		0 B	0.158 B	0.424	0.001	0	0	0	0	0			20
21		0 B	0.158 B	0.378	0.001	0	0	0	0	0			21
22		0 B	0.309 B	0.318	0	0	0	0	0	0			22
23		0 B	0.516 B	0.182	0	0	0	0	0	0			23
24		0 B	0.620 B	0.040	0	0	0	0	0	0			24
25		0 B	0.612 B	0	0	0	0	0	0	0			25
26		0 B	0.490 B	0	0	0	0	0	0.030 A	0			26
27		0 B	0.454 B	0	0	0	0	0	0.197	0			27
28		0 B	0.425 B	0	0	0	0	0	0.049	0			28
29			0.440 B	0	0	0	0	0	0.017	0			29
30			0.505 B	0	0	0	0	0	0.006	0			30
31			0.550 B		0		0	0		0			31
TOTAL		0	6.093	12.635	8.097	0	0	0	0.299	0.001			TOTAL
MEAN		0	0.197	0.421	0.261	0	0	0	0.010	0			MEAN
DAM3		0	526	1090	700	0	0	0	25.8	0.086			DAM3
MAX		0	0.620	0.889	1.44	0	0	0	0.197	0.001			MAX
MIN		0	0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT

MEAN DISCHARGE,0.111 M3/S
TOTAL DISCHARGE, 2340 DAM3
MAXIMUM DAILY DISCHARGE, 1.44 M3/S ON MAY 12
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE: NOT DETERMINED

A-MANUAL GAUGE
B-ICE CONDITIONS

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

BATTLE CREEK BASIN – SASKATCHEWAN
SURFACE WATER USE (MINOR DIVERSIONS) FOR 1991
cubic decametres

file	March			April			May			June			July			August			September			October			
number	1–14	15–25	26–4	5–14	15–24	25–4	5–14	15–25	26–4	5–14	15–24	25–4	5–14	15–25	26–4	5–14	15–25	26–4	5–14	15–24	25–4	5–14	15–25	26–4	Total
52							19																		19
59			17	57			24	16																	114
71				116																					116
73				8																					8
77			20	50																					70
86				26	78																				105
86							10	26	12																48
181							4	1																	4
190			47	142																					189
219				13																					13
237			11	5																					16
323		25																							25
338																									
358																									
606		7	5																						12
622																									
710																									
758																									
765																									
900																									
985																									
1247																									
1499	7	5																							12
1753			16																						16
1754																									
1786		3																							3
2124																									
2159																									
2282																									
2283																									
2500																									
2755																									
2841																									
2954								1	1																2
3586		1	3	1																					4
3739																									
3855																									
3930																									
3931																									
4851								4	4																8
5141																									
5193							4																		4

continued ...

BATTLE CREEK BASIN – SASKATCHEWAN (continued)
SURFACE WATER USE (MINOR DIVERSIONS) FOR 1991
cubic decametres

file	March			April			May			June			July			August			September			October			
number	1–14	15–25	26–4	5–14	15–24	25–4	5–14	15–25	26–4	5–14	15–24	25–4	5–14	15–25	26–4	5–14	15–25	26–4	5–14	15–24	25–4	5–14	15–25	26–4	Total
5263																									
5292																									
5293																									
5420																									
5421																									
5422																									
5441																									
5442																									
5453					16																				16
5455																									
5512				9																					9
5527																									
5528	7																								7
5529	5																								5
5539																									
5540																									
5557																									
5784								4	4																8
5874		1	1	1																					3
5940																									
6139	4	4																							8
6150																									
6308																									
6387																									
6714		6																							6
6719																									
6795																									
7144																									
7241																									
8056	13																								13
8107																									
8192																									
8228																									
8229				18																					18
8314																									
8336		7																							7
8498																									
8559																									
8575																									
8646								6	6																12
8647																									
8648								3	3																7
8649																									

continued ...

BATTLE CREEK BASIN – SASKATCHEWAN (continued)
SURFACE WATER USE (MINOR DIVERSIONS) FOR 1991
cubic decametres

file	March			April			May			June			July			August			September			October			
number	1–14	15–25	26–4	5–14	15–24	25–4	5–14	15–25	26–4	5–14	15–24	25–4	5–14	15–25	26–4	5–14	15–25	26–4	5–14	15–24	25–4	5–14	15–25	26–4	Total
8973																									
8998		10	2																						12
9321																									
9344		14	3																						17
9679																									
9759																									
9760																									
9803								6	7																13
9811																									
9917							4																		4
10015																									
10138									11																11
10340																									
10548																									
11191	0	1																							2
11192		3																							3
11805																									
14422							28	52	14																94
15610								40	18																59
Shepherd Ditch			2	31	42	46	79	209	67	26	2	3	9	3	1	1	1	1	1	6	7	6	4		547
Sub–Total	36	88	127	477	137	46	171	368	148	26	2	3	9	3	1	1	1	1	1	6	7	6	4		1668
Adams L.				22	22																				44
Alberta Use																									
Domestic Use	10	25	36	134	38	13	48	103	41	7	1	1	3	1	0	0	0	0	0	2	2	2	1		467
Total	46	113	165	663	239	105	297	680	257	59	5	7	21	7	2	2	2	2	2	14	16	14	9		2726

Data supplied by Saskatchewan Water Corporation and Water Rights Branch, Alberta Environment.

Domestic use estimated at 27 percent of irrigation use.

WATER SURVEY OF CANADA
JAN 09 1992 PAGE 9
REGINA, SASK. 16:34

FRENCHMAN RIVER AT INTERNATIONAL BOUNDARY

STATION NO. 11AC041

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0.116	0.800 E	0.711	5.09	39.3	0.442	0.221	0.027			1
2			0.081	0.800 E	0.576	4.96	57.0	0.465	0.195	0.028			2
3			0.074	0.700 E	0.454	4.91	53.6	0.479	0.185	0.027			3
4			0.124	0.600 E	0.408	5.59	66.8	0.704	0.183	0.025			4
5			0.109	0.448	0.367	5.69	59.2	1.12	0.168	0.023			5
6			0.075	0.379	0.292	5.60	46.6	1.09	0.164	0.023			6
7			0.045	0.174	0.231	6.49	28.9	1.26	0.172	0.024			7
8			0.046	0.232	0.178	6.78	7.68	1.50	0.170	0.034			8
9			0.101	0.236	0.166	6.51	5.36	1.57	0.168	0.036			9
10			0.454	0.145	0.128	5.90	4.75	1.40	0.172	0.041			10
11			1.05	0.116	0.097	5.71	4.31	1.13	0.171	0.044			11
12			1.62	0.104	1.16	5.58	4.47	1.01	0.150	0.048			12
13			3.81	0.086	3.80	5.53	4.76	0.804	0.118	0.055			13
14			3.22	0.082	2.19	5.64	6.37	0.700	0.090	0.046			14
15			3.36	0.085	0.969	5.50	6.87	0.745	0.075	0.052			15
16			4.39	0.065	0.555	5.53	5.91	1.22	0.063	0.038			16
17			3.85	0.053	0.354	5.37	4.09	1.31	0.055	0.034			17
18			4.25	0.047	0.260	5.14	3.06	1.41	0.046	0.031			18
19			4.99	0.051	0.152	4.92	2.14	1.17	0.041	0.028			19
20			6.30 E	0.051	0.878	4.80	1.84	0.886	0.036	0.029			20
21			7.00 E	0.054	3.35	4.47	1.52	0.655	0.035	0.029			21
22			6.00 E	0.059	4.07	2.38	1.19	0.546	0.048	0.027			22
23			5.00 E	0.063	4.09	2.10	1.03	0.498	0.044	0.031			23
24			4.00 E	0.063	4.23	7.65	0.956	0.375	0.050	0.130			24
25			3.00 E	0.072	4.32	10.6	0.916	0.258	0.053	0.130			25
26			2.00 E	0.097	4.75	11.7	0.876	0.177	0.050	0.113			26
27			1.00 E	0.176	4.85	13.4	0.785	0.174	0.047	0.114			27
28			0.500 E	0.353	5.00	14.4	0.613	0.253	0.036	0.220 E			28
29			0.550 E	0.775	5.37	19.3	0.557	0.268	0.032	0.270 E			29
30			0.600 E	0.748	5.23	45.0	0.512	0.272	0.028	0.210 E			30
31			0.700 E		5.08		0.467	0.260		0.180 E			31
TOTAL			68.415	7.714	64.266	242.24	422.432	24.151	3.066	2.147			TOTAL
MEAN			2.21	0.257	2.07	8.07	13.6	0.779	0.102	0.069			MEAN
DAM3			5910	666	5550	20900	36500	2090	265	186			DAM3
MAX			7.00	0.800	5.37	45.0	66.8	1.57	0.221	0.270			MAX
MIN			0.045	0.047	0.097	2.10	0.467	0.174	0.028	0.023			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 3.41 M3/S
TOTAL DISCHARGE, 72100 DAM3
MAXIMUM DAILY DISCHARGE,66.8 M3/S ON JUL 4
MINIMUM DAILY DISCHARGE,0.023 M3/S ON OCT 5

E-ESTIMATED

MAXIMUM INSTANTANEOUS DISCHARGE, 79.9 M3/S AT 0030 CST ON JUNE 30

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY OF CANADA
JAN 02 1992 PAGE 7
REGINA, SASK. 10:56

BELANGER CREEK DIVERSION TO CYPRESS LAKE

STATION NO. 11AC064

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0 B	0.017 B	0.019	0	0.422	0.215	0	0			1
2			0 B	0.863	0.024	0	0.367	0.369	0	0			2
3			0 B	1.92	0.018	0	0.324	0.269	0	0			3
4			0 B	1.21	0.035	0	0.320	0.210	0	0			4
5			0 B	0.894	0.020	0	0.351	0.193	0	0			5
6			0 B	0.188	0.038	0	0.313	0.186	0	0			6
7			0 B	0.006	1.16	0	0.295	0.185	0	0			7
8			0 B	0.047	1.80	0	0.391	0.163	0	0			8
9			0 B	0.027	1.56	0	0.413	0.151	0	0			9
10			0 B	0.032	0.578	0	0.402	0.135	0	0			10
11			0 B	0.115	0.118	0	0.452	0.120	0	0			11
12			0 B	0.089	0.411	0	0.344	0.134	0	0			12
13			0 B	0.078	1.06	0	0.464	0.942	0	0			13
14			0 B	0.101	0.150	0	0.474	1.61	0	0			14
15			0 B	0.117	0.004	0	0.354	0.758	0	0			15
16			0 B	0.001	0	0	0.267	0.812	0	0			16
17			0 B	0	0	0	0.246	0.330	0	0			17
18			0 B	0	0	0	0.232	0.231	0	0			18
19			0 B	0	0	0	0.230	0.186	0	0			19
20		0 B	0 B	0	0	0	0.226	0.165	0	0			20
21		0 B	0.005 B	0	0	0	0.214	0.103	0	0			21
22		0 B	0.063 B	0	0	0	0.208	0.002	0	0			22
23		0 B	0.022 B	0.015	0	0	0.203	0	0	0			23
24		0 B	0.004 B	0.037	0	0	0.203	0	0	0			24
25		0 B	0 B	0.030	0.003	0	0.221	0	0	0			25
26		0 B	0 B	0.030	0.003	0	0.186	0	0	0			26
27		0 B	0 B	0.043	0	0.160	0.198	0	0	0			27
28		0 B	0 B	0.027	0.052	0.362	0.225	0	0	0			28
29			0 B	0.063	0.578	0.512	0.215	0	0	0			29
30			0 B	0.058	0.015	0.441	0.169	0	0	0			30
31			0 B		0		0.180	0		0			31
TOTAL			0.094	6.008	7.646	1.475	9.109	7.469	0	0			TOTAL
MEAN			0.003	0.200	0.247	0.049	0.294	0.241	0	0			MEAN
DAM3			8.12	519	661	127	787	645	0	0			DAM3
MAX			0.063	1.92	1.80	0.512	0.474	1.61	0	0			MAX
MIN			0	0	0	0	0.169	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE,0.130 M3/S
TOTAL DISCHARGE, 2750 DAM3
MAXIMUM DAILY DISCHARGE, 1.92 M3/S ON APR 3
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

B-ICE CONDITIONS

MAXIMUM INSTANTANEOUS DISCHARGE:NOT DETERMINED

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

CYPRESS LAKE

STATION NO. 11AC037

DAILY WATER LEVEL IN METRES FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1					970.729	970.700	970.801	970.835	970.803	970.719 E			1
2					970.730	970.704	970.816	970.829	970.805	970.720 A			2
3					970.733	970.711	970.823	970.827	970.795				3
4				970.692 A	970.723	970.731	970.849	970.826	970.797				4
5					970.718	970.741	970.840	970.825	970.787				5
6					970.716	970.734	970.852	970.824	970.784				6
7			970.630 A		970.710	970.728	970.842	970.815	970.778				7
8					970.712	970.732	970.845	970.813	970.815				8
9					970.713	970.743	970.851	970.811	970.771				9
10				970.701 A	970.724	970.744	970.864	970.811	970.765				10
11					970.725	970.739	970.874	970.801	970.773				11
12					970.730	970.715	970.877	970.798	970.764				12
13					970.682	970.727	970.884	970.810	970.757				13
14					970.730	970.724	970.882	970.859	970.785				14
15					970.735	970.715	970.876	970.868	970.749				15
16					970.742	970.723	970.884	970.870	970.749				16
17					970.758	970.688	970.872	970.872	970.751				17
18					970.743	970.725	970.871	970.869	970.741				18
19					970.708	970.744	970.874	970.867	970.738				19
20			970.648 A		970.711	970.751	970.872	970.866	970.753				20
21					970.705	970.740	970.870	970.863	970.752				21
22					970.689	970.748	970.865	970.861	970.729				22
23				970.693 A	970.685	970.749	970.863	970.852	970.729				23
24				970.683	970.678	970.763	970.862	970.845	970.727				24
25				970.675	970.681	970.767	970.860	970.832	970.729				25
26				970.695	970.680	970.764	970.847	970.825	970.731				26
27				970.696 A	970.681	970.772	970.844	970.827	970.731				27
28		970.630 E		970.733 A	970.695	970.785	970.840	970.806	970.730	970.676 A			28
29				970.727 A	970.699	970.793	970.831	970.811	970.725 A				29
30				970.724 A	970.706	970.801	970.838	970.815	970.722 E				30
31			970.680 E		970.703		970.828	970.814		970.676 E			31
TOTAL					30092.074	29122.201	30096.497	30095.847	29122.765				TOTAL
MEAN					970.712	970.740	970.855	970.834	970.759				MEAN
MAX					970.758	970.801	970.884	970.872	970.815				MAX
MIN					970.678	970.688	970.801	970.798	970.722				MIN

SUMMARY FOR THE YEAR 1991

MAXIMUM DAILY WATER LEVEL, 970.884 METRES ON JUL 13
MINIMUM DAILY WATER LEVEL, 970.630 METRES ON FEB 28
MAXIMUM INSTANTANEOUS WATER LEVEL, 970.948 METRES AT 2224 CST ON JULY 4
WATER LEVELS ARE REFERRED TO GEODETIC SURVEY OF CANADA DATUM

A-MANUAL GAUGE
E-ESTIMATED

THE MAXIMUM INSTANTANIOUS WATER LEVEL OCCURRED AS THE RESULT OF WIND SETUP

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY OF CANADA
JAN 13 1992 PAGE 8
REGINA, SASK. 12:39

CYPRESS LAKE EAST OUTFLOW CANAL

STATION NO. 11AC060

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0 B	0.086 B	0.026	0.271	0.018	0.011	0.006	0.009			1
2			0 B	0.155 B	0.024	0.139	0.014	0.015	0.006	0.009			2
3			0 B	0.159 B	0.125	0.108	0.016	0.012	0.006	0.009			3
4			0 B	0.193 B	0.063	0.149	0.015	0.011	0.005	0.009			4
5			0 B	0.022 B	0.050	0.199	0.016	0.010	0.005	0.009			5
6			0 B	0.017 B	0.052	0.179	0.017	0.009	0.005	0.010			6
7			0 B	0.024 B	0.131	0.212	0.020	0.009	0.006	0.010			7
8			0 B	0.024 B	0.437	0.218	0.023	0.008	0.006	0.010			8
9			0 B	0.013 B	0.995	0.208	0.017	0.008	0.006	0.009			9
10			0 B	0.009 B	1.20	0.187	0.021	0.007	0.006	0.009			10
11			0 B	0.015 B	1.20	0.153	0.126	0.007	0.007	0.008			11
12			0 B	0.057	1.27	0.110	0.029	0.007	0.007	0.008			12
13			0 B	0.064	1.38	0.054	0.018	0.010	0.007	0.009			13
14			0 B	0.029	1.36	0.212	0.011	0.026	0.008	0.008			14
15			0.001 B	0.029	1.26	0.431	0.011	0.017	0.008	0.009			15
16			0.002 B	0.032	1.11	0.388	0.012	0.011	0.009	0.010			16
17			0.007 B	0.031	0.759	0.367	0.012	0.011	0.010	0.004			17
18			0.019 B	0.029	0.487	0.330	0.012	0.012	0.010	0.003			18
19			0.028 B	0.029	0.289	0.323	0.011	0.011	0.009	0.004			19
20		0 B	0.046 B	0.029	0.060	0.297	0.011	0.012	0.008	0.007			20
21		0 B	0.031 B	0.030	0.087	0.319	0.012	0.013	0.008	0.008			21
22		0 B	0.012 B	0.030	0.045	0.343	0.012	0.013	0.009	0.008			22
23		0 B	0.094 B	0.034	0.032	0.329	0.013	0.013	0.009	0.007			23
24		0 B	0.096 B	0.030	0.037	0.318	0.013	0.012	0.008	0.006			24
25		0 B	0.065 B	0.028	0.182	0.307	0.010	0.012	0.008	0.007			25
26		0 B	0.022 B	0.026	0.297	0.305	0.008	0.011	0.008	0.005 B			26
27		0 B	0.003 B	0.029	0.278	0.205	0.008	0.010	0.007	0.002 B			27
28		0 B	0.002 B	0.030	0.221	0.022	0.009	0.009	0.007	0.001 B			28
29			0.002 B	0.027	0.352	0.020	0.008	0.009	0.008	0.001 B			29
30			0.002 B	0.029	0.383	0.019	0.010	0.008	0.009	0.001 B			30
31			0.003 B		0.350		0.012	0.006		0.001 B			31
TOTAL			0.435	1.339	14.542	6.722	0.545	0.340	0.221	0.210			TOTAL
MEAN			0.014	0.045	0.469	0.224	0.018	0.011	0.007	0.007			MEAN
DAM3			37.6	116	1260	581	47.1	29.4	19.1	18.1			DAM3
MAX			0.096	0.193	1.38	0.431	0.126	0.026	0.010	0.010			MAX
MIN			0	0.009	0.024	0.019	0.008	0.006	0.005	0.001			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE,0.099 M3/S
TOTAL DISCHARGE, 2110 DAM3
MAXIMUM DAILY DISCHARGE, 1.38 M3/S ON MAY 13
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

B-ICE CONDITIONS

MAXIMUM INSTANTANEOUS DISCHARGE:NOT DETERMINED

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

STORAGE FACTORS AND EVAPORATION LOSSES
1991

EASTEND RESERVOIR 11AC055

PERIOD	MEAN ELEVATION (m)	EVAPORATION Pan (m)	EVAPORATION Reservoir (dam3)	ELEVATION AT Begining of Period (m)	ELEVATION AT End of Period (m)	STORAGE AT Beginning of Period (dam3)	STORAGE AT End of Period (dam3)	CHANGE IN STORAGE (dam3)
1	915.469	0.000	0	915.460	915.484	92	96	4
2	915.480	0.000	0	915.484	915.485	96	96	0
3	915.801	0.000	0	915.485	916.947	96	778	682
4	917.451	0.000	0	916.947	917.674	778	1566	788
5	917.825	0.003	3	917.674	918.044	1566	2066	500
6	918.247	0.028	31	918.044	918.377	2066	2583	517
7	918.432	0.007	9	918.377	918.470	2583	2746	163
8	918.532	0.015	20	918.470	918.518	2746	2834	88
9	918.409	0.066	80	918.518	918.407	2834	2633	−202
10	918.278	0.020	23	918.407	918.410	2633	2638	5
11	918.316	0.031	36	918.410	918.296	2638	2454	−184
12	918.343	−0.005	−6	918.296	918.404	2454	2627	174
13	918.313	−0.038	−44	918.404	918.317	2627	2487	−140
14	918.365	0.038	45	918.317	918.369	2487	2570	83
15	918.324	0.088	102	918.369	918.311	2570	2478	−93
16	918.165	0.051	54	918.311	917.769	2478	1690	−788
17	917.219	0.061	45	917.769	916.604	1690	517	−1173
18	916.698	0.074	36	916.604	916.772	517	634	118
19	916.813	0.068	37	916.772	916.827	634	677	43
20	916.815	0.046	25	916.827	916.829	677	678	2
21	916.890	0.033	19	916.829	916.959	678	789	110
22	916.825	0.045	25	916.959	916.505	789	456	−332
23	916.197	0.042	12	916.505	915.826	456	174	−283
24	915.531	0.028	4	915.826	915.478	174	95	−78

EVAPORATION STATION IS VAL MARIE

WATER SURVEY OF CANADA
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EASTEND CANAL NEAR EASTEND

STATION NO. 11AC052

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	0	0	0	0	2.33	0	0			1
2			0	0	0	0	0	2.24	0	0			2
3			0	0	0	0	0	2.07	0	0			3
4			0	0	0	0	0	1.97	0	0			4
5			0	0	0	0	0	1.91	0	0			5
6			0	0	1.04	0	0	1.80	0	0			6
7			0	0	1.84	0	0	1.65	0	0			7
8			0	0	1.98	0	0	1.59	0	0			8
9			0	0	2.16	0	0	1.43	0	0			9
10			0	0	2.29	0	0	1.30	0	0			10
11			0	0	2.23	0	0	1.40	0	0			11
12			0	0	2.26	0	0	1.41	0	0			12
13			0	0	2.25	0	0	1.14	0	0			13
14			0	0	2.28	0	0	0.577	0	0			14
15			0	0	2.24	0	0	0.144	0	0			15
16			0	0	1.98	0	0	0	0	0			16
17			0	0	1.81	0	0	0	0	0			17
18			0	0	1.80	0	0	0	0	0			18
19			0	0	1.80	0	0	0	0	0			19
20			0	0	1.79	0	0	0	0	0			20
21			0	0	1.66	0	0	0	0	0			21
22		0	0	0	1.62	0	0	0	0	0			22
23		0	0	0	1.64	0	0	0	0	0			23
24		0	0	0	1.66	0	0	0	0	0			24
25		0	0	0	1.38	0	0	0	0	0			25
26		0	0	0	1.12	0	0	0	0	0			26
27		0	0	0	0.694	0	0	0	0	0			27
28		0	0	0	0.261	0	0	0	0	0			28
29			0	0	0	0	1.33	0	0	0			29
30			0	0	0	0	2.25	0	0	0			30
31			0		0		2.40	0		0			31
TOTAL			0	0	39.785	0	5.980	22.961	0	0			TOTAL
MEAN			0	0	1.28	0	0.193	0.741	0	0			MEAN
DAM3			0	0	3440	0	517	1980	0	0			DAM3
MAX			0	0	2.29	0	2.40	2.33	0	0			MAX
MIN			0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE,0.281 M3/S
TOTAL DISCHARGE, 5940 DAM3
MAXIMUM DAILY DISCHARGE, 2.40 M3/S ON JUL 31
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE:NOT DETERMINED

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY OF CANADA
JAN 07 1992 PAGE 7
REGINA, SASK. 15:29

FRENCHMAN RIVER BELOW EASTEND RESERVOIR

STATION NO. 11AC001

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1		0.070 B	0.400 B	2.82	1.60	3.45	1.13	0.032	0.222	7.04			1
2		0.080 B	0.110 B	4.98	1.73	2.44	0.404	0.037	0.253	7.01			2
3		0.100 B	0.567 B	9.11	1.77	0.611	0.401	0.033	0.267	6.97			3
4		0.185 B	2.14 B	11.3	1.77	5.19	0.404	0.030	0.271	6.92			4
5		0.617 B	0.424 B	11.3	1.78	4.75	0.410	0.041	0.241	6.88			5
6		0.315 B	0.239 B	8.49	1.07	3.37	0.412	0.087	0.246	6.80			6
7		0.280 B	0.276 B	7.32	0.496	2.81	0.415	0.083	0.248	6.76			7
8		0.247 B	1.09 B	5.74	1.13	2.96	0.602	0.094	0.273	6.72			8
9		0.259 B	0.561 B	3.02	2.15	2.94	0.728	0.086	0.282	6.63			9
10		0.308 B	0.303 B	2.22	5.20	2.46	0.748	0.093	0.291	6.76			10
11		0.287 B	0.336 B	2.24	3.89	2.21	0.938	0.094	0.287	7.01			11
12		0.406 B	0.371 B	1.99	3.80	1.77	1.15	0.086	0.283	6.88			12
13		0.559 B	0.448 B	1.73	9.10	1.22	1.16	0.095	0.296	6.70			13
14		0.263 B	0.515 B	1.73	10.3	0.685	1.16	0.102	0.319	6.52			14
15		0.268 B	0.655 B	1.10	7.89	0.634	0.887	0.084	0.298	6.35			15
16		0.373 B	0.761 B	0.517	5.47	1.06	0.522	0.096	0.281	5.00			16
17		0.370 B	0.742 B	0.500	3.14	1.66	0.392	0.079	0.264	0.496			17
18		0.322 B	0.843 B	0.498	3.00	1.62	0.381	0.085	0.270	0.438			18
19		0.309 B	1.80 B	0.478	2.73	1.29	0.394	0.099	0.271	0.431			19
20		0.488 B	1.85 B	0.478	1.87	1.10	0.402	0.093	0.280	0.455			20
21		0.440 B	1.23 B	0.856	1.01	1.09	0.337	0.104	0.307	0.480			21
22		0.335 B	0.382 B	1.13	0.634	1.36	0.287	0.132	0.283	0.451			22
23		0.348 B	0.507 B	0.516	0.401	1.87	0.210	0.109	0.209	0.494			23
24		0.322 B	0.556 B	0.495	0.391	3.34	0.156	0.107	0.153	0.526			24
25		0.328 B	0.730 B	0.477	4.94	3.98	0.150	0.106	1.32	0.504			25
26		0.326 B	1.43 B	0.841	4.61	3.55	0.121	0.111	5.61	0.453			26
27		0.582 B	1.90 B	1.10	4.61	2.00	0.038	0.111	7.27	0.342 B			27
28		0.790 B	2.22 B	1.19	6.19	1.25	0.035	0.113	7.20	0.406 B			28
29			2.38 B	1.38	10.4	1.17	0.031	0.123	7.16	0.400 B			29
30			3.41 B	1.38	10.8	0.684	0.028	0.167	7.13	0.396 B			30
31			3.10		5.46		0.028	0.217		0.392 B			31
TOTAL		9.577	32.276	86.926	119.332	64.524	14.461	2.929	42.085	113.614			TOTAL
MEAN		0.342	1.04	2.90	3.85	2.15	0.466	0.094	1.40	3.66			MEAN
DAM3		827	2790	7510	10300	5570	1250	253	3640	9820			DAM3
MAX		0.790	3.41	11.3	10.8	5.19	1.16	0.217	7.27	7.04			MAX
MIN		0.070	0.110	0.477	0.391	0.611	0.028	0.030	0.153	0.342			MIN

SUMMARY FOR THE MONTHS FEB TO OCT
MEAN DISCHARGE, 1.78 M3/S
TOTAL DISCHARGE, 42000 DAM3
MAXIMUM DAILY DISCHARGE,11.3 M3/S ON APR 4
MINIMUM DAILY DISCHARGE,0.028 M3/S ON JUL 30

B-ICE CONDITIONS

MAXIMUM INSTANTANEOUS DISCHARGE, 13.7 M3/S AT 2150 CST ON MAY 29

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY OF CANADA
DEC 05 1991 PAGE 9
REGINA, SASK. 08:20

VAL MARIE EVAPORATION

STATION NO. 11EV063

DAILY EVAPORATION IN METRES FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1				0	0.002	0.008	0.004	-0.011	0.006	0.003			1
2				0	0	0.009	0.005	0.004	0.004	0.004			2
3				0	-0.005	-0.019	0.006	0.007	0.005	0.002			3
4				0	0.001	0.005	0.005	0.007	0.007	0.002			4
5				0	0.004	0	0	0.006	0.005	0.003			5
6				0	0.002	-0.012	0.009	0.006	0.005	0.004			6
7				0	-0.002	0.006	0.006	0.007	0.005	0.007			7
8				0.002	-0.003	0.005	0.006	0.007	0.005	0.007			8
9				0.002	0.006	0.006	0.002	0.013	0.001	0.003			9
10				-0.007	0.006	0.007	-0.010	0.012	0.003	0.003			10
11				0.002	-0.005	-0.002	0.005	0.012	0.004	0.005			11
12				0.004	0.002	0.009	0.008	0.007	0.006	0.005			12
13				0	0.004	0.007	0.007	-0.016	0.005	0.003			13
14				0.001	0.006	0	0.008	0.005	0.001	0.002			14
15				-0.002	0.004	0.008	0.007	0.005	0.004	0.005			15
16				0	0.005	0.007	0.009	0.006	0.001	0.004			16
17				0.003	0.008	0.006	0.009	0.007	0.003	0.004			17
18				0.002	0.009	0.004	0.007	0.009	0.004	0.004			18
19				0.002	0.006	0.007	0.006	0.008	0.007	0.003			19
20				0.005	0.002	0.004	0.009	0.008	0.006	0.002			20
21				0.006	0.008	-0.031	0.008	0.007	0.004	0.004			21
22				0.006	0.005	-0.009	0.009	0.008	0	0			22
23				0.005	0.008	-0.001	0.007	0.005	0.003	0			23
24				0.008	0.005	-0.004	0.009	0.006	0.007	0			24
25				-0.005	0.004	-0.007	0.011	0.005	0.004	0			25
26				0.001	0.004	0.006	0.002	0.009	0.005	0			26
27				0.001	-0.006	-0.002	0.008	0.003	0.006	0			27
28				0.001	0.004	-0.038	0.007	0.008	0.005	0			28
29				0.002	0.006	-0.012	0.009	0.007	0.004	0			29
30				0.002	0.003	0.004	0.007	0.012	0.005	0			30
31					0.007		0.007	0.009		0			31
TOTAL				0.041	0.100	-0.029	0.192	0.188	0.130	0.079			TOTAL
MEAN				0.001	0.003	-0.001	0.006	0.006	0.004	0.003			MEAN
DAM3				3.54	8.64	-2.51	16.6	16.2	11.2	6.83			DAM3
MAX				0.008	0.009	0.009	0.011	0.013	0.007	0.007			MAX
MIN				-0.007	-0.006	-0.038	-0.010	-0.016	0	0			MIN

SUMMARY FOR THE MONTHS APR TO OCT
MEAN EVAPORATION,0.003 M
TOTAL EVAPORATION,0.701 M
MAXIMUM DAILY EVAPORATION,0.013 M ON AUG 9
MINIMUM DAILY EVAPORATION,-.038 M ON JUN 28

MAXIMUM INSTANTANEOUS EVAPORATION: NOT DETERMINED

STORAGE FACTORS AND EVAPORATION LOSSES
1991

HUFF LAKE 11AC063

PERIOD	MEAN ELEVATION (m)	EVAPORATION Pan (m)	EVAPORATION Reservoir (dam3)	ELEVATION AT Begining of Period (m)	ELEVATION AT End of Period (m)	STORAGE AT Beginning of Period (dam3)	STORAGE AT End of Period (dam3)	CHANGE IN STORAGE (dam3)
1	813.140	0.000	0	812.831	813.343	351	632	281
2	813.684	0.000	0	813.343	814.697	632	2173	1541
3	815.447	0.000	0	814.697	815.799	2173	4500	2326
4	815.781	0.000	0	815.799	815.785	4500	4466	−34
5	815.722	0.005	8	815.785	815.731	4466	4335	−131
6	815.734	0.031	52	815.731	815.753	4335	4388	53
7	815.753	0.007	12	815.753	815.764	4388	4415	27
8	815.759	0.033	56	815.764	815.835	4415	4587	173
9	815.695	0.049	82	815.835	815.675	4587	4201	−387
10	815.780	0.013	22	815.675	815.874	4201	4683	482
11	815.748	0.053	90	815.874	815.705	4683	4272	−411
12	815.751	−0.033	−56	815.705	815.758	4272	4400	128
13	815.808	−0.011	−19	815.758	815.729	4400	4330	−70
14	815.734	0.051	86	815.729	815.707	4330	4277	−53
15	815.687	0.083	139	815.707	815.711	4277	4287	10
16	815.715	0.049	82	815.711	815.637	4287	4110	−176
17	815.255	0.058	88	815.637	814.782	4110	2319	−1791
18	814.222	0.076	70	814.782	813.724	2319	912	−1407
19	813.658	0.065	38	813.724	813.655	912	853	−60
20	813.662	0.033	20	813.655	813.686	853	878	26
21	813.729	0.046	29	813.686	813.775	878	960	81
22	813.902	0.039	29	813.775	814.145	960	1368	408
23	814.368	0.041	41	814.145	814.566	1368	1961	593
24	814.738	0.013	16	814.566	814.867	1961	2470	509

EVAPORATION STATION IS VAL MARIE

STORAGE FACTORS AND EVAPORATION LOSSES
1991

NEWTON LAKE 11AC056

PERIOD	MEAN ELEVATION (m)	EVAPORATION Pan (m)	EVAPORATION Reservoir (dam3)	ELEVATION AT Begining of Period (m)	ELEVATION AT End of Period (m)	STORAGE AT Beginning of Period (dam3)	STORAGE AT End of Period (dam3)	CHANGE IN STORAGE (dam3)
1	0.000	0.000	0	798.500	798.500	0	0	0
2	559.554	0.000	0	798.500	799.854	0	680	680
3	800.126	0.000	0	799.854	800.239	680	1229	549
4	800.841	0.000	0	800.239	801.692	1229	5047	3819
5	802.377	0.005	15	801.692	802.671	5047	9099	4052
6	802.775	0.031	106	802.671	802.881	9099	10121	1022
7	802.918	0.007	25	802.881	803.018	10121	10827	706
8	803.197	0.033	130	803.018	803.480	10827	13489	2662
9	803.284	0.049	200	803.480	802.754	13489	9496	−3993
10	802.889	0.013	46	802.754	803.075	9496	11132	1635
11	803.012	0.053	195	803.075	802.733	11132	9394	−1737
12	802.842	−0.033	−115	802.733	803.174	9394	11674	2280
13	803.388	−0.011	−47	803.174	803.374	11674	12835	1161
14	803.373	0.051	216	803.374	803.320	12835	12512	−323
15	803.294	0.083	340	803.320	803.244	12512	12071	−441
16	803.079	0.049	185	803.244	802.831	12071	9872	−2198
17	802.624	0.058	189	802.831	802.497	9872	8297	−1576
18	802.482	0.076	238	802.497	802.468	8297	8168	−128
19	802.438	0.065	201	802.468	802.402	8168	7876	−293
20	802.362	0.033	100	802.402	802.324	7876	7539	−336
21	802.301	0.046	137	802.324	802.274	7539	7327	−213
22	802.251	0.039	115	802.274	802.234	7327	7159	−168
23	802.207	0.041	119	802.234	802.170	7159	6893	−266
24	802.150	0.013	37	802.170	802.134	6893	6746	−147

EVAPORATION STATION IS VAL MARIE

WATER SURVEY OF CANADA
DEC 30 1991 PAGE 10
REGINA, SASK.

HUFF LAKE GRAVITY CANAL

STATION NO. 11AC065

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	0	0	1.46	0	0	0	0			1
2			0	0	0	1.33	0	0	0	0			2
3			0	0	0	1.09	0	0	0	0			3
4			0	0	0	0.951	0	0	0	0			4
5			0	0	0	0.810	0	0.258	0	0			5
6			0	0	0	0.819	0	0.805	0	0			6
7			0	0	0	0.632	0	0.886	0	0			7
8			0	0	0	0.470	0	0.960	0	0			8
9			0	0	0	0.413	0	1.03	0	0			9
10			0	0	0	0	0	1.10	0	0			10
11			0	0	0	0	0	1.15	0	0			11
12			0	0	0	0	0	1.20	0	0			12
13			0	0	0	0	0	1.02	0	0			13
14			0	0	0	0	0	0.662	0	0			14
15			0	0	0	0	0	0.683	0	0			15
16			0	0	0	0	0	0.701	0	0			16
17			0	0	0	0	0	0.703	0	0			17
18			0	0	0	0	0	0.672	0	0			18
19			0	0	0	0	0	0.643	0	0			19
20			0	0	0.023	0	0	0.662	0	0			20
21			0	0	0.792	0	0	0.664	0	0			21
22			0	0	0.969	0	0	0.681	0	0			22
23			0	0	0.922	0	0	0.666	0	0			23
24			0	0	1.06	0	0	0.609	0	0			24
25			0	0	1.21	0	0	0.579	0	0			25
26		0	0	0	1.22	0	0	0.543	0	0			26
27		0	0	0	1.21	0	0	0.485	0	0			27
28		0	0	0	1.23	0	0	0.510	0	0			28
29			0	0	1.32	0	0	0.463	0	0			29
30			0	0	1.32	0	0	0.348	0	0			30
31			0		1.42		0	0		0			31
TOTAL			0	0	12.696	7.975	0	18.683	0	0			TOTAL
MEAN			0	0	0.410	0.266	0	0.603	0	0			MEAN
DAM3			0	0	1100	689	0	1610	0	0			DAM3
MAX			0	0	1.42	1.46	0	1.20	0	0			MAX
MIN			0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE,0.161 M3/S
TOTAL DISCHARGE, 3400 DAM3
MAXIMUM DAILY DISCHARGE, 1.46 M3/S ON JUN 1
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY OF CANADA
JAN 08 1992 PAGE 6
REGINA, SASK. 08:35

HUFF LAKE PUMPING CANAL

STATION NO. 11AC066

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	0	0	0.722	0	0	0	0			1
2			0	0	0	0.706	0	0	0	0			2
3			0	0	0	0.703	0	0	0	0			3
4			0	0	0	0.689	0	0	0	0			4
5			0	0	0	0.708	0	0.055	0	0			5
6			0	0	0	0.580	0	0.634	0	0			6
7			0	0	0	0.173	0	0.680	0	0.084			7
8			0	0	0	0	0	0.713	0	0			8
9			0	0	0	0	0	0.716	0	0			9
10			0	0	0	0	0	0.718	0	0			10
11			0	0	0	0	0	0.720	0	0			11
12			0	0	0	0	0	0.692	0	0			12
13			0	0	0	0	0	0.723	0	0			13
14			0	0	0	0.316	0	0.726	0	0			14
15			0	0	0	0.371	0	0.726	0	0			15
16			0	0	0	0.370	0	0.726	0	0			16
17			0	0	0	0.224	0	0.696	0	0			17
18			0	0	0	0.093	0	0.726	0	0			18
19			0	0	0	0	0	0.727	0	0			19
20			0	0	0.062	0	0	0.727	0	0			20
21			0	0	0.416	0	0	0.720	0	0			21
22			0	0	0.702	0	0	0.682	0	0			22
23			0	0	0.719	0	0	0.578	0	0			23
24			0	0	0.717	0	0	0.221	0	0			24
25			0	0	0.685	0	0	0	0	0			25
26		0	0	0	0.709	0	0	0.068	0	0			26
27		0	0	0	0.704	0	0	0	0	0			27
28		0	0	0	0.703	0	0	0	0	0			28
29			0	0	0.705	0	0	0	0	0			29
30			0	0	0.679	0	0	0	0	0			30
31			0		0.720		0	0		0			31
TOTAL			0	0	7.521	5.655	0	12.974	0	0.084			TOTAL
MEAN			0	0	0.243	0.189	0	0.419	0	0.003			MEAN
DAM3			0	0	650	489	0	1120	0	7.26			DAM3
MAX			0	0	0.720	0.722	0	0.727	0	0.084			MAX
MIN			0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE,0.107 M3/S
TOTAL DISCHARGE, 2270 DAM3
MAXIMUM DAILY DISCHARGE,0.727 M3/S ON AUG 19
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE:NOT DETERMINED

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

WATER SURVEY OF CANADA
JAN 24 1992 PAGE 10
REGINA, SASK.

NEWTON LAKE MAIN CANAL

STATION NO. 11AC054

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	0	0	2.62	0	2.45	0	0			1
2			0	0	0	2.63	0	2.47	0	0			2
3			0	0	0	2.61	0	2.45	0	0			3
4			0	0	0	2.65	0	2.45	0	0			4
5			0	0	0	2.52	0	2.73	0	0			5
6			0	0	0	2.54	0	2.77	0	0			6
7			0	0	0	2.58	0	2.73	0	0			7
8			0	0	0	2.46	0	2.61	0	0			8
9			0	0	0	2.14	0	2.47	0	0			9
10			0	0	0	2.13	0	2.43	0	0			10
11			0	0	0	2.06	0	2.45	0	0			11
12			0	0	0	1.69	0	2.46	0	0			12
13			0	0	0	1.60	0	2.42	0	0			13
14			0	0	0	1.34	0	2.40	0	0			14
15			0	0	0	0.806	0	2.20	0	0			15
16			0	0	0	0.237	0	1.84	0	0			16
17			0	0	0	0.152	0	1.49	0	0			17
18			0	0	0	0	0	1.06	0	0			18
19			0	0	0	0	0	0.857	0	0			19
20			0	0	0	0	0	0.725	0	0			20
21			0	0	0	0	0	0.664	0	0			21
22			0	0	0	0	0	0.502	0	0			22
23			0	0	1.57	0	0	0.479	0	0			23
24			0	0	2.47	0	0	0.501	0	0			24
25			0	0	2.75	0	0	0.324	0	0			25
26		0	0	0	2.69	0	0	0	0	0			26
27		0	0	0	2.62	0	0	0	0	0			27
28		0	0	0	2.57	0	0	0	0	0			28
29			0	0	2.64	0	0	0	0	0			29
30			0	0	2.63	0	0	0	0	0			30
31			0		2.58		2.11	0		0			31
TOTAL			0	0	22.520	32.765	2.110	45.932	0	0			TOTAL
MEAN			0	0	0.726	1.09	0.068	1.48	0	0			MEAN
DAM3			0	0	1950	2830	182	3970	0	0			DAM3
MAX			0	0	2.75	2.65	2.11	2.77	0	0			MAX
MIN			0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE,0.422 M3/S
TOTAL DISCHARGE, 8930 DAM3
MAXIMUM DAILY DISCHARGE, 2.77 M3/S ON AUG 6
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

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WATER SURVEY OF CANADA
JAN 08 1992 PAGE 7
REGINA, SASK. 08:08

FRENCHMAN RIVER BELOW NEWTON LAKE

STATION NO. 11AC062

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1		0.010 B	0.016 B	0.002 B	0.004	5.35	51.4 A	0.339	0.293	0.118			1
2		0.010 B	0.017 B	0.002 B	0.006	5.56	14.8	0.335	0.288	0.118			2
3		0.010 B	0.018 B	0.002 B	0.009	5.66	11.9	0.329	0.291	0.121			3
4		0.010 B	0.018 B	0.002 B	0.005	5.71	2.74	0.320	0.283	0.117			4
5		0.010 B	0.019 B	0.002 B	0.003	5.81	0	0.320	0.237	0.103			5
6		0.010 B	0.019 B	0.002 B	0.004	5.84	0.635	0.215	0.153	0.100			6
7		0.010 B	0.020 B	0.002 B	0.003	5.92	1.49	0	0.150	0.099			7
8		0.010 B	0.020 B	0.001 B	0.002	6.06	1.73	0	0.141	0.100			8
9		0.010 B	0.020 B	0	0.003	6.11	1.71	0	0.137	0.099			9
10		0.010 B	0.020 B	0	0.003	6.06	1.71	0	0.134	0.100			10
11		0.010 B	0.021 B	0	0.002	6.05	3.92	0	0.130	0.100			11
12		0.010 B	0.021 B	0.005	0.009	6.06	5.36	0	0.130	0.105			12
13		0.010 B	0.022 B	0.008	0.005	6.00	6.23	0.001	0.126	0.107			13
14		0.010 B	0.023 B	0.002	0.002	5.92	4.64	0	0.126	0.108			14
15		0.010 B	0.024 B	0.002	0.001	5.89	3.60	0.004	0.128	0.107			15
16		0.010 B	0.025 B	0.002	0.001	5.82	1.95	0.012	0.128	0.106			16
17		0.010 B	0.026 B	0.002	0.001	5.78	1.26	0.011	0.124	0.111			17
18		0.010 B	0.011 B	0.002	4.21	5.68	1.11	0.007	0.121	0.106			18
19		0.015 B	0.002 B	0.001	5.11	4.89	0.726	0.002	0.108	0.100			19
20		0.020 B	0.002 B	0.002	5.87	0.531	0.587	0.002	0.109	0.096			20
21		0.035 B	0.002 B	0.001	5.71	0.483	0.587	0.001	0.107	0.093			21
22		0.030 B	0.002 B	0	5.69	3.33	0.582	0.001	0.108	0.090			22
23		0.025 B	0.002 B	0.001	5.61	4.97	0.570	0.001	0.102	0.070			23
24		0.020 B	0.002 B	0	5.50	5.23	0.408	0.001	0.097	0.068			24
25		0.017 B	0.002 B	0	5.40	5.75	0.330	0.106	0.098	0.082			25
26		0.015 B	0.001 B	0	5.31	5.70	0.348	0.317	0.113	0.086			26
27		0.015 B	0.001 B	0.001	5.19	3.49	0.419	0.307	0.121	0.092 B			27
28		0.016 B	0.001 B	0.002	5.09	3.84	0.401	0.320	0.120	0.108 B			28
29			0.001 B	0.004	5.07	18.5	0.374	0.311	0.123	0.114 B			29
30			0.001 B	0.004	5.09	55.5 A	0.358	0.299	0.119	0.114 B			30
31			0.002 B		5.17		0.340	0.290		0.120 B			31
TOTAL		0.388	0.381	0.054	74.083	217.494	122.215	3.851	4.445	3.158			TOTAL
MEAN		0.014	0.012	0.002	2.39	7.25	3.94	0.124	0.148	0.102			MEAN
DAM3		33.5	32.9	4.67	6400	18800	10600	333	384	273			DAM3
MAX		0.035	0.026	0.008	5.87	55.5	51.4	0.339	0.293	0.121			MAX
MIN		0.010	0.001	0	0.001	0.483	0	0	0.097	0.068			MIN

SUMMARY FOR THE MONTHS FEB TO OCT
MEAN DISCHARGE, 1.56 M3/S
TOTAL DISCHARGE, 36900 DAM3
MAXIMUM DAILY DISCHARGE,55.5 M3/S ON JUN 30
MINIMUM DAILY DISCHARGE, 0 M3/S ON APR 9

MAXIMUM INSTANTANEOUS DISCHARGE:NOT DETERMINED

A-MANUAL GAUGE
B-ICE CONDITIONS

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES

FRENCHMAN RIVER BASIN – SASKATCHEWAN
SURFACE WATER USE (MINOR DIVERSIONS) FOR 1991
cubic decametres

file	March			April			May			June			July			August			
number	1–10	11–20	21–31	1–10	11–20	21–30	1–10	11–20	21–31	1–10	11–20	21–31	1–10	11–20	21–31	1–10	11–20	21–31	Total
55								6											6
60								49											49
65					44	73	73	36		81	81	65							452
70				34	17														51
74		6	60	18															84
80				13	13	13	13	6											57
93				13	13	13	13	6											58
118								28											28
121						9	24												33
122							22	27			16								66
123								8	8										16
124							17	16											33
129				42	21														62
154								57	124										181
335				4	4	4	4	2											19
369				14	14	14	14	7											62
379																			
411				19	19	19	19	10											87
461							19	6											25
479																			
507																			
657							6	16											21
690																			
943																			
989																			
992																			
1014				33	4														37
1289						16	16												32
1589				1	6	1													8
1603																			
1691																			
1992																			
2025																			
2154			49																49
2235						21													21
2236						4													4
2305			3																3
2851						25													25
2887																			
3057				4	4	4	4	2											16
3284																			
3635																			
3694																			
3929																			

continued ...

FRENCHMAN RIVER BASIN – SASKATCHEWAN (continued)
SURFACE WATER USE (MINOR DIVERSIONS) FOR 1991
cubic decametres

file	March			April			May			June			July			August			
number	1–10	11–20	21–31	1–10	11–20	21–30	1–10	11–20	21–31	1–10	11–20	21–31	1–10	11–20	21–31	1–10	11–20	21–31	Total
3964		2	4	4	2														12
4579			5																5
4665				16	5														21
4848						4	10												15
4865																			
4912																			
4992																			
5002		10																	10
5084																			
5085																			
5086																			
5235						25													25
5250							16	31	6										53
5278																			
5298		2	18	2															21
5493							29	24	14										67
5525		6																	6
5871																			
6064																			
6339																			
6432						8													8
7312						41													41
7331				3	3	3	3	2											13
7332							3	7											10
7645							11	29											39
7682						5	7												12
7754																			
7778																			
7935																			
7958			7																7
8131																			
8201		2	4	4	2														12
8322	1	6																	7
8345																			
8632							19												19
8696																			
8756																			
8855																			
8856																			
8901		2	3	3	1														8
9076			15																15
9137																			

continued ...

FRENCHMAN RIVER BASIN – SASKATCHEWAN (continued)
SURFACE WATER USE (MINOR DIVERSIONS) FOR 1991
cubic decametres

file	March			April			May			June			July			August			
number	1–10	11–20	21–31	1–10	11–20	21–30	1–10	11–20	21–31	1–10	11–20	21–31	1–10	11–20	21–31	1–10	11–20	21–31	Total
9138				3	3	3	3	1											13
9139				2	2	2	2	1											9
9140				10	10	10	10	5											45
9219			4																4
9254																			
9450																			
9481		7	10																16
9490				16															16
9552					4														4
9571																			
9592						35													35
9596																			
9691		1	5	1															7
9951				3	3	3	3	1											13
9957																			
10035			10																10
10064																			
10156				6	10	3													18
10411		3	9																12
10659																			
10804																			
10805																			
10836				8			8												15
10836					3														3
10864																			
10962			18																18
11142			12																12
11237																			
11372																			
11409			9	15															24
11431																			
11448																			
11449																			
11450																			
11451																			
11452																			
11455				31															31
11547			8	2															10
11608																			
11617		32	21																53
11618																			
11835									7										7
11976				24	24	24	24	12											109
12207			3																3

continued ...

FRENCHMAN RIVER BASIN – SASKATCHEWAN (continued)
SURFACE WATER USE (MINOR DIVERSIONS) FOR 1991
cubic decametres

file	March			April			May			June			July			August			
number	1–10	11–20	21–31	1–10	11–20	21–30	1–10	11–20	21–31	1–10	11–20	21–31	1–10	11–20	21–31	1–10	11–20	21–31	Total
12213			2	7															8
12232				15	30														45
12253																			
12272																			
12400						4													4
12545																			
12546			10																10
12547									21										21
12591			4																4
12599								3	9										12
12600																			
12647		3	33	3															40
12670																			
13524							41												41
13781																			
14420																			
15061		31																	31
15341			4	7															11
15342				24															24
15343					56														56
15388								22	11										33
15399																			
15400									83										83
15402								6	22										28
15408				4															4
15412																			
15413					10														10
15416																			
15450																			
15453				4															4
15461																			
15487									22										22
15511																			
15535			2	15															16
15587																			
15596							14												14
15604					6														6
15639		17	12																29
15706																			
15714								5	6										11
15760		1	5	1															7

continued ...

FRENCHMAN RIVER BASIN – SASKATCHEWAN (continued)
SURFACE WATER USE (MINOR DIVERSIONS) FOR 1991
cubic decametres

file	March			April			May			June			July			August			
number	1–10	11–20	21–31	1–10	11–20	21–30	1–10	11–20	21–31	1–10	11–20	21–31	1–10	11–20	21–31	1–10	11–20	21–31	Total
ValMarie																			
Pump 1									112	59							108	118	
Pump 2									11	9							22	29	
sub–																			
Total	1	131	346	424	330	385	444	542	404	90	97	65					130	147	3 535
+45% for																			
domestic																			
use	0	59	156	191	149	173	200	244	182	40	44	29					58	66	1 591
Total	1	190	502	615	479	559	643	785	586	130	141	94					188	213	5 125

Data supplied by Saskatchewan Water Corporation.

No minor usages after August 31

TABLE 16

MONTH–END CONTENTS OF MAJOR RESERVOIRS IN LODGE, BATTLE AND FRENCHMAN BASINS FOR 1991
QUANTITIES IN CUBIC DECAMETRES

	Middle Creek Reservoir	Altawan Reservoir	Cypress Lake	Eastend Reservoir	Huff Lake	Newton Lake	(a) Combined Usable Storage	% of Live Storage (a/b*100)
FEBRUARY	0	3 416	16 468	94	467	0	3 977	10
MARCH	0	4 462	17 302	1 290	4 330	1 826	11 908	29
APRIL	292	5 771	18 052	2 706	4 328	10 176	23 273	57
MAY	947	6 017	17 635	2 377	4 862	9 312	23 515	57
JUNE	866	4 960	19 225	2 481	4 036	13 828	26 171	64
JULY	569	4 274	20 032	2 087	4 301	11 730	22 961	56
AUGUST	470	2 367	19 576	683	853	8 146	12 519	30
SEPTEMBER	292	2 256	17 968	605	987	7 268	11 408	28
OCTOBER	0	2 188	17 235	95	2 563	6 697	11 543	28
Full Supply Level	15 610	6 710	128 100	2 090	4 470	12 270		
Dead Storage	0	0	30 031	0	13	0		

Total storage at FSL = 169 250
Total dead storage = 30 044
Total available live storage = 169 250 – 30 044 = 139 206

EXCLUDING CYPRESS LAKE
Dead storage = 13
Available live storage = 41 137 (b)

Note: because of the extreme low levels in Cypress Lake, it was excluded from the calculations of combined usable storage and percent of live storage.

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LYONS CREEK AT INTERNATIONAL BOUNDARY

STATION NO. 11AB075

DAILY DISCHARGE IN CUBIC METRES PER SECOND FOR 1991

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	0	0	0	0	0	0	0			1
2			0	0	0	0	0	0	0	0			2
3			0	0	0	0	0	0	0	0			3
4			0	0	0	0	0	0	0	0			4
5			0	0	0	0	0	0	0	0			5
6			0	0	0	0	0	0	0	0			6
7			0	0	0	0	0	0	0	0			7
8			0	0	0	0	0	0	0	0			8
9			0	0	0	0	0	0	0	0			9
10			0.022	0	0	0	0	0	0	0			10
11			0.089	0	0	0	0	0	0	0			11
12			0.085	0	0	0	0	0	0	0			12
13			0.105	0	0	0	0	0	0	0			13
14			0.165	0	0	0	0	0	0	0			14
15			0.150 E	0	0	0	0	0	0	0			15
16			0.140 E	0	0	0	0	0	0	0			16
17			0.128 E	0	0	0	0	0	0	0			17
18			0.214	0	0	0	0	0	0	0			18
19			0.175	0	0	0	0	0	0	0			19
20			0.147	0	0	0	0	0	0	0			20
21			0.121	0	0	0	0	0	0	0			21
22			0.102	0	0	0	0	0	0	0			22
23			0.072	0	0	0	0	0	0	0			23
24			0.047	0	0	0	0	0	0	0			24
25			0.037	0	0	0	0	0	0	0			25
26			0.032	0	0	0	0	0	0	0			26
27			0.031	0	0	0	0	0	0	0			27
28			0.026	0	0	0	0	0	0	0			28
29			0.013	0	0	0	0	0	0	0			29
30			0.007	0	0	0	0	0	0	0			30
31			0.003		0		0	0		0			31
TOTAL			1.911	0	0	0	0	0	0	0			TOTAL
MEAN			0.062	0	0	0	0	0	0	0			MEAN
DAM3			165	0	0	0	0	0	0	0			DAM3
MAX			0.214	0	0	0	0	0	0	0			MAX
MIN			0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE,0.008 M3/S
TOTAL DISCHARGE, 165 DAM3
MAXIMUM DAILY DISCHARGE,0.214 M3/S ON MAR 18
MINIMUM DAILY DISCHARGE, 0 M3/S ON MAR 1

E-ESTIMATED

MAXIMUM INSTANTANEOUS DISCHARGE: 0.260 M3/S AT 20:00 CST ON MAR 13

APPROVED BY THE FIELD REPRESENTATIVES OF CANADA AND THE UNITED STATES