

MILK RIVER BASIN

06140500 MILK RIVER AT HAVRE, MT

LOCATION.--Lat 48°33'50", long 109°41'42" (NAD 27), in SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.6, T.32 N., R.16 E., Hill County, Hydrologic Unit 10050004, on left bank, 1.25 mi upstream from Bullhook Creek and 7th Avenue East highway bridge in Havre, 8.2 mi downstream from Big Sandy Creek, 15.8 mi downstream from Fresno Dam, and at river mile 419.2.

DRAINAGE AREA.--5,785 mi², of which 670 mi² is probably noncontributing.

PERIOD OF RECORD.--May to November 1898, April 1899 to November 1922, March, April 1923, March, April 1952 (gage heights only, in WSP 1260-B), June 1953 (in WSP 1320-B), September 1954 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1899-1900, 1902-4, 1907-8, 1909(M), 1912, 1917(M), 1920(M). WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,465.24 ft (NGVD 29). Prior to Nov. 4, 1902, nonrecording gage at site 0.75 mi downstream at different elevation. Nov. 4, 1902, to Aug. 6, 1980, nonrecording gages 1.25 mi downstream on 7th Avenue East highway bridges, all at elevations then in use.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 6,000 acres upstream from station. Since 1917, flow increased during irrigation season by water from St. Mary Canal (station number 05018500). Since 1939, flow regulated by Fresno Reservoir (station number 06136500). U.S. Geological Survey satellite telemeter at station. Several observations of water temperature and specific conductance were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	e50	e45	e50	e45	e40	78	74	194	570	1,080	519
2	74	e45	e45	e50	e45	e40	76	77	205	579	1,060	518
3	78	e40	e45	e50	e45	e45	73	76	295	636	1,010	456
4	80	e40	e45	e50	e45	e50	74	452	295	643	956	459
5	83	e40	e45	e50	e45	e60	72	771	424	642	932	459
6	85	e45	e45	e50	e45	e80	72	863	474	627	879	459
7	87	e45	e45	e50	e50	e110	71	1,240	434	553	864	459
8	87	e45	e45	e45	e50	e200	70	1,150	426	487	856	462
9	85	e45	e45	e40	e50	e400	69	1,130	420	360	844	457
10	82	e45	e45	e40	e50	e1,000	68	1,120	421	284	789	458
11	85	e45	e45	e45	e50	e800	68	1,060	285	276	705	462
12	88	e45	e45	e50	e50	e580	69	857	276	270	563	464
13	80	e45	e50	e50	e50	e460	70	646	274	311	555	472
14	82	e45	e50	e50	e50	e320	70	645	280	338	544	472
15	84	e45	e50	e50	e50	224	72	780	287	451	593	470
16	86	e45	e50	e50	e50	165	70	828	264	465	591	466
17	85	e45	e50	e50	e50	135	71	860	217	621	593	427
18	79	e45	e50	e50	e50	114	73	910	211	639	580	427
19	79	e45	e50	e50	e45	101	74	953	208	643	527	428
20	72	e45	e50	e50	e45	86	71	859	210	700	523	432
21	65	e45	e50	e50	e45	85	71	846	209	694	575	430
22	60	e45	e50	e50	e45	82	71	859	213	694	587	345
23	65	e45	e50	e50	e45	81	71	898	219	709	614	319
24	57	e45	e50	e50	e40	80	71	888	231	817	595	214
25	58	e45	e50	e50	e40	76	70	529	237	822	555	202
26	61	e45	e50	e50	e40	76	71	398	301	849	555	202
27	59	e45	e50	e50	e40	77	72	369	321	957	526	199
28	60	e45	e50	e50	e40	72	72	219	322	971	519	141
29	70	e45	e50	e45	e40	71	73	205	334	1,050	518	90
30	63	e45	e45	e45	---	72	72	204	404	1,100	518	88
31	51	---	e45	e45	---	72	---	198	---	1,100	520	---
TOTAL	2,294	1,340	1,480	1,505	1,335	5,854	2,145	20,964	8,891	19,858	21,126	11,456
MEAN	74.0	44.7	47.7	48.5	46.0	189	71.5	676	296	641	681	382
MAX	88	50	50	50	50	1,000	78	1,240	474	1,100	1,080	519
MIN	51	40	45	40	40	40	68	74	194	270	518	88
AC-FT	4,550	2,660	2,940	2,990	2,650	11,610	4,250	41,580	17,640	39,390	41,900	22,720

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 2004, BY WATER YEAR (WY)*

MEAN	145	75.7	53.1	56.9	90.1	315	514	807	819	772	566	324
MAX	628	325	160	780	1,400	2,106	2,700	2,191	2,188	2,045	1,303	956
(WY)	(1994)	(1976)	(1900)	(1918)	(1916)	(1918)	(1899)	(1967)	(1908)	(1902)	(1978)	(1993)
MIN	0.00	0.00	0.00	0.00	0.00	5.00	25.0	61.4	35.2	15.3	0.00	0.00
(WY)	(1906)	(1906)	(1906)	(1906)	(1922)	(1919)	(1983)	(1905)	(1905)	(1910)	(1910)	(1905)

SUMMARY STATISTICS

FOR 2003 CALENDAR YEAR

FOR 2004 WATER YEAR

WATER YEARS 1898 - 2004*

ANNUAL TOTAL	120,172						98,248					
ANNUAL MEAN	329						268			379		
HIGHEST ANNUAL MEAN										727		1965
LOWEST ANNUAL MEAN										39.2		1905
HIGHEST DAILY MEAN				1,240		May 31	1,240		May 7	a16,000		Apr 12, 1899
LOWEST DAILY MEAN				40		Nov 3	40		Nov 3	b0.00		Jul 11, 1898
ANNUAL SEVEN-DAY MINIMUM				43		Nov 2	40		Feb 24	0.00		Aug 15, 1905
MAXIMUM PEAK FLOW							1,300		May 7	c20,000		Apr 12, 1899
MAXIMUM PEAK STAGE							4.85		May 7	d19.30		Apr 12, 1899
ANNUAL RUNOFF (AC-FT)	238,400						194,900			274,600		
10 PERCENT EXCEEDS	992						783			1,050		
50 PERCENT EXCEEDS	79						80			132		
90 PERCENT EXCEEDS	45						45			27		

06140500 MILK RIVER AT HAVRE, MT—Continued

SUMMARY STATISTICS	WATER YEARS 1900 - 1916**		WATER YEARS 1917 - 2004***	
ANNUAL MEAN	273.7		411	
HIGHEST ANNUAL MEAN	517	1916	727	1965
LOWEST ANNUAL MEAN	39.2	1905	160	1919
HIGHEST DAILY MEAN	9,600	Jun 9, 1908	9,150	Mar 20, 1918
LOWEST DAILY MEAN	a0.00	Aug 16, 1904	0.00	Jan 1, 1922
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 15, 1905	0.00	Jan 1, 1922
MAXIMUM PEAK FLOW	11,000	Jun 9, 1908	f11,400	Apr 3, 1952
MAXIMUM PEAK STAGE	16.5	Jun 9, 1908	18.60	Apr 3, 1952
ANNUAL RUNOFF (AC-FT)	198,300		297,800	
10 PERCENT EXCEEDS	640		1,080	
50 PERCENT EXCEEDS	110		162	
90 PERCENT EXCEEDS	5.0		30	

*--During periods of operation (May 1898 to November 1898, April 1898 to November 1922, March 1923 to April 1923, September 1954 to current year).

**--Prior to operation of St. Mary Canal.

***--Post operation of St. Mary Canal.

a--Observed.

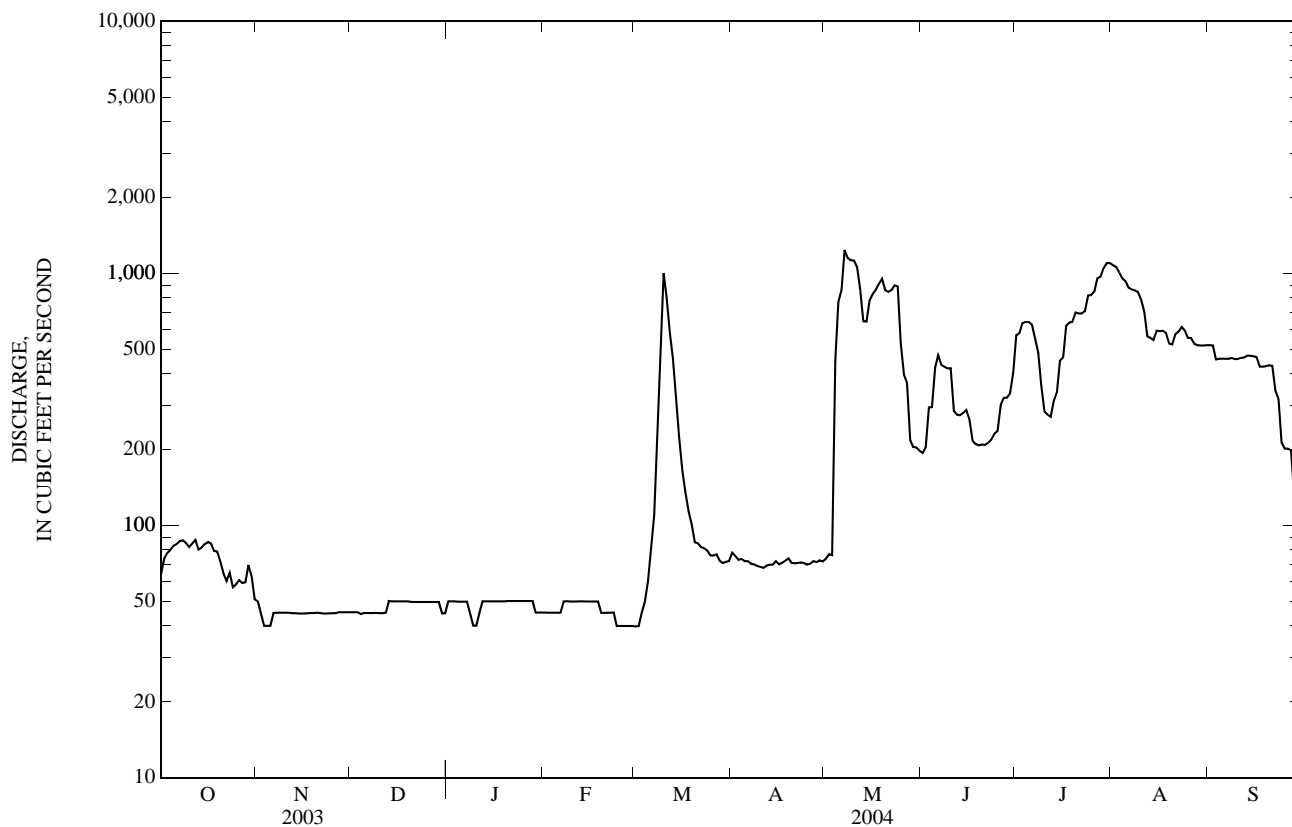
b--Observed, no flow at times in several years.

c--Observed from rating curve extended above 5,200 ft³/s.

d--Site and datum then in use, from floodmarks.

e--Estimated.

f--Observed, about.



MILK RIVER BASIN

06142400 CLEAR CREEK NEAR CHINOOK, MT

LOCATION.--Lat 48°34'44", long 109°23'26" (NAD 27), in SE¹/₄NW¹/₄NW¹/₄ sec.33, T.33 N., R.18 E., Blaine County, Hydrologic Unit 10050004, on right bank, 7 mi west of Chinook, and at river mile 2.5.

DRAINAGE AREA.--135 mi².

PERIOD OF RECORD.--June 1984 to current year (seasonal records only).

GAGE.--Water-stage recorder. Elevation of gage is 2,470 ft (NGVD 29).

REMARKS.--Records good. Diversions for irrigation of about 2,000 acres upstream from station. Bureau of Reclamation satellite telemeter at station. Several observations of water temperatures and specific conductance were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1				3.1	3.0	57	28	0.00	1.4			
2				3.1	2.5	55	25	0.00	1.2			
3				4.6	2.2	54	24	0.00	0.93			
4				5.8	2.1	48	32	0.00	0.62			
5				5.7	1.5	42	26	0.05	0.54			
6				4.4	0.86	44	31	0.12	0.47			
7				3.0	0.16	43	31	0.22	0.49			
8				2.4	0.00	43	23	0.64	0.52			
9				2.8	0.00	43	18	0.87	0.44			
10				2.8	0.00	40	16	1.2	0.41			
11				2.6	0.05	45	12	1.4	0.46			
12				2.4	1.3	49	12	1.2	0.43			
13				2.8	5.4	61	9.6	0.81	0.82			
14				2.4	8.4	64	5.2	0.43	1.4			
15				1.6	8.5	57	3.0	0.14	2.1			
16				1.2	7.1	55	2.1	0.00	2.2			
17				1.3	5.3	55	1.5	0.00	1.8			
18				1.1	4.5	51	1.1	0.00	1.6			
19				1.6	14	47	1.0	0.00	1.6			
20				2.2	19	44	0.62	0.00	2.3			
21				1.9	15	42	0.26	0.00	3.2			
22				1.8	17	40	0.13	0.00	4.3			
23				2.2	36	38	0.01	0.06	3.7			
24				1.9	68	36	0.00	0.04	2.9			
25				1.4	74	34	0.00	0.45	2.6			
26				0.79	55	32	0.00	1.9	2.4			
27				0.25	51	34	0.00	2.2	2.0			
28				0.39	52	32	0.00	2.7	1.9			
29				1.0	54	30	0.00	2.5	1.8			
30				2.2	57	28	0.00	2.1	1.7			
31				---	59	---	0.00	1.6	---			
TOTAL				70.73	623.87	1,343	302.52	20.63	48.23			
MEAN				2.36	20.1	44.8	9.76	0.67	1.61			
MAX				5.8	74	64	32	2.7	4.3			
MIN				0.25	0.00	28	0.00	0.00	0.41			
AC-FT				140	1,240	2,660	600	41	96			

STATISTICS OF MONTHLY MEAN DATA FOR SEASONS 1984 - 2004

MEAN		10.9	19.6	17.0	8.88	2.68	3.93
MAX		46.0	137	74.0	51.4	34.9	47.4
(WY)		(1994)	(1986)	(1986)	(1993)	(1993)	(1986)
MIN		0.00	0.00	0.00	0.00	0.00	0.00
(WY)		(2002)	(2001)	(2001)	(1985)	(1984)	(1984)

SUMMARY STATISTICS

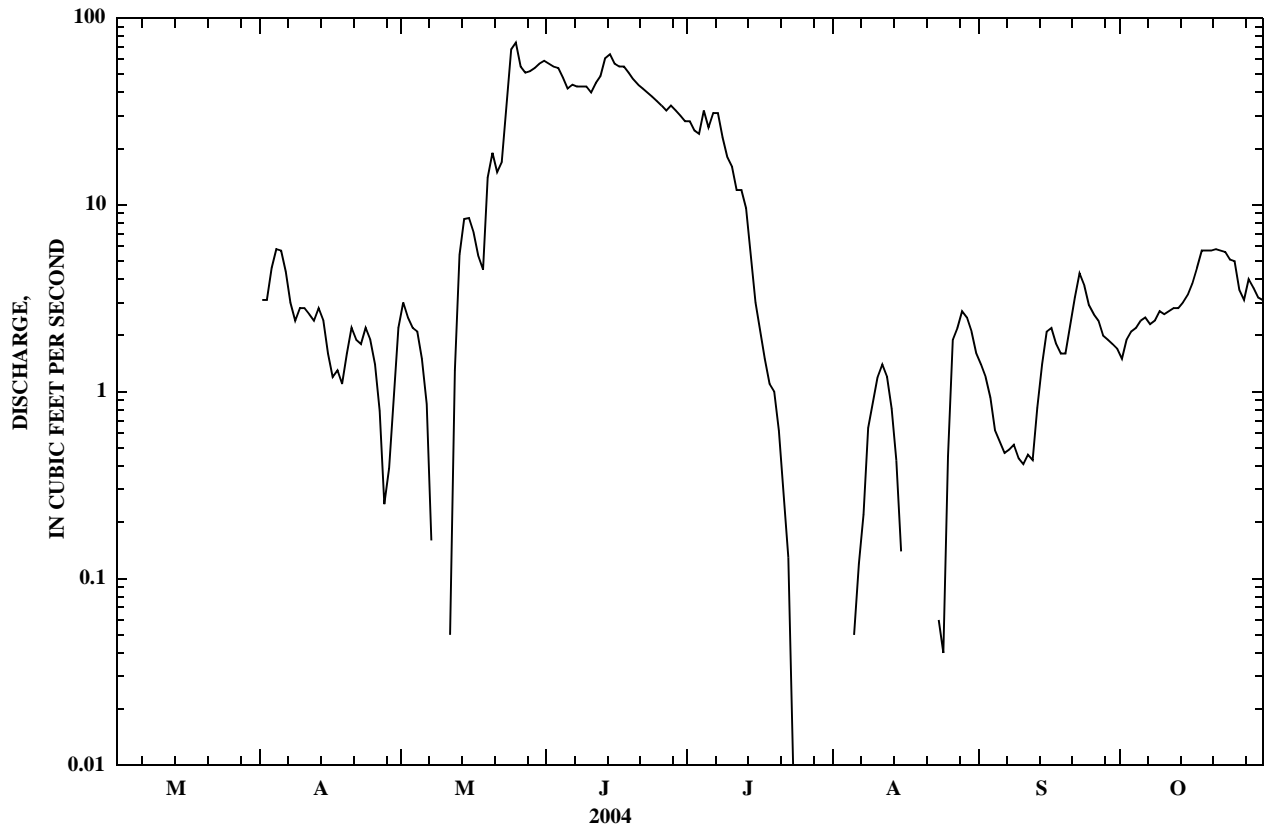
FOR 2004 SEASON

SEASONS 1984 - 2004

HIGHEST DAILY MEAN	74	May 25	360	Sep 25 1986
LOWEST DAILY MEAN	0.00	May 8	a0.00	Jul 5 1984
MAXIMUM PEAK FLOW	83	May 25	571	Sep 25 186
MAXIMUM PEAK STAGE	3.61	May 25	8.23	Sep 25 1986

a--No flow at times most seasons.

06142400 CLEAR CREEK NEAR CHINOOK, MT—Continued



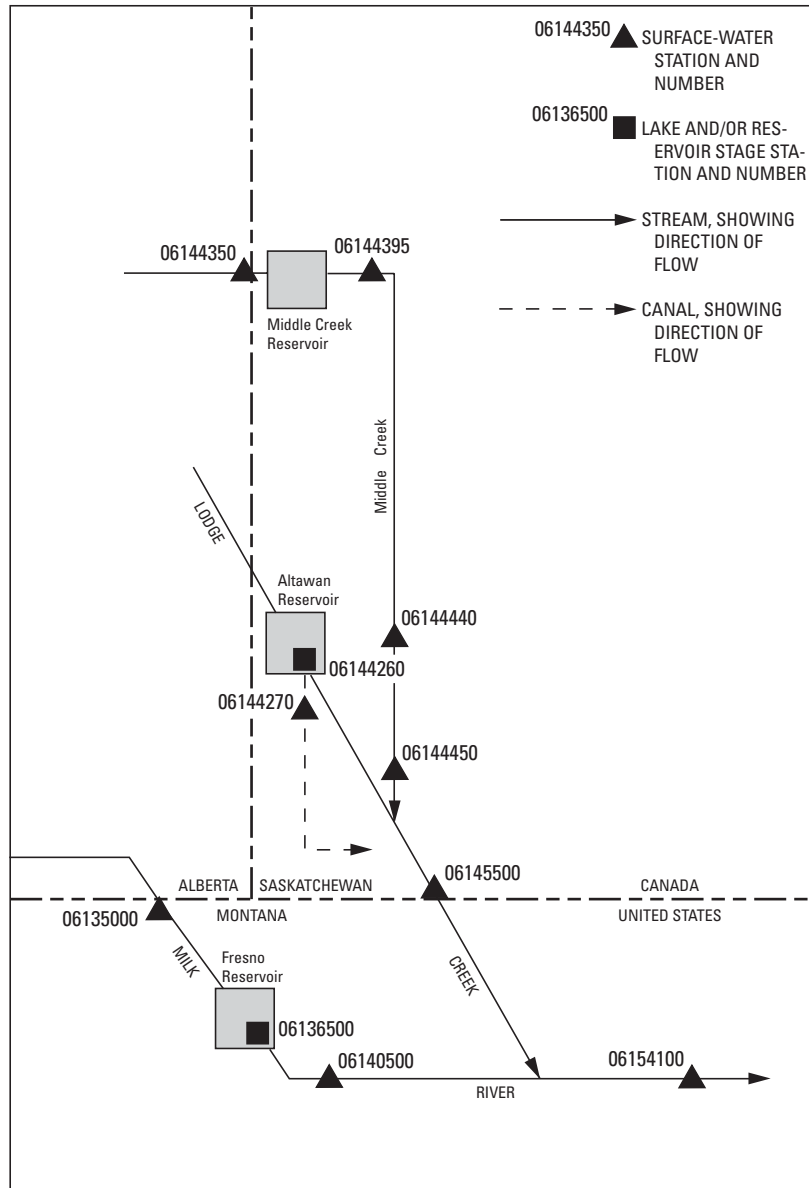


Figure 11. Schematic diagram showing diversions and storage in Lodge Creek basin.

06144260 ALTAWAN RESERVOIR NEAR GOVENLOCK, SASKATCHEWAN
(International gaging station)

LOCATION.--Lat 49°10'00", long 109°55'00" (NAD 27), in SW¹/₄ sec.35, T.2, R.30 W., third meridian, Hydrologic Unit 10050007, at dam on Lodge Creek, 6.3 mi southwest of Govenlock, and at river mile 113.5.

DRAINAGE AREA.-- 373 mi².

PERIOD OF RECORD.--February 1966 to current season (seasonal records only). February 1960 to current season in reports of Department of the Environment, Canada. Water-stage recorder. Elevation of gage is 2,918.0 (Geodetic Survey of Canada datum). Prior to July 7, 1967, nonrecording gage in gate read every ten days during irrigation season.

REMARKS.--Reservoir is formed by earthfill dam with concrete spillway and control works as well as an emergency earthen spillway, completed in 1959. The following capacity figures are from revised capacity table effective Jan. 1, 1983. All elevations are referenced to the Geodetic Survey of Canada datum. Usable capacity is 5,440 acre-ft between elevation 2,918.0 ft, bottom of outlet works, and 2,952.0 ft, maximum design level. No dead storage. Water is used for irrigation. Water Survey of Canada satellite telemeter at station. This is one of a number of stations which are maintained jointly by Canada and the United States.

REVISED RECORDS.--W 1983, drainage area.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 8,300 acre-ft, Sept. 26, 1986, elevation, 2,958.10 ft; no contents Mar. 1, 1960, Oct. 6-31, 1984, Mar. 1-18, and Oct. 3-31, 1985.

EXTREMES FOR CURRENT SEASON.--Maximum contents, 5,760 acre-ft, Apr. 8, elevation, 2,952.73 ft; minimum, 2,300 acre-ft, Oct. 31, elevation, 2,943.32 ft.

SEASONAL MONTHEND CONTENTS, IN ACRE-FT, FEBRUARY 2004 TO OCTOBER 2004

Date	Contents (acre-feet)
February 29	2,450
March 31	5,250
April 30	5,510
May 31	4,210
June 30	3,410
July 31	3,250
August 31	2,420
September 30	2,350
October 31	2,300

06144270 SPANGLER DITCH NEAR GOVENLOCK, SASKATCHEWAN
(International gaging station)

LOCATION.--Lat 49°09'16", long 109°54'58" (NAD 27), in NW¹/₄ sec.26, T.2, R.30 W., third meridian, Hydrologic Unit 10050007, on right bank 0.9 mi south of Altawan Dam, and 6.8 mi southwest of Govenlock.

PERIOD OF RECORD.--March 1966 to current season (seasonal records only). March 1950 to current season, in reports of Department of the Environment, Canada. Some estimates of monthly diversion in several years prior to 1932.

GAGE.--Water-stage recorder. Elevation of gage is 2,920 ft (NGVD 29). Prior to March 1950, nonrecording gages at several sites within 2 mi of present site at different elevations. March 1950 to July 8, 1960, water-stage recorder at site 350 ft downstream at different elevation.

REMARKS.--Records good. Canal diverts water from right bank of Lodge Creek in SW¹/₄ sec.35, T.2, R.30 W., third meridian, for irrigation of 1,320 acres in Spangler irrigation project. Water Survey of Canada satellite telemeter at station.

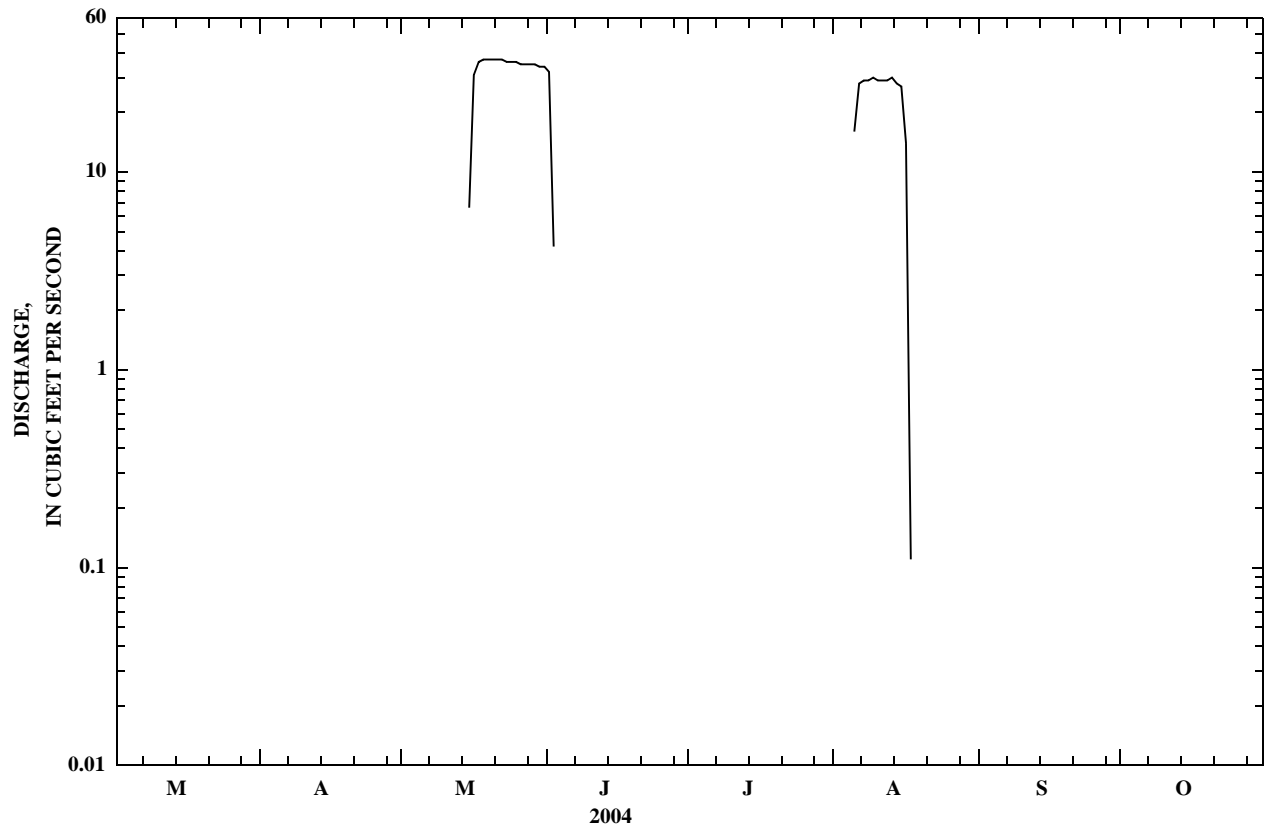
COOPERATION.--This is one of a number of stations which are maintained jointly by Canada and the United States.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 65 ft³/s, Apr. 22, 1950, July 9, 1985; no flow most of each season.

DISCHARGE, CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			0.00	0.00	0.00	32	0.00	0.00	0.00	0.00		
2			0.00	0.00	0.00	4.2	0.00	0.00	0.00	0.00		
3			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
5			0.00	0.00	0.00	0.00	0.00	16	0.00	0.00		
6			0.00	0.00	0.00	0.00	0.00	28	0.00	0.00		
7			0.00	0.00	0.00	0.00	0.00	29	0.00	0.00		
8			0.00	0.00	0.00	0.00	0.00	29	0.00	0.00		
9			0.00	0.00	0.00	0.00	0.00	30	0.00	0.00		
10			0.00	0.00	0.00	0.00	0.00	29	0.00	0.00		
11			0.00	0.00	0.00	0.00	0.00	29	0.00	0.00		
12			0.00	0.00	0.00	0.00	0.00	29	0.00	0.00		
13			0.00	0.00	0.00	0.00	0.00	30	0.00	0.00		
14			0.00	0.00	0.00	0.00	0.00	28	0.00	0.00		
15			0.00	0.00	6.6	0.00	0.00	27	0.00	0.00		
16			0.00	0.00	31	0.00	0.00	14	0.00	0.00		
17			0.00	0.00	36	0.00	0.00	0.11	0.00	0.00		
18			0.00	0.00	37	0.00	0.00	0.00	0.00	0.00		
19			0.00	0.00	37	0.00	0.00	0.00	0.00	0.00		
20			0.00	0.00	37	0.00	0.00	0.00	0.00	0.00		
21			0.00	0.00	37	0.00	0.00	0.00	0.00	0.00		
22			0.00	0.00	37	0.00	0.00	0.00	0.00	0.00		
23			0.00	0.00	36	0.00	0.00	0.00	0.00	0.00		
24			0.00	0.00	36	0.00	0.00	0.00	0.00	0.00		
25			0.00	0.00	36	0.00	0.00	0.00	0.00	0.00		
26			0.00	0.00	35	0.00	0.00	0.00	0.00	0.00		
27			0.00	0.00	35	0.00	0.00	0.00	0.00	0.00		
28			0.00	0.00	35	0.00	0.00	0.00	0.00	0.00		
29			0.00	0.00	35	0.00	0.00	0.00	0.00	0.00		
30			0.00	0.00	34	0.00	0.00	0.00	0.00	0.00		
31			0.00	---	34	---	0.00	0.00	---	0.00		
TOTAL			0.00	0.00	574.60	36.20	0.00	318.11	0.00	0.00		
MEAN			0.00	0.00	18.5	1.21	0.00	10.3	0.00	0.00		
MAX			0.00	0.00	37	32	0.00	30	0.00	0.00		
MIN			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
AC-FT			0.00	0.00	1,140	72	0.00	631	0.00	0.00		

06144270 SPANGLER DITCH NEAR GOVENLOCK, SASKATCHEWAN—Continued



MILK RIVER BASIN

06144350 MIDDLE CREEK NEAR SASKATCHEWAN BOUNDARY
(International gaging station)

LOCATION.--Lat 49°25'30", long 110°03'08" (NAD 27), in SW¹/₄ sec.34, T.5, R.1 W., fourth meridian, in Alberta, Hydrologic Unit 10050007, on left bank 2 mi upstream from Middle Creek Reservoir, 2 mi west of Saskatchewan boundary, 18 mi northwest of Govenlock, Saskatchewan, and at river mile 65.7.

DRAINAGE AREA.--118 mi².

PERIOD OF RECORD.--March 1963 to current season (seasonal records only). Prior to March 1982, published as "Middle Creek near Alberta boundary". June 1910 to April 1915, published as "at McKinnon's Ranch" and September 1949 to current season in reports of Department of the Environment, Canada.

REVISED RECORDS.--W 1983: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 3,381.13 ft (Geodetic Survey of Canada datum). Prior to Mar. 1, 1951, nonrecording gages, and Mar. 1, 1951, to July 5, 1961, water-stage recorder, at site 0.3 mi downstream at different elevations. Water Survey of Canada satellite telemeter at station.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Minor diversions for irrigation upstream from station. Water Survey of Canada telemeter at station.

COOPERATION.--This is one of a number of stations which are maintained jointly by Canada and the United States.

DISCHARGE, CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			e0.04	49	e0.35	0.21	0.25	0.14	0.11	e0.07		
2			e0.04	27	e0.32	0.21	0.21	0.11	0.14	e0.07		
3			e0.04	7.7	e0.28	0.25	0.21	0.11	0.18	e0.07		
4			e0.04	14	e0.25	0.25	0.21	0.07	0.14	e0.07		
5			e0.04	28	e0.25	0.25	0.18	0.07	0.14	e0.07		
6			e0.04	23	e0.21	0.64	0.18	0.07	0.14	0.07		
7			e0.04	15	e0.21	0.46	0.14	0.11	0.14	0.07		
8			e0.04	11	e0.21	0.35	0.11	0.11	0.14	0.07		
9			e0.04	6.6	e0.21	0.25	0.11	0.11	0.14	0.07		
10			e0.04	3.7	e0.21	0.21	0.11	0.11	0.14	0.07		
11			e0.07	2.9	e0.21	0.21	0.11	0.11	0.14	0.07		
12			e0.07	1.3	e0.21	0.21	0.21	0.11	0.14	0.11		
13			e0.07	1.3	e0.21	0.21	0.25	0.07	0.14	0.11		
14			e0.07	0.81	e0.21	0.21	0.21	0.07	0.14	0.14		
15			e0.07	0.64	e0.25	0.21	0.21	0.07	0.18	0.14		
16			e0.11	0.88	e0.25	0.21	0.25	0.11	0.14	0.14		
17			e0.11	1.1	0.25	0.25	0.18	0.11	e0.14	0.18		
18			e0.14	0.95	0.28	0.25	0.18	0.11	e0.14	0.18		
19			e0.21	0.64	0.25	0.25	0.18	0.11	e0.14	0.18		
20			e0.21	0.49	0.28	0.35	0.14	0.11	e0.14	0.21		
21			e0.25	0.42	0.28	0.64	0.14	0.14	e0.14	0.21		
22			e0.28	0.42	0.28	0.60	0.11	0.14	e0.11	0.21		
23			e0.46	0.42	0.35	0.57	0.11	0.18	e0.11	0.25		
24			e0.78	0.39	0.32	0.53	0.11	0.18	e0.11	0.25		
25			e0.74	0.35	0.28	0.49	0.07	0.14	e0.11	0.28		
26			e0.46	0.35	0.25	0.46	0.07	0.18	e0.11	0.28		
27			e0.39	0.35	0.25	0.42	0.07	0.14	e0.11	0.25		
28			e2.4	0.39	0.25	0.35	0.07	0.14	e0.11	0.21		
29			e2.5	0.39	0.39	0.28	0.07	0.14	e0.11	0.18		
30			e22	0.46	0.25	0.25	0.07	0.11	e0.07	0.18		
31			e25	---	0.21	---	0.11	0.11	---	0.18		
TOTAL			56.79	199.95	8.01	10.03	4.63	3.59	3.94	4.64		
MEAN			1.83	6.67	0.26	0.33	0.15	0.12	0.13	0.15		
MAX			25	49	0.39	0.64	0.25	0.18	0.18	0.28		
MIN			0.04	0.35	0.21	0.21	0.07	0.07	0.07	0.07		
AC-FT			113	397	16	20	9.2	7.1	7.8	9.2		

STATISTICS OF MONTHLY MEAN DATA FOR SEASONS 1910 - 2004*

MEAN	13.9	36.8	11.2	3.84	1.80	0.72	0.98	0.45
MAX	74.2	330	136	45.1	20.0	6.99	24.8	2.38
(WY)	(1960)	(1952)	(1967)	(1953)	(1963)	(1993)	(1986)	(1966)
MIN	0.00	0.04	0.08	0.08	0.02	0.00	0.00	0.05
(WY)	(1950)	(2001)	(2001)	(2000)	(2001)	(2001)	(1962)	(1999)

SUMMARY STATISTICS

	FOR 2004 SEASON		SEASONS 1910 - 2004*	
HIGHEST DAILY MEAN	49	Apr 1	2,560	Apr 15, 1952
LOWEST DAILY MEAN	0.04	Mar 1	0.00	Mar 1, 1950
MAXIMUM PEAK FLOW	61	Apr 1	a4,980	Apr 15, 1952
MAXIMUM PEAK STAGE	5.14	Apr 1	b10.27	Apr 15, 1952

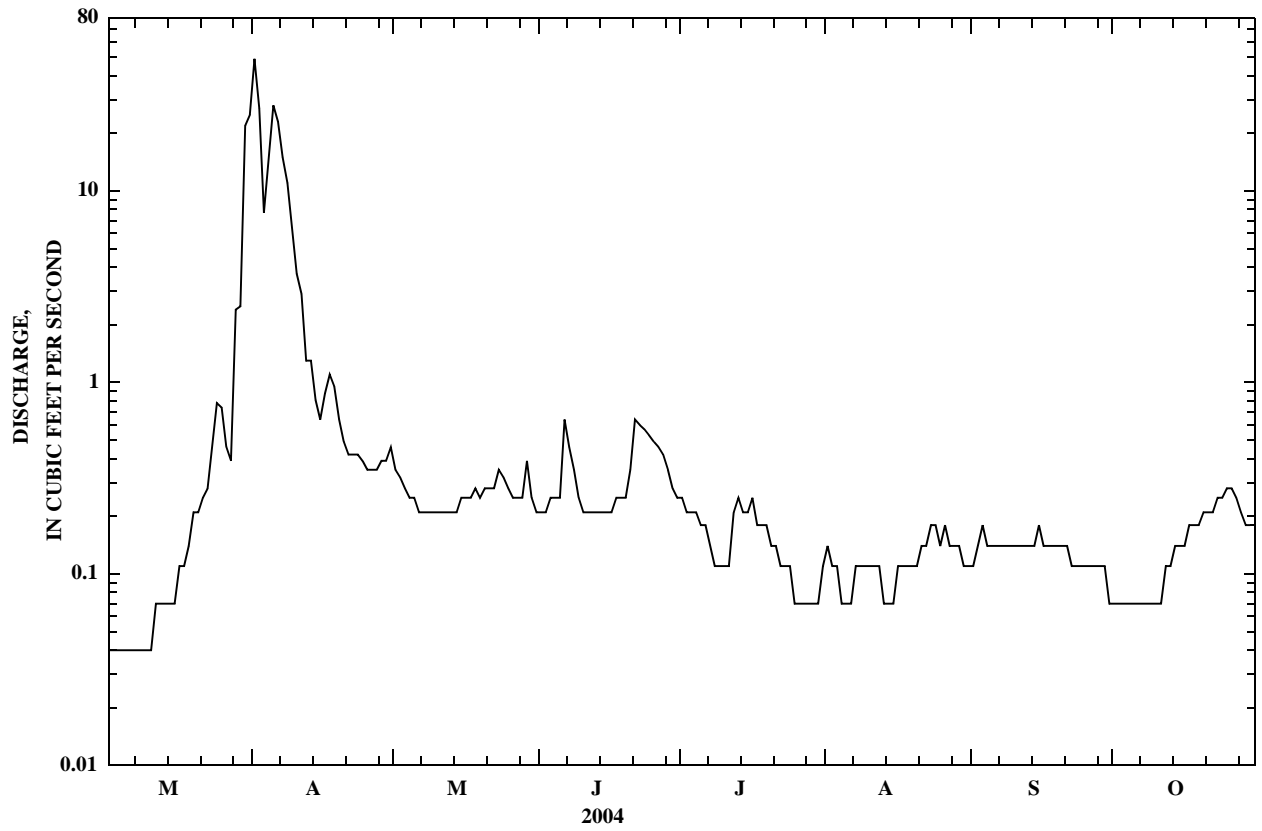
*--For periods of operation.

a--From rating curve extended above 600 ft³/s on basis of slope-area measurement of peak flow.

b--Previous site and datum.

e--Estimated.

06144350 MIDDLE CREEK NEAR SASKATCHEWAN BOUNDARY—Continued



06144395 MIDDLE CREEK BELOW MIDDLE CREEK RESERVOIR, NEAR GOVENLOCK, SASKATCHEWAN
(International gaging station)

LOCATION.--Lat 49°24'44", long 109°55'06" (NAD 27), in SW¹/₄ sec.25, T.5, R.30 W., third meridian, Hydrologic Unit 10050007, on right bank 9.1 mi downstream from Middle Creek Reservoir, 14 mi northwest of Govenlock, and at river mile 57.6.

DRAINAGE AREA.--149 mi².

PERIOD OF RECORD.--April 1972 to current season (seasonal records only). July 1909 to May 1931, September 1935 to October 1936, and April 1972 to current season in reports of Department of the Environment, Canada. Published as "at Ross Ranch" 1909-20, "at Downes and Robert's Ranch" 1920-23, and "at Wright's Ranch" 1920-31, 1935-36. Discharge measurements only during 1928 season.

REVISED RECORDS.--W 1983: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 3,300 ft (NGVD 29). Prior to April 1972, non recording gages at two sites within 2 mi of present site, at different elevations.

REMARKS.--Records good. Flow completely regulated by Middle Creek Reservoir (station number 06144360). Many diversions for irrigation upstream from station. At high reservoir levels flow may be diverted to Lodge Creek through Middle Creek Reservoir. Diversions for irrigation of 920 acres between Middle Creek Reservoir and station. Water Survey of Canada satellite telemeter at station.

COOPERATION.--This is one of a number of stations which are maintained jointly by Canada and the United States.

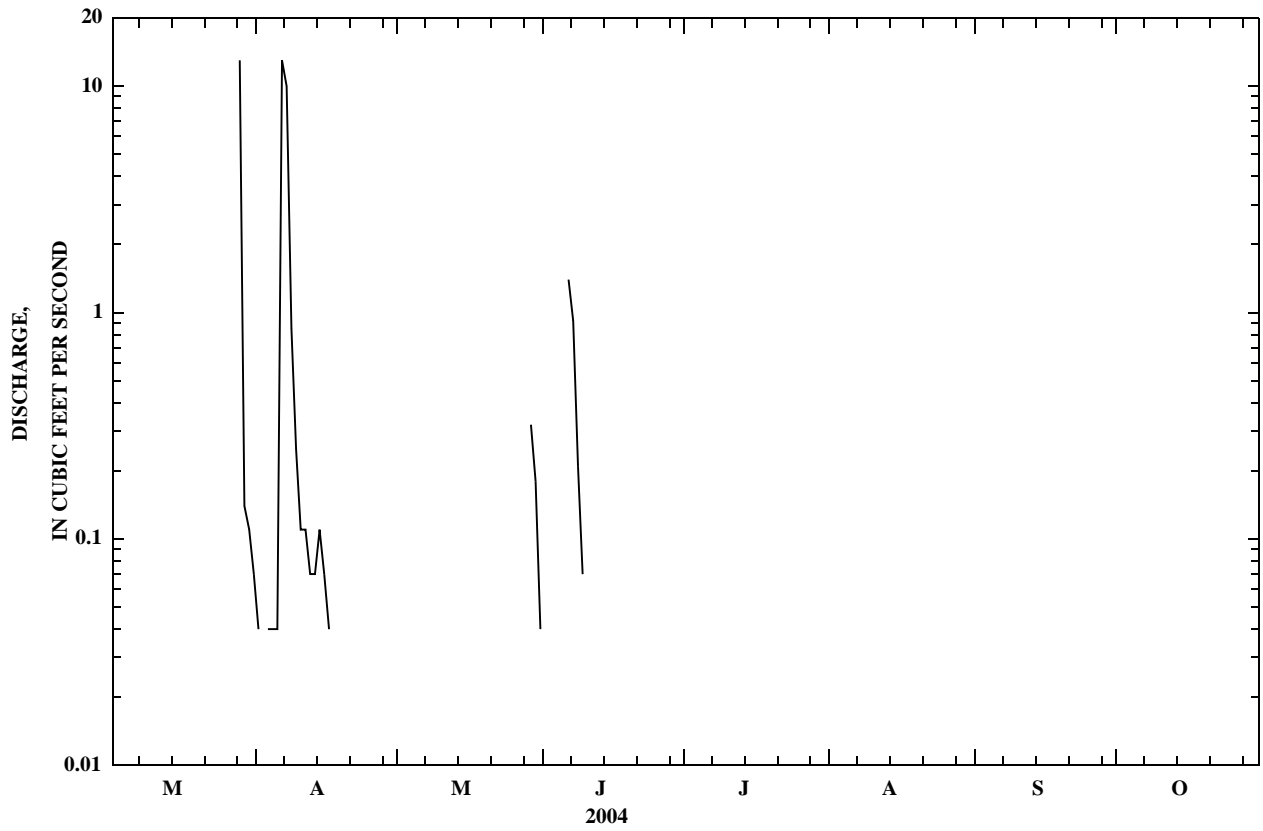
EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 77 ft³/s, May 3, 1985; no flow at times most seasons.

DISCHARGE, CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			e0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00		
2			e0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
3			e0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00		
4			e0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00		
5			e0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00		
6			e0.00	13	0.00	1.4	0.00	0.00	0.00	0.00		
7			e0.00	10	0.00	0.92	0.00	0.00	0.00	0.00		
8			e0.00	0.85	0.00	0.21	0.00	0.00	0.00	0.00		
9			e0.00	0.25	0.00	0.07	0.00	0.00	0.00	0.00		
10			0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00		
11			0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00		
12			0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00		
13			0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00		
14			0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00		
15			0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00		
16			0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00		
17			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
18			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
19			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
20			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
21			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
22			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
23			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
24			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
25			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
26			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
27			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
28			13	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
29			0.14	0.00	0.32	0.00	0.00	0.00	0.00	0.00		
30			0.11	0.00	0.18	0.00	0.00	0.00	0.00	0.00		
31			0.07	---	0.04	---	0.00	0.00	---	0.00		
TOTAL			13.32	24.84	0.54	2.60	0.00	0.00	0.00	0.00		
MEAN			0.43	0.83	0.02	0.09	0.00	0.00	0.00	0.00		
MAX			13	13	0.32	1.4	0.00	0.00	0.00	0.00		
MIN			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
AC-FT			26	49	1.1	5.2	0.00	0.00	0.00	0.00		

e--Estimated.

06144395 MIDDLE CREEK BELOW MIDDLE CREEK RESERVOIR, NEAR GOVENLOCK, SASKATCHEWAN—Continued



06144440 MIDDLE CREEK NEAR GOVENLOCK, SASKATCHEWAN
(International gaging station)

LOCATION.--Lat 49°13'42", long 109°48'57" (NAD 27), in NW¹/₄ sec.23, T.3, R.29 W., third meridian, Hydrologic Unit 10050007, on left bank 43.9 mi downstream from Middle Creek Reservoir, 0.3 mi northwest of Govenlock, and at river mile 22.8.

DRAINAGE AREA.--253 mi².

PERIOD OF RECORD.--February 1986 to current season (seasonal records only). March 1968 to current season in reports of Department of the Environment, Canada.

GAGE.--Water-stage recorder. Elevation of gage is 3,010 ft (NGVD 29).

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Natural flow of stream is affected by Middle Creek Reservoir (station 06144360), several smaller reservoirs, diversions for irrigation, and return flow from irrigated areas. At high reservoir levels flow may be diverted to Lodge Creek through Middle Creek Reservoir. Water Survey of Canada satellite telemeter at station.

COOPERATION.--This is one of a number of stations which are maintained jointly by Canada and the United States.

DISCHARGE, CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			e0.00	13	0.32	5.0	0.25	0.04	0.00	0.00		
2			e0.00	9.4	0.28	5.6	0.18	0.04	0.00	0.00		
3			e0.00	8.4	0.25	4.4	0.11	0.00	0.00	0.00		
4			e0.00	7.8	0.25	3.5	0.11	0.00	0.00	0.00		
5			e0.00	11	0.21	2.8	0.11	0.00	0.00	0.00		
6			e0.00	8.1	0.18	2.9	0.07	0.00	0.00	0.00		
7			e0.00	19	0.14	3.0	0.07	0.00	0.00	0.04		
8			e0.00	12	0.14	2.8	0.07	0.00	0.00	0.07		
9			e0.00	24	0.11	2.4	0.04	0.00	0.00	0.21		
10			e0.74	10	0.07	2.1	0.04	0.00	0.00	0.25		
11			e2.2	6.7	0.42	2.5	0.04	0.00	0.00	0.25		
12			e3.3	5.4	0.60	4.2	0.04	0.00	0.00	0.25		
13			e2.5	4.6	0.67	3.6	0.04	0.00	0.00	0.21		
14			e6.9	3.9	0.78	3.2	0.00	0.00	0.00	0.28		
15			e5.3	3.5	0.85	2.7	0.00	0.00	e0.00	0.28		
16			e4.9	3.1	0.71	2.2	0.00	0.00	0.00	0.49		
17			e4.4	2.9	3.2	1.8	0.00	0.00	0.00	0.46		
18			e4.3	2.7	2.6	1.5	0.00	0.00	0.00	0.53		
19			e6.8	2.4	2.2	1.3	0.00	0.00	0.00	0.57		
20			e14	1.6	2.0	1.2	0.00	0.00	0.00	0.64		
21			e12	3.7	1.9	1.1	0.00	0.00	0.00	0.67		
22			e5.8	4.0	2.2	1.1	0.00	0.00	0.00	0.67		
23			e5.5	2.4	2.9	0.95	0.00	0.00	0.00	0.67		
24			e21	1.4	4.0	0.85	0.00	0.00	0.00	0.67		
25			e21	0.95	3.7	0.74	0.00	0.00	0.00	0.71		
26			e13	0.74	3.4	0.64	0.00	0.00	0.00	0.60		
27			e7.1	0.60	2.9	0.53	0.00	0.00	0.00	0.57		
28			e7.3	0.53	3.3	0.46	0.00	0.00	0.00	0.57		
29			e12	0.49	4.1	0.35	0.00	0.00	0.00	0.57		
30			11	0.42	3.5	0.28	0.00	0.00	0.00	0.60		
31			13	---	2.9	---	0.00	0.00	---	0.60		
TOTAL			184.04	174.73	50.78	65.70	1.17	0.08	0.00	11.43		
MEAN			5.94	5.82	1.64	2.19	0.04	0.00	0.00	0.37		
MAX			21	24	4.1	5.6	0.25	0.04	0.00	0.71		
MIN			0.00	0.42	0.07	0.28	0.00	0.00	0.00	0.00		
AC-FT			365	347	101	130	2.3	0.2	0.00	23		

STATISTICS OF MONTHLY MEAN DATA FOR SEASONS 1986 - 2004*

MEAN	11.3	5.36	2.56	3.53	0.62	0.14	3.07	0.57
MAX	53.2	36.4	6.79	14.3	5.45	2.20	56.9	4.04
(WY)	(1997)	(1996)	(1997)	(1988)	(1993)	(1993)	(1986)	(1987)
MIN	0.00	0.83	0.27	0.00	0.00	0.00	0.00	0.00
(WY)	(2002)	(1992)	(1992)	(1992)	(1990)	(1986)	(1987)	(1991)

SUMMARY STATISTICS

	FOR 2004 SEASON		SEASONS 1986 - 2004*	
HIGHEST DAILY MEAN	24	Apr 9	724	Sep 26, 1986
LOWEST DAILY MEAN	0.00	Mar 1	0.00	Feb 19, 1986
MAXIMUM PEAK FLOW	a32	Mar 24	1,190	Sep 25, 1986
MAXIMUM PEAK STAGE	b5.00	Mar 24	9.81	Sep 25, 1986

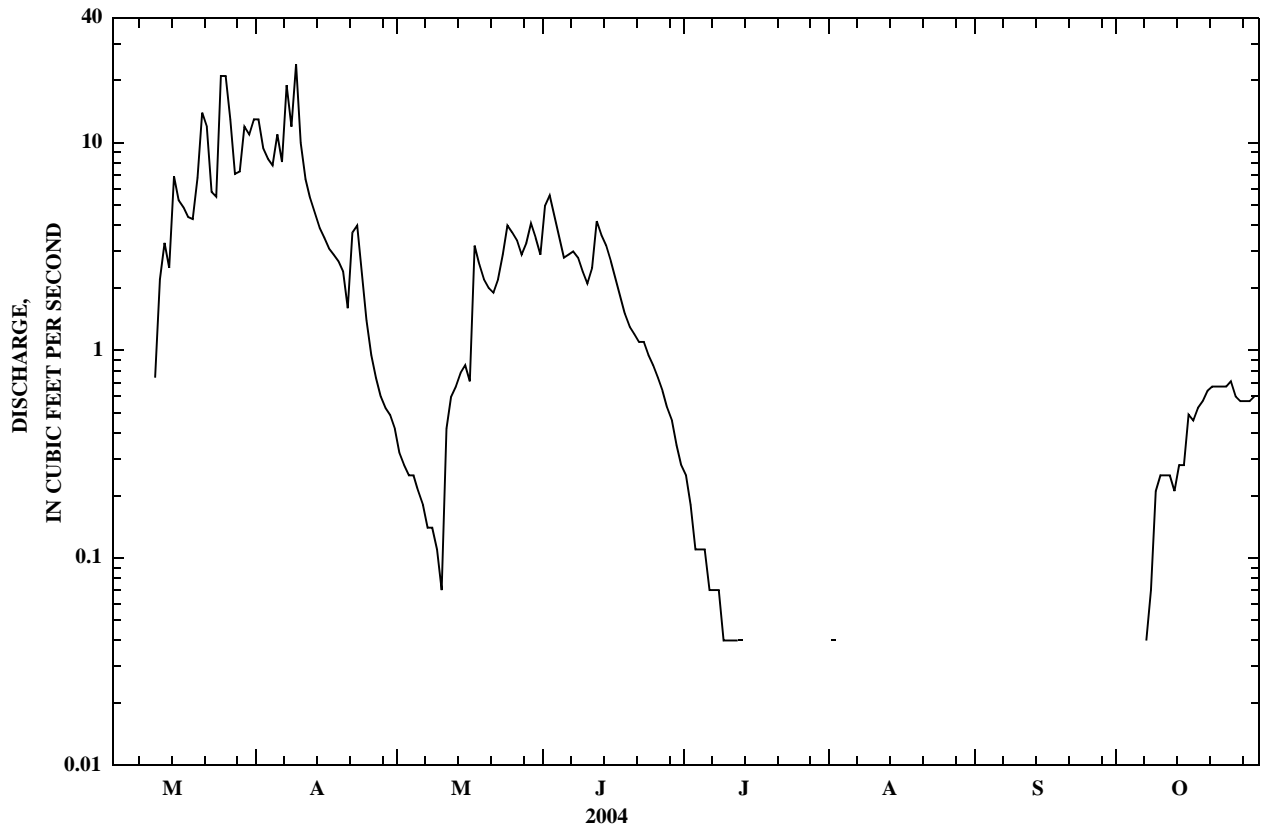
*--During periods of operation.

a--Gage height, 4.79 ft.

b--Backwater from ice.

e--Estimated.

06144440 MIDDLE CREEK NEAR GOVENLOCK, SASKATCHEWAN—Continued



06144450 MIDDLE CREEK ABOVE LODGE CREEK, NEAR GOVENLOCK, SASKATCHEWAN
(International gaging station)

LOCATION.--Lat 49°06'01", long 109°49'02" (NAD 27), in NE $\frac{1}{4}$ sec.4, T.2, R.29 W., third meridian, Hydrologic Unit 10050007, on left bank, 0.7 mi upstream from Lodge Creek, and 9 mi south of Govenlock.

DRAINAGE AREA.--276 mi².

PERIOD OF RECORD.--March 1962 to October 1966 and February 1986 to current season. Seasonal records only. March 1911 to May 1931 and March 1962 to current season in reports of Department of the Environment, Canada. Published as "at Hammond's Ranch" 1911-31.

GAGE.--Water-stage recorder. Elevation of gage is 2,830 ft (NGVD 29). Prior to Mar. 1, 1962, nonrecording gage at site 1,000 ft downstream at different elevation.

REMARKS.--Records fair. Natural flow of stream affected by Middle Creek Reservoir (station 06144360), several smaller reservoirs, diversions for irrigation, and return flow from irrigated areas. At high reservoir levels flow may be diverted to Lodge Creek through Middle Creek Reservoir. Water Survey of Canada satellite telemeter at station.

COOPERATION.--This is one of a number of stations which are maintained jointly by Canada and the United States.

DISCHARGE, CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			e0.00	0.07	3.0	2.7	3.0	0.00	0.00	0.00		
2			e0.00	0.04	1.2	5.0	2.1	0.39	0.00	0.00		
3			e0.00	0.04	0.88	4.9	1.1	0.14	0.00	0.00		
4			e0.00	0.04	0.92	3.9	0.67	0.04	0.00	0.00		
5			e0.00	0.00	0.88	1.6	0.49	0.00	0.00	0.00		
6			e0.00	0.00	0.81	1.2	1.2	0.00	0.00	0.00		
7			e0.00	0.00	0.78	1.1	2.2	0.00	0.00	0.00		
8			e0.00	0.00	0.67	0.99	0.81	0.00	0.00	0.00		
9			e0.00	0.00	0.57	0.74	0.28	0.00	0.00	0.00		
10			e0.00	0.00	0.46	0.64	0.14	0.00	0.00	0.00		
11			e0.00	0.00	1.2	0.53	0.07	0.00	0.00	0.00		
12			e0.00	0.00	1.6	0.49	0.04	0.00	0.00	0.00		
13			e0.00	0.00	4.7	0.46	0.04	0.00	0.00	0.00		
14			0.71	0.00	2.5	0.42	0.00	0.00	0.00	0.00		
15			2.3	0.00	1.0	0.32	0.00	0.00	0.00	0.00		
16			3.9	0.00	0.53	0.25	0.00	0.00	0.00	0.00		
17			9.7	0.53	0.18	0.21	0.00	0.00	0.00	0.00		
18			8.7	0.81	0.07	0.21	0.00	0.00	0.00	0.00		
19			9.9	1.6	0.11	0.18	0.00	0.00	0.00	0.00		
20			11	1.4	0.07	0.14	0.00	0.00	0.00	0.00		
21			9.6	1.6	0.07	0.07	0.00	0.00	0.00	0.00		
22			6.0	1.1	0.04	0.04	0.00	0.00	0.00	0.00		
23			2.9	1.2	1.2	0.04	0.00	0.00	0.00	0.00		
24			3.7	0.53	1.9	0.00	0.00	0.00	0.00	0.00		
25			3.7	0.25	1.0	0.00	0.00	0.00	0.00	0.00		
26			2.4	4.2	0.74	0.00	0.00	0.00	0.00	0.00		
27			1.3	4.7	1.5	0.00	0.00	0.00	0.00	0.00		
28			0.67	4.6	2.4	0.00	0.00	0.00	0.00	0.00		
29			0.32	4.5	2.9	0.95	0.00	0.00	0.00	0.00		
30			0.21	4.4	2.4	2.2	0.00	0.00	0.00	0.00		
31			0.11	---	2.0	---	0.00	0.00	---	0.00		
TOTAL			77.12	31.61	38.28	29.28	12.14	0.57	0.00	0.00		
MEAN			2.49	1.05	1.23	0.98	0.39	0.02	0.00	0.00		
MAX			11	4.7	4.7	5.0	3.0	0.39	0.00	0.00		
MIN			0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00		
AC-FT			153	63	76	58	24	1.1	0.00	0.00		

STATISTICS OF MONTHLY MEAN DATA FOR SEASONS 1911 - 2004*

MEAN	12.7	51.9	12.9	6.59	3.84	0.52	2.54	0.56
MAX	71.8	457	222	61.1	35.1	9.76	63.3	8.35
(WY)	(1997)	(1917)	(1927)	(1965)	(1923)	(1915)	(1986)	(1987)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1919)	(1991)	(1989)	(1926)	(1914)	(1911)	(1912)	(1913)

SUMMARY STATISTICS

FOR 2004 SEASON

SEASONS 1911 - 2004*

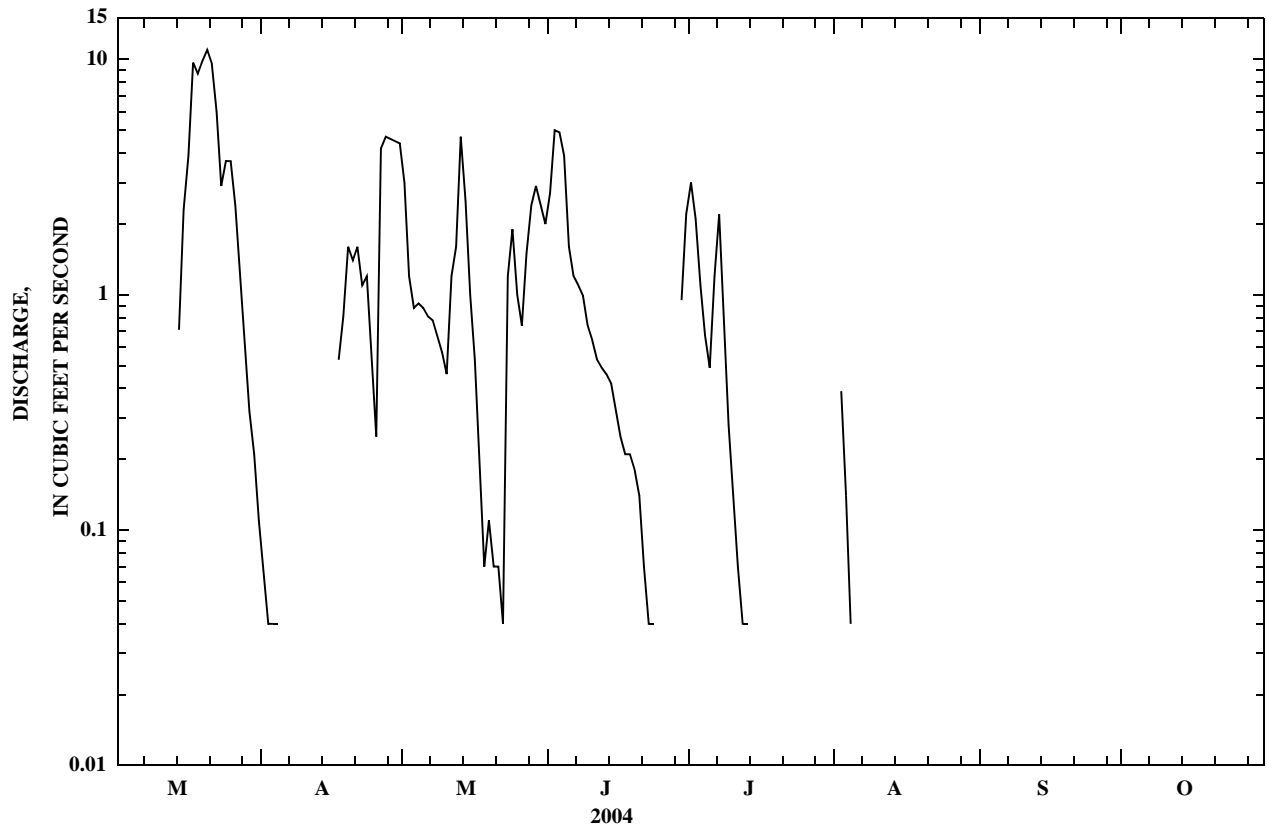
HIGHEST DAILY MEAN	11	Mar 20	a1,170	Apr 24, 1922
LOWEST DAILY MEAN	0.00	Mar 1	0.00	Mar 13, 1911
MAXIMUM PEAK FLOW	19	Mar 20	738	Sep 26, 1986
MAXIMUM PEAK STAGE	4.89	Mar 20	13.84	Sep 26, 1986

*--During periods of operation.

a--Maximum peak flow not determined.

e--Estimated.

06144450 MIDDLE CREEK ABOVE LODGE CREEK, NEAR GOVENLOCK, SASKATCHEWAN—Continued



06145500 LODGE CREEK BELOW MCRAE CREEK, AT INTERNATIONAL BOUNDARY
(International gaging station)

LOCATION.--Lat 49°00'19", long 109°43'02" (NAD 27), in SW¹/₄ sec.5, T.1, R.28 W., third meridian, in Saskatchewan, Hydrologic Unit 10050007, on right bank 0.3 mi downstream from McRae Creek, 0.4 mi north of international boundary, 0.8 mi northeast of Willow Creek Port of Entry, 31 mi north of Havre, MT, and at river mile 84.3.

DRAINAGE AREA.--825 mi², of which 88 mi² are noncontributing.

PERIOD OF RECORD.--October 1951 to current season (seasonal records only). Prior to October 1951, records were collected on both McRae Coulee (1927-51) and Lodge Creek above McRae Coulee (1910-51). Summations are equivalent to records at this site. Prior to March 1965, published as "below McRae Coulee."

REVISED RECORDS.--W 1983: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,731.0 ft (International Boundary Survey datum).

REMARKS.--Records good. Natural flow affected by numerous storage reservoirs, diversions for irrigation of about 3,000 acres, and return flow from irrigated areas. Water Survey of Canada satellite telemeter at station. Several observations of water temperature and specific conductance were made during the year.

COOPERATION.--This is one of a number of stations which are maintained jointly by Canada and the United States.

DISCHARGE, CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			0.04	3.5	9.1	8.5	0.14	0.04	0.04	0.00		
2			0.04	3.0	6.1	6.1	0.18	0.04	0.04	0.00		
3			0.04	2.5	4.3	5.0	0.14	0.04	0.04	0.00		
4			0.04	2.3	3.0	7.6	0.14	0.04	0.04	0.00		
5			0.04	2.1	2.1	5.6	0.14	0.04	0.04	0.00		
6			0.04	17	1.5	44	0.78	0.04	0.04	0.00		
7			0.04	27	1.2	102	1.6	0.04	0.04	0.00		
8			0.07	34	0.99	100	1.2	0.04	0.04	0.00		
9			0.18	43	0.78	100	0.81	0.04	0.04	0.00		
10			0.53	46	0.53	79	0.53	0.04	0.04	0.00		
11			6.6	38	0.85	25	0.42	0.04	0.04	0.00		
12			16	30	1.3	11	0.78	0.04	0.00	0.00		
13			45	25	1.3	6.6	0.60	0.04	0.00	0.00		
14			161	21	1.4	4.6	0.39	0.04	0.00	0.00		
15			71	16	1.9	3.4	0.25	0.04	0.00	0.00		
16			97	12	4.1	2.6	0.28	0.04	0.00	0.00		
17			91	11	2.8	2.0	0.25	0.04	0.00	0.00		
18			86	9.9	2.0	1.6	0.14	0.04	0.00	0.00		
19			138	8.4	2.4	1.2	0.11	0.04	0.00	0.00		
20			108	7.9	1.9	1.0	0.11	0.04	0.00	0.04		
21			65	8.3	1.9	0.81	0.07	0.04	0.00	0.04		
22			48	8.0	3.2	0.71	0.04	0.04	0.00	0.04		
23			36	7.1	3.6	0.60	0.04	0.04	0.00	0.04		
24			32	5.7	8.6	0.49	0.04	0.04	0.00	0.04		
25			27	5.6	30	0.39	0.04	0.04	0.00	0.04		
26			23	4.4	26	0.35	0.04	0.04	0.00	0.04		
27			18	4.5	14	0.28	0.04	0.04	0.00	0.04		
28			11	5.3	11	0.25	0.04	0.04	0.00	0.04		
29			6.7	5.5	8.5	0.18	0.04	0.04	0.00	0.04		
30			5.0	5.9	8.7	0.14	0.04	0.04	0.00	0.00		
31			4.1	---	9.0	---	0.04	0.04	---	0.00		
TOTAL			1,096.46	419.9	174.05	521.00	9.46	1.24	0.44	0.40		
MEAN			35.4	14.0	5.61	17.4	0.31	0.04	0.01	0.01		
MAX			161	46	30	102	1.6	0.04	0.04	0.04		
MIN			0.04	2.1	0.53	0.14	0.04	0.04	0.00	0.00		
AC-FT			2,170	833	345	1,030	19	2.5	0.9	0.8		

STATISTICS OF MONTHLY MEAN DATA FOR SEASONS 1952 - 2004

MEAN	54.9	135	39.2	24.2	9.68	2.22	13.4	1.42
MAX	374	1,899	500	294	174	33.1	678	52.3
(WY)	(1997)	(1952)	(1967)	(1965)	(1955)	(1993)	(1986)	(1987)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1953)	(1992)	(1992)	(1963)	(1958)	(1954)	(1952)	(1953)

SUMMARY STATISTICS

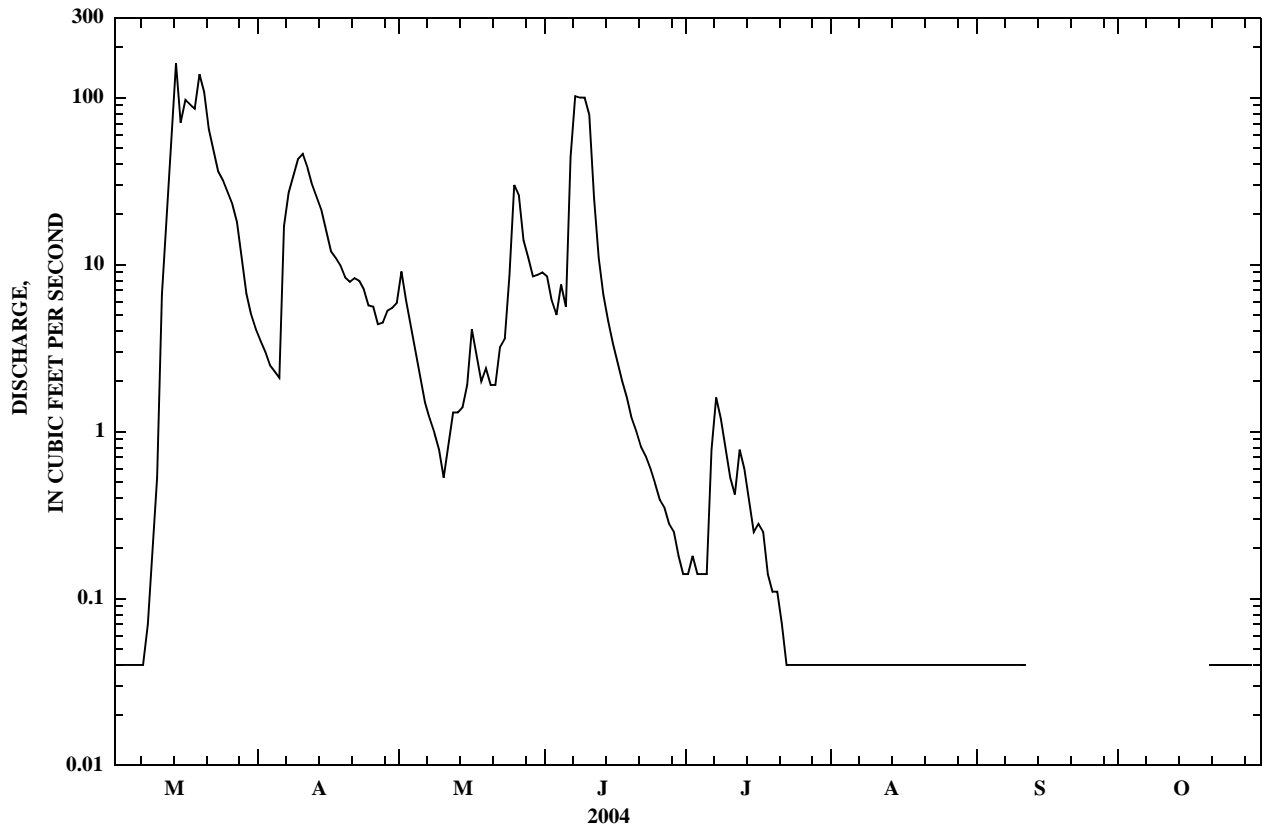
FOR 2004 SEASON

SEASONS 1952 - 2004

HIGHEST DAILY MEAN	161	Mar 14	7,770	Sep 26, 1986
LOWEST DAILY MEAN	0.00	many days	0.00	Mar 1, 1952
MAXIMUM PEAK FLOW	223	Mar 14	a9,890	Sep 25, 1986
MAXIMUM PEAK STAGE	4.50	Mar 14	16.36	Sep 25, 1986

a--From rating curve extended above 4,000 ft³/s on basis of slope-area measurement of peak flow.

06145500 LODGE CREEK BELOW MCRAE CREEK, AT INTERNATIONAL BOUNDARY—Continued



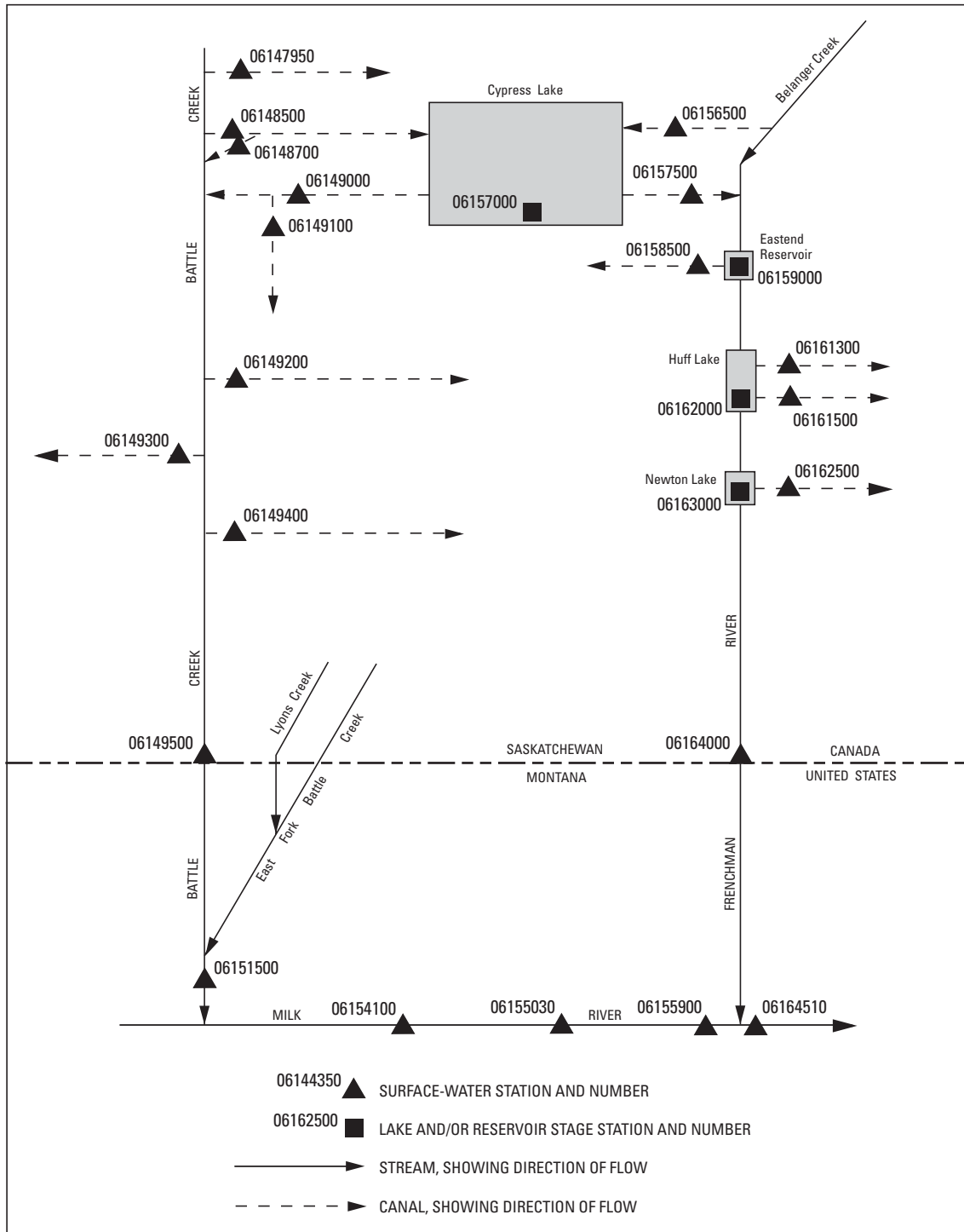


Figure 12. Schematic diagram showing diversions and storage in Battle Creek and Frenchman River basins.

06147950 GAFF DITCH NEAR MERRYFLAT, SASKATCHEWAN
(International gaging station)

LOCATION.--Lat 49°26'05", long 109°50'07" (NAD 27), in NW $\frac{1}{4}$ sec.34, T.5, R.29 W., third meridian, Hydrologic Unit 10050008, on left bank about 200 ft downstream from headgates, and 4 mi southwest of Merryflat.

PERIOD OF RECORD.--March 1972 to current season (seasonal record only). March 1964 to current season in reports of Department of the Environment, Canada.

GAGE.--Water-stage recorder. Elevation of gage is 3,350 ft (NGVD 29).

REMARKS.--Records poor. Water is diverted from left bank of Battle Creek in NW $\frac{1}{4}$ sec.34, T.5, R.29 W., third meridian, for irrigation of about 890 acres along Battle Creek. Water Survey of Canada satellite telemeter at station.

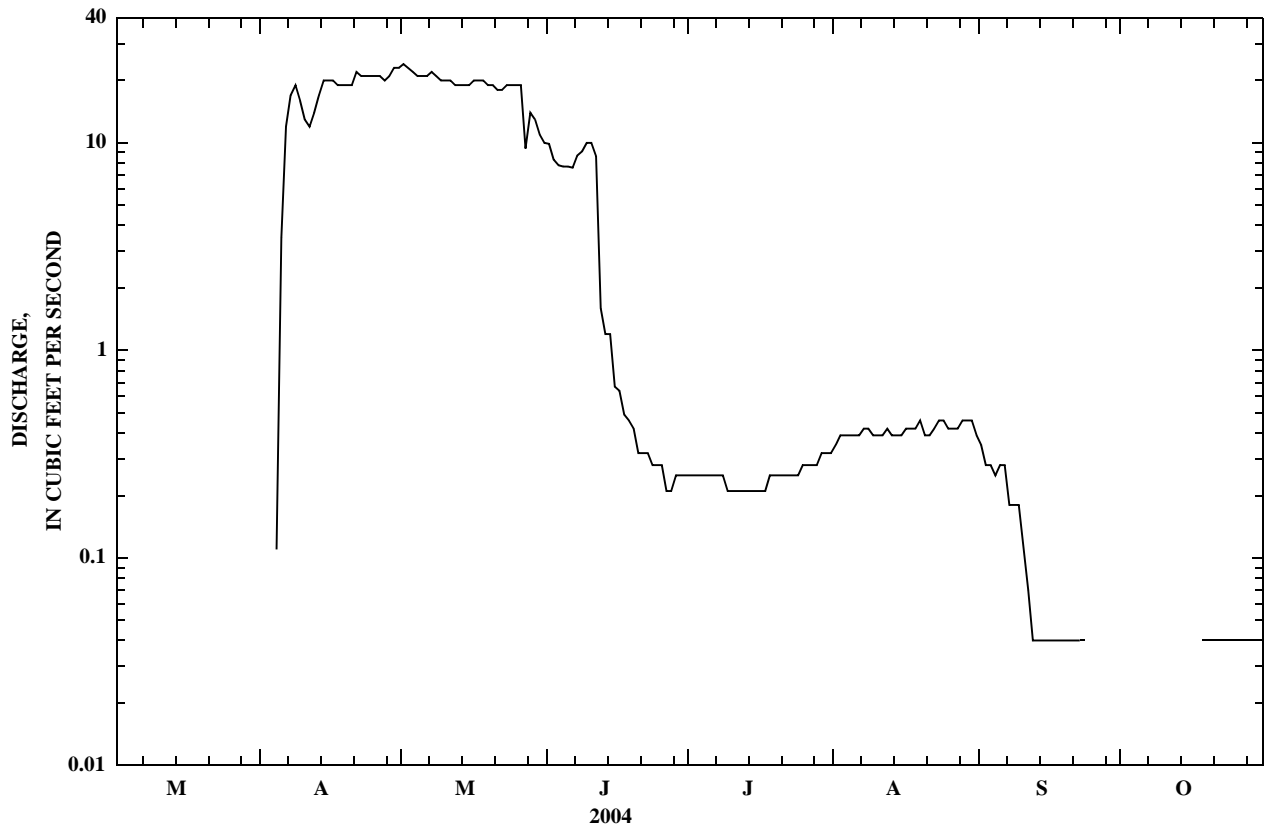
COOPERATION.--This is one of a number of stations which are maintained jointly by Canada and the United States.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 42 ft³/s, Apr. 22, 1971; no flows at times each season.

DISCHARGE, CUBIC FEET PER SECOND CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			e0.00	e0.00	24	9.9	0.25	0.35	0.35	0.00		
2			e0.00	e0.00	23	8.3	0.25	0.39	0.28	0.00		
3			e0.00	e0.00	22	7.8	0.25	0.39	0.28	0.00		
4			e0.00	e0.11	21	7.7	0.25	0.39	0.25	0.00		
5			e0.00	e3.5	21	7.7	0.25	0.39	0.28	0.00		
6			e0.00	12	21	7.6	0.25	0.39	0.28	0.00		
7			e0.00	17	22	8.7	0.25	0.42	0.18	0.00		
8			e0.00	19	21	9.1	0.25	0.42	0.18	0.00		
9			e0.00	16	20	10	0.21	0.39	0.18	0.00		
10			e0.00	13	20	10	0.21	0.39	0.11	0.00		
11			e0.00	12	20	8.6	0.21	0.39	0.07	0.00		
12			e0.00	14	19	1.6	0.21	0.42	0.04	0.00		
13			e0.00	17	19	1.2	0.21	0.39	0.04	0.00		
14			e0.00	20	19	1.2	0.21	0.39	0.04	0.00		
15			e0.00	20	19	0.67	0.21	0.39	0.04	0.00		
16			e0.00	20	20	0.64	0.21	0.42	0.04	0.00		
17			e0.00	19	20	0.49	0.21	0.42	0.04	0.00		
18			e0.00	19	20	0.46	0.25	0.42	0.04	0.04		
19			e0.00	19	19	0.42	0.25	0.46	0.04	0.04		
20			e0.00	19	19	0.32	0.25	0.39	0.04	0.04		
21			e0.00	22	18	0.32	0.25	0.39	0.04	0.04		
22			e0.00	21	18	0.32	0.25	0.42	0.04	0.04		
23			e0.00	21	19	0.28	0.25	0.46	0.04	0.04		
24			e0.00	21	19	0.28	0.25	0.46	0.00	0.04		
25			e0.00	21	19	0.28	0.28	0.42	0.00	0.04		
26			e0.00	21	19	0.21	0.28	0.42	0.00	0.04		
27			e0.00	20	9.4	0.21	0.28	0.42	0.00	0.04		
28			e0.00	21	14	0.25	0.28	0.46	0.00	0.04		
29			e0.00	23	13	0.25	0.32	0.46	0.00	0.04		
30			e0.00	23	11	0.25	0.32	0.46	0.00	0.04		
31			e0.00	---	10	---	0.32	0.39	---	0.04		
TOTAL			0.00	473.61	578.4	105.05	7.72	12.77	2.92	0.56		
MEAN			0.00	15.8	18.7	3.50	0.25	0.41	0.10	0.02		
MAX			0.00	23	24	10	0.32	0.46	0.35	0.04		
MIN			0.00	0.00	9.4	0.21	0.21	0.35	0.00	0.00		
AC-FT			0.00	939	1,150	208	15	25	5.8	1.1		

e--Estimated.



06148500 CYPRESS LAKE WEST INFLOW CANAL NEAR WEST PLAINS, SASKATCHEWAN
(International gaging station)

LOCATION.--Lat 49°28'18", long 109°37'08" (NAD 27), in SE $\frac{1}{4}$ sec.18, T.6, R.27 W., third meridian, Hydrologic Unit 10050008, on left bank 2.5 mi downstream from canal headgates, 5.5 mi northeast of West Plains, and 13 mi northwest of Consul.

PERIOD OF RECORD.--March 1939 to current season (seasonal records only). Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Elevation of gage is 3,210 ft (NGVD 29). Prior to Oct. 16, 1956, at site 2.3 mi upstream at different elevation.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Canal diverts water from Battle Creek in NW $\frac{1}{4}$ sec.1, T.6, R.28 W., third meridian, for storage in Cypress Lake. Part or all of flow may be returned to Battle Creek via Cypress Lake West Inflow Canal Drain (station 06148700) 0.4 mi downstream. Water Survey of Canada satellite telemeter at station.

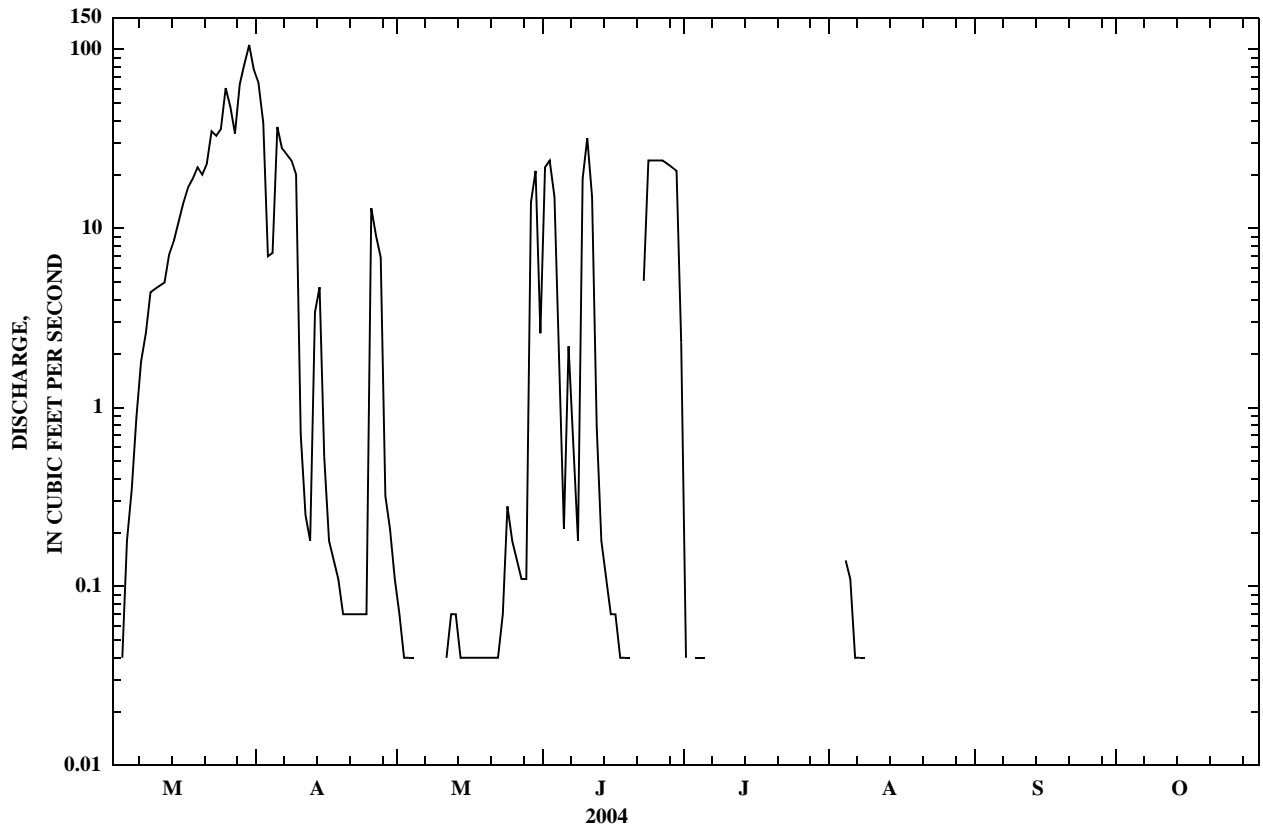
COOPERATION.--This is one of a number of stations which are maintained jointly by Canada and the United States.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 884 ft³/s, Apr. 27, 1965; no flow at times each season.

DISCHARGE, CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			e0.00	65	0.07	22	0.04	0.00	0.00	0.00		
2			e0.00	39	0.04	24	0.00	0.00	0.00	0.00		
3			e0.04	7.0	0.04	15	0.04	0.00	0.00	0.00		
4			e0.18	7.3	0.04	1.2	0.04	0.14	0.00	0.00		
5			e0.35	37	0.00	0.21	0.04	0.11	0.00	0.00		
6			e0.88	28	0.00	2.2	0.00	0.04	0.00	0.00		
7			e1.8	26	0.00	0.60	0.00	0.04	0.00	0.00		
8			e2.6	24	0.00	0.18	0.00	0.04	0.00	0.00		
9			e4.4	20	0.00	19	0.00	0.00	0.00	0.00		
10			e4.6	0.71	0.00	32	0.00	0.00	0.00	0.00		
11			e4.8	0.25	0.04	15	0.00	0.00	0.00	0.00		
12			e5.0	0.18	0.07	0.78	0.00	0.00	0.00	0.00		
13			e7.2	3.4	0.07	0.18	0.00	0.00	0.00	0.00		
14			e8.6	4.7	0.04	0.11	0.00	0.00	0.00	0.00		
15			e11	0.53	0.04	0.07	0.00	0.00	0.00	0.00		
16			e14	0.18	0.04	0.07	0.00	0.00	0.00	0.00		
17			e17	0.14	0.04	0.04	0.00	0.00	0.00	0.00		
18			e19	0.11	0.04	0.04	0.00	0.00	0.00	0.00		
19			e22	0.07	0.04	0.04	0.00	0.00	0.00	0.00		
20			e20	0.07	0.04	0.00	0.00	0.00	0.00	0.00		
21			e23	0.07	0.04	0.00	0.00	0.00	0.00	0.00		
22			e35	0.07	0.04	5.1	0.00	0.00	0.00	0.00		
23			e33	0.07	0.07	24	0.00	0.00	0.00	0.00		
24			e36	0.07	0.28	24	0.00	0.00	0.00	0.00		
25			e61	13	0.18	24	0.00	0.00	0.00	0.00		
26			e48	9.2	0.14	24	0.00	0.00	0.00	0.00		
27			e34	6.9	0.11	23	0.00	0.00	0.00	0.00		
28			e64	0.32	0.11	22	0.00	0.00	0.00	0.00		
29			e83	0.21	14	21	0.00	0.00	0.00	0.00		
30			e106	0.11	21	2.3	0.00	0.00	0.00	0.00		
31			e77	---	2.6	---	0.00	0.00	---	0.00		
TOTAL			743.45	293.66	39.22	302.12	0.16	0.37	0.00	0.00		
MEAN			24.0	9.79	1.27	10.1	0.01	0.01	0.00	0.00		
MAX			106	65	21	32	0.04	0.14	0.00	0.00		
MIN			0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00		
AC-FT			1,470	582	78	599	0.3	0.7	0.00	0.00		

e--Estimated.



06148700 CYPRESS LAKE WEST INFLOW CANAL DRAIN NEAR OXARAT, SASKATCHEWAN
(International gaging station)

LOCATION.--Lat 49°28'25", long 109°36'38" (NAD 27), in NW $\frac{1}{4}$ sec.17, T.6, R.27 W., third meridian, Hydrologic Unit 10050008, on left bank about 500 ft downstream from drain gate on Cypress Lake west inflow canal, 0.5 mi upstream from Battle Creek, and 4 mi northwest of Oxarat.

PERIOD OF RECORD.--March 1963 to current season (seasonal records only). March 1955 to current season in reports of Department of the Environment, Canada.

GAGE.--Water-stage recorder. Elevation of gage is 3,200 ft (NGVD 29).

REMARKS.--Records poor. Drain used as an emergency bypass to return diverted water to Battle Creek. It may also be used to return stored water from Cypress Lake when lake stage is high.

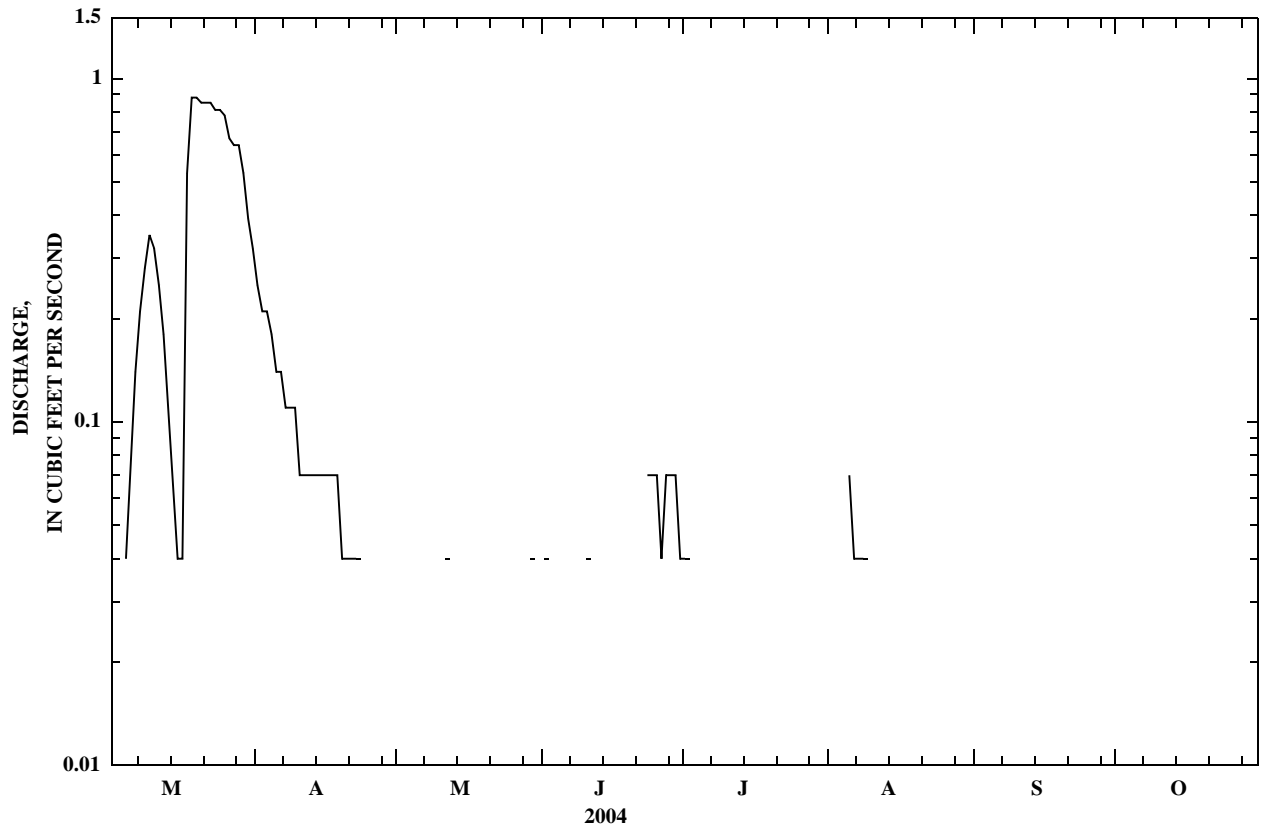
COOPERATION.--This is one of a number of stations which are maintained jointly by Canada and the United States.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 450 ft³/s, Apr. 20, 1955; no flow at times each season.

DISCHARGE, CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			e0.00	0.25	0.00	0.04	0.04	0.00	0.00	0.00		
2			e0.00	0.21	0.00	0.04	0.04	0.00	0.00	0.00		
3			e0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00		
4			e0.04	0.18	0.00	0.00	0.00	0.00	0.00	0.00		
5			e0.07	0.14	0.00	0.00	0.00	0.07	0.00	0.00		
6			e0.14	0.14	0.00	0.00	0.00	0.04	0.00	0.00		
7			e0.21	0.11	0.00	0.00	0.00	0.04	0.00	0.00		
8			e0.28	0.11	0.00	0.00	0.00	0.04	0.00	0.00		
9			e0.35	0.11	0.00	0.00	0.00	0.04	0.00	0.00		
10			e0.32	0.07	0.00	0.04	0.00	0.00	0.00	0.00		
11			e0.25	0.07	0.04	0.04	0.00	0.00	0.00	0.00		
12			e0.18	0.07	0.04	0.00	0.00	0.00	0.00	0.00		
13			e0.11	0.07	0.00	0.00	0.00	0.00	0.00	0.00		
14			e0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00		
15			e0.04	0.07	0.00	0.00	0.00	0.00	0.00	0.00		
16			e0.04	0.07	0.00	0.00	0.00	0.00	0.00	0.00		
17			e0.53	0.07	0.00	0.00	0.00	0.00	0.00	0.00		
18			e0.88	0.07	0.00	0.00	0.00	0.00	0.00	0.00		
19			e0.88	0.04	0.00	0.00	0.00	0.00	0.00	0.00		
20			e0.85	0.04	0.00	0.00	0.00	0.00	0.00	0.00		
21			e0.85	0.04	0.00	0.00	0.00	0.00	0.00	0.00		
22			e0.85	0.04	0.00	0.00	0.00	0.00	0.00	0.00		
23			e0.81	0.04	0.04	0.07	0.00	0.00	0.00	0.00		
24			e0.81	0.00	0.00	0.07	0.00	0.00	0.00	0.00		
25			e0.78	0.00	0.00	0.07	0.00	0.00	0.00	0.00		
26			e0.67	0.04	0.04	0.04	0.00	0.00	0.00	0.00		
27			e0.64	0.00	0.00	0.07	0.00	0.00	0.00	0.00		
28			e0.64	0.00	0.00	0.07	0.00	0.00	0.00	0.00		
29			e0.53	0.00	0.04	0.07	0.00	0.00	0.00	0.00		
30			0.39	0.00	0.04	0.04	0.00	0.00	0.00	0.00		
31			0.32	---	0.00	---	0.00	0.00	---	0.00		
TOTAL			12.53	2.33	0.24	0.66	0.08	0.23	0.00	0.00		
MEAN			0.40	0.08	0.01	0.02	0.00	0.01	0.00	0.00		
MAX			0.88	0.25	0.04	0.07	0.04	0.07	0.00	0.00		
MIN			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
AC-FT			25	4.6	0.5	1.3	0.2	0.5	0.00	0.00		

e--Estimated.



06149000 CYPRESS LAKE WEST OUTFLOW CANAL NEAR WEST PLAINS, SASKATCHEWAN
(International gaging station)

LOCATION.--Lat 49°28'14", long 109°35'18" (NAD 27), in SW¹/₄ sec.16, T.6, R.27 W., third meridian, Hydrologic Unit 10050008, on left bank 1.1 mi downstream from Cypress Lake West Dam, 6 mi northeast of West Plains, and 13 mi north of Consul.

PERIOD OF RECORD.--March 1940 to current season (seasonal records only). Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Elevation of gage is 3,180 ft (NGVD 29). Prior to Sept. 18, 1952, at site 1 mi upstream and 300 ft downstream from Cypress Lake West Dam at different elevation.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Canal diverts water from Cypress Lake in NW¹/₄ sec.15, T.6, R.27 W., third meridian, for irrigation of 5,500 acres in Battle Creek basin in Saskatchewan. Water may be delivered to Battle Creek or diverted into Vidora Ditch at gate structure near lower end of canal. Water Survey of Canada satellite telemeter at station.

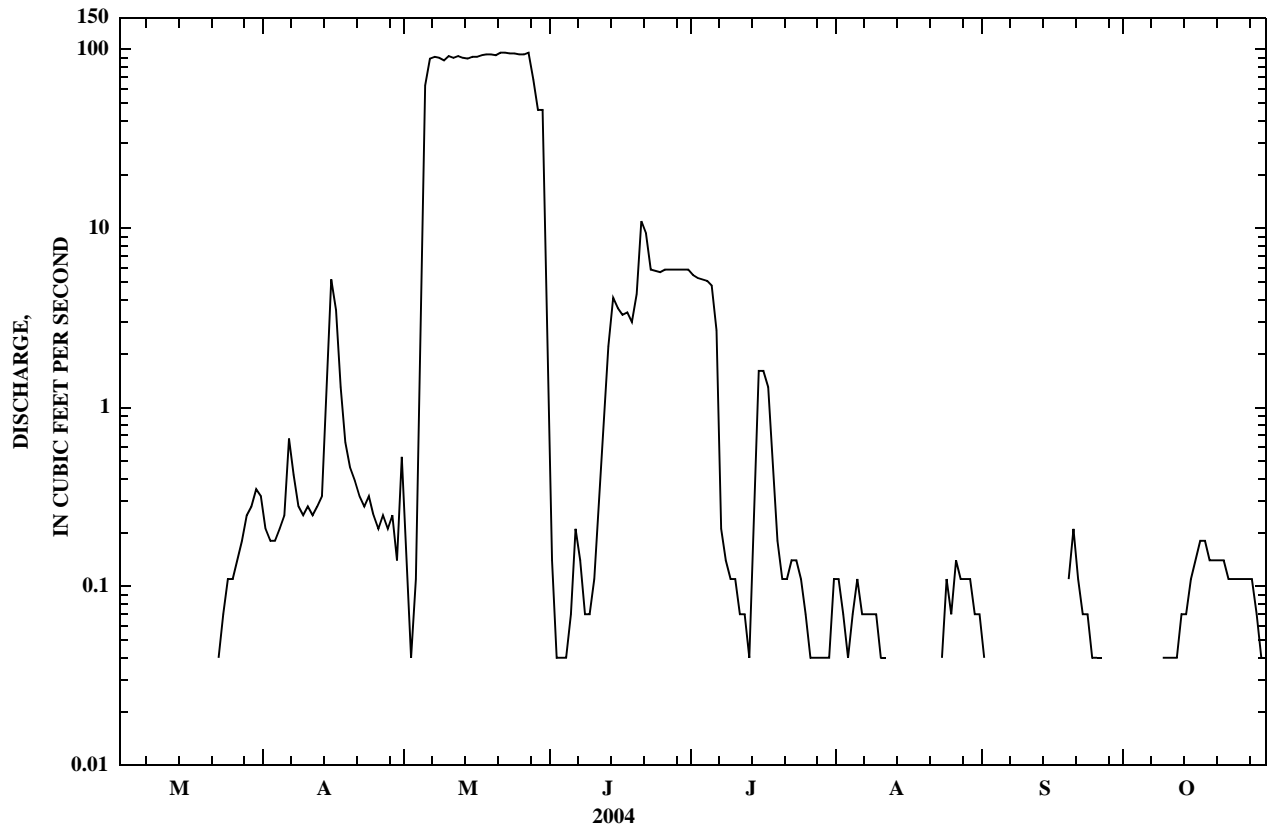
COOPERATION.--This is one of a number of stations which are maintained jointly by Canada and the United States.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 304 ft³/s, May 4, 1951; no flow at times each season.

DISCHARGE, CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			e0.00	e0.21	0.14	0.14	5.5	0.11	0.04	0.00		
2			e0.00	e0.18	0.04	0.04	5.3	0.07	0.00	0.00		
3			e0.00	e0.18	0.11	0.04	5.2	0.04	0.00	0.00		
4			e0.00	e0.21	3.0	0.04	5.1	0.07	0.00	0.00		
5			e0.00	e0.25	63	0.07	4.8	0.11	0.00	0.00		
6			e0.00	e0.67	89	0.21	2.7	0.07	0.00	0.00		
7			e0.00	e0.42	91	0.14	0.21	0.07	0.00	0.00		
8			e0.00	0.28	90	0.07	0.14	0.07	0.00	0.00		
9			e0.00	0.25	87	0.07	0.11	0.07	0.00	0.04		
10			e0.00	0.28	92	0.11	0.11	0.04	0.00	0.04		
11			e0.00	0.25	90	0.35	0.07	0.04	0.00	0.04		
12			e0.00	0.28	92	0.85	0.07	0.00	0.00	0.04		
13			e0.00	0.32	90	2.2	0.04	0.00	0.00	0.07		
14			e0.00	1.6	89	4.1	0.21	0.00	0.00	0.07		
15			e0.00	5.2	91	3.6	1.6	0.00	0.00	0.11		
16			e0.00	e3.5	91	3.3	1.6	0.00	0.00	0.14		
17			e0.00	1.3	93	3.4	1.3	0.00	0.00	0.18		
18			e0.00	0.64	94	3.0	0.49	0.00	0.00	0.18		
19			e0.00	0.46	94	4.3	0.18	0.00	0.11	0.14		
20			e0.00	0.39	93	11	0.11	0.00	0.21	0.14		
21			e0.00	0.32	96	9.4	0.11	0.00	0.11	0.14		
22			e0.04	0.28	96	5.9	0.14	0.00	0.07	0.14		
23			e0.07	0.32	95	5.8	0.14	0.04	0.07	0.11		
24			e0.11	0.25	95	5.7	0.11	0.11	0.04	0.11		
25			e0.11	0.21	94	5.9	0.07	0.07	0.04	0.11		
26			e0.14	0.25	94	5.9	0.04	0.14	0.04	0.11		
27			e0.18	0.21	96	5.9	0.04	0.11	0.00	0.11		
28			e0.25	0.25	68	5.9	0.04	0.11	0.00	0.11		
29			e0.28	0.14	46	5.9	0.04	0.11	0.00	0.07		
30			e0.35	0.53	46	5.9	0.04	0.07	0.00	0.04		
31			e0.32	---	6.0	---	0.11	0.07	---	0.04		
TOTAL			1.85	19.63	2,264.29	99.23	35.72	1.59	0.73	2.28		
MEAN			0.06	0.65	73.0	3.31	1.15	0.05	0.02	0.07		
MAX			0.35	5.2	96	11	5.5	0.14	0.21	0.18		
MIN			0.00	0.14	0.04	0.04	0.04	0.00	0.00	0.00		
AC-FT			3.7	39	4,490	197	71	3.2	1.4	4.5		

e--Estimated.



06149100 VIDORA DITCH NEAR CONSUL, SASKATCHEWAN

(International gaging station)

LOCATION.--Lat 49°27'27", long 109°35'30" (NAD 27), in SW¹/₄ sec.9, T.6, R.27 W., third meridian, Hydrologic Unit 10050008, on left bank 0.5 mi downstream from headgate near lower end of Cypress Lake west outflow canal, 12 mi north of Consul.

PERIOD OF RECORD.--March 1963 to current season (seasonal records only). March 1952 to current season in reports of Department of the Environment, Canada.

GAGE.--Water-stage recorder. Elevation of gage is 3,200 ft (NGVD 29). Prior to Aug. 1, 1963, at elevation 1.0 ft higher.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Canal diverts water from Cypress Lake west outflow canal in NE¹/₄ sec.8, T.6, R.27 W., third meridian, for irrigation of about 2,140 acres in the Battle Creek basin. Water may be delivered either to this canal or returned to Battle Creek from Cypress Lake. Water Survey of Canada satellite telemeter at station.

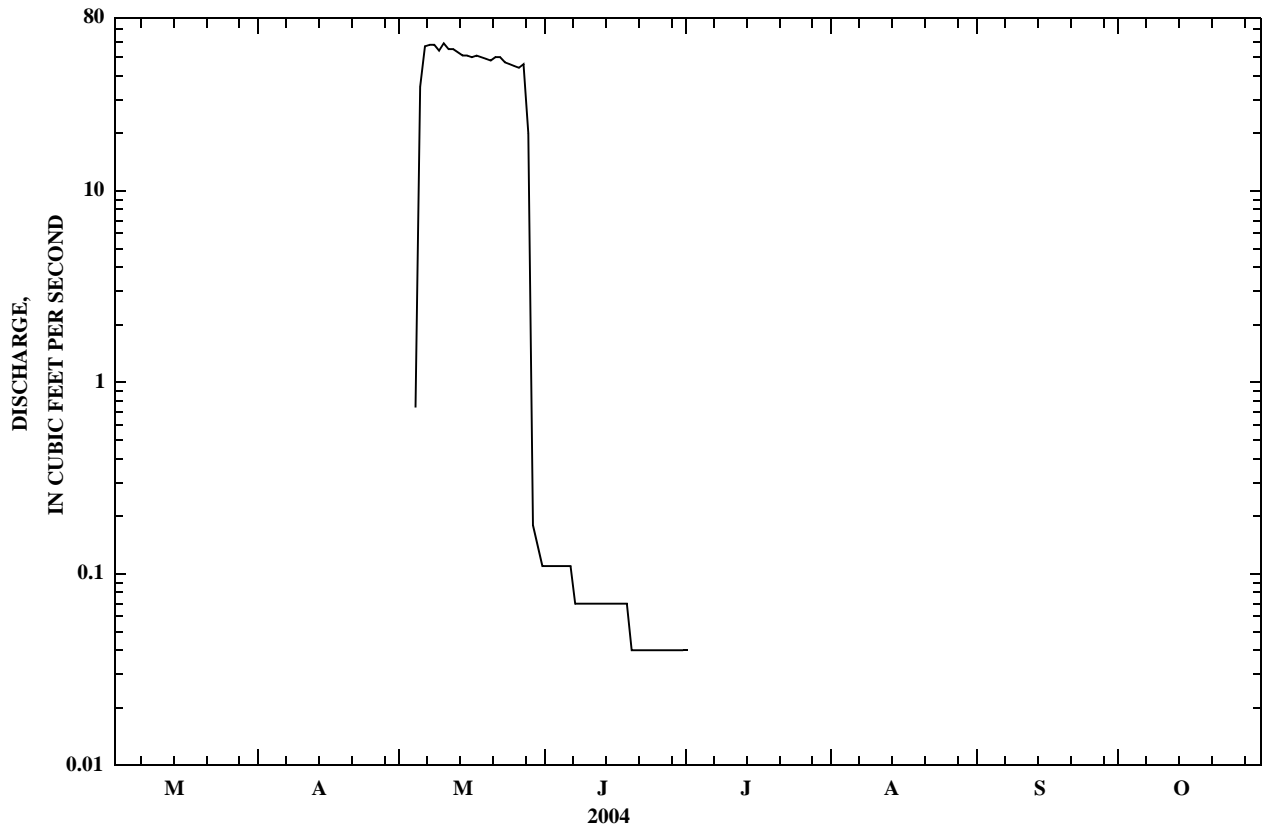
COOPERATION.--This is one of a number of stations which are maintained jointly by Canada and the United States.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 101 ft³/s, May 26, 1988; no flow at times each season.

DISCHARGE, CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			0.00	0.00	0.00	e0.11	e0.04	0.00	0.00	0.00		
2			0.00	0.00	0.00	e0.11	0.00	0.00	0.00	0.00		
3			0.00	0.00	0.00	e0.11	0.00	0.00	0.00	0.00		
4			0.00	0.00	0.74	e0.11	0.00	0.00	0.00	0.00		
5			0.00	0.00	35	e0.11	0.00	0.00	0.00	0.00		
6			0.00	0.00	57	e0.11	0.00	0.00	0.00	0.00		
7			0.00	0.00	58	e0.07	0.00	0.00	0.00	0.00		
8			0.00	0.00	58	e0.07	0.00	0.00	0.00	0.00		
9			0.00	0.00	54	e0.07	0.00	0.00	0.00	0.00		
10			0.00	0.00	59	e0.07	0.00	0.00	0.00	0.00		
11			0.00	0.00	55	e0.07	0.00	0.00	0.00	0.00		
12			0.00	0.00	55	e0.07	0.00	0.00	0.00	0.00		
13			0.00	0.00	53	e0.07	0.00	0.00	0.00	0.00		
14			0.00	0.00	51	e0.07	0.00	0.00	0.00	0.00		
15			0.00	0.00	51	e0.07	0.00	0.00	0.00	0.00		
16			0.00	0.00	50	e0.07	0.00	0.00	0.00	0.00		
17			0.00	0.00	51	e0.07	0.00	0.00	0.00	0.00		
18			0.00	0.00	50	e0.07	0.00	0.00	0.00	0.00		
19			0.00	0.00	49	e0.04	0.00	0.00	0.00	0.00		
20			0.00	0.00	48	e0.04	0.00	0.00	0.00	0.00		
21			0.00	0.00	50	e0.04	0.00	0.00	0.00	0.00		
22			0.00	0.00	50	e0.04	0.00	0.00	0.00	0.00		
23			0.00	0.00	47	e0.04	0.00	0.00	0.00	0.00		
24			0.00	0.00	46	e0.04	0.00	0.00	0.00	0.00		
25			0.00	0.00	45	e0.04	0.00	0.00	0.00	0.00		
26			0.00	0.00	44	e0.04	0.00	0.00	0.00	0.00		
27			0.00	0.00	46	e0.04	0.00	0.00	0.00	0.00		
28			0.00	0.00	20	e0.04	0.00	0.00	0.00	0.00		
29			0.00	0.00	e0.18	e0.04	0.00	0.00	0.00	0.00		
30			0.00	0.00	e0.14	e0.04	0.00	0.00	0.00	0.00		
31			0.00	---	e0.11	---	0.00	0.00	---	0.00		
TOTAL			0.00	0.00	1,183.17	1.98	0.04	0.00	0.00	0.00		
MEAN			0.00	0.00	38.2	0.07	0.00	0.00	0.00	0.00		
MAX			0.00	0.00	59	0.11	0.04	0.00	0.00	0.00		
MIN			0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00		
AC-FT			0.00	0.00	2,350	3.9	0.08	0.00	0.00	0.00		

e--Estimated.



06149200 RICHARDSON DITCH NEAR CONSUL, SASKATCHEWAN
(International gaging station)

LOCATION.--Lat 49°21'50", long 109°32'12" (NAD 27), near center of south line of sec.11, T.5, R.27 W., third meridian, Hydrologic Unit 10050008, on left bank 420 ft downstream from headgate, 4.8 mi north of Consul.

PERIOD OF RECORD.--March 1963 to current season (seasonal records only). 1910-12, 1914, 1916-20, 1922-33, 1935, July 1946 to current season in reports of Department of the Environment, Canada. Estimates of seasonal diversion only in most seasons prior to 1946.

GAGE.--Water-stage recorder. Prior to June 26, 1949, nonrecording gages at different sites and elevations. June 26, 1949, to Aug. 28, 1963, water-stage recorder at present site at elevation 1.00 ft higher.

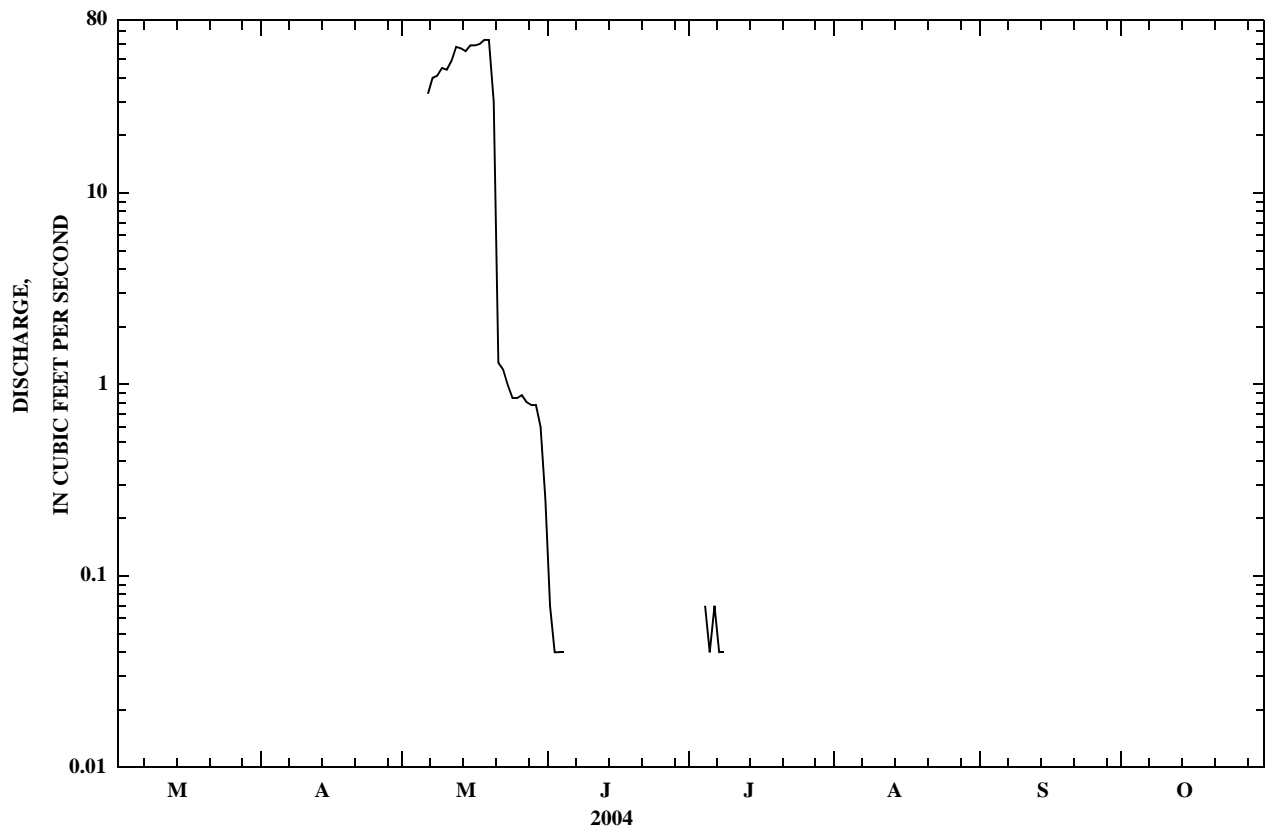
REMARKS.--Records good. Ditch diverts from left bank of Battle Creek in SW¹/₄ sec.11, T.5, R.27 W., third meridian, for irrigation of about 1,330 acres along Battle Creek. Water Survey of Canada satellite telemeter at station.

COOPERATION.--This is one of a number of stations which are maintained jointly by Canada and the United States.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 72 ft³/s, June 15, 1974; no flow at times each season.

DISCHARGE, CUBIC FEET PER SECOND CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00		
2			0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00		
3			0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00		
4			0.00	0.00	0.00	0.04	0.07	0.11	0.00	0.00		
5			0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00		
6			0.00	0.00	33	0.28	0.07	0.00	0.00	0.00		
7			0.00	0.00	40	0.00	0.04	0.00	0.00	0.00		
8			0.00	0.00	41	0.00	0.04	0.00	0.00	0.00		
9			0.00	0.00	45	0.00	0.00	0.00	0.00	0.00		
10			0.00	0.00	44	0.00	0.00	0.00	0.00	0.00		
11			0.00	0.00	49	0.00	0.00	0.00	0.00	0.00		
12			0.00	0.00	58	0.00	0.00	0.00	0.00	0.00		
13			0.00	0.00	57	0.00	0.00	0.00	0.00	0.00		
14			0.00	0.00	55	0.00	0.00	0.00	0.00	0.00		
15			0.00	0.00	59	0.00	0.00	0.00	0.00	0.00		
16			0.00	0.00	59	0.00	0.00	0.00	0.00	0.00		
17			0.00	0.00	60	0.00	0.00	0.00	0.00	0.00		
18			0.00	0.00	63	0.00	0.00	0.00	0.00	0.00		
19			0.00	0.00	63	0.00	0.00	0.00	0.00	0.00		
20			0.00	0.00	30	0.00	0.00	0.00	0.00	0.00		
21			0.00	0.00	1.3	0.00	0.00	0.00	0.00	0.00		
22			0.00	0.00	1.2	0.00	0.00	0.00	0.00	0.00		
23			0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.00		
24			0.00	0.00	0.85	0.00	0.00	0.00	0.00	0.00		
25			0.00	0.00	0.85	0.00	0.00	0.00	0.00	0.00		
26			0.00	0.00	0.88	0.00	0.00	0.00	0.00	0.00		
27			0.00	0.00	0.81	0.00	0.00	0.00	0.00	0.00		
28			0.00	0.00	0.78	0.00	0.00	0.00	0.00	0.00		
29			0.00	0.00	0.78	0.00	0.00	0.00	0.00	0.00		
30			0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00		
31			0.00	---	0.25	---	0.00	0.00	---	0.00		
TOTAL			0.00	0.00	765.29	0.47	0.26	0.11	0.00	0.00		
MEAN			0.00	0.00	24.7	0.02	0.01	0.00	0.00	0.00		
MAX			0.00	0.00	63	0.28	0.07	0.11	0.00	0.00		
MIN			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
AC-FT			0.00	0.00	1,520	0.9	0.5	0.2	0.00	0.00		



06149300 MCKINNON DITCH NEAR CONSUL, SASKATCHEWAN
(International gaging station)

LOCATION.--Lat 49°20'00", long 109°29'40" (NAD 27), in NW $\frac{1}{4}$ sec.30, T.4, R.26 W., third meridian, Hydrologic Unit 10050008, on right bank 1.0 mi downstream from headgate on Battle Creek, and 2.7 mi northeast of Consul.

PERIOD OF RECORD.--March 1963 to current season (seasonal records only). 1911-26, 1929-31, and March 1938 to current season in reports of Department of the Environment, Canada. Estimates of seasonal diversions only in many years prior to 1947.

GAGE.--Water-stage recorder. Prior to September 1949, nonrecording gages at various sites and elevations. Sept. 4, 1949, to Aug. 29, 1963, water-stage recorder at present site at elevation 1.00 ft higher.

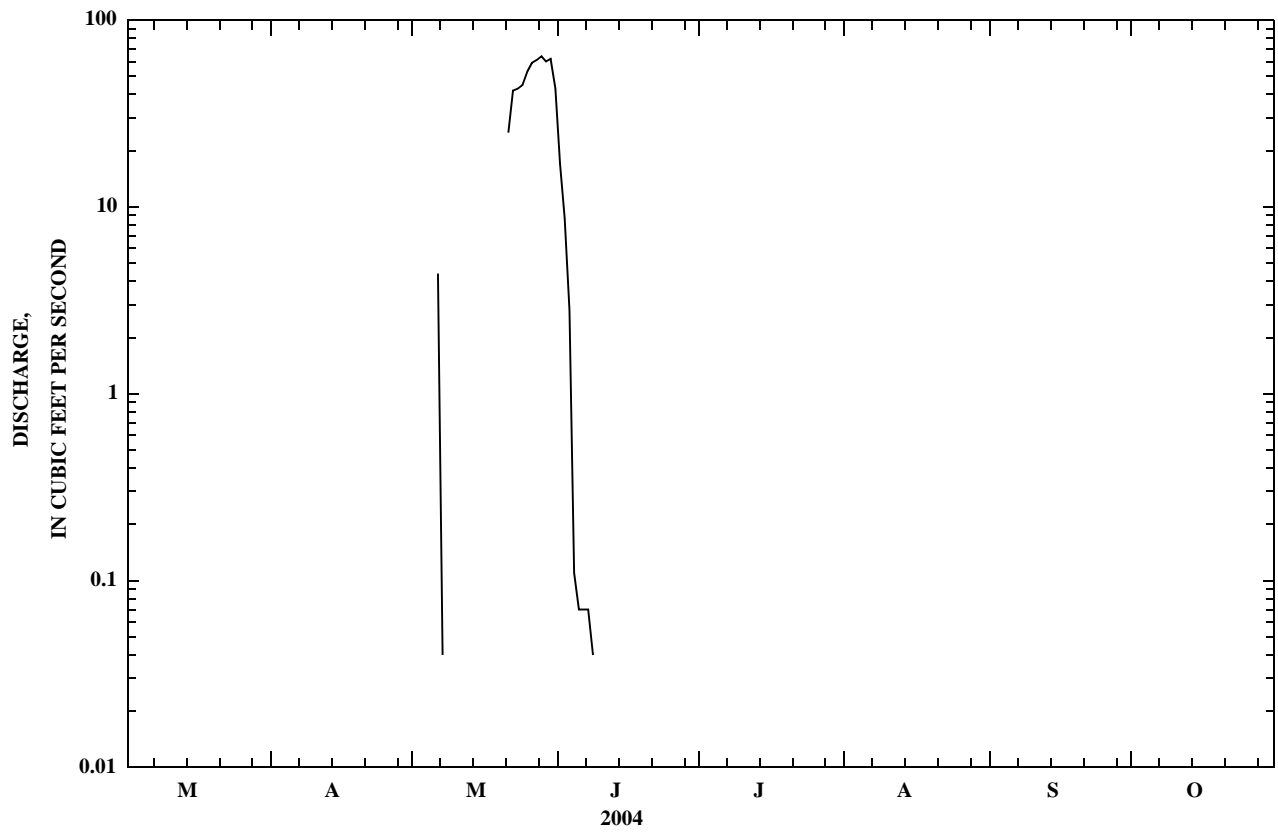
REMARKS.--Records good. Ditch diverts from right bank of Battle Creek in NE $\frac{1}{4}$ sec.30, T.4, R.26 W., third meridian, for irrigation of about 1,320 acres along Battle Creek. Water Survey of Canada satellite telemeter at station.

COOPERATION.--This is one of a number of stations which are maintained jointly by Canada and the United States.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 68 ft³/s, June 18, 1975; no flow at times each season.

DISCHARGE, CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			0.00	0.00	0.00	17	0.00	0.00	0.00	0.00		
2			0.00	0.00	0.00	8.7	0.00	0.00	0.00	0.00		
3			0.00	0.00	0.00	2.8	0.00	0.00	0.00	0.00		
4			0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00		
5			0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00		
6			0.00	0.00	4.4	0.07	0.00	0.00	0.00	0.00		
7			0.00	0.00	0.04	0.07	0.00	0.00	0.00	0.00		
8			0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00		
9			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
10			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
11			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
12			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
13			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
14			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
15			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
16			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
17			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
18			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
19			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
20			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
21			0.00	0.00	25	0.00	0.00	0.00	0.00	0.00		
22			0.00	0.00	42	0.00	0.00	0.00	0.00	0.00		
23			0.00	0.00	43	0.00	0.00	0.00	0.00	0.00		
24			0.00	0.00	45	0.00	0.00	0.00	0.00	0.00		
25			0.00	0.00	53	0.00	0.00	0.00	0.00	0.00		
26			0.00	0.00	59	0.00	0.00	0.00	0.00	0.00		
27			0.00	0.00	61	0.00	0.00	0.00	0.00	0.00		
28			0.00	0.00	64	0.00	0.00	0.00	0.00	0.00		
29			0.00	0.00	60	0.00	0.00	0.00	0.00	0.00		
30			0.00	0.00	62	0.00	0.00	0.00	0.00	0.00		
31			0.00	---	43	---	0.00	0.00	---	0.00		
TOTAL			0.00	0.00	561.44	28.86	0.00	0.00	0.00	0.00		
MEAN			0.00	0.00	18.1	0.96	0.00	0.00	0.00	0.00		
MAX			0.00	0.00	64	17	0.00	0.00	0.00	0.00		
MIN			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
AC-FT			0.00	0.00	1,110	57	0.00	0.00	0.00	0.00		



06149400 NASHLYN CANAL NEAR CONSUL, SASKATCHEWAN
(International gaging station)

LOCATION.--Lat 49°13'57", long 109°33'27" (NAD 27), in NE $\frac{1}{4}$ sec.22, T.3, R.27 W., third meridian, Hydrologic Unit 10050008, on left bank 0.8 mi downstream from headgate on Battle Creek, and 5.9 mi south of Consul.

PERIOD OF RECORD.--March 1963 to current season (seasonal records only); 1912, 1914-35, 1938 to current season in reports of Department of the Environment, Canada. Prior to March 1950, estimates of seasonal diversions only in many seasons. Prior to Mar. 1, 1971, published as "Stirling and Nash Ditch".

GAGE.--Water-stage recorder. Prior to Sept. 21, 1949, water-stage recorder at present site or nonrecording gages at site 0.5 mi downstream at different elevations.

REMARKS.--Records good. Ditch diverts water from left bank of Battle Creek in SW $\frac{1}{4}$ sec.27, T.3, R.27 W., third meridian, for irrigation of about 1,880 acres along Battle Creek. Water Survey of Canada satellite telemeter at station.

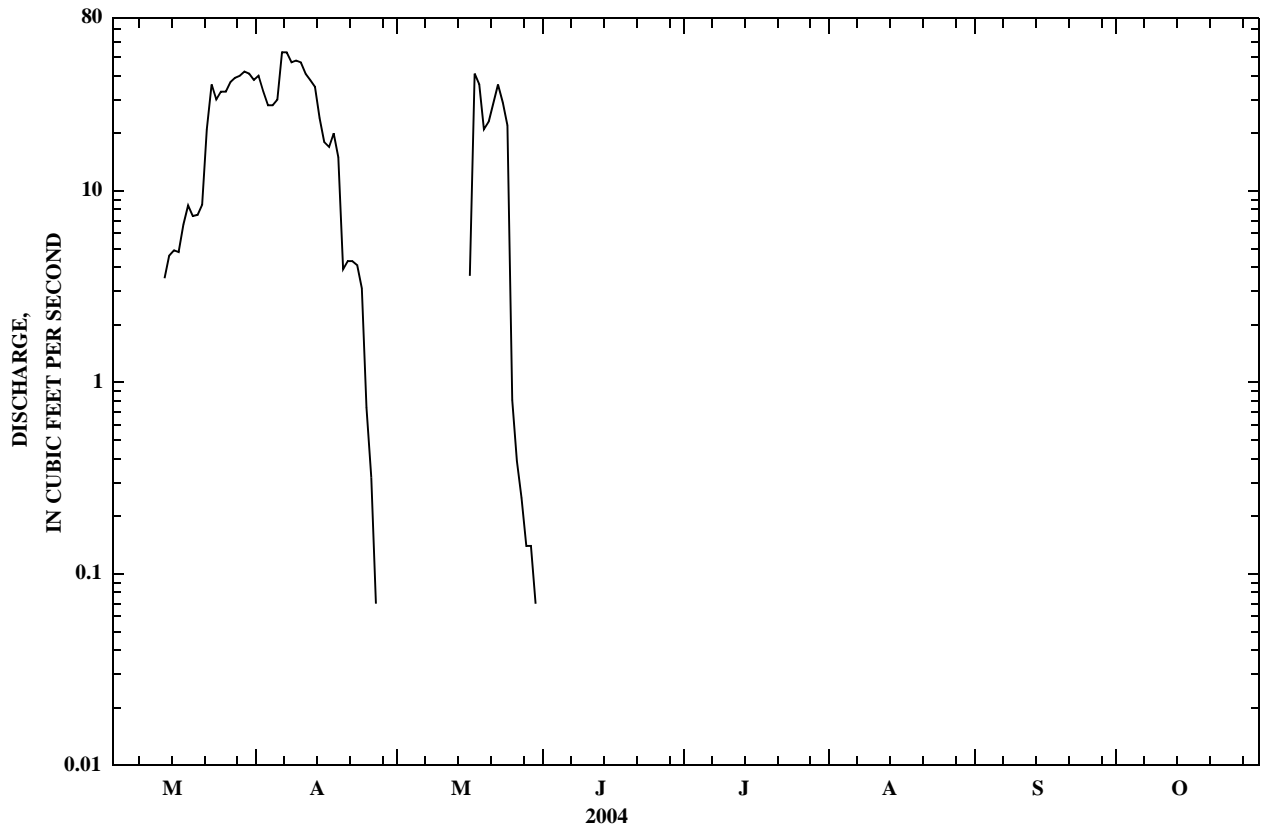
COOPERATION.--This is one of a number of stations which are maintained jointly by Canada and the United States.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 85 ft³/s, Apr. 14, 1952; no flow at times each season.

DISCHARGE, CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			e0.00	40	0.00	0.00	0.00	0.00	0.00	0.00		
2			e0.00	33	0.00	0.00	0.00	0.00	0.00	0.00		
3			e0.00	28	0.00	0.00	0.00	0.00	0.00	0.00		
4			e0.00	28	0.00	0.00	0.00	0.00	0.00	0.00		
5			e0.00	30	0.00	0.00	0.00	0.00	0.00	0.00		
6			e0.00	53	0.00	0.00	0.00	0.00	0.00	0.00		
7			e0.00	53	0.00	0.00	0.00	0.00	0.00	0.00		
8			e0.00	47	0.00	0.00	0.00	0.00	0.00	0.00		
9			e0.00	48	0.00	0.00	0.00	0.00	0.00	0.00		
10			e0.00	47	0.00	0.00	0.00	0.00	0.00	0.00		
11			e0.00	41	0.00	0.00	0.00	0.00	0.00	0.00		
12			e3.5	38	0.00	0.00	0.00	0.00	0.00	0.00		
13			4.6	35	0.00	0.00	0.00	0.00	0.00	0.00		
14			4.9	24	0.00	0.00	0.00	0.00	0.00	0.00		
15			4.8	18	0.00	0.00	0.00	0.00	0.00	0.00		
16			6.7	17	3.6	0.00	0.00	0.00	0.00	0.00		
17			8.4	20	41	0.00	0.00	0.00	0.00	0.00		
18			7.4	15	36	0.00	0.00	0.00	0.00	0.00		
19			7.5	3.9	21	0.00	0.00	0.00	0.00	0.00		
20			8.5	4.3	23	0.00	0.00	0.00	0.00	0.00		
21			21	4.3	29	0.00	0.00	0.00	0.00	0.00		
22			36	4.1	36	0.00	0.00	0.00	0.00	0.00		
23			30	3.1	29	0.00	0.00	0.00	0.00	0.00		
24			33	0.74	22	0.00	0.00	0.00	0.00	0.00		
25			33	0.32	0.81	0.00	0.00	0.00	0.00	0.00		
26			37	0.07	0.39	0.00	0.00	0.00	0.00	0.00		
27			39	0.00	0.25	0.00	0.00	0.00	0.00	0.00		
28			40	0.00	0.14	0.00	0.00	0.00	0.00	0.00		
29			42	0.00	0.14	0.00	0.00	0.00	0.00	0.00		
30			41	0.00	0.07	0.00	0.00	0.00	0.00	0.00		
31			38	---	0.00	---	0.00	0.00	---	0.00		
TOTAL			446.30	635.83	242.40	0.00	0.00	0.00	0.00	0.00		
MEAN			14.4	21.2	7.82	0.00	0.00	0.00	0.00	0.00		
MAX			42	53	41	0.00	0.00	0.00	0.00	0.00		
MIN			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
AC-FT			885	1,260	481	0.00	0.00	0.00	0.00	0.00		

e--Estimated.



06149500 BATTLE CREEK AT INTERNATIONAL BOUNDARY
(International gaging station)

LOCATION.--Lat 49°00'07", long 109°25'18" (NAD 27), in SE¹/₄ sec.4, T.1, R.26 W., third meridian, Hydrologic Unit 10050008, on left bank 600 ft north of international boundary, in Saskatchewan, 8 mi upstream from Woodpile Coulee, 30 mi north of Chinook, MT, and at mile 69.8.

DRAINAGE AREA.--997 mi², of which 378 mi² is probably noncontributing.

PERIOD OF RECORD.--April 1917 to current season (seasonal records only most seasons). Monthly discharge only for March 1918 and March 1928, published in WSP 1309.

REVISED RECORDS.--WSP 1389: 1935(M), 1936, 1937-38(M). WSP 1729: 1924, 1926, 1932 (monthly discharge only). W 1983: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 2,729.8 ft (International Boundary Commission Survey Datum).

REMARKS.--Records good except those for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs, diversions for irrigation of about 9,500 acres, and return flow from irrigated areas. Water may be diverted into or from Frenchman River basin through Cypress Lake. Water Survey of Canada satellite telemeter at station. Several observations of water temperature and specific conductance were made during the year.

COOPERATION.--This is one of a number of stations which are maintained jointly by Canada and the United States.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			e4.2	24	10	56	9.0	8.3	14	17		
2			e4.9	18	7.7	34	7.8	7.9	21	15		
3			e5.7	14	6.3	43	6.4	8.1	23	14		
4			e6.2	10	5.8	34	6.0	8.6	22	14		
5			e6.8	17	9.4	23	5.2	16	19	13		
6			e7.4	22	8.0	26	4.8	19	17	13		
7			e8.7	30	7.2	23	8.1	27	15	13		
8			e11	41	6.8	40	17	38	15	13		
9			e22	22	6.5	46	19	46	13	14		
10			e68	12	10	55	20	41	13	14		
11			e51	9.5	8.9	59	18	28	13	14		
12			e63	13	8.1	79	17	20	12	14		
13			e149	21	7.7	64	15	16	12	15		
14			e195	26	9.6	46	14	15	12	15		
15			e102	32	12	45	14	14	13	14		
16			e109	27	13	49	15	14	12	15		
17			e89	21	29	48	15	15	12	16		
18			e87	24	26	49	13	14	13	17		
19			e300	21	18	48	13	13	13	17		
20			e265	11	16	43	12	12	15	17		
21			126	12	13	41	11	11	14	17		
22			129	22	14	40	10	10	14	19		
23			133	18	10	39	9.9	11	14	19		
24			e116	16	42	44	9.1	11	14	19		
25			117	16	94	43	9.2	11	15	20		
26			106	17	82	37	9.0	11	15	20		
27			119	15	81	25	9.2	12	15	20		
28			87	13	71	17	8.5	12	19	19		
29			59	14	55	13	8.5	13	19	19		
30			37	13	47	11	8.3	13	18	19		
31			34	---	57	---	8.2	12	---	20		
TOTAL			2,617.9	571.5	792.0	1,220	350.2	507.9	456	505		
MEAN			84.4	19.1	25.5	40.7	11.3	16.4	15.2	16.3		
MAX			300	41	94	79	20	46	23	20		
MIN			4.2	9.5	5.8	11	4.8	7.9	12	13		
AC-FT			5,190	1,130	1,570	2,420	695	1,010	904	1,000		

STATISTICS OF MONTHLY MEAN DATA FOR SEASONS 1917 - 2004

MEAN	50.3	125	57.3	32.6	16.6	7.06	8.07	8.05
MAX	353	1,526	538	261	250	50.7	332	57.7
(WY)	(1997)	(1952)	(1927)	(1927)	(1955)	(1975)	(1986)	(1987)
MIN	0.00	4.34	0.77	0.00	0.00	0.00	0.00	0.00
(WY)	(1936)	(1981)	(1937)	(1937)	(1919)	(1919)	(1919)	(1920)

SUMMARY STATISTICS

FOR 2004 SEASON

SEASONS 1917 - 2004

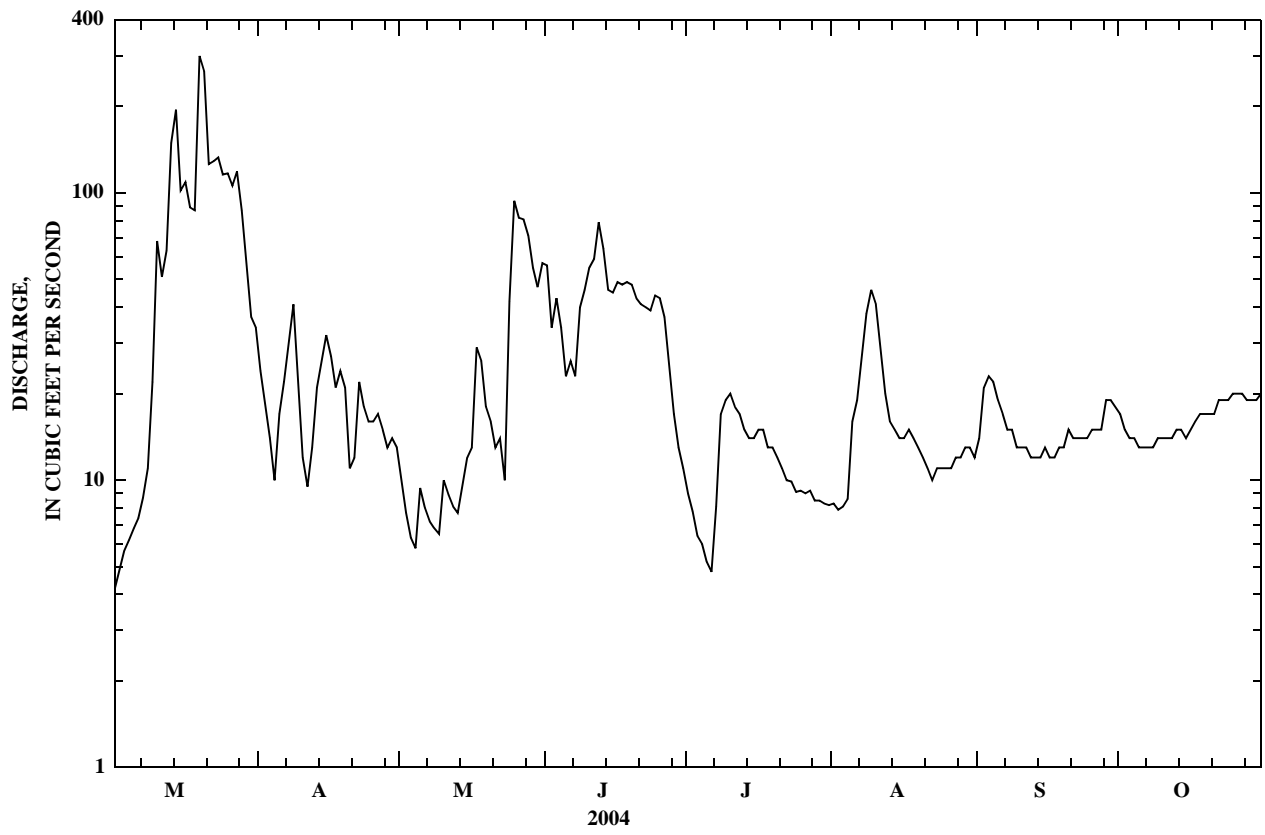
HIGHEST DAILY MEAN	300	Mar 19	5,590	Apr 15, 1952
LOWEST DAILY MEAN	4.2	Mar 1	0.00	Mar 1, 1918
MAXIMUM PEAK FLOW	a424	Mar 19	c9,780	Sep 25, 1986
MAXIMUM PEAK STAGE	b6.26	Mar 19	11.57	Sep 25 1986

a--About, occurred during period affected by backwater from ice.

b--Backwater from ice.

c--From rating table extended above 4,400 ft³/s on basis of slope-area measurement of peak flow.

e--Estimated.



06151500 BATTLE CREEK NEAR CHINOOK, MT

LOCATION.--Lat 48°39'05", long 109°13'47" (NAD 27), in NW¼SW¼NE¼ sec.3, T.33 N., R.19 E., Blaine County, Hydrologic Unit 10050008, on left bank, 4 mi north of Chinook, and at river mile 14.

DRAINAGE AREA.--1,539 mi².

PERIOD OF RECORD.--April 1905 to September 1921 (monthly discharge only, published in WSP 1309), June 1984 to current year (seasonal records only).
Published as North Fork Milk River near Chinook prior to 1913.

GAGE.--Water-stage recorder. Elevation of gage is 2,410 ft (NGVD 29). Apr. 22, 1905 to Apr. 8, 1918, chain gage 100 ft downstream, and Apr. 9, 1918 to Sept. 30, 1921, chain gage on bridge 600 ft downstream at same elevation but different from present elevation.

REMARKS.--Records fair. Diversions for irrigation of about 11,000 acres upstream from station. Bureau of Reclamation satellite telemeter at station. Several observations of water temperature and specific conductance were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, CALENDAR YEAR JANUARY TO DECEMBER 2004
DAILY MEAN VALUES

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1				125	12	58	16	2.9	12			
2				140	11	56	16	5.1	13			
3				100	12	53	15	6.5	11			
4				78	13	37	12	6.5	10			
5				68	10	30	10	7.3	12			
6				49	6.5	36	11	6.6	18			
7				40	4.5	32	7.2	8.7	17			
8				38	3.8	33	6.8	12	15			
9				33	3.2	33	8.7	22	14			
10				42	2.8	34	7.6	25	12			
11				31	4.2	44	6.0	32	13			
12				25	4.7	52	9.4	32	14			
13				21	3.8	54	9.7	27	12			
14				19	4.1	70	9.2	22	9.8			
15				18	8.2	61	5.4	17	9.6			
16				26	6.6	49	15	8.6	8.6			
17				30	5.4	44	16	4.3	7.5			
18				30	4.3	47	12	4.3	7.0			
19				25	4.8	47	13	4.1	7.3			
20				20	28	47	13	5.5	7.4			
21				24	27	48	11	10	7.9			
22				22	17	44	7.2	12	9.0			
23				18	27	43	5.2	13	9.3			
24				18	30	41	9.7	15	12			
25				22	428	40	9.1	13	11			
26				18	358	42	8.4	12	11			
27				16	227	43	5.3	12	11			
28				15	167	39	0.68	12	11			
29				17	122	32	2.3	12	12			
30				15	97	27	5.8	11	12			
31				---	74	---	9.5	12	---			
TOTAL				1,143	1,726.9	1,316	293.18	393.4	336.4			
MEAN				38.1	55.7	43.9	9.46	12.7	11.2			
MAX				140	428	70	16	32	18			
MIN				15	2.8	27	0.68	2.9	7.0			
AC-FT				2,270	3,430	2,610	582	780	667			

STATISTICS OF MONTHLY MEAN DATA FOR SEASONS 1984 - 2004

MEAN	58.8	26.2	22.0	12.8	3.06	47.5
MAX	539	101	48.3	57.6	15.3	910
(WY)	(1996)	(1986)	(2002)	(2000)	(2002)	(1986)
MIN	0.031	0.000	0.085	0.016	0.000	0.000
(WY)	(2002)	(2002)	(1984)	(1984)	(1984)	(1984)

SUMMARY STATISTICS

	FOR 2004 SEASON		SEASONS 1984 - 2004	
HIGHEST DAILY MEAN	428	May 25	12,000	Sep 26 1986
LOWEST DAILY MEAN	0.68	Jul 28	0.00	Jul 12 1984
MAXIMUM PEAK FLOW	640	May 25	19,400	Sep 26 1986
MAXIMUM PEAK STAGE	5.49	May 25	22.91	Sep 26 1986

