

Water-Data Report 2007

06134500 MILK RIVER AT MILK RIVER, ALBERTA

Upper Missouri Basin

Upper Milk Subbasin

LOCATION.--Lat 49°08'37", long 112°04'44" referenced to North American Datum of 1927, in NE ¼ sec.21, T.2., R.16 W., fourth meridian, in Alberta, Hydrologic Unit 10050002, on right bank 5 ft downstream from highway bridge at Milk River, Alberta, 22 mi downstream from North Milk River, and at river mile 613.4.

DRAINAGE AREA.--1,050 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June 1909 to October 1910 (no winter records), April 1911 to current year. Monthly discharge only for June 1909, published in Water Supply Paper (WSP) 1309.

REVISED RECORDS.-- WSP 1309: 1912. WSP 1599: 1916; 1927, maximum discharge (M); 1947 (M). Water Data Report (WDR) 1983: Drainage area. WDR 1984: 1983 (M).

GAGE.--Water-stage recorder. Elevation of gage is 3,402.78 ft, referenced to the Canadian Geodetic Vertical Datum 1928. Prior to June 17, 1919, nonrecording gages, and June 17, 1919, to Nov. 2, 1921, water-stage recorder at several sites 300 ft upstream at elevation 0.61 ft higher. Nov. 3, 1921, to Aug. 28, 1947, water-stage recorder at site 60 ft upstream at present elevation. Aug. 29, 1947, to Nov. 10, 1976, water-stage recorder located 700 ft downstream on left bank at present elevation.

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

REMARKS.--Records are good except those for estimated daily discharges, which are poor. Since 1917, flow increased during irrigation season by water from St. Mary Canal (station number 05018500). Several diversions for irrigation upstream from station. Environment Canada satellite telemeter is located at the station. Several unpublished observations of water temperature and specific conductance were made during the year.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	53	e41	e22	e42	e23	e49	742	544	685	463	611	309
2	50	e41	e28	e44	e22	e48	812	547	600	463	600	236
3	47	e46	e40	e48	e22	e56	788	572	576	463	597	168
4	44	e49	e42	e47	e24	e67	795	611	572	452	600	120
5	43	e58	e40	e49	e26	e84	791	643	579	501	600	92
6	42	e58	e39	e48	e24	e233	777	636	611	597	604	70
7	42	e58	e40	e49	e23	e675	756	597	600	611	597	57
8	41	e55	e41	e48	e23	e1,060	752	579	597	611	590	49
9	43	e50	e42	e45	e25	e727	763	561	586	618	586	41
10	44	e49	e43	e38	e26	e611	777	544	622	618	590	36
11	47	e42	e43	e35	e26	e569	788	544	671	618	586	31
12	46	e39	e46	e32	e26	e802	788	579	660	618	579	30
13	46	e37	e49	e31	e25	e908	780	643	653	614	579	25
14	46	e39	e48	e29	e25	925	798	699	660	611	572	21
15	47	e41	e50	e28	e35	862	766	710	667	614	569	18
16	50	e42	e49	e27	e49	823	720	717	664	607	569	16
17	52	e40	e45	e26	e55	848	706	731	667	604	572	16
18	52	e38	e42	e28	e58	791	667	720	667	607	572	20
19	52	e41	e39	e30	e54	795	639	710	664	600	576	23
20	53	e34	e36	e33	e53	819	650	706	660	600	579	22
21	57	e29	e35	e37	e54	784	625	710	643	600	565	24
22	63	e30	e39	e41	e54	784	607	724	597	597	558	23
23	65	e26	e41	e47	e55	777	625	720	561	593	569	30
24	63	e23	e43	e48	e59	763	607	735	487	593	533	29
25	60	e20	e44	e48	e61	763	593	735	413	590	501	27
26	58	e19	e44	e49	e57	756	576	738	396	590	494	24
27	54	e11	e42	e47	e53	784	561	717	374	597	494	24
28	51	e11	e41	e40	e51	819	558	724	367	600	505	21
29	e50	e17	e41	e33	---	773	547	749	371	600	473	20
30	e48	e23	e42	e29	---	756	547	745	413	604	403	18
31	e44	---	e43	e25	---	749	---	759	---	614	351	---
Total	1,553	1,107	1,279	1,201	1,088	20,260	20,901	20,649	17,283	18,068	17,174	1,640
Mean	50.1	36.9	41.3	38.7	38.9	654	697	666	576	583	554	54.7
Max	65	58	50	49	61	1,060	812	759	685	618	611	309
Min	41	11	22	25	22	48	547	544	367	452	351	16
Ac-ft	3,080	2,200	2,540	2,380	2,160	40,190	41,460	40,960	34,280	35,840	34,060	3,250

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1917 - 2007, BY WATER YEAR (WY) *

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	100	56.0	34.0	30.7	60.5	233	502	660	721	615	553	348
Max	555	216	133	268	616	1,025	1,384	1,179	1,633	965	795	713
(WY)	(1951)	(1952)	(1952)	(1928)	(1986)	(1972)	(1917)	(1967)	(1953)	(1951)	(1976)	(1959)
Min	7.83	8.74	2.06	0.00	0.00	3.44	94.5	236	162	192	29.2	3.65
(WY)	(1989)	(2002)	(1923)	(1923)	(1922)	(1922)	(1945)	(1918)	(1952)	(2002)	(1982)	(2001)

* Flow increased during irrigation season by water from St. Mary Canal.

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SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1917 - 2007*	
Annual total	138,572		122,203			
Annual mean	380		335		327	
Highest annual mean					489	1953
Lowest annual mean					157	1921
Highest daily mean	1,260	Apr 7	1,060	Mar 8	7,840	Jun 11, 2002
Lowest daily mean	11	Nov 27	11	Nov 27	0.00	Jan 19, 1922
Annual seven-day minimum	18	Nov 25	18	Nov 25	0.00	Jan 19, 1922
Maximum peak flow			^a 1,200	Mar 8	9,850	Feb 25, 1986
Maximum peak stage			^b 5.92	Mar 8	^c 12.46	Feb 25, 1986
Annual runoff (ac-ft)	274,900		242,400		237,100	
10 percent exceeds	773		749		739	
50 percent exceeds	516		120		158	
90 percent exceeds	40		26		13	

* Flow increased during irrigation season by water from St. Mary Canal.

^a About

^b Backwater from ice.

^c From floodmarks, backwater from ice.

