APPENDICES A AND B

to the Report to

THE INTERNATIONAL JOINT COMMISSION

on

THE DIVISION OF THE WATERS OF

ST. MARY AND MILK RIVERS

by

E. F. DURRANT

representing Canada

and

J. S. CRAGWALL, Jr.

representing United States

1974

APPENDIX A TO THE
REPORT TO
THE INTERNATIONAL JOINT COMMISSION

ON

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BY

E. F. DURRANT
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TABLE 6
NATURAL FLOW OF ST. MARYS RIVER AT INTERNATIONAL BOUNDARY
QUANTITIES IN cfs Days FOR March 1974

DAY	1 DAY LAG APPLIED: Lake Sherburne Stored (1)	Lake Sherburne Released (1)	Evaporation (2)	Lake Sherburne corrected for evaporation Stored (3)	Lake Sherburne corrected for evaporation Released (3)	Diverted by St. Mary Canal (4)	Total used by United States (5)	St. Mary River at International Boundary (6)	Natural Flow St. Mary River at International Boundary (7)	United States share (8)	Canadian share (9)	Excess + or deficit - of Canadian share (10)
1	72		0	72		0	72	166	238	119	119	+ 47
2	59		0	59		0	59	166	225	113	112	+ 54
3	52		0	52		0	52	150	202	101	101	+ 49
4	26		0	26		0	26	137	163	81	82	+ 55
5	53		0	53		0	53	150	203	102	101	+ 49
6	65		0	65		0	65	134	199	99	100	+ 34
7	46		0	46		0	46	134	180	90	90	+ 44
8	20		0	20		0	20	132	152	76	76	+ 56
9	19		0	19		0	19	137	156	78	78	+ 59
10	46		0	46		0	46	150	196	98	98	+ 52
11	13		0	13		0	13	161	174	87	87	+ 74
12	27		0	27		0	27	142	169	85	84	+ 58
13	26		0	26		0	26	147	173	86	87	+ 60
14	39		0	39		0	39	134	173	87	86	+ 48
15	26		0	26		0	26	127	153	76	77	+ 50
16	33		0	33		0	33	139	172	86	86	+ 53
17	85		0	85		9	94	147	241	121	120	+ 27
18	86		0	86		6	92	172	264	132	132	+ 40
19	52		0	52		3	55	169	224	112	112	+ 57
20	7		0	7		2	9	184	193	96	97	+ 87
21	6		0	6		2	8	184	192	96	96	+ 88
22		6	0		6	1	- 5	206	201	101	100	+106
23		20	0		20	0	-20	210	190	95	95	+115
24		33	0		33	0	-33	220	187	93	94	+126
25		26	0		26	0	-26	256	230	115	115	+141
26		39	0		39	0	-39	241	202	101	101	+140
27	0		0	0		64	64	178	242	121	121	+ 57
28		14	0		14	83	69	285	354	177	177	+108
29	66		0	66		86	152	327	479	240	239	+ 88
30		13	0		13	14	1	330	331	165	166	+164
31	13		0	13		2	15	357	372	186	186	+171
Total	937	151	0	937	151	272	1058	5772	6830	3415	3415	+2357
Mean	30.2	4.9	0	30.2	4.9	8.8	34.1	186	220	110	110	+ 76.0
Acre feet	1859	300	0	1859	300	540	2099	11449	13547	6773	6774	+4675

COMPUTED BY: R.B.B.	DATE: December 24, 1974	APPROVED: District Chief U.S.G.S.
CHECKED BY: U.S.G.S. Engineers	DATE: January 10, 1975.	R.D. May, Dist. Engr. WS of Canada

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TABLE 6
NATURAL FLOW OF ST. MARYS RIVER AT INTERNATIONAL BOUNDARY
QUANTITIES IN cfs Days FOR Apr. 1974

DAY	1 DAY LAG APPLIED: Lake Sherburne Stored	Lake Sherburne Released	Evaporation	Lake Sherburne corrected for evaporation Stored	Lake Sherburne corrected for evaporation Released	Diverted by St. Mary Canal	Total used by United States	St. Mary River at International Boundary	Natural Flow St. Mary River at International Boundary	United States share	Canadian share	Excess + or deficit - of Canadian share
	1		2	3		4	5	6	7	8	9	10
1		13	0		13	34	21	292	313	78	235	+ 57
2		13	0		13	95	82	236	318	80	238	- 2
3		13	0		13	83	70	225	295	74	221	+ 4
4		66	0		66	78	12	236	248	62	186	+ 50
5		72	0		72	77	5	256	261	65	196	+ 60
6		79	0		79	78	- 1	307	306	76	230	+ 77
7		78	0		78	92	14	287	301	75	226	+ 61
8		92	0		92	171	79	223	302	76	226	- 3
9		138	0		138	223	85	188	273	68	205	- 17
10		275	0		275	252	- 23	239	216	54	162	+ 77
11		386	0		386	329	- 57	255	198	50	148	+ 107
12		474	0		474	415	- 59	281	222	56	166	+ 115
13		538	0		538	490	- 48	274	226	56	170	+ 104
14		559	0		559	536	- 23	260	237	59	178	+ 82
15		553	0		553	581	28	270	298	74	224	+ 46
16		576	0		576	639	63	248	311	78	233	+ 15
17		567	0		567	644	77	277	354	88	266	+ 11
18		533	0		533	648	115	313	428	107	321	- 8
19		527	0		527	659	132	348	480	120	360	- 12
20		455	0		455	674	219	352	571	143	428	- 76
21		438	0		438	675	237	344	581	145	436	- 92
22		455	0		455	677	222	365	587	147	440	- 75
23		436	0		436	681	245	415	660	165	495	- 80
24		439	0		439	684	245	498	743	205	538	- 40
25		389	0		389	690	301	601	902	284	618	- 17
26		299	0		299	695	396	711	1107	387	720	- 9
27		222	0		222	700	478	764	1242	454	788	- 24
28		274	0		274	706	432	995	1427	547	880	+ 115
29		413	0		413	707	294	1190	1484	575	909	+ 281
30		454	0		454	701	247	1400	1647	657	990	+ 410
31												
Total		9826	0		9826	13714	3888	12650	16538	5105	11433	+ 1217
Mean		328	0		328	457	130	422	551	170	381	+ 40.6
Acre feet		19490	0		19490	27202	7712	25091	32803	10126	22677	+ 2414

COMPUTED BY RBB — DATE Dec 24, 74 — APPROVED George Rake, District Chief U.S.G.S.

CHECKED BY U. S. G. S. Engineers — DATE Jan 10, 75 — R. D. Mayo, Dist. Engr. WS of Canada

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TABLE 6
NATURAL FLOW OF ST. MARYS RIVER AT INTERNATIONAL BOUNDARY
QUANTITIES IN cfs Days FOR May 19 74

DAY	1 DAY LAG APPLIED					Diverted by St. Mary Canal	Total used by United States	St. Mary River at International Boundary	Natural Flow St. Mary River at International Boundary	United States share	Canadian share	Excess + or deficit - of Canadian share
	Lake Sherburne		Evaporation	Lake Sherburne corrected for evaporation								
	Stored	Released		Stored	Released							
	1		2	3		4	5	6	7	8	9	10
1		402	1 E		401	682	281	1520	1801	734	1067	+ 453
2		136	2 E		134	672	538	1410	1948	807	1141	+ 269
3		141	2 E		139	691	552	1300	1852	759	1093	+ 207
4		223	3		220	698	478	1250	1728	697	1031	+ 219
5		252	6		246	700	454	1250	1704	685	1019	+ 231
6		177	6		171	702	531	1320	1851	759	1092	+ 228
7		38	5		33	708	675	1460	2135	901	1234	+ 226
8	119		5	124		709	833	1640	2473	1070	1403	+ 237
9	191		6	197		714	911	1770	2681	1174	1507	+ 263
10	152		6	158		716	874	1830	2704	1185	1519	+ 311
11		21	4		17	715	698	1800	2498	1082	1416	+ 384
12		156	4		152	713	561	1690	2251	959	1292	+ 398
13		171	4		167	709	542	1540	2082	874	1208	+ 332
14		36	1		35	700	665	1310	1975	821	1154	+ 156
15	31		3	34		694	728	1120	1848	757	1091	+ 29
16	15		4	19		694	713	969	1682	674	1008	- 39
17	65		1	66		697	763	823	1586	626	960	- 137
18	162		1	163		695	858	788	1646	656	990	- 202
19	126		0 E	126		690	816	704	1520	593	927	- 223
20	77		1	78		686	764	603	1367	517	850	- 247
21	18		1	19		686	705	542	1247	457	790	- 248
22		27	2		25	658	633	554	1187	427	760	- 206
23	100		3	103		519	622	629	1251	459	792	- 163
24	240		4	244		357	601	710	1311	489	822	- 112
25	303		4	307		130	437	959	1396	531	865	+ 94
26	423		4	427		22	449	1210	1659	663	996	+ 214
27	988		4	992		18	1010	1630	2640	1153	1487	+ 143
28	1295		4	1299		19	1318	1910	3228	1447	1781	+ 129
29	961		2 E	963		19	982	2120	3102	1384	1718	+ 402
30	733		2	735		99	834	2090	2924	1295	1629	+ 461
31	619		1	620		414	1034	1750	2784	1225	1559	+ 191
Total	6618	1780	96	6674	1740	16926	21860	40201	62061	25860	36201	+ 4000
Mean	213	57.4	3.1	215	56.1	546	705	1297	2002	834	1168	+ 129
Acre feet	13127	3531	190	13238	3451	33573	43359	79739	123098	51293	71805	+ .7934

COMPUTED BY [signature] DATE Dec 24, 74

CHECKED BY U. S. G. S. Engineers DATE Jan 10, 75

APPROVED [signature] District Chief U.S.G.S.

[signature] Dist. Engr. WS of Canada

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TABLE 6

NATURAL FLOW OF ST. MARYS RIVER AT INTERNATIONAL BOUNDARY

QUANTITIES IN cfs Days FOR June 19 74

DAY	1 DAY LAG APPLIED: Lake Sherburne Stored (1)	Lake Sherburne Released (1)	Evaporation (2)	Lake Sherburne corrected for evaporation Stored (3)	Lake Sherburne corrected for evaporation Released (3)	Diverted by St. Mary Canal (4)	Total used by United States (5)	St. Mary River at International Boundary (6)	Natural Flow St. Mary River at International Boundary (7)	United States share (8)	Canadian share (9)	Excess + or deficit - of Canadian share (10)
1	479		4 E	483		603	1086	1470	2556	1111	1445	+ 25
2	457		4 E	461		608	1069	1370	2439	1053	1386	- 16
3	570		9	579		609	1188	1570	2758	1212	1546	+ 24
4	964		9	973		618	1591	1910	3501	1584	1917	- 7
5	1194		8	1202		624	1826	2120	3946	1806	2140	- 20
6	983		4	987		629	1616	2210	3826	1746	2080	+ 130
7	721		8	729		636	1365	2260	3625	1646	1979	+ 281
8	642		3	645		634	1279	2230	3509	1588	1921	+ 309
9	516		4	520		624	1144	1980	3124	1395	1729	+ 251
10	431		5	436		617	1053	1780	2833	1250	1583	+ 197
11	476		4	480		582	1062	1730	2792	1229	1563	+ 167
12	598		8	606		465	1071	2040	3111	1389	1722	+ 318
13	962		14	976		365	1341	2550	3891	1779	2112	+ 438
14	1142		11	1153		366	1519	3200	4719	2193	2526	+ 674
15	643		13	656		373	1029	4010	5039	2353	2686	+ 1324
16	200		17	217		380	597	4870	5467	2566	2901	+ 1969
17	234		11	245		383	628	5490	6118	2892	3226	+ 2264
18	129		14	143		412	555	6200	6755	3211	3544	+ 2656
19	0		13	13		507	520	6370	6890	3278	3612	+ 2758
20	65		11	76		611	687	5870	6557	3111	3446	+ 2424
21	754		1	755		650	1405	5000	6405	3036	3369	+ 1631
22	930		13	943		642	1585	4320	5905	2785	3120	+ 1200
23	839		13	852		633	1485	3960	5445	2556	2889	+ 1071
24	982		13	995		640	1635	3810	5445	2555	2890	+ 920
25	1030		13	1043		676	1719	3810	5529	2598	2931	+ 879
26	1074		15	1089		697	1786	3910	5696	2681	3015	+ 895
27	827		14	841		700	1541	4120	5661	2663	2998	+ 1122
28	154		14	168		702	870	4120	4990	2328	2662	+ 1458
29		334	20		314	698	384	3860	4244	1955	2289	+ 1571
30		137	14		123	692	569	3370	3939	1803	2136	+ 1234
31												
Total	17996	471	304	18266	437	17376	35205	101510	136715	63352	73363	+ 28147
Mean	600	15.7	10.1	609	14.6	579	1174	3384	4557	2112	2445	+ 938
Acre feet	35695	934	603	36231	867	34465	69829	201345	271174	125659	145516	+ 55830

COMPUTED BY [signature] DATE Dec 24, 74

CHECKED BY U. S. G. S. Engineers DATE Jan 10, 75

APPROVED [signature] District Chief U.S.G.S.

[signature] Dist. Engr. WS of Canada

R-174A

TABLE 6

NATURAL FLOW OF ST. MARYS RIVER AT INTERNATIONAL BOUNDARY

QUANTITIES IN cfs Days FOR July 1974

DAY	1 DAY LAG APPLIED					Diverted by St. Mary Canal	Total used by United States	St. Mary River at International Boundary	Natural Flow St. Mary River at International Boundary	United States share	Canadian share	Excess + or deficit - of Canadian share
	Lake Sherburne		Evaporation	Lake Sherburne corrected for evaporation								
	Stored	Released		Stored	Released							
	1		2	3		4	5	6	7	8	9	10
1	326		12	338		683	1021	3040	4061	1864	2197	+ 843
2	402		17	419		689	1108	3070	4178	1922	2256	+ 814
3	120		8	128		698	826	3000	3826	1746	2080	+ 920
4		145	8		137	697	560	2810	3370	1518	1852	+ 958
5		189	11		178	694	516	2640	3156	1411	1745	+ 895
6		60	10		50	691	641	2490	3131	1399	1732	+ 758
7		26	6		20	688	668	2360	3028	1347	1681	+ 679
8	9		7	16		691	707	2240	2947	1307	1640	+ 600
9		86	8		78	697	619	2110	2729	1198	1531	+ 579
10		42	10		32	695	663	2040	2703	1185	1518	+ 522
11	51		8	59		695	754	2040	2794	1230	1564	+ 476
12	180		12	192		692	884	2020	2904	1285	1619	+ 401
13	17		18	35		688	723	1930	2653	1160	1493	+ 437
14		60	9		51	685	634	1810	2444	1055	1389	+ 421
15		77	15		62	681	619	1730	2349	1008	1341	+ 389
16		69	12		57	680	623	1700	2323	995	1328	+ 372
17		51	18		33	685	652	1680	2332	999	1333	+ 347
18		9	14	5		695	700	1660	2360	1013	1347	+ 313
19		25	11		14	694	680	1660	2340	1003	1337	+ 323
20	0		17	17		694	711	1680	2391	1029	1362	+ 318
21	51		13	64		696	760	1720	2480	1073	1407	+ 313
22	60		13	73		697	770	1730	2500	1083	1417	+ 313
23		68	12		56	696	640	1670	2310	988	1322	+ 348
24		103	17		86	694	608	1590	2198	932	1266	+ 324
25		137	15		122	690	568	1480	2048	857	1191	+ 289
26		60	12		48	687	639	1330	1969	818	1151	+ 179
27	8		7	15		683	698	1200	1898	782	1116	+ 84
28		8	8	0		681	681	1110	1791	729	1062	+ 48
29		26	8		18	671	653	1050	1703	685	1018	+ 32
30		17	8		9	655	646	1010	1656	661	995	+ 15
31		60	13		47	652	605	960	1565	616	949	+ 11
Total	1224	1318	357	1361	1098	21314	21577	58560	80137	34898	45239	+ 13321
Mean	39.5	42.5	11.5	43.9	35.4	688	696	1889	2585	1126	1459	+ 430
Acre feet	2428	2614	708	2700	2178	42276	42798	116154	158952	69220	89732	+ 26422

COMPUTED BY R.S.S. DATE Dec 27, 74

CHECKED BY U. S. G. S. Engineers DATE Jan 10, 75

APPROVED George Rose
District Chief U.S.G.S.
R. D. May
Dist. Engr. WS of Canada

R-174A

TABLE 6

NATURAL FLOW OF ST. MARYS RIVER AT INTERNATIONAL BOUNDARY

QUANTITIES IN cfs Days FOR Aug. 19 74

DAY	1 DAY LAG APPLIED					Diverted by St. Mary Canal	Total used by United States	St. Mary River at International Boundary	Natural Flow St. Mary River at International Boundary	United States share	Canadian share	Excess + or deficit - of Canadian share
	Lake Sherburne		Evaporation	Lake Sherburne corrected for evaporation								
	Stored	Released		Stored	Released							
	1		2	3		4	5	6	7	8	9	10
1		26	8		18	652	634	932	1566	616	950	- 18
2		18	5		13	651	638	898	1536	601	935	- 37
3		109	5		104	649	545	851	1396	531	865	- 14
4		209	5		204	650	446	884	1330	498	832	+ 52
5		317	5		312	651	339	893	1232	449	783	+ 110
6		327	5		322	649	327	884	1211	439	772	+ 112
7		218	5		213	650	437	884	1321	494	827	+ 57
8		274	4		270	650	380	877	1257	462	795	+ 82
9		251	1		250	648	398	858	1256	461	795	+ 63
10		334	5		329	646	317	806	1123	395	728	+ 78
11		343	4		339	647	308	810	1118	392	726	+ 84
12		342	0		342	643	301	766	1067	367	700	+ 66
13		395	0		395	642	247	734	981	324	657	+ 77
14		460	0		460	643	183	767	950	308	642	+ 125
15		517	4		513	645	132	793	925	296	629	+ 164
16		556	2		554	645	91	761	852	259	593	+ 168
17		568	7		561	643	82	726	808	237	571	+ 155
18		552	9		543	643	100	693	793	230	563	+ 130
19		548	5		543	643	100	676	776	221	555	+ 121
20		584	6		578	645	67	698	765	216	549	+ 149
21		597	4		593	646	53	716	769	218	551	+ 165
22		635	6		629	647	18	703	721	194	527	+ 176
23		598	6		592	646	54	689	743	205	538	+ 151
24		615	6		609	644	35	678	713	190	523	+ 155
25		620	4		616	642	26	658	684	175	509	+ 149
26		623	4		619	641	22	645	667	167	500	+ 145
27		569	4		565	641	76	639	715	191	524	+ 115
28		543	7		536	641	105	633	738	202	536	+ 97
29		551	6		545	641	96	627	723	195	528	+ 99
30		596	3		593	641	48	627	675	171	504	+ 123
31		590	3		587	639	52	615	667	167	500	+ 115
Total		13485	138		13347	20004	6657	23421	30078	9871	20207	+ 3214
Mean		435	4.5		431	645	215	756	970	318	652	+ 104
Acre feet		26747	274		26474	39678	13204	46456	59660	19579	40081	+ 6375

COMPUTED BY [signature] DATE Dec 27, 74

CHECKED BY U. S. G. S. Engineers DATE Jan 10, 75

APPROVED [signature] District Chief U.S.G.S.

[signature] Dist. Engr. WS of Canada

R-174A

TABLE 6

NATURAL FLOW OF ST. MARYS RIVER AT INTERNATIONAL BOUNDARY

QUANTITIES IN cfs Days FOR Sept. 19 74

DAY	1 DAY LAG APPLIED: Lake Sherburne Stored	Lake Sherburne Released	Evaporation	Lake Sherburne corrected for evaporation: Stored	Lake Sherburne corrected for evaporation: Released	Diverted by St. Mary Canal	Total used by United States	St. Mary River at International Boundary	Natural Flow St. Mary River at International Boundary	United States share	Canadian share	Excess + or deficit - of Canadian share
	1		2	3		4	5	6	7	8	9	10
1		554	1		553	636	83	598	681	174	507	+ 91
2		582	3		579	635	56	568	624	156	468	+ 100
3		588	2		586	634	48	539	587	147	440	+ 99
4		583	2		581	632	51	522	573	143	430	+ 92
5		606	2		604	631	27	509	536	134	402	+ 107
6		615	2		613	630	17	487	504	126	378	+ 109
7		618	2		616	629	13	458	471	118	353	+ 105
8		603	1		602	628	26	435	461	115	346	+ 89
9		571	1		570	627	57	425	482	120	362	+ 63
10		549	1		548	629	81	430	511	128	383	+ 47
11		495	4		491	629	138	443	581	145	436	+ 7
12		475	1		474	629	155	443	598	150	448	- 5
13		582	2		580	631	51	469	520	130	390	+ 79
14		617	4		613	632	19	471	490	122	368	+ 103
15		610	3		607	632	25	466	491	123	368	+ 98
16		606	3		603	632	29	449	478	120	358	+ 91
17		629	3		626	630	4	453	457	114	343	+ 110
18		674	5		669	630	- 39	462	423	106	317	+ 145
19		727	1		726	630	- 96	471	375	94	281	+ 190
20		649	3		646	612	- 34	488	454	114	340	+ 148
21		693	1		692	519	- 173	627	454	114	340	+ 287
22		772	2		770	513	- 257	652	395	99	296	+ 356
23		747	2		745	434	- 311	751	440	110	330	+ 421
24		883	2		881	173	- 708	1100	392	98	294	+ 806
25		417	2		415	47	- 368	891	523	131	392	+ 499
26	55		5	60		9	69	667	736	201	535	+ 132
27	29		0	29		1	30	546	576	144	432	+ 114
28	107		1	108		0	108	449	557	139	418	+ 31
29	48		3	51		0	51	387	438	110	328	+ 59
30	80		0	80		0	80	342	422	106	316	+ 26
31												
Total	319	15445	64	328	15390	14294	- 768	15998	15230	3831	11399	+ 4599
Mean	10.6	515	2.1	10.9	513	476	- 25.6	533	508	128	380	+ 153
Acre feet	633	30635	127	651	30526	28352	-1523	31732	30209	7599	22610	+ 9122

COMPUTED BY [signature] DATE Dec 27, 74

CHECKED BY U. S. G. S. Engineers DATE Jan 10, 75

APPROVED [signature] District Chief U.S.G.S.

[signature] Dist. Engr. WS of Canada

R-174A

TABLE 6

NATURAL FLOW OF ST. MARYS RIVER AT INTERNATIONAL BOUNDARY

QUANTITIES IN cfs Days FOR Oct. . 19 74

DAY	1 DAY LAG APPLIED					Diverted by St. Mary Canal	Total used by United States	St. Mary River at International Boundary	Natural Flow St. Mary River at International Boundary	United States share	Canadian share	Excess + or deficit - of Canadian share
	Lake Sherburne		Evaporation	Lake Sherburne corrected for evaporation								
	Stored	Released		Stored	Released							
	1		2	3		4	5	6	7	8	9	10
1	57		3	60		0	60	317	377	94	283	+ 34
2	90		2	92		0	92	285	377	94	283	+ 2
3	83		2	85		0	85	272	357	89	268	+ 4
4	12		1	13		0	13	250	263	66	197	+ 53
5	45		0	45		0	45	241	286	72	214	+ 27
6	77		0	77		0	77	236	313	78	235	+ 1
7	77		1	78		0	78	230	308	77	231	- 1
8	23		1	24		0	24	216	240	60	180	+ 36
9	42		2	44		0	44	205	249	62	187	+ 18
10	53		2	55		0	55	196	251	63	188	+ 8
11	12		2	14		0	14	185	199	50	149	+ 36
12	65		0	65		0	65	179	244	61	183	- 4
13	8		1	9		0	9	169	178	44	134	+ 35
14	31		1	32		0	32	166	198	50	148	+ 18
15	82		2	84		0	84	165	249	62	187	- 22
16	39		2	41		0	41	163	204	51	153	+ 10
17	0		2	2		0	2	151	153	38	115	+ 36
18	20		2	22		0	22	146	168	42	126	+ 20
19	8		2	10		0	10	140	150	38	112	+ 28
20	35		1	36		0	36	135	171	43	128	+ 7
21	28		1	29		0	29	133	162	40	122	+ 11
22	16		2	18		0	18	133	151	38	113	+ 20
23	47		1	48		0	48	131	179	45	134	- 3
24	12		2	14		0	14	125	139	35	104	+ 21
25	35		1	36		0	36	124	160	40	120	+ 4
26	31		2	33		0	33	120	153	38	115	+ 5
27	41		1	42		0	42	119	161	40	121	- 2
28	25		1	26		0	26	119	145	36	109	+ 10
29	20		1	21		0	21	116	137	34	103	+ 13
30	33		1	34		0	34	114	148	37	111	+ 3
31	21		0	21		0	21	115	136	34	102	+ 13
Total	1168		42	1210		0	1210	5396	6606	1651	4955	+441
Mean	37.7		1.4	39.0		0	39.0	174	213	53.3	160	+ 14.2
Acre feet	2317		83.3	2400		0	2400	10703	13103	3275	9828	+875

COMPUTED BY [signature] DATE Dec 27, 74

CHECKED BY U. S. G. S. Engineers DATE Jan 10, 75

APPROVED [signature] District Chief U.S.G.S.

R. D. May Dist. Engr. WS of Canada

R-174A

TABLE 7

HISTORICAL SUMMARY OF NATURAL FLOW

ST. MARY RIVER AT INTERNATIONAL BOUNDARY

(acre-feet)

Period	Computed Natural Flow			Recorded Flow			Share April to October	
	Period Nov. to Oct.	Non-Irrigation Season Nov. to Mar.	Irrigation Season Apr. to Oct.	Period Nov. to Oct.	Non-Irrigation Season Nov. to Mar.	Irrigation Season Apr. to Oct.	United States	Canada
1902-03	895,781	57,965	837,816	895,781	57,965	837,816	352,098	485,718
1903-04	651,523	96,361	555,162	651,524	96,361	555,163	218,938	336,224
1904-05	500,983	39,128	461,855	500,983	39,128	461,855	172,185	289,670
1905-06	562,899	51,592	511,307	562,900	51,592	511,308	191,286	320,021
1906-07	910,070	124,082	785,988	910,070	124,082	785,988	326,525	459,463
1907-08	973,067	62,436	910,631	973,066	62,435	910,631	393,572	517,059
1908-09	850,740	65,276	785,464	850,742	65,277	785,465	331,192	454,272
1909-10	638,771	87,729	551,042	638,772	87,729	551,043	208,947	342,095
1910-11	748,209	97,349	650,860	748,209	97,349	650,860	258,357	392,503
1911-12	564,887	59,092	505,795	564,884	59,091	505,793	190,175	315,620
1912-13	758,339	69,604	688,735	758,336	69,603	688,733	280,792	407,942
1913-14	588,871	58,564	530,307	588,870	58,564	530,306	198,764	331,543
1914-15	614,257	83,970	530,287	614,257	83,970	530,287	197,290	332,997
1915-16	898,831	109,773	789,058	898,831	109,773	789,058	328,788	460,270
1916-17	713,348	58,828	654,520	678,473	58,827	619,646	267,802	386,717
1917-18	603,035	91,256	511,779	545,008	91,256	453,752	194,448	317,332
1918-19	436,009	49,684	386,325	334,686	49,684	285,002	142,621	243,703
1919-20	641,002	61,025	579,977	584,073	61,025	523,048	227,566	352,411
1920-21	708,284	72,117	636,167	659,965	72,117	587,848	255,689	380,477
1921-22	630,537	64,657	565,880	562,529	64,657	497,872	228,434	337,446
1922-23	630,395	47,191	583,204	547,856	47,190	500,666	229,833	353,371
1923-24	571,551	51,406	520,145	477,834	51,406	426,428	203,399	316,746
1924-25	799,329	78,619	720,710	662,816	76,667	586,149	295,509	425,201

TABLE 7

HISTORICAL SUMMARY OF NATURAL FLOW

ST. MARY RIVER AT INTERNATIONAL BOUNDARY

(acre-feet)

Period	Computed Natural Flow			Recorded Flow			Share April to October	
	Period Nov. to Oct.	Non-Irrigation Season Nov. to Mar.	Irrigation Season Apr. to Oct.	Period Nov. to Oct.	Non-Irrigation Season Nov. to Mar.	Irrigation Season Apr. to Oct.	United States	Canada
1925-26	421,035	49,198	371,837	298,778	41,987	256,791	123,780	248,057
1926-27	1,010,261	74,838	935,423	947,369	69,952	877,417	401,387	534,036
1927-28	846,492	112,116	734,376	781,797	122,137	659,660	302,731	431,645
1928-29	493,488	66,040	427,448	408,746	65,076	343,670	162,343	265,105
1929-30	587,949	52,374	535,575	489,447	46,773	442,674	209,274	326,301
1930-31	412,939	38,856	374,083	296,546	34,002	262,544	134,186	239,897
1931-32	599,569	83,750	515,819	442,577	68,775	373,802	202,453	313,367
1932-33	710,730	67,488	643,242	541,778	51,630	490,148	261,031	382,211
1933-34	797,316	168,272	629,044	643,995	165,401	478,594	257,770	371,274
1934-35	604,144	136,576	467,568	441,674	120,818	320,856	179,546	288,022
1935-36	444,849	30,004	414,845	291,059	25,779	265,280	157,613	257,232
1936-37	534,714	34,013	500,701	388,220	32,035	356,185	200,099	300,603
1937-38	637,245	65,262	571,983	470,922	55,766	415,156	230,229	341,754
1938-39	462,355	59,359	402,996	296,183	55,167	241,016	149,764	253,232
1939-40	401,871	37,815	364,056	270,937	32,033	238,904	127,835	236,221
1940-41	367,688	32,842	334,846	236,870	32,931	203,939	109,876	224,969
1941-42	629,972	94,304	535,668	473,000	71,489	401,511	206,753	328,915
1942-43	739,133	63,366	675,767	618,775	50,762	568,013	278,134	397,632
1943-44	354,464	36,343	318,121	235,286	27,999	207,287	106,824	211,297
1944-45	552,147	46,471	505,676	380,157	34,860	345,297	200,071	305,605
1945-46	612,387	76,816	535,571	410,126	57,441	352,685	206,912	328,659
1946-47	711,828	86,866	624,962	558,538	73,491	485,047	245,873	379,089
1947-48	796,403	71,379	725,024	697,608	58,973	638,635	306,970	418,054
1948-49	492,056	35,419	456,637	328,421	27,778	300,643	170,269	286,368
1949-50	862,889	96,111	766,778	710,826	72,834	637,992	320,765	446,013

TABLE 7

HISTORICAL SUMMARY OF NATURAL FLOW

ST. MARY RIVER AT INTERNATIONAL BOUNDARY

(acre-feet)

Period	Computed Natural Flow			Recorded Flow			Share April to October	
	Period Nov. to Oct.	Non-Irrigation Season Nov. to Mar.	Irrigation Season Apr. to Oct.	Period Nov. to Oct.	Non-Irrigation Season Nov. to Mar.	Irrigation Season Apr. to Oct.	United States	Canada
1950-51	1,026,599	141,366	885,233	946,696	122,849	823,847	372,351	512,882
1951-52	599,925	82,832	517,093	492,507	69,607	422,900	200,079	317,014
1952-53	849,505	62,545	786,960	731,372	48,325	683,047	336,248	450,712
1953-54	858,492	62,618	795,874	751,607	46,189	705,418	332,634	463,240
1954-55	668,998	79,260	589,738	555,387	62,788	492,599	237,646	352,094
1955-56	741,415	89,020	652,395	541,321	70,838	470,483	264,855	387,538
1956-57	604,627	59,363	545,264	429,133	46,313	382,820	221,248	324,016
1957-58	589,157	58,512	530,645	408,006	44,428	363,578	206,065	324,581
1958-59	808,206	93,513	714,693	598,168	72,844	525,324	287,954	426,738
1959-60	578,292	95,385	482,907	397,825	77,837	319,988	184,278	298,629
1960-61	625,256	58,502	566,754	418,653	43,823	374,830	223,748	343,007
1961-62	556,013	60,686	495 327	356,722	47,807	308,915	186,427	308,898
1962-63	610,165	99,509	510,656	393,334	76,428	316,906	201,094	309,560
1963-64	808,300	44,360	763,940	632,444	32,095	600,349	321,442	442,497
1964-65	739,209	67,981	671,228	606,485	56,473	550,012	270,687	400,540
1965-66	648,349	71,082	577,267	460,699	61,640	399,059	226,647	350,620
1966-67	747,440	66,046	681 394	613,802	50,400	563,402	286,978	394,415
1967-68	678,987	94,522	584,465	457,477	70,014	387,463	227,993	356,471
1968-69	621,827	78,927	542,900	457,529	63,161	394,368	212,412	330,489
1969-70	652,673	53,812	598,861	482,919	41,721	441,198	247,776	351,085
1970-71	757,208	67,383	689,825	592,275	52,860	539,415	284,853	404,972
1971-72	839,305	86,419	752,886	637,954	65,747	572,207	310,132	442,756
1972-73	461,423	54,631	406,792	299,767	43,694	256,073	153,221	253,571
1973-74	794,804	105,805	688,999	588,348	77,128	511,220	286,751	402,249

NATURAL FLOW OF MILK RIVER AT EASTERN CROSSING

FOR March 1974

DATE		ACTUAL FLOWS (cfs days)							EVAPORATION					NATURAL FLOW (cfs days)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
West xing	East xing	N. FK. Milk River above Canal	North Milk River nr. Int'l Boundary	Milk River at West xing	Milk River at East xing	Total Flow West xing 4 + 5	Natural Flow West xing 3 + 5	East West Mean 6 + 7 / 2	Mean evaporation inches	Table 3 actual flow cfs 1 in. 9	Table 3 natural flow cfs 1 in. 8	Table 3 increment in evaporation cfs 1 in. 11-12	Increment in evaporation cfs days 10 x 13	Inflow or loss 6-7	Eastern Crossing 8+14+15
5 DAY LAG															
	1														70
	2														65
	3														70
	4														66
	5														78
	6														80
	7														78
	8														72
	9														66
	10														66
	11														68
	12														82
	13														112
	14														125
	15														120
	16														169
	17														219
	18														319
	19														416
	20														381
	21														269
	22														251
	23														233
	24														226
	25														244
	26														226
	27														262
	28														340
	29														780
	30														1230
	31														1290
Total cfs															8073
Acre feet															16013

Diversions began March 27, 1974 use Milk River at Eastern Crossing as Natural Flow until March 31

Diversions were attempted from March 17 to 22, but flow did not reach North Milk River near International Boundary

COMPUTED BY [signature] DATE Jan 28, 75

CHECKED BY U. S. G. S. Engineers DATE Jan 29, 75

APPROVED [signature] District Chief U.S.G.S.

[signature] Dist. Engr. WS of Canada

TABLE 8

NATURAL FLOW OF MILK RIVER AT EASTERN CROSSING

FOR April 19 74

DATE		ACTUAL FLOWS (cfs days)							EVAPORATION					NATURAL FLOW (cfs days)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
West xing	East xing	N. FK. Milk River above Canal	North Milk River nr. Int'l Boundary	Milk River at West xing	Milk River at East xing	Total Flow West xing 4 + 5	Natural Flow West xing 3 + 5	East West Mean 6 + 7 / 2	Mean evaporation inches	Table 3 actual flow cfs 1 in. 9	Table 3 natural flow cfs 1 in. 8	Table 3 increment in evaporation cfs 1 in. 11−12	Increment in evaporation cfs days 10 x 13	Inflow or loss 6-7	Eastern Crossing 8+14+15
5 DAY LAG															
Mar.27	1	30	55	94	862	149	124	506	0.10	162	101	61	6	713	843
	2	65	93	158	674	251	223	462	0.10	158	130	28	3	423	649
	3	74	97	189	600	286	263	443	0.10	156	135	21	2	314	579
	4	70	97	226	540	323	296	432	0.10	155	139	16	2	217	515
Mar.31	5	55	85	256	450	341	311	395	0.10	152	141	11	1	109	421
Apr. 1	6	34	73	229	375	302	263	339	0.10	145	135	10	1	73	337
	7	27	66	208	400	274	235	337	0.10	144	132	12	1	126	362
	8	29	65	174	420	239	203	329	0.10	143	127	16	2	181	386
	9	32	77	143	421	220	175	321	0.18	142	119	23	4	201	380
Apr. 5	10	45	90	131	481	221	176	351	0.07	146	119	27	2	260	438
	11	79	100	132	571	232	211	401	0.23	152	128	24	6	339	556
	12	89	140	183	603	323	272	463	0.11	158	136	22	2	280	554
	13	55	165	293	646	458	348	552	0.07	167	146	21	1	188	537
	14	44	229	245	672	474	289	573	0.20	168	138	30	6	198	493
Apr.10	15	38	267	233	732	500	271	616	0.27	173	136	37	10	232	513
	16	39	317	245	722	562	284	642	0.19	177	137	40	8	160	452
	17	36	401	287	757	688	323	723	0.21	188	142	46	10	69	402
	18	27	469	215	802	684	242	743	0.31	191	132	59	18	118	378
	19	27	551	195	866	746	222	806	0.18	201	129	72	13	120	355
Apr.15	20	31	606	187	868	793	218	830	0.14	206	129	77	11	75	304
	21	33	670	212	828	882	245	855	0.16	212	133	79	13	- 54	204
	22	32	710	244	815	954	276	885	0.16	219	137	82	13	-139	150
	23	34	718	232	844	950	266	897	0.21	221	136	85	18	-106	178
	24	36	723	245	828	968	281	898	0.29	222	137	85	25	-140	166
Apr.20	25	34	735	288	810	1023	322	916	0.32	226	142	84	27	-213	136
	26	28	731	250	855	981	278	918	0.34	227	137	90	31	-126	183
	27	29	734	196	1070	930	225	1000	0.16	246	130	116	19	140	384
	28	32	740	197	1050	937	229	994	0.11	244	131	113	12	113	354
	29	36	747	239	1210	986	275	1098	0.21	271	137	134	28	224	527
Apr.25	30	37	759	315	1090	1074	352	1082	0.26	267	146	121	31	16	399
	31														
Total cfs		1257	11310	6441	21862	17751	7698	19807	5.18	5639	3997	1642	326	4111	12135
Acre feet		2493	22433	12776	43363	35209	15269	39287					647	8154	24070

COMPUTED BY [signature] DATE January 28, 1975

CHECKED BY U. S. G. S. Engineers DATE January 29, 1975

APPROVED [signature] District Chief U.S.G.S.

[signature] Dist. Engr. WS of Canada

TABLE 8

NATURAL FLOW OF MILK RIVER AT EASTERN CROSSING

FOR May 1974

DATE		ACTUAL FLOWS (cfs days)							EVAPORATION					NATURAL FLOW (cfs days)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
West xing	East xing	N. FK. Milk River above Canal	North Milk River nr. Int'l Boundary	Milk River at West xing	Milk River at East xing	Total Flow West xing 4 + 5	Natural Flow West xing 3 + 5	East West Mean 6 + 7 / 2	Mean evaporation inches	Table 3 actual flow cfs 1 in. 9	Table 3 natural flow cfs 1 in. 8	Table 3 increment in evaporation cfs 1 in. 11-12	Increment in evaporation cfs days 10 x 13	Inflow or loss 6-7	Eastern Crossing 8+14+15
5 DAY LAG															
Apr. 26	1	37	760	343	909	1103	380	1006	0.23	247	150	97	22	-194	208
	2	34	805	428	1160	1233	462	1197	0.17	296	158	138	23	- 73	412
	3	39	778	264	1640	1042	303	1341	0.33	333	140	193	64	+598	965
	4	53	792	195	1300	987	248	1143	0.26	283	133	150	39	+313	600
Apr. 30	5	70	870	502	1080	1372	572	1226	0.29	304	168	136	39	-292	319
May 1	6	73	853	769	1090	1622	842	1356	0.19	337	209	128	24	-532	334
	7	48	761	557	1120	1318	605	1219	0.22	302	172	130	29	-198	436
	8	39	747	348	1110	1095	387	1103	0.30	273	151	122	37	+ 15	439
	9	38	759	251	1170	1010	289	1090	0.30	269	138	131	39	+160	488
May 5	10	39	764	228	1230	992	267	1111	0.29	274	136	138	40	+238	545
	11	44	770	248	1120	1018	292	1069	0.17	264	138	126	21	+102	415
	12	43	773	292	1100	1065	335	1082	0.32	267	144	123	39	+ 35	409
	13	41	768	315	1250	1083	356	1167	0.18	289	147	142	26	+167	549
	14	35	764	307	1070	1071	342	1070	0.23	264	145	119	27	- 1	368
May10	15	31	763	273	1100	1036	304	1068	0.12	264	140	124	15	+ 64	383
	16	30	757	216	1200	973	246	1087	0.19	268	133	135	26	+227	499
	17	30	761	184	1040	945	214	992	0.17	244	128	116	20	+ 95	329
	18	30	764	169	1010	933	199	972	0.05	239	127	112	6	+ 77	282
	19	31	759	161	997	920	192	958	0.17	236	124	112	19	+ 77	288
May 15	20	29	742	150	1070	892	179	981	0.20	241	120	121	24	+178	381
	21	31	742	142	1550	884	173	1217	0.13	301	118	183	24	+666	863
	22	42	774	154	1150	928	196	1039	0.12	256	125	131	16	+222	434
	23	58	835	244	987	1079	302	1033	0.21	254	140	114	24	- 92	234
	24	44	776	368	919	1144	412	1032	0.18	254	153	101	18	-225	205
May 20	25	35	747	278	837	1025	313	931	0.21	229	141	88	18	-188	143
	26	32	741	263	790	1004	295	897	0.27	221	139	82	22	-214	103
	27	31	736	201	688	937	232	812	0.22	202	131	71	16	-249	0
	28	30	676	174	584	850	204	717	0.19	187	127	60	11	-266	0
	29	29	517	169	522	686	198	604	0.18	171	126	45	8	-164	42
	30	28	352	163	442	515	191	479	0.22	160	123	37	8	- 73	126
May 26	31	29	167	151	416	318	180	367	0.29	148	120	28	8	+ 98	286
Total cfs		1203	22573	8507	31651	31080	9710	31366	6.60	7877	4344	3533	752	+571	11085
Acre feet		2386	44774	16874	62780	61647	19260	62214					1492	+1133	21987

COMPUTED BY U. S. G. S. Engineers DATE January 24, 1975

CHECKED BY DATE January 29, 1975

APPROVED George Cole District Chief U.S.G.S.

R. D. May Dist. Engr. WS of Canada

TABLE 8

NATURAL FLOW OF MILK RIVER AT EASTERN CROSSING

FOR June 1974

DATE		ACTUAL FLOWS (cfs days)							EVAPORATION					NATURAL FLOW (cfs days)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
West xing	East xing	N. FK. Milk River above Canal	North Milk River nr. Int'l Boundary	Milk River at West xing	Milk River at East xing	Total Flow West xing 4 + 5	Natural Flow West xing 3 + 5	East West Mean 6 + 7 / 2	Mean evaporation inches	Table 3 actual flow cfs 1 in. 9	Table 3 natural flow cfs 1 in. 8	Table 3 increment in evaporation cfs 1 in. 11-12	Increment in evaporation cfs days 10 x 13	Inflow or loss 6-7	Eastern Crossing 8+14+15
5 DAY LAG															
May 27	1	29	68	154	421	222	183	321	0.29	142	121	21	6	+199	388
	2	30	53	180	390	233	210	312	0.27	141	128	13	4	+157	371
	3	30	54	184	376	238	214	307	0.24	141	128	13	3	+138	355
	4	29	53	204	353	257	233	305	0.29	141	131	10	3	+ 96	332
May 31	5	27	133	188	786	321	215	553	0.22	167	129	38	8	+465	688
June 1	6	25	478	184	767	662	209	715	0.34	187	128	59	20	+105	334
	7	23	627	153	814	780	176	797	0.25	198	119	79	20	+ 34	230
	8	23	633	131	824	764	154	794	0.28	198	111	87	24	+ 60	238
	9	22	641	128	869	769	150	819	0.34	203	110	93	32	+100	282
June 5	10	22	638	131	904	769	153	836	0.26	207	111	96	25	+135	313
	11	21	652	143	933	795	164	864	0.29	214	115	99	29	+138	331
	12	33	684	140	925	824	173	875	0.25	216	118	98	25	+101	299
	13	43	697	163	902	860	206	881	0.34	217	128	89	30	+ 42	278
	14	26	663	231	944	894	257	919	0.27	227	134	93	25	+ 50	332
June 10	15	23	651	172	902	823	195	862	0.43	213	125	88	38	+ 79	312
	16	21	638	138	817	776	159	797	0.32	198	113	85	27	+ 41	227
	17	20	576	122	636	698	142	667	0.41	180	108	72	30	- 62	110
	18	20	448	111	567	559	131	563	0.36	167	103	64	23	+ 8	162
	19	19	378	108	537	486	127	511	0.46	162	102	60	28	+ 51	206
June 15	20	18	374	108	547	482	126	515	0.30	163	102	61	18	+ 65	209
	21	17	382	108	567	490	125	528	0.26	164	102	62	16	+ 77	218
	22	17	386	106	584	492	123	538	0.34	165	101	64	22	+ 92	237
	23	17	387	108	619	495	125	557	0.38	167	102	65	25	+124	274
	24	16	430	104	799	534	120	667	0.39	180	100	80	31	+265	416
June 20	25	16	538	99	847	637	115	742	0.30	191	99	92	28	+210	353
	26	17	633	103	837	736	120	786	0.33	197	100	97	32	+101	253
	27	17	660	119	807	779	136	793	0.37	198	105	93	34	+ 28	198
	28	16	649	127	633	776	143	705	0.41	186	108	78	32	-143	32
	29	16	643	108	707	751	124	729	0.40	189	101	88	35	- 44	115
June 25	30	16	656	97	751	753	113	752	0.41	192	98	94	39	- 2	150
	31														
Total cfs		669	14503	4152	21365	18655	4821	20010	9.80	5511	3380	2131	712	+2710	8243
Acre feet		1327	28767	8235	42377	37002	9562	39690					1412	+5375	16350

COMPUTED BY _____ DATE January 24, 1975

CHECKED BY U. S. G. S. Engineers DATE January 29, 1975

APPROVED George Pike District Chief U.S.G.S.

R. D. May Dist. Engr. WS of Canada

TABLE 8

NATURAL FLOW OF MILK RIVER AT EASTERN CROSSING

FOR July 19 74

DATE		ACTUAL FLOWS (cfs days)							EVAPORATION					NATURAL FLOW (cfs days)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
West xing	East xing	N. FK. Milk River above Canal	North Milk River nr. Int'l Boundary	Milk River at West xing	Milk River at East xing	Total Flow West xing 4 + 5	Natural Flow West xing 3 + 5	East West Mean 6 + 7 / 2	Mean evaporation inches	Table 3 actual flow cfs 1 in. 9	Table 3 natural flow cfs 1 in. 8	Table 3 increment in evaporation cfs 1 in. 11-12	Increment in evaporation cfs days 10 x 13	Inflow or loss 6-7	Eastern Crossing 8+14+15
5 DAY LAG															
June 26	1	16	700	102	744	802	118	773	0.36	195	99	96	35	- 58	95
	2	15	711	96	756	807	111	781	0.34	196	97	99	34	- 51	94
	3	14	714	83	710	797	97	754	0.31	192	92	100	31	- 87	41
	4	13	714	70	732	784	83	758	0.37	193	88	105	39	- 52	70
June 30	5	13	712	61	757	773	74	765	0.33	194	85	109	36	- 16	94
July 1	6	13	700	54	749	754	67	751	0.28	192	82	110	31	- 5	93
	7	14	697	51	804	748	65	776	0.21	196	82	114	24	+ 56	145
	8	13	703	53	812	756	66	784	0.44	196	82	114	50	+ 56	172
	9	13	706	55	862	761	68	812	0.38	202	82	120	46	+101	215
July 5	10	13	700	51	854	751	64	802	0.22	200	81	119	26	+103	193
	11	14	697	50	821	747	64	784	0.40	196	81	115	46	+ 74	184
	12	14	695	55	783	750	69	767	0.23	194	83	111	26	+ 33	128
	13	14	690	60	815	750	74	782	0.27	196	85	111	30	+ 65	169
	14	14	700	67	782	767	81	775	0.36	196	87	109	39	+ 15	135
July 10	15	14	705	64	810	769	78	789	0.26	197	86	111	29	+ 41	148
	16	17	712	65	810	777	82	794	0.40	198	88	110	44	+ 33	159
	17	14	701	67	751	768	81	759	0.42	193	87	106	45	- 17	109
	18	13	693	73	753	766	86	760	0.39	193	89	104	41	- 13	114
	19	12	697	53	799	750	65	774	0.39	195	82	113	44	+ 49	158
July 15	20	12	695	46	775	741	58	758	0.31	193	79	114	35	+ 34	127
	21	13	692	37	749	729	50	739	0.44	191	76	115	51	+ 20	121
	22	12	690	33	741	723	45	732	0.40	189	73	116	46	+ 18	109
	23	12	697	30	720	727	42	724	0.39	188	71	117	46	- 7	81
	24	12	702	28	700	730	40	715	0.45	187	70	117	53	- 30	63
July 20	25	12	699	24	678	723	36	700	0.44	185	67	118	52	- 45	43
	26	12	698	21	653	719	33	686	0.40	183	65	118	47	- 66	14
	27	12	702	20	627	722	32	675	0.39	182	64	118	46	- 95	0
	28	12	702	19	625	721	31	673	0.43	181	64	117	50	- 96	0
	29	12	700	18	627	718	30	672	0.42	181	63	118	50	- 91	0
	30	12	699	17	622	716	29	669	0.35	181	62	119	42	- 84	0
July 26	31	12	700	15	625	715	27	670	0.38	181	61	120	46	- 90	0
Total cfs		408	21723	1538	23046	23261	1946	23153	11.16	5936	2453	3483	1260	-215	3074
Acre feet		809	43088	3051	45712	46138	3860	45924					2499	-426	6097

COMPUTED BY [signature] DATE January 27, 1975 APPROVED [signature]

CHECKED BY U. S. G. S. Engineers DATE January 29, 1975 District Chief U.S.G.S.

R. D. May
Dist. Engr. WS of Canada

TABLE 8

NATURAL FLOW OF MILK RIVER AT EASTERN CROSSING

FOR August 1974

DATE		ACTUAL FLOWS (cfs days)							EVAPORATION					NATURAL FLOW (cfs days)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
West xing	East xing	N. FK. Milk River above Canal	North Milk River nr. Int'l Boundary	Milk River at West xing	Milk River at East xing	Total Flow West xing 4 + 5	Natural Flow West xing 3 + 5	East West Mean 6 + 7 / 2	Mean evaporation inches	Table 3 actual flow cfs 1 in. 9	Table 3 natural flow cfs 1 in. 8	Table 3 increment in evaporation cfs 1 in. 11-12	Increment in evaporation cfs days 10 x 13	Inflow or loss 6-7	Eastern Crossing 8+14+15
5 DAY LAG															
July 27	1	12	695	14	634	709	26	672	0.31	181	61	120	37	- 75	0
	2	12	693	13	635	706	25	670	0.34	181	60	121	41	- 71	0
	3	12	691	12	601	703	24	652	0.31	178	59	119	37	-102	0
	4	12	675	12	584	687	24	636	0.37	176	59	117	43	-103	0
July 31	5	12	659	13	582	672	25	627	0.39	175	60	115	45	- 90	0
Aug. 1	6	12	655	13	592	668	25	630	0.21	175	60	115	24	- 26	0
	7	12	654	12	616	666	24	641	0.34	177	59	118	40	- 50	14
	8	12	652	12	637	664	24	650	0.19	178	59	119	23	- 27	20
	9	12	651	11	731	662	23	697	0.34	184	59	125	43	+ 69	135
Aug. 5	10	12	650	11	762	661	23	711	0.27	187	59	128	35	+101	159
	11	12	648	10	726	658	22	692	0.23	183	58	125	29	+ 68	119
	12	12	652	10	723	662	22	693	0.17	184	58	126	21	+ 61	104
	13	16	667	13	855	680	29	767	0.07	194	62	132	9	+175	213
	14	17	662	16	701	678	33	690	0.23	183	65	118	27	+ 23	83
Aug. 10	15	14	654	16	730	670	30	700	0.13	185	63	122	16	+ 60	106
	16	17	659	23	711	682	40	696	0.21	184	70	114	24	+ 29	93
	17	16	658	25	705	683	41	694	0.18	184	71	113	20	+ 22	83
	18	23	674	39	670	713	62	692	0.19	183	81	102	19	- 43	38
	19	20	660	47	694	707	67	700	0.15	185	82	103	15	- 13	69
Aug. 15	20	16	655	47	741	702	63	722	0.12	187	81	106	13	+ 39	115
	21	14	649	40	682	689	54	685	0.21	183	78	105	22	- 7	69
	22	14	647	37	665	684	51	675	0.21	182	76	106	22	- 19	54
	23	13	644	31	654	675	44	664	0.24	180	72	108	26	- 21	49
	24	13	644	25	657	669	38	663	0.22	180	69	111	24	- 12	50
Aug. 20	25	14	645	21	643	666	35	655	0.09	179	67	112	10	- 23	22
	26	14	646	19	632	665	33	648	0.29	178	65	113	33	- 33	33
	27	14	641	18	626	659	32	643	0.20	177	64	113	23	- 33	22
	28	13	640	19	643	659	32	651	0.28	178	64	114	32	- 16	48
	29	13	638	17	655	655	30	655	0.38	179	63	116	44	0	74
	30	13	633	15	649	648	28	648	0.20	178	62	116	23	+ 1	52
Aug. 26	31	13	634	13	636	647	26	642	0.11	177	61	116	13	- 11	28
Total cfs		431	20325	624	20772	20949	1055	20861	7.18	5615	2027	3588	833	-177	1852
Acre feet		855	40315	1238	41201	41552	2093	41378					1652	-351	3673

COMPUTED BY RHS DATE January 27, 1975

CHECKED BY U. S. G. S. Engineers DATE January 29, 1975

APPROVED George Pike District Chief U.S.G.S.

R. D. May Dist. Engr. WS of Canada

TABLE 8

NATURAL FLOW OF MILK RIVER AT EASTERN CROSSING

FOR September 1974

DATE		ACTUAL FLOWS (cfs days)							EVAPORATION					NATURAL FLOW (cfs days)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
West xing	East xing	N. FK. Milk River above Canal	North Milk River nr. Int'l Boundary	Milk River at West xing	Milk River at East xing	Total Flow West xing 4 + 5	Natural Flow West xing 3 + 5	East West Mean 6 + 7 / 2	Mean evaporation inches	Table 3 actual flow cfs 1 in. 9	Table 3 natural flow cfs 1 in. 8	Table 3 increment in evaporation cfs 1 in. 11-12	Increment in evaporation cfs days 10 x 13	Inflow or loss 6-7	Eastern Crossing 8+14+15
5 DAY LAG															
Aug. 27	1	13	634	12	638	646	25	642	0.25	177	60	117	29	- 8	46
	2	13	634	11	638	645	24	641	0.21	177	59	118	25	- 7	42
	3	13	634	10	638	644	23	641	0.23	177	59	118	27	- 6	44
	4	15	643	10	632	653	25	643	0.18	177	60	117	21	-21	25
Aug. 31	5	15	640	10	618	650	25	634	0.12	176	60	116	14	-32	7
Sept. 1	6	15	639	12	625	651	27	638	0.20	177	61	116	23	-26	24
	7	14	634	14	632	648	28	640	0.14	177	62	115	16	-16	28
	8	13	631	16	618	647	29	632	0.22	175	62	113	25	-29	25
	9	13	631	19	618	650	32	634	0.18	176	64	112	20	-32	20
Sept. 5	10	13	632	17	632	649	30	641	0.10	177	63	114	11	-17	24
	11	13	634	14	638	648	27	643	0.15	177	61	116	17	-10	34
	12	13	631	13	638	644	26	641	0.16	177	61	116	19	- 6	39
	13	13	630	11	666	641	24	653	0.23	178	59	119	27	+25	76
	14	13	632	11	652	643	24	648	0.18	178	59	119	21	+ 9	54
Sept. 10	15	13	633	12	650	645	25	647	0.22	178	60	118	26	+ 5	56
	16	15	640	12	647	652	27	650	0.20	178	61	117	23	- 5	45
	17	14	635	12	642	647	26	644	0.21	177	61	116	24	- 5	45
	18	13	632	15	659	647	28	653	0.15	178	62	116	17	+12	57
	19	12	632	21	645	653	33	649	0.25	178	65	113	28	- 8	53
Sept. 15	20	12	632	19	652	651	31	652	0.20	178	64	114	23	+ 1	55
	21	12	630	16	652	646	28	649	0.21	178	62	116	24	+ 6	58
	22	12	631	13	652	644	25	648	0.24	178	60	118	28	+ 8	61
	23	11	631	12	652	643	23	647	0.21	178	59	119	25	+ 9	57
	24	11	631	10	645	641	21	643	0.23	177	58	119	27	+ 4	52
Sept. 20	25	11	632	9	565	641	20	603	0.27	171	57	114	31	-76	0
	26	11	586	8	510	594	19	552	0.20	167	56	111	22	-84	0
	27	11	516	8	500	524	19	512	0.24	162	56	106	25	-24	20
	28	11	505	8	410	513	19	462	0.16	158	56	102	16	-103	0
	29	11	372	9	307	381	20	344	0.20	145	57	88	18	-74	0
Sept. 25	30	10	180	8	240	188	18	214	0.26	128	56	72	19	+52	89
	31														
Total cfs		379	17997	372	17911	18369	751	18140	6.00	5185	1800	3385	671	-458	1136
Acre feet		752	35697	738	35526	36435	1490	35981					1331	-908	2253

COMPUTED BY [signature] DATE January 27, 1975

CHECKED BY U. S. G. S. Engineers DATE January 29, 1975

APPROVED [signature] District Chief U.S.G.S.

[signature] Dist. Engr. WS of Canada

TABLE 8

NATURAL FLOW OF MILK RIVER AT EASTERN CROSSING

FOR October 19 74

DATE		ACTUAL FLOWS (cfs days)							EVAPORATION					NATURAL FLOW (cfs days)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
West xing	East xing	N. FK. Milk River above	North Milk River nr. Int'l	Milk River at West	Milk River at East	Total Flow West xing	Natural Flow West xing	East West Mean 6 + 7	Mean evaporation	Table 3 actual flow cfs 1 in.	Table 3 natural flow cfs 1 in.	Table 3 increment in evaporation cfs 1 in.	Increment in evaporation cfs days	Inflow or loss	Eastern Crossing
5 DAY LAG		Canal	Boundary	xing	xing	4 + 5	3 + 5	2	inches	9	8	11–12	10 x 13	6-7	8+14+15
Sept.26	1	10	82	8	200	90	18	145	0.10	109	56	53	5	+110	133
	2	12	57	9	166	66	21	116	0.19	99	58	41	8	+100	129
	3	13	38	9	147	47	22	97	0.10	92	58	34	3	+100	125
	4	13	28	10	126	38	23	82	0.13	88	59	29	4	+ 88	115
Sept.30	5	13	25	10	113	35	23	74	0.13	85	59	26	3	+ 78	104
Oct. 1	6	12	26	12	101	38	24	70	0.14	83	59	24	3	+ 63	90
	7	12	24	15	92	39	27	66	0.32	82	61	21	7	+ 53	87
	8	11	14	16	89	30	27	59	0.15	80	61	19	3	+ 59	89
	9	11	13	16	84	29	27	57	0.14	79	61	18	3	+ 55	85
Oct. 5	10	12	14	15	80	29	27	54	0.17	78	61	17	3	+ 51	81
	11	12	14	14	73	28	26	51	0.11	76	61	15	2	+ 45	73
	12	12	14	15	68	29	27	48	0.20	75	61	14	3	+ 39	69
	13	12	13	15	64	28	27	46	0.16	74	61	13	2	+ 36	65
	14	12	14	17	64	31	29	48	0.23	75	62	13	3	+ 33	65
Oct.10	15	11	13	18	60	31	29	45	0.24	73	62	11	3	+ 29	61
	16														57
	17														57
	18				Diversion Ended on September 29, 1974										54
	19														51
Oct.15	20				Milk River at Eastern Crossing used as										50
	21														48
	22				Natural flow to October 31										46
	23														44
	24														44
Oct.20	25														43
	26														42
	27														41
	28														40
	29														40
	30														39
Oct.26	31														41
Total cfs		178	389	199	1527	588	377	1058	2.51	1248	900	348	55	939	2108
Acre feet		353	772	395	3029	1166	748	2099					109	1863	4181

COMPUTED BY Robt DATE January 28, 1975 APPROVED George Pike

CHECKED BY U. S. G. S. Engineers DATE January 29, 1975 District Chief U.S.G.S.

R. D. May
Dist. Engr. WS of Canada

TABLE 8

TABLE 9

HISTORICAL SUMMARY

MARCH TO OCTOBER NATURAL FLOW OF MILK RIVER

AT

EASTERN CROSSING OF THE INTERNATIONAL BOUNDARY

(acre-feet)

Year	Computed Natural Flow	United States Share	Canadian Share	Year	Computed Natural Flow	United States Share	Canadian Share
				1946	41,700	28,400	13,300
1912	114,000	75,800	38,200	1947	165,000	104,000	60,800
1913	126,000	88,900	37,500	1948	206,000	136,000	69,700
1914	69,000	48,200	20,800	1949	56,700	40,300	16,400
1915	140,000	98,400	41,200	1950	121,000	86,000	34,800
1916	227,000	152,000	74,600	1951	278,000	183,000	94,100
1917	219,000	141,000	77,800	1952	202,000	125,000	76,800
1918	64,600	45,100	19,500	1953	257,000	162,000	94,500
1919	27,400	19,500	7,860	1954	147,000	103,000	44,300
1920	172,000	110,000	62,800	1955	160,000	108,000	51,500
1921	56,900	40,800	16,100	1956	113,000	78,900	33,700
1922	87,200	62,000	25,200	1957	105,000	71,700	33,100
1923	82,200	58,900	23,400	1958	113,000	72,700	40,200
1924	72,300	51,300	21,000	1959	129,000	85,200	44,200
1925	121,000	81,600	39,100	1960	98,300	61,900	36,500
1926	24,500	17,200	7,310	1961	37,900	26,600	11,400
1927	364,000	228,000	136,000	1962	58,500	39,300	19,200
1928	221,000	144,000	77,300	1963	27,800	19,200	8,620
1929	149,000	99,600	49,100	1964	125,000	84,600	40,300
1930	106,000	71,300	34,900	1965	230,000	147,000	83,100
1931	29,800	20,300	9,460	1966	119,000	79,900	38,900
1932	76,500	52,500	24,000	1967	251,000	157,000	93,900
1933	95,000	65,300	29,700	1968	113,000	78,300	34,600
1934	94,600	64,500	30,100	1969	191,000	119,000	72,100
1935	79,100	52,400	26,700	1970	98,300	68,700	29,600
1936	64,800	40,700	24,100	1971	104,000	74,000	29,700
1937	90,500	64,000	26,500	1972	185,000	120,000	65,100
1938	108,000	72,700	35,300	1973	36,100	24,000	12,100
1939	40,600	27,200	13,400	1974	94,600	66,600	28,000
1940	56,500	37,600	18,900				
1941	25,300	17,400	7,890				
1942	85,500	61,500	24,000				
1943	116,000	79,900	36,400				
1944	22,700	16,200	6,490				
1945	43,600	29,300	14,300				

The totals of the United States and Canadian shares may not agree with the computed natural flow as all figures have been rounded for this summary.

COMPUTATION OF NATURAL FLOW OF LODGE CREEK AT INTERNATIONAL BOUNDARY

Quantities in CFS Days

Period	1 Michele Reservoir	2 Greasewood Reservoir	3 Massy Reservoir	4 Total Upper Lodge Reservoirs	5 Channel Loss to International Boundary	6 Net Depletion Upper Lodge	7 Bare Creek Reservoir	8 Channel Loss to International Boundary	9 Net Depletion Bare Creek
	Observed	Observed	Observed	1+2+3	Computed	4-5	Observed	Computed	7-8
Feb 25 Mar 6	+ 5	0	0	+ 5	+ 5	0	0	0	0
Mar 7-16	+ 5	0	+ 9	+ 14	+ 14	0	+ 4	+ 4	0
Mar 17-27	+ 35	0	- 5	+ 30	+ 30	0	+ 3	+ 3	0
Mar 28 - Apr 6	+ 34	+ 10	- 7	+ 37	+ 31	+ 6	+ 115	+ 38	+ 77
Apr 7-16	+ 42	+ 19	- 5	+ 56	+ 32	+ 24	+ 224	+ 47	+ 177
Apr 17-26	+ 4	+ 14	+ 20	+ 38	+ 31	+ 7	+ 81	+ 35	+ 46
Apr 27 - May 6	+ 1	- 13	- 31	- 43	- 32	- 11	+ 76	+ 37	+ 39
May 7-16	- 1	+ 3	- 2	0	0	0	+ 1	+ 1	0
May 17-27	+ 62	+ 8	+ 18	+ 88	+ 41	+ 47	+ 4	+ 4	0
May 28 - Jun 6	+ 57	+ 8	+ 16	+ 81	+ 42	+ 39	+ 6	+ 6	0
Jun 7-16	+ 4	+ 1	- 6	- 1	- 1	0	- 6	- 6	0
Jun 17-26	+ 4	- 1	- 4	- 1	- 1	0	- 4	- 4	0
Jun 27 - Jul 6	+ 4	- 1	- 5	- 2	- 2	0	- 4	- 4	0
Jul 7-16	+ 5	- 1	+ 3	+ 7	+ 7	0	- 6	- 6	0
Jul 17-27	- 4	- 2	- 7	- 13	- 13	0	- 1	- 1	0
Jul 28 - Aug 6	- 4	- 4	- 6	- 14	- 14	0	- 27	- 27	0
Aug 7-16	+ 9	+ 1	+ 2	+ 12	+ 12	0	0	0	0
Aug 17-27	- 25	+ 1	+ 1	- 23	- 23	0	- 2	- 2	0
Aug 28 - Sep 6	- 7	+ 2	+ 1	- 4	- 4	0	+ 1	+ 1	0
Sep 7-16	- 8	+ 1	+ 1	- 6	- 6	0	- 1	- 1	0
Sep 17-26	- 8	0	+ 3	- 5	- 5	0	- 159	- 49	- 110
Sep 27 - Oct 6	- 7	0	+ 2	- 5	- 5	0	- 3	- 3	0
Oct 7-16	- 7	- 1	+ 4	- 4	- 4	0	- 1	- 1	0
Oct 17-27	- 8	- 35	+ 2	- 41	- 34	- 7	- 2	- 2	0
Total CFS Days	+ 192	+ 10	+ 4	+ 206	+ 101	+ 105	+ 299	+ 70	+ 229
Total Acre-Feet	+ 380	+ 20	+ 8	+ 408	+ 200	+ 208	+ 593	+ 139	+ 454

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Table No. 10

COMPUTATION OF NATURAL FLOW OF LODGE CREEK AT INTERNATIONAL BOUNDARY

Quantities in CFS Days

	10	11	12	13	14	15		16	17	18
Period	Cressday Reservoir	Channel Loss to International Boundary	Net Depletion Cressday	Mitchell Reservoir	Channel Loss to International Boundary	Net Depletion Mitchell	Period	Jaydot Reservoir	Channel Loss to International Boundary	Net Depletion Jaydot
	Observed	Computed	10-11	Observed	Computed	13-14		Observed	Computed	16-17
Feb 26 - Mar 7	0	0	0	0	0	0	Feb 27 - Mar 8	0	0	0
Mar 8-17	+ 2	+ 2	0	+ 1	+ 1	0	Mar 9-18	+ 2	+ 2	0
Mar 18-28	+ 3	+ 3	0	+ 5	+ 5	0	Mar 19-29	+ 39	+ 12	+ 27
Mar 29 - Apr 7	+ 67	+ 23	+ 44	+ 32	+ 21	+ 11	Mar 30 - Apr 8	+ 60	+ 12	+ 48
Apr 8-17	+ 128	+ 26	+ 102	+ 46	+ 22	+ 24	Apr 9-18	+ 11	+ 10	+ 1
Apr 18-27	+ 17	+ 17	0	+ 16	+ 16	0	Apr 19-28	+ 1	+ 1	0
Apr 28 - May7	- 4	- 4	0	- 1	- 1	0	Apr 29 - May 8	+ 2	+ 2	0
May 8-17	+ 29	+ 21	+ 8	+ 74	+ 25	+ 49	May 9-18	+ 13	+ 10	+ 3
May 18-28	+ 5	+ 5	0	+ 118	+ 32	+ 86	May 19-29	+ 20	+ 11	+ 9
May 29 - Jun 7	+ 8	+ 8	0	+ 6	+ 6	0	May 30 - Jun 8	+ 19	+ 11	+ 8
Jun 8-17	- 15	- 15	0	- 3	- 3	0	Jun 9-18	+ 11	+ 10	+ 1
Jun 18-27	- 10	- 10	0	0	0	0	Jun 19-28	+ 6	+ 6	0
Jun 28 - Jul 7	+ 16	+ 16	0	- 2	- 2	0	Jun 29 - Jul 8	+ 1	+ 1	0
Jul 8-17	+ 3	+ 3	0	+ 6	+ 6	0	Jul 9-18	+ 11	+ 10	+ 1
Jul 18-28	+ 2	+ 2	0	- 4	- 4	0	Jul 19-29	+ 2	+ 2	0
Jul 29 - Aug 7	+ 2	+ 2	0	- 2	- 2	0	Jul 30 - Aug 8	+ 2	+ 2	0
Aug 8-17	+ 12	+ 12	0	+ 15	+ 15	0	Aug 9-18	+ 8	+ 8	0
Aug 18-28	- 3	- 3	0	- 7	- 7	0	Aug 19-29	- 11	- 11	0
Aug 29 - Sep 7	- 4	- 4	0	- 5	- 5	0	Aug 30- Sep 8	- 3	- 3	0
Sep 8-17	- 4	- 4	0	- 1	- 1	0	Sep 9-18	- 3	- 3	0
Sep 18-27	- 4	- 4	0	0	0	0	Sep 19-28	- 3	- 3	0
Sep 28 - Oct 7	- 9	- 9	0	- 2	- 2	0	Sep 29 - Oct 8	- 3	- 3	0
Oct 8-17	+ 1	+ 1	0	0	0	0	Oct 9-18	- 3	- 3	0
Oct 18-28	- 6	- 6	0	- 2	- 2	0	Oct 19-29	- 3	- 3	0
Total CFS Days	+ 236	+ 82	+ 154	+ 290	+ 120	+ 170		+ 179	+ 81	+ 98
Total Acre-Feet	+ 468	+ 163	+ 306	+ 575	+ 238	+ 337		+ 355	+ 161	+ 199

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COMPUTATION OF NATURAL FLOW OF LODGE CREEK AT INTERNATIONAL BOUNDARY

Quantities in CFS Days

Period Middle Creek Reservoir	19	20	21	22	23	24	25	26	27	28
	Middle Creek Reservoir			Middle Creek Outlet	Bedford Outlet	Flood Spillway	Return Flow from Irrigation	Gross Depletion	Channel Loss to, Inter-nationl Boundary	Net Depletion Middle Creek
	Stored + Release –	Evaporation	Corrected for Evaporation							
	Observed	Computed	19+20	Observed	Observed	Observed	Observed	21+22+23+24+25	Computed	26-27
Feb 26 - Mar 7	+ 4	0	+ 4	0	0	0	0	+ 4	+ 4	0
Mar 8-17	+ 9	0	+ 9	0	0	0	0	+ 9	+ 9	0
Mar 18-28	+ 13	0	+ 13	0	0	0	0	+ 13	+ 13	0
Mar 29 - Apr 7	+ 135	4	+ 139	0	0	0	0	+ 139	+ 27	+ 112
Apr 8-17	+ 433	31	+ 464	82	0	0	82	+ 464	+ 47	+ 417
Apr 18-27	+ 128	10	+ 138	244	0	0	243	+ 139	+ 27	+ 112
Apr 28 - May 7	+ 9	48	+ 57	86	0	0	35	+ 108	+ 29	+ 79
May 8-17	- 90	- 87	- 177	166	0	0	31	- 42	- 22	- 20
May 18-28	+ 363	11	+ 374	93	0	0	72	+ 395	+ 59	+ 336
May 29 - Jun 7	+ 44	5	+ 49	0	0	0	2	+ 47	+ 24	+ 23
Jun 8-17	- 78	80	+ 2	0	0	0	0	+ 2	+ 2	0
Jun 18-27	- 35	97	+ 62	0	0	0	0	+ 62	+ 27	+ 35
Jun 28 - Jul 7	- 117	57	- 60	0	0	0	0	- 60	- 26	- 34
Jul 8-17	- 20	50	+ 30	0	0	0	0	+ 30	+ 22	+ 8
Jul 18-28	- 176	109	- 67	69	0	0	0	+ 2	+ 2	0
Jul 29 - Aug 7	- 349	95	- 254	259	0	0	167	- 162	- 43	- 119
Aug 8-17	- 213	9	- 204	211	0	0	262	- 255	- 58	- 197
Aug 18-28	- 56	32	- 24	0	0	0	0	- 24	- 22	- 2
Aug 29 - Sep 7	- 64	36	- 28	0	0	0	0	- 28	- 21	- 7
Sep 8-17	- 26	21	- 5	0	0	0	0	- 5	- 5	0
Sep 18-27	- 47	27	- 20	0	0	0	0	- 20	- 20	0
Sep 28 - Oct 7	- 29	14	- 15	0	0	0	0	- 15	- 15	0
Oct 8-17	- 42	33	- 9	0	0	0	0	- 9	- 9	0
Oct 18-28	- 38	13	- 25	14	0	0	0	- 11	- 11	0
Total CFS Days	- 242	695	+ 453	1224	0	0	894	+ 783	+ 40	+ 743
Total Acre-Feet	- 480	1378	+ 898	2428	0	0	1773	+ 1553	+ 79	+ 1474

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COMPUTATION OF NATURAL FLOW OF LODGE CREEK AT INTERNATIONAL BOUNDARY

Quantities in CFS Days

	29	30	31	32	33	34	35	36	37
Period Altawan Reservoir	Altawan Reservoir Stored + Release—	Altawan Reservoir Evaporation	Altawan Reservoir Corrected for Evaporation	Spangler Ditch	Return Flow from Spangler	Return Flow from Bedford	Gross Depletion	Channel Loss to International Boundary	Net Depletion Altawan
	Observed	Computed	29 +30	Observed	Observed	Observed	31+32-33-34	Computed	35-36
Feb 27 - Mar 8	0	0	0	0	0	0	0	0	0
Mar 9-18	+ 2	0	+ 2	0	0	0	+ 2	+ 2	0
Mar 19-29	+ 28	0	+ 28	0	0	0	+ 28	+ 11	+ 17
Mar 30 - Apr 8	+ 1306	2	+ 1308	0	0	0	+ 1308	+ 49	+ 1259
Apr 9-18	+ 787	12	+ 799	0	0	0	+ 799	+ 34	+ 765
Apr 19-28	+ 164	14	+ 178	0	0	0	+ 178	+ 15	+ 163
Apr 29 - May 8	- 452	19	- 433	57	0	0	- 376	- 28	- 348
May 9-18	+ 142	0	+ 142	246	49	0	+ 339	+ 26	+ 313
May 19-29	+ 933	15	+ 948	8	2	0	+ 954	+ 58	+ 896
May 30 - Jun 8	- 57	21	- 36	4	1	0	- 33	- 12	- 21
Jun 9-18	- 143	34	- 109	58	1	0	- 52	- 13	- 39
Jun 19-28	- 342	40	- 302	277	23	0	- 48	- 13	- 35
Jun 29 - Jul 8	- 106	29	- 77	66	17	0	- 28	- 11	- 17
Jul 9-18	- 25	33	+ 8	0	3	0	+ 5	+ 5	0
Jul 19-29	- 288	42	- 246	261	0	0	+ 15	+ 11	+ 4
Jul 30 - Aug 8	- 392	36	- 356	167	3	0	- 192	- 25	- 167
Aug 9-18	- 105	13	- 92	87	12	0	- 17	- 11	- 6
Aug 19-29	- 95	16	- 79	71	7	0	- 15	- 11	- 4
Aug 30 - Sep 8	- 42	12	- 30	18	0	0	- 12	- 10	- 2
Sep 9-18	- 16	7	- 9	0	0	0	- 9	- 9	0
Sep 19-28	- 15	9	- 6	0	0	0	- 6	- 6	0
Sep 29 - Oct 8	- 20	5	- 15	0	0	0	- 15	- 10	- 5
Oct 9-18	- 13	12	- 1	0	0	0	- 1	- 1	0
Oct 19-29	- 8	3	- 5	0	0	0	- 5	- 5	0
Total CFS Days	+ 1243	374	+ 1617	1320	118	0	+ 2819	+ 46	+ 2773
Total Acre-Feet	+ 2465	742	+ 3207	2618	234	0	+ 5591	+ 91	+ 5500

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COMPUTATION OF NATURAL FLOW OF LODGE CREEK AT INTERNATIONAL BOUNDARY

Quantities in CFS Days

	38	39	40	41	42	43	44
Period at International Boundary	Net Depletion in Canada	Minor Irrigation Diversions	Lodge Creek at International Boundary	Natural Flow of Lodge Creek	U.S.A. Share Natural Flow	Excess Flow to U.S.A.	Total Excess Flows to date
	6+9+12+15+18+28+37	Estimated	Observed	38+39+40	50% of 41	40-42	Σ Col. 43
Mar 1-10	0	0	4	4	2	+ 2	
Mar 11-20	0	0	47	47	24	+ 23	
Mar 21-31	+ 44	0	431	475	238	+ 193	
Apr 1-10	+ 1557	150	650	2357	1178	- 528	
Apr 11-20	+ 1510	150	764	2424	1212	- 448	
Apr 21-30	+ 328	30	792	1150	575	+ 217	
May 1-10	- 241	0	659	418	209	+ 450	
May 11-20	+ 353	30	639	1022	511	+ 128	
May 21-31	+ 1374	0	1129	2503	1252	- 123	
Jun 1-10	+ 49	0	472	521	260	+ 212	
Jun 11-20	- 38	0	59	21	10	+ 49	
Jun 21-30	0	0	32	32	16	+ 16	
Jul 1-10	- 51	0	27	(-24) 0	0	+ 27	
Jul 11-20	+ 9	0	3	12	6	- 3	
Jul 21-31	+ 4	0	0	4	2	- 2	
Aug 1-10	- 286	190	95	(- 1) 0	0	+ 95	
Aug 11-20	- 203	122	81	0	0	+ 81	
Aug 21-31	- 6	0	44	38	19	+ 25	
Sep 1-10	- 9	0	0	(- 9) 0	0	+ 0	
Sep 11-20	0	0	0	0	0	0	
Sep 21-30	- 110	110	0	0	0	0	
Oct 1-10	- 5	0	0	(- 5) 0	0	0	
Oct 11-20	0	0	0	0	0	0	
Oct 21-31	- 7	0	0	(- 7) 0	0	0	
Total CFS Days	+ 4272	782	5928	11028	5514	+ 414	
Total Acre-Feet	+ 8473	1551	11758	21874	10937	+ 821	

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TABLE NO. II

LODGE CREEK BASIN

HISTORICAL SUMMARY OF MARCH TO OCTOBER DIVISION OF NATURAL RUNOFF

ACRE FEET

Year	Computed Natural Runoff	Canadian and U.S.A. Shares	Recorded Runoff	Excess (+) or Deficit(-) delivery to the U. S. A.
1950	14,510	7,255	13,460	+ 6,205
1951	51,040	25,520	40,700	+ 15,180
1952	130,800	65,400	119,300	+ 53,900
1953	31,000	15,500	22,080	+ 6,580
1954	10,580	5,290	6,180	+ 890
1955	78,700	39,350	61,120	+ 21,770
1956	17,170	8,585	12,750	+ 4,165
1957	26,560	13,280	19,860	+ 6,580
1958	39,060	19,530	34,120	+ 14,590
1959	17,200	8,600	11,590	+ 2,990
1960	32,100	16,050	23,920	+ 7,870
1961	1,790	895	830	- 65
1962	20,780	10,390	15,280	+ 4,890
1963	11,560	5,780	6,080	+ 300
1964	7,940	3,970	4,160	+ 190
1965	77,350	38,675	55,180	+ 16,505
1966	35,860	17,930	24,470	+ 6,540
1967	73,270	36,635	59,390	+ 22,755
1968	3,980	1,990	2,150	+ 160
1969	29,930	14,965	16,920	+ 1,955
1970	23,560	11,780	13,080	+ 1,300
1971	21,320	10,660	10,600	- 60
1972	22,200	11,100	11,010	- 90
1973	1,690	845	865	+ 20
Totals	779,950	389,975	585,095	
Average 24 Years	32,498	16,249	24,379	

COMPUTATION OF NATURAL FLOW OF BATTLE CREEK AT INTERNATIONAL BOUNDARY

Quantities in CFS Days

	1		2	3	4	5		6	7	8	9	10
Period Reesor Lake	Reesor Lake Storage	Period Adams Lake	Adams Lake Storage	Total Storage Upper Battle Creek	Channel Loss to Inter-national Boundary	Net Depletion Upper Battle Creek	Period Gaff Ditch	Gaff Ditch	Return Flow	Gross Depletion Gaff Ditch	Channel Loss to Inter-national Boundary	Net Depletion Gaff Ditch
	Observed		Observed	1+2	Computed	3 – 4		Measured	Computed	6 – 7	Computed	8 – 9
									30%			
Feb. 23 - Mar 8	+ 2	Feb 24 - Mar 9	+ 2	+ 4	+ 4	0	Feb 25-Mar 10	0	0	0	0	0
Mar 9 - 19	+ 8	Mar 10 - 20	+ 2	+ 10	+ 10	0	Mar 11 - 21	0	0	0	0	0
Mar 20 - 29	+ 6	Mar 21 - 30	+ 3	+ 9	+ 9	0	Mar 22 - 31	0	0	0	0	0
Mar 30 - Apr 8	+ 34	Mar 31 - Apr 9	+ 284	+ 318	+ 60	+ 258	Apr 1 - 10	7	2	5	5	0
Apr 9 - 18	- 38	Apr 10 - 19	+ 5	- 33	- 33	0	Apr 11 - 20	87	26	61	40	21
Apr 19 - 28	- 37	Apr 20 - 29	+ 2	- 35	- 35	0	Apr 21 - 30	66	20	46	40	6
Apr 29 - May 8	+ 2	Apr 30 - May 9	+ 5	+ 7	+ 7	0	May 1 - 10	2	1	1	1	0
May 9 - 19	+ 10	May 10 - 20	- 8	+ 2	+ 2	0	May 11 - 21	2	1	1	1	0
May 20 - 29	+ 14	May 21 - 30	- 1	+ 13	+ 13	0	May 22 - 31	108	32	76	40	36
May 30 - Jun 8	- 23	May 31 - Jun 9	- 5	- 28	- 28	0	Jun 1 - 10	216	65	151	40	111
Jun 9 - 18	- 3	Jun 10 - 19	- 4	- 7	- 7	0	Jun 11 - 20	162	49	113	40	73
Jun 19 -28	+ 1	Jun 20 - 29	0	+ 1	+ 1	0	Jun 21 - 30	111	33	78	40	38
Jun 29 - Jul 8	- 3	Jun 30 - Jul 9	+ 26	+ 23	+ 23	0	Jul 1 - 10	2	1	1	1	0
Jul 9 - 19	+ 22	Jul 10 - 20	+ 2	+ 24	+ 24	0	Jul 11 - 21	1	0	1	1	0
Jul 20 - 29	+ 2	Jul 21 - 30	+ 1	+ 3	+ 3	0	Jul 22 - 31	1	0	1	1	0
Jul 30 - Aug 8	+ 3	Jul 31 - Aug 9	+ 1	+ 4	+ 4	0	Aug 1 - 10	1	0	1	1	0
Aug 9 - 19	+ 11	Aug 10 - 20	+ 17	+ 28	+ 28	0	Aug 11 - 21	2	1	1	1	0
Aug 20 - 29	- 4	Aug 21 - 30	- 5	- 9	- 9	0	Aug 22 - 31	3	1	2	2	0
Aug 30 - Sep 8	- 7	Aug 31 - Sep 9	- 7	- 14	- 14	0	Sep 1 - 10	3	1	2	2	0
Sep 9 - 18	- 7	Sep 10 - 19	- 8	- 15	- 15	0	Sep 11 - 20	3	1	2	2	0
Sep 19 - 28	+ 10	Sep 20 - 29	- 1	+ 9	+ 9	0	Sep 21 - 30	3	1	2	2	0
Sep 29 - Oct 8	+ 8	Sep 30 - Oct 9	- 5	+ 3	+ 3	0	Oct 1 - 10	3	1	2	2	0
Oct 9 - 19	+ 13	Oct 10 - 20	- 1	+ 12	+ 12	0	Oct 11 - 21	1	0	1	1	0
Oct 20 - 25	+ 4	Oct 21 - 26	- 3	+ 1	+ 1	0	Oct 22 - 27	1	0	1	1	0
Total CFS Days	+ 28		+ 302	+ 330	+ 72	+ 258		785	236	549	264	285
Total Acre-Feet	+ 56		+ 599	+ 655	+ 143	+ 512		1557	468	1089	524	565

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Table No. 12

COMPUTATION OF NATURAL FLOW OF BATTLE CREEK AT INTERNATIONAL BOUNDARY

Quantities in CFS Days

	11	12	13	14	15	16	17	18	19	20
Period Cypress Lake Area	West Inflow Canal	West Outflow Canal	West Inflow Canal Drain	Total Release from Cypress Lake	Net Diversion to Cypress Lake	Vidora Ditch	Return Flow	Gross Depletion Cypress Lake	Channel Loss to International Boundary	Net Depletion Cypress Lake
	Measured	Measured	Measured	12+13	11−14	Measured	Computed	15+16−17	Computed	18−19
							32%			
Feb 26 - Mar 11	0	0	0	0	+ 0	0	0	0	0	0
Mar 12 - 22	0	0	0	0	+ 0	0	0	0	0	0
Mar 23 - Apr 1	60	0	2	2	+ 58	0	0	+ 58	+ 30	+ 28
Apr 2 - 11	589	39	9	48	+ 541	0	0	+ 541	+ 30	+ 511
Apr 12 - 21	484	203	1	204	+ 280	0	0	+ 280	+ 30	+ 250
Apr 22 - May 1	350	56	0	56	+ 294	0	0	+ 294	+ 30	+ 264
May 2 - 11	179	379	3	382	- 203	0	0	- 203	- 30	- 173
May 12 - 22	327	154	2	156	+ 171	0	0	+ 171	+ 33	+ 138
May 23 - Jun 1	1150	143	1	144	+ 1006	0	0	+ 1006	+ 30	+ 976
Jun 2 - 11	183	404	0	404	- 221	115	0	- 106	- 30	- 76
Jun 12 - 21	9	1661	0	1661	- 1652	753	184	- 1083	- 30	- 1053
Jun 22 - Jul 1	6	603	1	604	- 598	297	189	- 490	- 30	- 460
Jul 2 - 11	14	6	0	6	+ 8	0	0	+ 8	+ 8	0
Jul 12 - 22	86	590	0	590	- 504	216	0	- 288	- 33	- 255
Jul 23 - Aug 1	3	1252	0	1252	- 1249	544	186	- 891	- 30	- 861
Aug 2 - 11	0	62	0	62	- 62	59	76	- 79	- 30	- 49
Aug 12 - 22	2	1	0	1	+ 1	0	0	+ 1	+ 1	0
Aug 23 - Sep 1	0	0	0	0	0	0	0	0	0	0
Sep 2 - 11	0	0	0	0	0	0	0	0	0	0
Sep 12 - 21	0	0	0	0	0	0	0	0	0	0
Sep 22 - Oct 1	0	0	0	0	0	0	0	0	0	0
Oct 2 - 11	0	0	0	0	0	0	0	0	0	0
Oct 12 - 22	0	0	0	0	0	0	0	0	0	0
Oct 23 - 28	0	0	0	0	0	0	0	0	0	0
Total CFS Days	3442	5553	19	5572	- 2130	1984	635	- 781	- 21	- 760
Total Acre-Feet	6827	11014	38	11052	- 4225	3935	1259	- 1549	- 42	- 1507

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Table No. 12

COMPUTATION OF NATURAL FLOW OF BATTLE CREEK AT INTERNATIONAL BOUNDARY

Quantities in CFS Days

	21	22	23	24	25	26		27	28	29	30	31
Period Consul Area	Richardson Ditch	McKinnon Ditch	Return Flow	Gross Depletion at Consul	Channel Loss to International Boundary	Net Depletion at Consul	Period at Nashlyn	Nashlyn Canal	Return Flow	Gross Depletion at Nashlyn	Channel Loss to International Boundary	Net Depletion at Nashlyn
	Measured	Measured	Computed	21+22-23	Computed	24 – 25		Measured	Computed	27 – 28	Computed	29 – 30
			32%						20%			
Feb 27 - Mar 12	0	0	0	0	0	0	Feb 28 - Mar 13	0	0	0	0	0
Mar 13 - 23	0	0	0	0	0	0	Mar 14 - 24	0	0	0	0	0
Mar 24 - Apr 2	0	0	0	0	0	0	Mar 25 - Apr 3	19	0	+ 19	+ 10	+ 9
Apr 3 - 12	0	0	0	0	0	0	Apr 4 - 13	159	29	+ 130	+ 10	+ 120
Apr 13 - 22	0	0	0	0	0	0	Apr 14 - 23	199	38	+ 161	+ 10	+ 151
Apr 23 - May 2	0	0	0	0	0	0	Apr 24 - May 3	216	45	+ 171	+ 10	+ 161
May 3 - 12	0	0	0	0	0	0	May 4 - 13	150	31	+ 119	+ 10	+ 109
May 13 - 23	1	0	0	+ 1	+ 1	0	May 14 - 24	28	12	+ 16	+ 11	+ 5
May 24 - Jun 2	1	0	0	+ 1	+ 1	0	May 25 - Jun 3	11	2	+ 9	+ 9	0
Jun 3 - 12	164	80	11	+ 233	+ 20	+ 213	Jun 4 - 13	105	14	+ 91	+ 10	+ 81
Jun 13 - 22	533	459	346	+ 646	+ 20	+ 626	Jun 14 - 23	58	19	+ 39	+ 10	+ 29
Jun 23 - Jul 2	24	76	71	+ 29	+ 20	+ 9	Jun 24 - Jul 3	0	0	0	0	0
Jul 3 - 12	0	0	0	0	0	0	Jul 4 - 13	0	0	0	0	0
Jul 13 - 23	257	122	65	+ 314	+ 22	+ 292	Jul 14 - 24	47	3	+ 44	+ 11	+ 33
Jul 24 - Aug 2	336	276	247	+ 365	+ 20	+ 345	Jul 25 - Aug 3	104	27	+ 77	+ 10	+ 67
Aug 3 - 12	1	0	5	- 4	- 4	0	Aug 4 - 13	0	0	0	0	0
Aug 13 - 23	0	0	0	0	0	0	Aug 14 - 24	0	0	0	0	0
Aug 24 - Sep 2	0	0	0	0	0	0	Aug 25 - Sep 3	0	0	0	0	0
Sep 3 - 12	0	0	0	0	0	0	Sep 4 - 13	0	0	0	0	0
Sep 13 - 22	0	0	0	0	0	0	Sep 14 - 23	0	0	0	0	0
Sep 23 - Oct 2	0	0	0	0	0	0	Sep 24 - Oct 3	0	0	0	0	0
Oct 3 - 12	0	0	0	0	0	0	Oct 4 - 13	0	0	0	0	0
Oct 13 - 23	0	0	0	0	0	0	Oct 14 - 24	0	0	0	0	0
Oct 24 - 29	0	0	0	0	0	0	Oct 25 - 30	0	0	0	0	0
Total CFS Days	1317	1013	745	+ 1585	+ 100	+ 1485		1096	220	+ 876	+ 111	+ 765
Total Acre-Feet	2612	2009	1478	+ 3143	+ 198	+ 2945		2174	436	+ 1738	+ 220	+1518

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COMPUTATION OF NATURAL FLOW OF BATTLE CREEK AT INTERNATIONAL BOUNDARY

Quantities in CFS Days

	32	33	34	35	36	37	38	39
Period at International Boundary	Net Depletion in Canada	Battle Creek at International Boundary	Apparent Natural Flow of Battle Creek	Adjustment for Minor Diversions	Natural Flow of Battle Creek	U.S.A. Share Natural Flow	Excess Flow to the U.S.A.	Total Excess Flows to Date
	5+10+20+26+31	Measured	32+33	% of 34	34+35	50% of 36	33−37	Σ Col. 38
Mar 1 - 14	0	34	+ 34	+ 4	+ 38	+ 19	+ 15	
Mar 15 - 25	0	58	+ 58	+ 7	+ 65	+ 32	+ 26	
Mar 26 - Apr 4	+ 37	1709	+ 1746	+ 204	+ 1950	+ 975	+ 734	
Apr 5 - 14	+ 889	481	+ 1370	+ 160	+ 1530	+ 765	- 284	
Apr 15 - 24	+ 422	47	+ 469	+ 55	+ 524	+ 262	- 215	
Apr 25 - May 4	+ 431	59	+ 490	+ 57	+ 547	+ 274	- 215	
May 5 - 14	- 64	408	+ 344	+ 40	+ 384	+ 192	+ 216	
May 15 - 25	+ 143	1174	+ 1317	+ 154	+ 1471	+ 736	+ 438	
May 26 - Jun 4	+ 1012	553	+ 1565	+ 183	+ 1748	+ 874	- 321	
Jun 5 - 14	+ 329	232	+ 561	+ 65	+ 626	+ 313	- 81	
Jun 15 - 24	- 325	211	-(114)0	0	0	0	+ 211	
Jun 25 - Jul 4	- 413	441	+ 28	+ 3	+ 31	+ 16	+ 425	
Jul 5 - 14	0	136	+ 136	+ 16	+ 152	+ 76	+ 60	
Jul 15 - 25	+ 70	58	+ 128	+ 15	+ 143	+ 72	- 14	
Jul 26 - Aug 4	- 449	140	-(309)0	0	0	0	+ 140	
Aug 5 - 14	- 49	172	+ 123	+ 14	+ 137	+ 68	+ 104	
Aug 15 - 25	0	80	+ 80	+ 9	+ 89	+ 44	+ 36	
Aug 26 - Sep 4	0	38	+ 38	+ 4	+ 42	+ 21	+ 17	
Sep 5 - 14	0	21	+ 21	+ 2	+ 23	+ 12	+ 9	
Sep 15 - 24	0	8	+ 8	+ 1	+ 9	+ 4	+ 4	
Sep 25 - Oct 4	0	9	+ 9	+ 1	+ 10	+ 5	+ 4	
Oct 5 - 14	0	31	+ 31	+ 4	+ 35	+ 18	+ 13	
Oct 15 - 25	0	73	+ 73	+ 9	+ 82	+ 41	+ 32	
Oct 26 - 31	0	54	+ 54	+ 6	+ 60	+ 30	+ 24	
Total CFS Days	+ 2033	6227	+ 8683	+ 1013	+ 9696	+ 4849	+ 1378	
Total Acre-Feet	+ 4033	12351	+ 17223	+ 2009	+ 19232	+ 9618	+ 2733	

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BATTLE CREEK BASIN

HISTORICAL SUMMARY OF MARCH TO OCTOBER DIVISION OF NATURAL RUNOFF

ACRE FEET

Year	Computed Natural Runoff	Canadian and U.S.A. Shares	Recorded Runoff	Excess (+) or Deficit(-) delivery to the U. S. A.
1940	36,510	18,255	26,020	+ 7,765
1941	25,360	12,680	16.910	+ 4,230
1942	22,300	11,150	10,940	- 210
1943	33,000	16,500	22,670	+ 6,170
1944	10,540	5,270	7,670	+ 2,400
1945	8,920	4,460	8,080	+ 3,620
1946	10,390	5,195	6,960	+ 1,765
1947	11,260	5,630	6,920	+ 1,290
1948	18,730	9,365	7,840	- 1,525
1949	1,340	670	1,750	+ 1,080
1950	19,290	9,645	10,320	+ 675
1951	29,110	14,550	16,570	+ 2,020
1952	112,240	56,120	103,600	+ 47,480
1953	37,760	18,880	28,180	+ 9,300
1954	33,180	16,590	25,550	+ 8,960
1955	89,730	44,865	95,360	+ 50,495
1956	25,610	12,805	20,180	+ 7,375
1957	27,490	13,745	18,640	+ 4,895
1958	27,800	13,900	20,300	+ 6,400
1959	18,120	9,060	11,900	+ 2,840
1960	27,990	13,995	15,690	+ 1,695
1961	5,650	2,825	4,460	+ 1,635
1962	7,370	3,685	4,870	+ 1,185
1963	8,040	4,020	4,700	+ 680
1964	10,620	5,310	5,410	+ 100
1965	54,610	27,310	27,520	+ 210
1966	37,180	18,590	20,150	+ 1,560
1967	65,230	32,615	54,860	+ 22,245
1968	16,290	8,145	10,390	+ 2,245
1969	28,740	14,370	17,520	+ 3,150
1970	31,030	15,515	18,300	+ 2,785
1971	19,280	9,640	12,500	+ 2,860
1972	22,250	11,125	13,950	+ 2,825
1973	9,570	4,785	5,000	+ 215
Totals	942,530	471,265	681,680	
Average 34 Years	27,721	13,861	20,049	

COMPUTATION OF NATURAL FLOW OF FRENCHMAN RIVER AT INTERNATIONAL BOUNDARY

Quantities in CFS Days

	1	2	3	4	5	6	7
Period Cypress Lake Area	Belanger Cr. Diversion to Cypress Lake	Cypress Lake East Outflow Canal	Net Diversion From Frenchman R.	Cypress Lake Natural Overflow	Gross Depletion at Cypress Lake	Channel Loss to International Boundary	Net Depletion at Cypress Lake
	Measured	Measured	1-2	Computed	3+4	Computed	5-6
Feb 20 - Mar 1	0	1	- 1	0	- 1	- 1	0
Mar 2-11	0	14	- 14	0	- 14	- 14	0
Mar 12-22	0	16	- 16	0	- 16	- 16	0
Mar 23 - Apr 1	0	16	- 16	0	- 16	- 16	0
Apr 2-11	640	4	+ 636	0	+ 636	+ 164	+ 472
Apr 12-21	590	63	+ 527	0	+ 527	+ 144	+ 383
Apr 22 - May 1	334	89	+ 245	0	+ 245	+ 93	+ 152
May 2-11	147	47	+ 100	0	+ 100	+ 72	+ 28
May 12-22	315	156	+ 159	0	+ 159	+ 94	+ 65
May 23 - Jun 1	1570	35	+ 1535	0	+ 1535	+ 502	+ 1033
Jun 2-11	247	21	+ 226	0	+ 226	+ 140	+ 86
Jun 12-21	0	14	- 14	0	- 14	- 14	0
Jun 22 - Jul 1	0	9	- 9	0	- 9	- 9	0
Jul 2-11	0	4	- 4	0	- 4	- 4	0
Jul 12-22	0	1	- 1	0	- 1	- 1	0
Jul 23 - Aug 1	0	621	- 621	0	- 621	- 329	- 292
Aug 2-11	0	19	- 19	0	- 19	- 19	0
Aug 12-22	0	32	- 32	0	- 32	- 32	0
Aug 23 - Sep 1	0	2	- 2	0	- 2	- 2	0
Sep 2-11	0	5	- 5	0	- 5	- 5	0
Sep 12-21	0	6	- 6	0	- 6	- 6	0
Sep 22 - Oct 1	0	7	- 7	0	- 7	- 7	0
Oct 2-11	0	12	- 12	0	- 12	- 12	0
Oct 12-22	0	19	- 19	0	- 19	- 19	0
Total CFS Days	3843	1213	+ 2630	0	+ 2630	+ 703	+ 1927
Total Acre-Feet	7623	2406	+ 5217	0	+ 5217	+ 1395	+ 3822

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COMPUTATION OF NATURAL FLOW OF FRENCHMAN RIVER AT INTERNATIONAL BOUNDARY

Quantities in CFS Days

	8	9	10	11	12	13	14	15
Period Eastend Area	Eastend Reservoir			Eastend Canal	Return Flow from Eastend Canal	Gross Depletion at Eastend	Channel Loss to International Boundary	Net Depletion at Eastend
	Stored + Released–	Evaporation	Corrected for Evaporation					
	Observed	Computed	8+9	Measured	Computed	10+11-12	Computed	13-14
Feb 22 - Mar 3	0	0	0	0	0	0	0	0
Mar 4-13	+ 1	0	+ 1	0	0	+ 1	+ 1	0
Mar 14-24	- 1	0	- 1	0	0	- 1	- 1	0
Mar 25 - Apr 3	+ 127	0	+ 127	0	0	+ 127	+ 58	+ 69
Apr 4-13	+ 837	7	+ 844	0	0	+ 844	+ 169	+ 675
Apr 14-23	+ 6	14	+ 20	0	0	+ 20	+ 20	0
Apr 24 - May 3	+ 33	16	+ 49	0	0	+ 49	+ 49	0
May 4-13	+ 59	25	+ 84	0	0	+ 84	+ 58	+ 26
May 14-24	- 38	17	- 21	0	0	- 21	- 21	0
May 25 - Jun 3	- 80	31	- 49	0	0	- 49	- 49	0
Jun 4-13	+ 82	32	+ 114	33	7	+ 140	+ 86	+ 54
Jun 14-23	- 313	39	- 274	430	86	+ 70	+ 58	+ 12
Jun 24 - Jul 3	- 440	27	- 413	586	117	+ 56	+ 52	+ 4
Jul 4-13	+ 156	20	+ 176	38	7	+ 207	+ 113	+ 94
Jul 14-24	- 3	28	+ 25	49	10	+ 64	+ 59	+ 5
Jul 25 - Aug 3	- 132	21	- 111	603	121	+ 371	+ 178	+ 193
Aug 4-13	- 29	11	- 18	154	31	+ 105	+ 72	+ 33
Aug 14-24	- 151	10	- 141	0	0	- 141	- 89	- 52
Aug 25 - Sep 3	- 99	5	- 94	0	0	- 94	- 68	- 26
Sep 4-13	- 4	3	- 1	0	0	- 1	- 1	0
Sep 14-23	- 4	5	+ 1	0	0	+ 1	+ 1	0
Sep 24-Oct 3	- 1	2	+ 1	0	0	+ 1	+ 1	0
Oct 4-13	- 8	2	- 6	0	0	- 6	- 6	0
Oct 14-24	+ 1	3	+ 4	0	0	+ 4	+ 4	0
Total CFS Days	- 1	318	+ 317	1893	379	+ 1831	+ 744	+ 1087
Total Acre-Feet	- 2	631	+ 629	3755	752	+ 3632	+ 1476	+ 2156

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COMPUTATION OF NATURAL FLOW OF FRENCHMAN RIVER AT INTERNATIONAL BOUNDARY

Quantities in CFS Days

Period Val Marie Area	16	17	18	19	20	21	22
	Val Marie West Reservoir			Val Marie Reservoir			Total change in reservoir contents
	Stored + Released—	Evaporation	Corrected for Evaporation	Stored + Released—	Evaportion	Corrected for Evaporation	
	Observed	Computed	16 + 17	Observed	Computed	19 + 20	18 + 21
Feb. 25	0	0	0	0	0	0	0
Feb 26 - Mar 7	+ 19	0	+ 19	+ 46	0	+ 46	+ 65
Mar 8-17	+ 194	0	+ 194	+ 96	0	+ 96	+ 290
Mar 18-28	+ 389	0	+ 389	+ 94	0	+ 94	+ 483
Mar 29 - Apr 7	+ 78	5	+ 83	+ 2891	9	+ 2900	+ 2983
Apr 8-17	- 108	31	- 77	+ 2009	82	+ 2091	+ 2014
Apr 18-27	+ 167	51	+ 218	+ 1069	155	+ 1224	+ 1442
Apr 28 - May 7	+ 84	31	+ 115	- 278	96	- 182	- 67
May 8-17	- 3	30	+ 27	- 653	88	- 565	- 538
May 18-28	- 145	29	- 116	+ 373	89	+ 462	+ 346
May 29 - Jun 7	+ 58	40	+ 98	- 1258	112	- 1146	- 1048
Jun 8-17	- 326	56	- 270	- 816	142	- 674	- 944
Jun 18-27	- 271	69	- 202	- 965	158	- 807	- 1009
Jun 28 - Jul 7	+ 20	49	+ 69	- 304	99	- 205	- 136
Jul 8-17	+ 90	58	+ 148	- 146	113	- 33	+ 115
Jul 18-28	- 488	55	- 433	- 709	107	- 602	- 1035
Jul 29 - Aug 7	- 380	36	- 344	- 685	71	- 614	- 958
Aug 8-17	+ 184	15	+ 199	+ 51	29	+ 80	+ 279
Aug 18-28	+ 299	27	+ 326	- 17	43	+ 26	+ 352
Aug 29 - Sep 7	+ 141	25	+ 166	- 61	36	- 25	+ 141
Sep 8-17	+ 15	26	+ 41	+ 3	36	+ 39	+ 80
Sep 18-27	- 63	27	- 36	+ 31	39	+ 70	+ 34
Sep 28 - Oct 7	- 40	21	- 19	- 188	29	- 159	- 178
Oct 8-17	+ 21	23	+ 44	+ 16	32	+ 48	+ 92
Oct 18-28	+ 34	9	+ 43	+ 20	12	+ 32	+ 75
Total CFS Days	- 31	713	+ 682	+ 619	1577	+ 2196	+ 2878
Total Acre-Feet	- 61	1414	+ 1353	+ 1228	3128	+ 4356	+ 5709

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Table No. 14

COMPUTATION OF NATURAL FLOW OF FRENCHMAN RIVER AT INTERNATIONAL BOUNDARY

Quantities in CFS Days

	23	24	25	26	27	28	29	30	31	32
Period Val Marie Area	West Gravity Canal	West Pumping Canal	Electric Pumps No. 1	Electric Pumps No. 2	Main Canal	Total Canal Diversion	Return Flow Val Marie Canals	Gross Depletion at Val Marie	Channel Loss to International Boundary	Net Depletion at Val Marie
	Measured	Measured	Measured		Measured	Σ 23 to 27	Computed	22 + 28 - 29	Computed	30 - 31
Feb 26 - Mar 7	0	0	0	0	0	0	0	+ 65	+ 22	+ 43
Mar 8-17	0	0	0	0	0	0	0	+ 290	+ 31	+ 259
Mar 18-28	0	0	0	0	0	0	0	+ 483	+ 40	+ 443
Mar 29- Apr 7	0	0	0	0	0	0	0	+ 2983	+ 198	+ 2785
Apr 8-17	0	0	0	0	0	0	0	+ 2014	+ 140	+ 1874
Apr 18-27	0	0	0	0	0	0	0	+ 1442	+ 105	+ 1337
Apr 28 - May 7	0	0	0	0	0	0	0	- 67	- 25	- 42
May 8-17	0	0	0	0	0	0	0	- 538	- 72	- 466
May 18-28	0	0	0	0	0	0	0	+ 346	+ 54	+ 292
May 29 - Jun 7	51	117	5	0	0	173	35	- 910	- 162	- 748
Jun 8-17	215	213	31	8	864	1331	266	+ 121	+ 36	+ 85
Jun 18-27	172	194	24	16	984	1390	278	+ 103	+ 33	+ 70
Jun 28 - Jul 7	64	7	16	0	247	334	67	+ 131	+ 38	+ 93
Jul 8-17	82	40	5	0	52	179	36	+ 258	+ 58	+ 200
Jul 18-28	257	268	29	12	827	1393	279	+ 79	+ 31	+ 48
Jul 29 - Aug 7	109	260	25	0	781	1175	235	- 18	- 18	0
Aug 8-17	7	80	25	0	100	212	42	+ 449	+ 89	+ 360
Aug 18-28	0	0	0	0	0	0	0	+ 352	+ 75	+ 277
Aug 29 - Sep 7	0	0	0	0	0	0	0	+ 141	+ 32	+ 109
Sep 8-17	0	0	0	0	0	0	0	+ 80	+ 26	+ 54
Sep 18-27	0	0	0	0	0	0	0	+ 34	+ 21	+ 13
Sep 28 - Oct 7	0	4	0	0	0	4	0	- 174	- 29	- 145
Oct 8-17	0	0	0	0	0	0	0	+ 92	+ 24	+ 68
Oct 18-28	0	0	0	0	0	0	0	+ 75	+ 25	+ 50
Total CFS Days	957	1183	160	36	3855	6191	1238	+ 7831	+ 772	+ 7059
Total Acre-Feet	1898	2347	317	72	7646	12280	2456	+ 15533	+ 1531	+ 14002

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COMPUTATION OF NATURAL FLOW OF FRENCHMAN RIVER AT INTERNATIONAL BOUNDARY

Quantities in CFS Days

	33	34	35	36	37	38	39	40
Period at International Boundary	Net Depletion in Canada	Frenchman River at International Boundary	Apparent Natural Flow of Frenchman River	Adjustment for Minor Diversions	Natural Flow of Frenchman River	U.S.A. Share Natural Flow	Excess Flow to the U.S.A.	Total Excess Flows to Date
	7 + 15 + 32	Measured	33 + 34	% of 35	35 + 36	50% of 37	34 - 38	Σ Col. 39.
Mar 1-10	+ 43	337	380	15	395	198	+ 139	
Mar 11-20	+ 259	877	1136	44	1180	590	+ 287	
Mar 21-31	+ 443	1837	2280	88	2368	1184	+ 653	
Apr 1-10	+ 2854	9376	12230	470	12700	6350	+ 3026	
Apr 11-20	+ 3021	2514	5535	212	5747	2874	- 360	
Apr 21-30	+ 1720	877	2597	100	2697	1348	- 471	
May 1-10	+ 110	1639	1749	67	1816	908	+ 731	
May 11-20	- 412	1327	915	35	950	475	+ 852	
May 21-31	+ 357	6951	7308	280	7588	3794	+ 3157	
Jun 1-10	+ 285	2320	2605	100	2705	1352	+ 968	
Jun 11-20	+ 225	559	784	30	814	407	+ 152	
Jun 21-30	+ 82	557	639	24	663	332	+ 225	
Jul 1-10	+ 97	301	398	15	413	206	+ 95	
Jul 11-20	+ 294	43	337	13	350	175	- 132	
Jul 21-31	+ 53	248	301	11	312	156	+ 92	
Aug 1-10	- 99	338	239	9	248	124	+ 214	
Aug 11-20	+ 393	509	902	35	937	468	+ 41	
Aug 21-31	+ 225	36	261	10	271	136	- 100	
Sep 1-10	+ 83	0	83	3	86	43	- 43	
Sep 11-20	+ 54	0	54	2	56	28	- 28	
Sep 21-30	+ 13	0	13	0	13	6	- 6	
Oct 1-10	- 145	201	56	2	58	29	+ 172	
Oct 11-20	+ 68	7	75	3	78	39	- 32	
Oct 21-31	+ 50	52	102	4	106	53	- 1	
Total CFS Days	+ 10073	30906	40979	1572	42551	21275	+ 9631	
Total Acre-Feet	+ 19980	61302	81282	3118	84400	42199	+ 19103	

Computed by	W. R. Klassen	Date	Jan. 22/75	Approved	For Canada	D. A. Davies	Page 5
Checked by	F. M. O'Neill	Date	Jan. 29/75		For U.S.A.	George Dibb	Year 1974

Table No. 14

TABLE NO.15

FRENCHMAN RIVER BASIN

HISTORICAL SUMMARY OF MARCH TO OCTOBER DIVISION OF NATURAL RUNOFF

ACRE FEET

Year	Computed Natural Runoff	Canadian and U.S.A. Shares	Recorded Runoff	Excess (+) or Deficit(-) delivery to the U. S. A.
1940	82,230	41,115	68,190	+ 27,075
1941	57,650	28,825	46,660	+ 17,835
1942	58,520	29,260	42,330	+ 13,070
1943	133,530	66,765	119,200	+ 52,435
1944	56,450	28,225	40,990	+ 12,765
1945	34,560	17,280	23,060	+ 5,780
1946	32,260	16,130	21,460	+ 5,330
1947	52,770	26,385	35,010	+ 8,625
1948	39,690	19,845	25,130	+ 5,285
1949	14,340	7,170	6,490	- 680
1950	75,620	37,810	59,660	+ 21,850
1951	111,460	55,730	89,890	+ 34,160
1952	360,960	180,480	351,460	+ 170,980
1953	74,870	37,435	58,360	+ 20,925
1954	88,950	44,475	74,980	+ 30,505
1955	186,690	93,345	170,490	+ 77,145
1956	48,360	24,180	34,010	+ 9,830
1957	38,950	19,475	26,520	+ 7,045
1958	64,360	32,180	52,110	+ 19,930
1959	51,910	25,955	33,420	+ 7,465
1960	75,410	37,705	61,160	+ 23,455
1961	18,700	9,350	9,310	- 40
1962	63,310	31,655	39,110	+ 7,455
1963	46,800	23,400	33,880	+ 10,480
1964	20,320	10,160	10,780	+ 620
1965	107,140	53,570	77,070	+ 23,500
1966	73,930	36,965	53,890	+ 16,925
1967	106,110	53,055	87,750	+ 34,695
1968	40,320	20,160	21,950	+ 1,790
1969	79,390	39,695	57,980	+ 18,285
1970	108,130	54,065	83,070	+ 29,005
1971	46,320	23,160	31,910	+ 8,750
1972	37,220	18,610	20,260	+ 1,650
1973	22,270	11,135	11,930	+ 795
Totals	2,509,500	1,254,750	1,979,470	
Average 34 Years	73,809	36,904	58,220	

EASTERN TRIBUTARIES OF MILK RIVER

HISTORICAL SUMMARY OF MARCH TO OCTOBER RUNOFF

ACRE FEET

Date	Lodge	McRae	Battle	Woodpile	East Fork Battle	Lyons	White-water	French-man	Rock	Horse	McEachern	Total Ac-Ft.
1927	82,170	3,900	97,850	8,860	6,860	10,220	14,090	200,000	25,810	10,090	28,900	488,750
1928	38,960	1,150	48,880	2,450	3,660	2,950	14,720	107,500	14,740	5,390	13,040	253,440
1929	16,840	0	23,710	148	524	239	250	34,230	2,080	373	991	79,385
1930	16,330	1,830	31,410	3,560	4,860	4,190	2,540	75,830	12,140	3,890	9,050	165,630
1931	490	86	2,450	3	133	0	372	11,540	1,140	141	358	16,713
1932	9,910	41	11,760	203	741	114	290	43,360	3,550	712	1,280	71,961
1933	12,630	14	14,450	92	26	0	149	32,770	5,460	1,050	2,880	69,521
1934	12,500	605	12,110	1,150	641	636	263	20,140	8,300	2,800	3,670	62,815
1935	16,700	945	20,020	3,240	1,810	1,850	668	38,950	5,170	1,080	1,080	91,513
1936	12,440	1,120	15,210	3,080	2,760	1,570	1,160	40,570	5,550	2,110	3,020	88,590
1937	15,640	821	4,910	1,560	1,270	768	179	5,120	2,820	367	357	33,812
1938	22,170	901	9,360	2,430	1,530	1,620	1,110	30,030	13,130	3,900	7,330	93,511
1939	28,930	1,140	12,080	4,260	4,410	2,540	8,060	105,500	25,710	10,030	23,620	226,280
1940	44,620	2,680	26,020	5,080	4,290	3,330	3,110	68,180	6,090	1,720	7,340	172,460
1941	17,490	1,880	16,910	4,930	3,350	2,270	1,950	46,660	9,450	2,510	3,340	110,740
1942	10,360	167	10,940	1,620	2,820	1,210	288	42,340	8,690	2,140	3,970	84,545
1943	36,110	4,420	22,670	8,350	2,960	1,510	9,250	119,200	26,630	8,420	18,910	258,430
1944	2,680	764	7,670	2,580	851	250	908	40,980	6,820	1,490	2,930	67,923
1945	7,930	528	8,080	1,720	403	90	74	23,060	8,880	1,980	1,360	54,105
1946	9,350	356	6,960	1,400	1,450	1,140	480	21,460	5,090	1,350	3,080	52,116
1947	19,290	1,460	6,920	2,620	622	715	730	35,010	15,750	4,400	7,640	95,157
1948	19,100	0	7,840	0	0	0	72	25,140	10,620	2,320	3,840	68,932
1949	354	0	1,750	0	0	0	75	6,480	3,430	725	813	13,627
1950	11,680	1,780	10,320	3,150	4,380	4,090	9,090	59,660	19,540	5,270	12,930	141,890
1951	39,530	1,170	16,570	1,290	1,680	1,220	1,860	59,890	17,450	3,980	11,710	186,350
1952	119,300	Included	103,600	9,810	12,220	11,670	41,050	351,400	33,550	11,520	32,890	727,010
1953	22,080	in	28,180	2	175	0	1,060	58,360	10,500	2,680	6,300	129,337
1954	6,180	Lodge	25,550	801	3,780	1,990	4,450	74,970	22,720	4,870	13,080	158,391
1955	61,120	Creek	95,360	7,250	11,510	10,060	6,480	170,500	19,600	5,330	11,040	398,250
1956	12,750	From	20,180	259	300	264	125	34,000	8,880	1,100	1,740	79,598
1957	19,860	1952	18,650	1,270	966	1,000	133	26,520	3,490	327	51	72,267
1958	34,120		20,220	3,150	2,470	1,860	2,350	52,120	7,090	1,990	4,550	129,920
1959	11,590		11,890	1,880	1,330	855	2,170	33,430	5,430	1,500	3,610	73,685

EASTERN TRIBUTARIES OF MILK RIVER

HISTORICAL SUMMARY OF MARCH TO OCTOBER RUNOFF

ACRE FEET

Date	Lodge	McRae	Battle	Woodpile	East Fork Battle	Lyons	White-water	French-man	Rock	Horse	McEachern	Total Ac-Ft.
1960	23,920		15,690	2,590	4,530	2,680	4,010	61,170	15,570	4,940	10,470	145,570
1961	833		4,530	427	411	725	4,300	9,310	1,690	51	2	22,279
1962	15,270	Included	4,870	733	1,720	1,200	8,010	39,100	12,550	Included	5,460	88,913
1963	6,090	in	4,610	9	261	41	222	33,880	16,560	in	5,040	66,713
1964	4,151	Lodge	5,412	0	0	0	63	10,781	2,443	Rock	5	22,855
1965	55,175	Creek	27,529	3,105	1,934	2,249	414	77,066	14,742	Creek	9,237	191,451
1966	24,471	since	20,130	1,031	2,021	977	4,319	53,906	8,830	since	2,632	118,317
1967	59,393	1952	54,738	3,903	4,920	4,799	4,716	87,260	29,057	1962	15,400	264,185
1968	2,146		10,192	0	0	0	71	21,939	15,164		2,749	52,261
1969	16,921		17,515	3,240	3,405	2,395	984	57,962	31,872		17,123	151,417
1970	13,087		18,295	0	0	0	668	83,120	23,180		9,506	147,856
1971	10,601		12,509	81	31	3	316	31,913	9,358		3,722	68,534
1972	11,015		13,953	940	233	34	346	20,263	15,429		4,645	66,858
1973	864		4,996	0	0	0	152	11,932	5,419		1,032	24,395
										47 Year Average----		132,942

TABLE NO. 16

DEPARTMENT OF THE ENVIRONMENT - INLAND WATERS BRANCH - WATER SURVEY OF CANADA

REGINA, SASKATCHEWAN

MAJOR RESERVOIRS IN LODGE, BATTLE & FRENCHMAN BASINS

MONTH END CONTENTS IN ACRE FEET

1974

* Above Full Supply Level

	MIDDLE CREEK	ALTAWAN	CYPRESS LAKE	EASTEND	VALMARIE WEST	VALMARIE
F.S.L.	13,100	5,830	104,000	1,950	3,540	9,340
MARCH	2,330	310	50,800	206	3,500	3,560
APRIL	3,640	4,590	57,300	2,040*	3,840*	13,960*
MAY	4,330	5,910*	65,100	2,240*	3,770*	11,490*
JUNE	3,930	4,750	59,800	875	2,550	6,130
JULY	3,220	3,900	53,100	825	1,540	3,730
AUGUST	2,150	2,780	51,600	242	2,130	2,780
SEPTEMBER	1,910	2,660	50,200	189	2,170	2,710
OCTOBER	1,720	2,590	49,300	173	2,270	2,480

Table No. 17

APPENDIX B TO THE
REPORT TO
THE INTERNATIONAL JOINT COMMISSION

ON

THE DIVISION OF THE WATERS OF THE ST. MARY AND MILK RIVERS 1974

BY

E. F. DURRANT
representing Canada

AND

J. S. CRAGWALL, JR.
representing United States

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05020500 SUMMARY FOR JAN - SEPT 1974 TOTAL: 274091.00, MAX: 6370.00, MIN: 124.00

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
TABLE PRINTED 1-11-75

1973-74 ST MARY RIVER AT INTERNATIONAL BOUNDARY NUMBER 05020500
DRAINAGE AREA 469.000 SQ MI

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	230	168	319	b 144	b 383	b 166	292	1,520	1,470	3,040	932	598
2	230	178	303	150	374	166	236	1,410	1,370	3,070	898	568
3	227	185	294	139	387	150	225	1,300	1,570	3,000	851	539
4	223	b 181	276	144	379	137	236	1,250	1,910	2,810	884	522
5	203	b 178	b 275	142	332	150	256	1,250	2,120	2,640	893	509
6	200	b 175	b 271	134	319	134	307	1,320	2,210	2,490	884	487
7	200	b 166	256	124	307	134	287	1,460	2,260	2,360	884	458
8	194	b 169	245	134	287	132	223	1,640	2,230	2,240	877	435
9	172	b 169	b 241	127	299	137	188	1,770	1,980	2,110	858	425
10	178	b 178	234	127	283	150	239	1,830	1,780	2,040	806	430
11	191	b 213	213	124	275	161	255	1,800	1,730	2,040	810	443
12	200	258	207	124	245	142	281	1,690	2,040	2,020	766	443
13	206	352	199	129	237	147	274	1,540	2,550	1,930	734	469
14	220	443	b 191	132	217	134	260	1,310	3,200	1,810	767	471
15	213	527	b 188	175	220	127	270	1,120	4,010	1,730	793	466
16	203	598	191	213	206	139	248	969	4,870	1,700	761	449
17	194	607	181	267	197	147	277	823	5,490	1,680	726	453
18	172	601	181	340	175	172	313	788	6,200	1,660	693	462
19	166	581	b 175	400	178	169	348	704	6,370	1,660	676	471
20	158	571	b 175	443	181	184	352	603	5,870	1,680	698	488
21	155	532	182	513	166	184	344	542	5,000	1,720	716	627
22	150	479	160	558	175	206	365	554	4,320	1,730	703	652
23	150	461	170	646	169	210	415	629	3,960	1,670	689	751
24	152	450	b 175	589	164	220	498	710	3,810	1,590	678	1,100
25	155	422	b 184	547	178	256	601	959	3,810	1,480	658	891
26	155	400	b 178	502	152	241	711	1,210	3,910	1,330	645	667
27	158	398	b 166	459	150	b 178	764	1,630	4,120	1,200	639	546
28	161	359	b 161	434	b 150	285	995	1,910	4,120	1,110	633	449
29	166	352	b 158	405	------	327	1,190	2,120	3,860	1,050	627	387
30	172	327	b 155	429	------	330	1,400	2,090	3,370	1,010	627	342
31	166	------	b 152	b 400	------	357	------	1,750	------	960	615	------
TOTAL	5,700	10,678	6,456	9,194	6,785	5,772	12,650	40,201	101,510	58,560	23,421	15,998
MEAN	184	356	208	297	242	186	422	1,297	3,384	1,889	756	533
MAX	230	607	319	646	387	357	1,400	2,120	6,370	3,070	932	1,100
MIN	150	166	152	124	150	127	188	542	1,370	960	615	342
AC-FT	11,310	21,180	12,810	18,240	13,460	11,450	25,090	79,740	201,300	116,200	46,460	31,730

WTR YR 1974 TOTAL 296,925 MEAN 813 MAX 6,370 MIN 124 AC-FT 589,000
CAL YR 1973 TOTAL 158,936 MEAN 435 MAX 2,490 MIN 91 AC-FT 315,200

Max. Disch. 6,620 cfs at 1100 MDT on June 19 (G.H. 8.59 ft). Max. G.H. Same ft at ____ on ____
daily Min./Disch. 124 cfs on Jan. 7, 11, 12 (G.H. -- ft). Min. G.H. ____ ft on ____

Rating No. 11 used Oct. 1 to June 4; No. 13 used June 5 to Sept. 30. b - Stage-discharge relation affected by ice.

Approved George Ellis
District Chief U.S.G.S.
R.D. Mayo
Dist. Engr. WS of Canada

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
TABLE PRINTED 1-23-75
ST MARY RIVER AT INTERNATIONAL BOUNDARY NUMBER 05020500
DRAINAGE AREA 469.000 SQ MI

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	317											
2	285											
3	272											
4	250											
5	241											
6	236											
7	230											
8	216											
9	205											
10	196											
11	185											
12	179											
13	169											
14	166											
15	165											
16	163											
17	151											
18	146											
19	140											
20	135											
21	133											
22	133											
23	131											
24	125											
25	124											
26	120											
27	119											
28	119											
29	116				------							
30	114				------							
31	115	------			------		------		------			------
TOTAL	5,396											
MEAN	174											
MAX	317											
MIN	114											
AC-FT	10,700											

Approved
Dist. Engr. WS of Canada
R.S. May
District Chief U.S.G.S.

9-21311
H-Res-4

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

File 3

RESERVOIR DATA

05 0155 00 Lake Sherburne at Sherburne, Mt. Water Year Ending Sept. 30, 1974

	Contents			Change-In-Contents	
	† Elev. ~~Gage~~	Acre-Feet ~~Second-Foot~~	Used Acre-Feet	Month	Change Acre-feet
Sept. 30, 1973	4,740.15	8,454	8,450		
				October	+ 3,520
Oct. 31	44.59	11,972	11,970		
				November	+ 11,100
Nov. 30	56.43	23,072	23,070		
				December	+ 4,000
Dec. 31, 1973	60.15	27,065	27,070		
	Dec. 31, 1972	9,770		1973 Calendar Year	+ 17,300
				January	+ 8,310
Jan. 31, 1974	67.37	35,382	35,380		
				February	+ 3,070
Feb. 28 ~~xxxxxx~~	69.81	38,454	38,450		
				March	+1,400
Mar. 31	70.88	39,845	39,850		
				April	-+20,270
Apr. 30	52.98	19,583	19,580		
				May	+ 11,350
May 31	63.57	30,927	30,930		
				June	+ 34,450
June 30	87.52	65,384	65,380		
				July	- 880
July 31	87.00	64,499	64,500		
				August	-27,790
Aug. 31	68.42	36,705	36,710		
				September	- 28,800
Sept. 30, 1974	39.43	7,914	7,910		
				1974 Water Year	- 540

† Elevation at 2400 hours.

Maximum contents, 66,460 acre-ft at 2100 July 2 (elevation, 4,788.15 ft).
Minimum contents, 7,030 acre-ft at 1330 Sept. 30 (elevation, 4,738.23 ft).
a - interpolated
b - First day of following month

Approved George Pike
District Chief U.S.G.S.
R. D. Mary
Dist. Engr. WS of Canada

Sheet No. ___ of ___ Sheets. Prepared by CDG Date 1-9-75 Checked by WAB Date 1-15-75

U.S. GOVERNMENT PRINTING OFFICE: 1954 O-304478

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

RESERVOIR DATA

05 0155 00 Lake Sherburne at Sherburne, Mt. Water Year Ending Sept. 30, 1975

	Contents			Change-In-Contents	
	† Elev. xxxx	Acre-Feet xxxxxxxxxx	Used Acre-Feet	Month	Change Acre-Feet
Sept. 30, 1974	4,739.43	7,914	7,910		
				October	+ 2,270
Oct. 31	42.36	10,175	10,180		
				November	
Nov. 30					
				December	
Dec. 31, 19					
Dec. 31, 19				19 Calendar Year	
				January	
Jan. 31, 19					
				February	
Feb. 28 or 29					
				March	
Mar. 31					
				April	
Apr. 30					
				May	
May 31					
				June	
June 30					
				July	
July 31					
				August	
Aug. 31					
				September	
Sept. 30, 19					
				19 Water Year	

† Elevation at 2400

a - interpolated
b - First day of following month

Approved [signature]
District Chief U.S.G.S.
R. D. Mary
Dist. Engr. WS of Canada

Sheet No. ..... of ..... Sheets. Prepared by CDG ..... Date 109-75 Checked by ..... WAB ..... Date 1-15-75

U.S. GOVERNMENT PRINTING OFFICE 1954 O-304478

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
TABLE PRINTED 1-11-75

1973-74 SWIFTCURRENT CREEK AT SHERBURNE, MONT. NUMBER 05016000
DRAINAGE AREA 64.300 SQ MI

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0					a 1.8	84	710	1.3	545	378	694
2	0					a 1.8	84	669	1.8	739	378	687
3	0					a 1.7	109	666	2.2	787	489	702
4	0					a 1.7	128	662	2.2	746	569	711
5	0					a 1.5	128	659	51	687	567	701
6	0					a 1.0	130	677	80	622	565	692
7	0					a 1.0	153	690	80	596	563	683
8	0					a 1.0	203	694	81	595	560	675
9	52					h 1.6	322	698	81	565	558	665
10	85					a 3.0	439	680	83	548	557	654
11	82					a 3.0	553	648	83	558	557	646
12	81				† 2.3	a 2.5	605	599	83	589	554	702
13	80					h 1.1	601	403	263	551	641	730
14	79					a 1.0	639	306	732	548	707	716
15	38		† .10			a 1.0	668	288	1.100	549	701	703
16	.58					a 1.5	659	190	1.190	551	697	724
17	.39					a 2.0	652	139	1.480	551	694	771
18	.21					49	647	141	1.660	551	689	778
19	.27					a 88	641	141	1.400	552	733	757
20	.26					a 88	636	206	573	553	765	807
21	.27					a 88	630	246	253	554	763	876
22	.27					h 88	646	115	192	554	758	835
23	.28					a 87	668	1.7	194	555	752	964
24	.28					a 87	693	1.9	196	555	746	456
25	.24					a 86	723	2.4	198	443	740	.1
26	.22				†1.8	a 86	758	3.4	465	378	734	.1
27	.22					h 85	810	3.1	978	379	727	.1
28	.22					83	832	2.4	1.010	379	721	0
29	.25				------	83	819	1.9	841	380	714	0
30	.25				------	83	786	1.5	450	380	707	0
31	.23	------			------	84	------	1.3	------	379	701	------
TOTAL	498.84					1,193.2	15,446	10,246.6	13,804.5	16,919	19,985	17,329.3
MEAN	16.1					38.5	515	331	460	546	645	578
MAX	85					88	832	710	1,660	787	765	964
MIN	0					1.0	84	1.3	1.3	378	378	0
AC-FT	989					2,370	30,640	20,320	27,380	33,560	39,640	34,370

Max. Disch. 1,720 cfs at 1830 on June 17 (G.H. 7.13 ft). Max. G.H. Same ft at ____ on ____
Min. Disch. no flow cfs on Oct. 1-8 (G.H. -- ft). Min. G.H. ____ ft on ____

Rating No. 16 (Exp). entire year. a - No gage-height record. h - Discharge computed from staff gage readings.
† Result of discharge measurement. See 9-220 for adjusted figures.

Approved
District Chief U.S.G.S.
R.D. May
Dist. Engr. WS of Canada

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UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
TABLE PRINTED 1-11-75
SWIFTCURRENT CREEK AT SHERBURNE, MONT. NUMBER 05016000
DRAINAGE AREA 64.300 SQ MI

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.02										
2	.03											
3	.01											
4	.02											
5	.03											
6	.02											
7	.01											
8	0											
9	0											
10	0											
11	0											
12	0											
13	0											
14	.01											
15	0											
16	0											
17	0											
18	0											
19	0											
20	0											
21	.02											
22	.02											
23	.01											
24	.01											
25	.01											
26	.01											
27	.01											
28	.02											
29	.02				------							
30	.03				------							
31	.02	------			------		------		------			------
TOTAL	.34											
MEAN	.011											
MAX	.03											
MIN	0											
AC-FT	.7											

Approved George Dick
District Chief U.S.G.S.
R.D. May
Dist. Engr. WS of Canada

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY WATER RESOURCES DIVISION

Monthly discharge of 05 0160 00 Swiftcurrent Creek at Sherburne, Mt.

_____, for the year ending Sept. 30, 1974

Drainage area, 64.3 square miles

Month	Second-foot days	Observed				Change in contents in † Lake Sherburne (acre-feet)	Adjusted for change in reservoir contents				
		Discharge in second-feet			Runoff in acre-feet		Runoff in acre-feet	Discharge in second-feet			Runoff in inches
		Max	Min	Mean				Second-foot days	Mean	Per square mile	
October	498.84	85	0	16.1	989	+ 3,583	4,572	2,305	74.4	1.16	1.33
November											
December											
Cal. Year											
January											
February											
March	1,193.2	88	1.0	38.5	2,367	+1,391	3,758	1,895	61.1	.95	1.10
April	15,446	832	84	515	30,637	- 20,260	10,377	5,232	174	2.71	3.03
May	10,246.6	710	1.3	331	20,324	+ 11,540	31,864	16,065	518	8.06	9.29
June	13,804.5	1,660	1.3	460	27,381	+ 35,076	62,457	31,488	1,050	16.3	18.22
July	16,919	787	378	546	33,559	- 185	33,374	16,826	543	8.44	9.73
August	19,985	765	378	645	39,640	- 27,534	12,106	6,103	197	3.06	3.53
September	17,329.3	964	0	578	34,373	- 28,660	5,713	2,880	96.0	1.49	1.67
Water Year											

† Adjusted for evaporation.

Approved _____
District Chief, U.S.G.S.
R.D.N.
Div. Engr., U.S.G.S.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY WATER RESOURCES DIVISION

Monthly discharge of 05 0160 00 Swiftcurrent Creek at Sherburne, Mt.

_____, for the year ending Sept. 30, 19 75

Drainage area, 64.3 square miles

Month	Second-foot days	Observed				Change in contents in †Lake Sherburne (acre-feet)	Adjusted for change in reservoir contents				
		Discharge in second-feet			Runoff in acre-feet		Runoff in acre-feet	Discharge in second-feet			Runoff in inches
		Max	Min	Mean				Second-foot days	Mean	Per square mile	
October	0.34	0.03	0	0.011	0.7	+ 2,338	2,339	1,179	38.0	0.59	0.68
November											
December											
Cal. Year											
January											
February											
March											
April											
May											
June											
July											
August											
September											
Water Year											

† Adjusted for evaporation.

Approved [signature]
District Chief U.S.G.S.
R. D. May
Dist. Eng. U.S. of Engineers

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WATER SURVEY OF CANADA
JAN 23 1975 PAGE 38
CALGARY, ALTA.

ST. MARY CANAL AT ST. MARY CROSSING

STATION NO. 05AE029

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR		APR		MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	B	33.5	B	682	603	683	652	636	0			1
2			0	B	94.8	B	672	608	689	651	635	0			2
3			0	B	82.8	B	691	609	698	649	634	0			3
4			0	B	78.3		698	618	697	650	632	0			4
5			0	B	77.2		700	624	694	651	631	0			5
6			0	B	78.3		702	629	691	649	630	0			6
7			0	B	92.1		708	636	688	650	629	0			7
8			0	B	171		709	634	691	650	628	0			8
9			0	B	223		714	624	697	648	627	0			9
10			0	B	252		716	617	695	646	629	0			10
11			0	B	329		715	582	695	647	629	0			11
12			0	B	415		713	465	692	643	629	0			12
13			0	B	490		709	365	688	642	631	0			13
14			0	B	536		700	366	685	643	632	0			14
15			0	B	581		694	373	681	645	632	0			15
16			0	B	639		694	380	680	645	632	0			16
17			8.6	B	644		697	383	685	643	630	0			17
18			5.7	B	648		695	412	695	643	630	0			18
19			2.6	B	659		690	507	694	643	630	0			19
20			1.8	B	674		686	611	694	645	612	0			20
21			1.5	B	675		686	650	696	646	519	0			21
22			.65	B	677		658	642	697	647	513	0			22
23			0	B	681		519	633	696	646	434	0			23
24			0	B	684		357	640	694	644	173	0			24
25			0	B	690		130	676	690	642	46.9	0			25
26			.31	B	695		22.3	697	687	641	9.2	0			26
27			64.0	B	700		17.7	700	683	641	.71	0			27
28			82.8	B	706		18.5	702	681	641	.15	0			28
29			86.3	B	707		18.8	698	671	641	.07	0			29
30			14.2	B	701		98.6	692	655	641	0	0			30
31			1.7	B			414		652	639		0			31
TOTAL			270.16		13714.0		16924.9	17376	21314	20004	14294.03	0			TOTAL
MEAN			8.7		457		546	579	688	645	476	0			MEAN
AC-FT			536		27200		33600	34500	42300	39700	28400	0			AC-FT
MAX			86.3		707		716	702	698	652	636	0			MAX
MIN			0		33.5		17.7	365	652	639	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 424 CFS
TOTAL DISCHARGE, 206000 AC-FT
MAXIMUM DAILY DISCHARGE, 716 CFS ON MAY 10
MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE, CFS AT ON

APPROVED: George Leslie
District Chief U.S.G.S.

R.D. May
Dist. Engr. WS of Canada

B-ICE CONDITIONS

WATER SURVEY OF CANADA
JAN 23 1975 PAGE 24
CALGARY, ALTA.

MILK RIVER AT WESTERN CROSSING OF INTERNATIONAL BOUNDARY

STATION NO. 11AA025

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			22.0 B	229 B	769	184	53.7	13.1	12.1	12.2	17.4		1
2			26.0 B	208	557	153	51.3	12.1	14.4	15.3	17.6		2
3			23.0 B	174	348	131	53.3	11.5	16.4	16.1	17.0		3
4			21.4 B	143	251	128	54.6	10.9	18.6	15.7	17.1		4
5			18.2 B	131	228	131	50.7	10.9	16.9	15.4	15.8		5
6			13.4 B	132	248	143	49.7	10.3	14.4	14.1	17.2 A		6
7			13.4 B	183	292	140	55.2	9.9	12.8	15.2			7
8			14.7 B	293	315	163	60.1	12.6	11.2	14.9			8
9			16.9 B	245	307	231	66.5	15.8	10.7	16.5			9
10			18.2 B	233	273	172	64.2	15.9	11.5	18.2			10
11			25.0 B	245	216	138	65.4	22.8	11.7	18.6			11
12			35.9 B	287	184	122	67.4	24.6	12.1	17.5			12
13			49.8 B	215	169	111	73.4	39.1	14.7	17.1			13
14			48.2 B	195	161	108	52.7	47.3	20.5	15.8			14
15			46.6 B	187	150	108	46.1	47.2	18.5	15.0			15
16			48.2 B	212	142	108	36.6	39.8	15.7	14.0			16
17			64.6 B	244	154	106	32.7	37.1	13.2	15.3			17
18			94.2 B	232	244	108	30.3	30.9	11.6	13.6			18
19			96.1 B	245	368	104	27.6	24.5	10.4	13.4			19
20			80.9 B	288	278	98.7	24.0	20.9	8.9	13.1			20
21			70.0 B	250	263	103	21.4	18.9	8.4	13.3			21
22			64.6 B	196	201	119	20.1	18.2	8.0	13.3			22
23			62.8 B	197	174	127	19.3	18.7	7.9	14.2			23
24			62.8 B	239	169	108	18.1	17.4	8.8	15.4			24
25			61.0 B	315	163	97.3	16.7	15.4	8.4	16.9			25
26			57.8 B	343	151	102	15.3	13.3	8.0	17.7			26
27		22.0 B	94.2 B	428	154	95.9	13.7	11.9	8.6	17.6			27
28		22.0 B	158 B	264	180	83.0	12.9	10.9	8.5	17.3			28
29			189 B	195	184	70.3	11.8	10.1	9.8	16.9			29
30			226 B	502	204	60.5	12.3	9.5	9.7	16.5			30
31			256 B		188		12.5	9.7		17.1			31
TOTAL			2078.9	7250	7685	3653.7	1189.6	611.2	362.4	481.2			TOTAL
MEAN			67.1	242	248	122	38.4	19.7	12.1	15.5			MEAN
AC-FT			4120	14400	15200	7250	2360	1210	719	954			AC-FT
MAX			256	502	769	231	73.4	47.3	20.5	18.6			MAX
MIN			13.4	131	142	60.5	11.8	9.5	7.9	12.2			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 95.2 CFS
TOTAL DISCHARGE, 46200 AC-FT
MAXIMUM DAILY DISCHARGE, 769 CFS ON MAY 1
MINIMUM DAILY DISCHARGE, 7.9 CFS ON SEP 23

MAXIMUM INSTANTANEOUS DISCHARGE, 868 CFS AT 0830 MST ON MAY 1

APPROVED: George Rich
District Chief U.S.G.S.

R.D. May
Dist. Engr. WS of Canada

A-MANUAL GAUGE
B-ICE CONDITIONS

WATER SURVEY OF CANADA
JAN 27 1975 PAGE 11
CALGARY, ALTA.

MILK RIVER AT MILK RIVER

STATION NO. 11AA005

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1	13.2 B	11.2 B	39.8 B	560 B	1570	281	750	648	632	59.5	37.5	24.3 B	1
2	14.2 B	12.2 B	36.9 B	470	1510	619	738	650	629	52.8	38.6	24.3 B	2
3	15.2 B	13.2 B	35.5 B	382	1200	735	738	650	627	48.1	36.8	27.1 B	3
4	15.2 B	13.2 B	35.5 B	334	1040	734	745	648	625	48.0	34.5	25.7 B	4
5	15.2 B	12.2 B	35.5 B	323	1000	745	753	644	624	48.6	33.6	28.5 B	5
6	14.2 B	12.2 B	32.6 B	429	996	759	749	644	627	44.3	38.5	25.7 B	6
7	14.2 B	12.2 B	29.9 B	455	1030	800	761	649	620	39.5	42.2	20.2 B	7
8	14.2 B	14.2 B	27.1 B	529	1060	830	759	671	614	40.1	41.2	19.2 B	8
9	13.2 B	19.2 B	29.9 B	505	1040	875	759	671	617	41.6	32.5	21.6 B	9
10	11.2 B	23.0 B	31.2 B	521	1020	856	767	657	621	39.8	28.2	19.2 B	10
11	9.5 B	28.5 B	50.1 B	544	985	793	786	670	620	40.4	30.2	23.0 B	11
12	6.9 B	32.6 B	66.4 B	609	950	759	760	668	623	42.0	40.6	21.6 B	12
13	4.8 B	35.5 B	72.0 B	693	929	679	752	688	618	40.6	32.6 B	18.2 B	13
14	5.5 B	36.9 B	70.1 B	655	924	552	745	699	618	39.5	27.1 B	17.2 B	14
15	23.0 B	38.4 B	72.0 B	724	900	486	737	692	624	36.9	34.0 B	18.2 B	15
16	48.5 B	39.8 B	79.3 B	764	875	483	732	682	618	32.7	39.8 B	18.2 B	16
17	53.3 B	39.8 B	94.0 B	838	887	489	715	672	616	30.1	39.8 B	20.2 B	17
18	554 B	39.8 B	113 B	881	953	491	712	667	614	30.0	41.3 B	23.0 B	18
19	450 B	38.4 B	213 B	890	1110	490	719	666	611	30.4	29.9 B	24.3 B	19
20	318 B	38.4 B	356 B	919	1070	525	718	661	617	29.5	45.6 B	25.7 B	20
21	108 B	38.4 B	299 B	933	983	644	712	653	613	28.1	44.2 B	25.7 B	21
22	89.6 B	36.9 B	180 B	893	949	742	711	648	567	28.4	23.0 B	24.3 B	22
23	87.4 B	36.9 B	143 B	863	897	777	715	641	502	28.6	31.2 B	8.9 B	23
24	83.0 B	36.9 B	133 B	880	824	764	707	640	491	28.8	34.0 B	8.2 B	24
25	68.3 B	36.9 B	127 B	942	691	737	700	636	398	31.2	36.9 B	10.2 B	25
26	42.7 B	38.4 B	113 B	997	546	764	695	627	244	32.2	27.1 B	11.2 B	26
27	28.5 B	38.4 B	153 B	1160	381	760	689	630	145	33.2	24.3 B	11.2 B	27
28	20.2 B	39.8 B	290 B	1130	297	780	684	628	99.1	34.4	23.0 B	10.2 B	28
29	16.2 B		554 B	942	280	770	680	627	81.1	35.0	20.2 B	9.5 B	29
30	13.2 B		728 B	1080	286	761	677	627	68.0	35.4	24.3 B	8.9 B	30
31	12.2 B		770 B		291		666	634		35.9		8.9 B	31
TOTAL	2182.8	813.5	5009.8	21845	27474	20500	22531	20288	15623.2	1165.6	1012.7	582.6	TOTAL
MEAN	70.4	29.1	162	728	886	683	727	654	521	37.6	33.8	18.8	MEAN
AC-FT	4330	1610	9940	43300	54500	40700	44700	40200	31000	2310	2010	1160	AC-FT
MAX	554	39.8	770	1160	1570	875	786	699	632	59.5	45.6	28.5	MAX
MIN	4.8	11.2	27.1	323	280	281	666	627	68.0	28.1	20.2	8.2	MIN

SUMMARY FOR THE YEAR 1974
MEAN DISCHARGE, 381 CFS
TOTAL DISCHARGE, 276000 AC-FT
MAXIMUM DAILY DISCHARGE, 1570 CFS ON MAY 1
MINIMUM DAILY DISCHARGE, 4.8 CFS ON JAN 13

MAXIMUM INSTANTANEOUS DISCHARGE, 1780 CFS AT 2130 MST ON MAY 1

APPROVED: [signature]
District Chief U.S.G.S.

[signature]
Dist. Engr. WS of Canada

B-ICE CONDITIONS

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UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
TABLE PRINTED 1-11-75

1973-74

MILK RIVER AT EASTERN CROSSING OF INT BOUNDARY NUMBER 06135000
DRAINAGE AREA 2,588.000 SQ MI

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	a 25					a 70	b 862	909	421	744	634	638
2	a 23					a 65	b 674	1,160	390	756	635	638
3	21					b 70	a 600	1,640	376	710	601	638
4	a 20					66	540	1,300	353	732	584	632
5	18					78	a 450	1,080	786	757	582	618
6	a 17					80	a 375	1,090	767	749	592	625
7	16					76	a 400	1,120	814	804	616	632
8	a 16					72	a 420	1,110	824	812	637	618
9	16					66	421	1,170	869	862	731	618
10	a 15					66	481	1,230	904	854	762	632
11	15					68	571	1,120	933	821	726	638
12	14					b 82	603	1,100	925	783	723	638
13	a 15					b 112	646	1,250	902	815	855	666
14	15					125	672	1,070	944	782	701	652
15	a 15					120	732	1,100	902	810	730	650
16	a 14					169	722	1,200	817	810	711	647
17	14					219	757	1,040	636	751	705	642
18	14					319	802	1,010	567	753	670	659
19	a 14					416	866	997	537	799	694	645
20	14					381	868	1,070	547	775	741	652
21	14					269	828	1,550	567	749	682	652
22	a 14					251	815	1,150	584	741	665	652
23	a 14					233	844	987	619	720	654	652
24	14					226	828	919	799	700	657	645
25	a 14					244	810	837	847	678	643	565
26	a 14					226	855	790	837	653	632	510
27	a 14					242	1,070	688	807	627	626	500
28	14					340	1,050	584	633	625	643	410
29	a 14				------	b 780	1,210	522	707	627	655	307
30	a 15				------	b 1,230	1,090	442	751	622	649	240
31	14	------			------	b 1,290	------	416	------	625	636	------
TOTAL	488					8,073	21,862	31,651	21,365	23,046	20,772	17,911
MEAN	15.7					260	729	1,021	712	743	670	597
MAX	25					1,290	1,210	1,640	944	862	855	666
MIN	14					65	375	416	353	622	582	240
AC-FT	968					16,010	43,360	62,780	42,380	45,710	41,200	35,530

Max. Disch. 1,850 cfs at 0945 MDTon May 21 (G.H. 6.89 ft). Max. G.H. 9.27 ft at 1445MDT on Mar. 31 (backwater from ice)
Min./Disch. 14 cfs on Oct. 12, 16-29 (G.H. -- ft). Min. G.H. -- ft on --
+.50 shift

Rating No. 1 used Mar. 3 to Sept. 30 (temporary curve ~~xxxx~~ No. 3 used Oct. 1-31).

a - No gage-height record. b - Stage-discharge relation affected by ice.

Approved George Pike
District Chief U.S.G.S.
R.D.Mac
Dist. Engr. WS of Canada

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
TABLE PRINTED 1-11-75
MILK RIVER AT EASTERN CROSSING OF INT BOUNDARY NUMBER 06135000
DRAINAGE AREA 2,588.000 SQ MI

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	200	42										
2	166											
3	147											
4	126											
5	113											
6	101											
7	92											
8	89											
9	84											
10	80											
11	73											
12	68											
13	64											
14	64											
15	60											
16	57											
17	57											
18	54											
19	51											
20	50											
21	48											
22	46											
23	44											
24	44											
25	43											
26	42											
27	41											
28	40											
29	40				------							
30	39				------							
31	41	------			------		------		------			------
TOTAL	2,264											
MEAN	73.0											
MAX	200											
MIN	39											
AC-FT	4,490											

Approved George Ede
District Chief U.S.G.S.
Dist. Engr. WS of Canada

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

TABLE PRINTED 1-10-75

1974 SOUTH FORK MILK RIVER NEAR BABB, MT. NUMBER 06132200

DRAINAGE AREA 68.600 SQ MI

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			b 11	b 52	202	80	58	21	22	16		
2			10	45	136	69	59	23	20	15		
3			10	39	101	70	58	22	16	13		
4			10	31	92	77	54	21	14	12		
5			8.0	33	101	87	55	19	14	14		
6			7.6	59	117	77	56	18	14	16		
7			5.9	63	132	92	59	20	14	19		
8			5.0	b 65	136	133	58	21	13	18		
9			5.0	76	132	93	54	27	13	16		
10			5.9	80	105	79	53	25	13	14		
11			7.1	107	88	74	72	38	20	13		
12			9.0	95	77	73	57	37	20	12		
13			10	69	71	79	47	40	17	13		
14			11	65	69	85	43	35	14	12		
15			7.6	82	63	87	41	38	13	12		
16			10	108	59	91	40	29	11	12		
17			45	100	74	95	37	23	11	11		
18			59	111	112	93	34	19	11	11		
19			50	137	121	88	33	19	11	11		
20			39	118	140	91	32	21	11	10		
21			32	86	100	114	30	21	12	11		
22			27	90	87	115	29	19	11	14		
23			26	116	85	91	28	17	11	14		
24			20	157	78	89	27	16	10	13		
25			15	164	72	84	26	16	9.4	12		
26		b8.5	20	173	73	87	24	15	8.3	12		
27		b10	27	123	84	74	23	15	10	12		
28		b12	78	92	91	66	23	15	14	11		
29		------	135	139	110	61	23	15	15	11		
30		------	103	174	99	59	23	16	16	11		
31		------	b 73	------	104	------	21	18	------	11	------	
TOTAL			883.1	2,849	3,111	2,557	1,277	699	408.7	402		
MEAN			28.5	95.0	100	85.2	41.2	22.5	13.6	13.0		
MAX			136	174	202	133	72	40	22	19		
MIN			5.0	31	59	59	21	15	8.3	10		
AC-FT			1,750	5,650	6,170	5,070	2,530	1,390	811	797		

THE SEASON MARCH TO OCTOBER AC-FT 24,170

Approved
District Chief U. S. G. S.
Dist. Engr. WS of Canada

Max. Disch. 221 cfs at 0815 MDT on May 1 (G.H. 3.80 ft). Max. G.H. 4.04 ft at 1945MDTon Mar. 28 (backwater from ice)
daily
Min./Disch. 5.0 cfs on Mar. 8, 9 (G.H. -- ft). Min. G.H. 2.60 ft on Sept. 26

Rating No. 9 used entire season. b - Stage-discharge relation affected by ice.

Peak discharge (base, 260 cfs).--No peak above base.

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
TABLE PRINTED 1-10-75

1974

N F MILK RIVER AB ST MARY CA, NR BROWNING, MT. NUMBER 06133500
DRAINAGE AREA 61,800 SQ MI

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1				b 34	73	25	13	12	15	12	13	
2				b 27	48	23	14	12	14	12	13	
3				b 29	39	23	13	12	13	11	13	
4				b 32	38	22	13	12	13	11	13	
5				b 45	39	22	13	12	13	12		
6				b 79	44	21	14	12	13	12		
7				89	43	33	14	12	13	12		
8				55	41	43	14	16	13	12		
9				44	35	26	14	17	13	12		
10				38	31	23	14	14	13	11		
11				39	30	21	17	17	15	11		
12				36	30	20	14	16	14	11		
13				27	30	20	13	23	13	11		
14				27	31	19	12	20	12	11		
15				31	29	18	12	16	12	11		
16				33	31	17	13	14	12	11		
17				32	42	17	12	14	12	11		
18				34	58	17	12	13	11	11		
19				36	44	16	12	13	11	11		
20				34	35	16	12	14	11	11		
21				28	32	17	12	14	11	11		
22				29	31	17	12	14	11	11		
23				32	30	16	12	13	11	11		
24				36	29	16	12	13	11	11		
25				37	28	16	12	13	10	11		
26				37	29	16	12	13	10	12		
27				34	29	15	12	13	12	12		
28			b 65	39	30	14	12	13	13	12		
29		------	b 74	53	30	13	12	13	13	12		
30		------	a 70	70	29	13	12	15	13	12		
31		------	a 55	------	27	------	12	15	------	12	------	
TOTAL				1,196	1,115	595	397	440	371	354		
MEAN				39.9	36.0	19.8	12.8	14.2	12.4	11.4		
MAX				89	73	43	17	23	15	12		
MIN				27	27	13	12	12	10	11		
AC-FT				2,370	2,210	1,180	787	873	736	702		

THE SEASON APRIL TO OCTOBER AC-FT 8,860

Max. Disch. 173 cfs at 0030 MDT on Apr. 7 -.01 shift recorded (backwater from ice)
(G.H. 2.71 ft). Max. G.H./ 7.19 ft at 0900MDT on Mar. 18

Min. Disch. 9.6 cfs on Sept. 26 -.08 shift
(G.H. 1.04 ft). Min. G.H. Same ft on

Rating No. 2 used entire season. a - No gage-height record. b - Stage-discharge relation affected by ice.

Approved
District Chief U.S.G.S.
R.D. Mar
Dist. Engr. WS of Canada

WATER SURVEY OF CANADA
JAN 23 1975 PAGE 17
CALGARY, ALTA.

NORTH MILK RIVER NEAR INTERNATIONAL BOUNDARY

STATION NO. 11AA001

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			10.1 B	72.8 B	853	478	700	655	639	26.4	12.0		1
2			9.8 B	66.0 B	761	627	697	654	634	23.9	12.3		2
3			9.2 B	64.9 B	747	633	703	652	631	13.9	11.8		3
4			8.9 B	76.8 B	759	641	706	651	631	13.2	11.9		4
5			8.3 B	89.7 B	764	638	700	650	632	14.4	11.4		5
6			8.0 B	100 B	770	652	697	648	634	14.1	11.0 A		6
7			8.0 B	140 B	773	684	695	652	631	14.1			7
8			9.2 B	165 B	768	697	690	667	630	13.3			8
9			11.6 B	229	764	663	700	662	632	13.6			9
10			13.7 B	267	763	651	705	654	633	13.4			10
11			15.9 B	317	757	638	712	659	640	13.6			11
12			18.3 B	401	761	576	701	658	635	13.3			12
13			21.9 B	469	764	448	693	674	632	12.8			13
14			29.2 B	551	759	378	697	660	632	13.0			14
15			34.8 B	606	742	374	695	655	632	12.6			15
16			44.0 B	670	742	382	692	649	630	12.0			16
17			49.3 B	710	774	386	690	647	631	11.7			17
18			50.3 B	718	835	387	697	644	631	11.7			18
19			47.2 B	723	776	430	702	644	631	11.9			19
20			34.8 B	735	747	538	699	645	632	12.0			20
21			27.9 B	731	741	633	698	646	586	11.9			21
22			24.8 B	734	736	660	702	641	516	12.0			22
23			23.0 B	740	676	649	702	640	505	12.2			23
24			22.4 B	747	517	643	700	638	372	11.4			24
25			22.0 B	759	352	656	699	633	180	11.3			25
26		11.6 B	27.3 B	760	167	700	700	634	81.9	11.5			26
27		11.0 B	54.5 B	805	68.2	711	695	634	56.7	11.4			27
28		10.4 B	92.6 B	778	52.5	714	693	634	38.3	11.4			28
29			97.2 B	792	54.1	714	691	634	28.2	11.7			29
30			97.2 B	870	53.1	712	675	643	25.4	11.5			30
31			85.3 B		133		659	640		11.8			31
TOTAL			1016.7	14887.2	18928.9	17693	21585	20097	15042.5	413.0			TOTAL
MEAN			32.8	496	611	590	696	648	501	13.3			MEAN
AC-FT			2020	29500	37500	35100	42800	39900	29800	819			AC-FT
MAX			97.2	870	853	714	712	674	640	26.4			MAX
MIN			8.0	64.9	52.5	374	659	633	25.4	11.3			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 448 CFS
TOTAL DISCHARGE, 217000 AC-FT
MAXIMUM DAILY DISCHARGE, 870 CFS ON APR 30
MINIMUM DAILY DISCHARGE, 8.0 CFS ON MAR 6

MAXIMUM INSTANTANEOUS DISCHARGE, 1020 CFS AT 2000 MST ON APRIL 30

APPROVED: George Rike
District Chief U.S.G.S.

R.D. May
Dist. Engr. WS of Canada

A-MANUAL GAUGE
B-ICE CONDITIONS

STORAGE FACTORS AND EVAPORATION LOSSES

STATION NAME ALTAWAN RESERVOIR

STATION NO. 11AB089 19 74

PERIOD	ELEVATION AT END OF PERIOD	CONTENTS IN CFS DAYS	CHANGE IN CONTENTS DUR. PERIOD	PAN EVAPOR -ATION	MEAN ELEVATION FOR PERIOD	EVAPOR -ATION LOSS	TOTAL CHANGE STORED + RELEASED -
Feb 26	2924.70	65					
Feb.27-Mar 8	2924.70	65	0				0
Mar. 9- 18	2924.83	67	+ 2				+ 2
Mar.19- 29	2926.14	95	+ 28				+ 28
Mar.30-Apr 8	2943.90	1401	+1306	0.52	2935.53	2	+1308
Apr. 9- 18	2948.65	2188	+ 787	1.19	2947.05	12	+ 799
Apr.19- 28	2949.54	2352	+ 164	1.26	2949.68	14	+ 178
Apr.29-May 8	2947.01	1900	- 452	1.85	2948.19	19	- 433
May 9- 18	2947.84	2042	+ 142	0	2947.02	0	+ 142
May 19- 29	2952.67	2975	+ 933	1.34	2950.99	15	+ 948
May 30-Jun 8	2952.40	2918	- 57	1.76	2952.56	21	- 36
June 9- 18	2951.71	2775	- 143	2.81	2952.14	34	- 109
June19- 28	2949.97	2433	- 342	3.52	2950.78	40	- 302
June29-July 8	2949.41	2327	- 106	2.63	2949.56	29	- 77
July 9- 18	2949.28	2302	- 25	3.04	2949.34	33	+ 8
July19- 29	2947.68	2014	- 288	3.96	2948.58	42	- 246
July30-Aug 8	2945.33	1622	- 392	3.66	2946.71	36	- 356
Aug 9- 18	2944.67	1517	- 105	1.36	2944.95	13	- 92
Aug 19- 29	2944.04	1422	- 95	1.77	2944.27	16	- 79
Aug 30-Sep 8	2943.76	1380	- 42	1.44	2943.83	12	- 30
Sept 9- 18	2943.65	1364	- 16	0.85	2943.70	7	- 9
Sept19- 28	2943.55	1349	- 15	1.09	2943.59	9	- 6
Sept20-Oct 8	2943.42	1329	- 20	0.56	2943.46	5	- 15
Oct 9- 18	2943.33	1316	- 13	1.45	2943.37	12	- 1
Oct19 - 29	2943.27	1308	- 8	0.38	2943.30	3	- 5
TOTAL			+1243			374	+1617

Approved
District Chief U.S.G.S.

D. A. Davis
Dist. Engr. W.S. of Canada

COMPUTED BY: W. R. Klassen

CHECKED BY: F. M. O'Neill

Water Survey of Canada

DAILY PAN EVAPORATION & PRECIPITATION IN INCHES

Station - Altawan

Year - 1974

APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		Day
Evap.	Prec.	Evap.	Prec.	Evap.	Prec.	Evap.	Prec.	Evap.	Prec.	Evap.	Prec.	Evap.	Prec.	
-.33	0.25	.23		.17		- .45	0.63	.33		.15		e .05		1
--		.14		.11	0.04	.26		.35		.17		e .05		2
--		.16		-.16	0.30	.24		.34		.16		e .05		3
.07		.19		.09	0.09	.27		.38		.17		e .05		4
.13		.22		.17		.16	0.09	.30	0.06	.17		e .06		5
.17		.21		.21		.28		.44		.10		e .06		6
.11		.20		.23		.25		.37		.09		e .06		7
.12		.19		.24		- .10	0.34	.26	0.10	.11		e .06 (.74)		8
.13		.17		.26		- .12	0.30	.13		.07		.08		9
.14		-.09	0.20	.29		- .16	0.37	.11		.08		.10		10
.11		2.00	1.40	.34		.31		.04	0.10	.07		.09		11
.06		-.10	0.19	.32		.37		-.14	0.27	.09		.11		12
--		-.39	0.40	.24		.36		-.20	0.36	.09		.16		13
.16		-.32	0.28	.28		.34		-.10	0.29	.08		.20		14
.13		-.14	0.06	.27		.19	0.13	.08	0.17	.09		.23		15
.17		-.31	0.40	.28		.30		.10		.11		.17		16
.13		-.15	0.18	.27		.31		.09	0.06	.08		.15		17
.16		-.15	0.20	.26		.34		--		.06	0.03	.16		18
.17		-.03	0.06	.27		.37		.11		.09		.14		19
.13		-.41	0.46	.37		.36		.05	0.10	.12		.13		20
.11		--	0.06	.36		.31		.14	0.11	.11		.11		21
.12		.10		.35		.30		.17		.13				22
.14		.11		.36		.32		.11		.15				23
.17		.13		.38		.35		.13	0.06	.17				24
.18		.14		.35		.37		.14		.14				25
-.83	0.93	.16		.37		.39		.13		e .06		FROZEN		26
--	0.05	.18		.34		.40		.16		e .06				27
.09		.17		.37		.42		.14		e .06				28
.10		-.46	0.67	.36		.35	0.02	.15	0.07	e .06				29
.21		-.31	0.45	.30		.37		.13	0.03	e .06				30
		.13				.36		.16						31
2.05	1.23	-2.03	5.01	8.05	0.43	7.82	1.88	4.60	1.78	3.15	0.03	2.27	0.00	Total

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
TABLE PRINTED 1-23-75

1974 LODGE CREEK BELOW MCRAE CREEK, AT INT BOUNDARY NUMBER 06145500
DRAINAGE AREA 818.000 SQ MI

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			a.30	193	100	87	3.3	0	.04			
2			a.40	139	96	92	3.0	0	.02			
3			a.70	80	94	73	2.7	0	.02			
4			a.50	57	92	60	3.0	0	.02			
5			a.60	42	89	47	3.1	0	.03			
6			.71	47	82	35	2.4	0	.03			
7			.48	27	70	26	1.8	0	.03			
8			a.35	18	20	21	1.6	5.6	.02			
9			a.20	25	9.8	17	2.7	70	.01			
10			a.20	22	6.0	14	3.3	19	.01			
11			a.50	17	4.1	12	1.4	7.8	0			
12			3.1	22	3.1	11	.50	4.1	0			
13			9.8	95	42	8.3	.28	2.7	0			
14			2.8	95	187	5.8	.18	1.7	0			
15			a 1.0	95	81	4.8	.10	.73	0			
16			a .80	94	83	4.0	.11	2.4	.02			
17			a 5.0	93	122	4.1	.04	15	0			
18			a 12	93	59	3.2	0	16	0			
19			a 7.5	92	35	2.8	.04	16	0			
20			4.0	68	23	3.0	.02	15	0			
21			1.5	53	242	3.2	.01	14	0			
22			a 1.0	53	280	2.7	.01	10	0			
23			a .50	54	115	2.6	0	6.9	0			
24			a .50	48	82	2.2	0	5.2	0			
25			a .50	88	61	1.3	0	4.1	0			
26			a .30	86	36	1.0	0	2.1	0			
27			a .30	94	29	.97	0	.84	0			
28			.63	101	46	7.5	0	.41	0			
29		------	26	111	58	6.0	0	.18	0			
30		------	195	104	69	4.6	0	.05	0			
31		------	205	------	111	------	0	.04	------		------	
TOTAL			482.17	2,206	2,427.0	563.07	29.59	219.85	.25	0		
MEAN			15.6	73.5	78.3	18.8	.95	7.09	.008	0		
MAX			205	193	280	92	3.3	70	.04	0		
MIN			.20	17	3.1	.97	0	0	0	0		
AC-FT			956	4,380	4,810	1,120	59	436	.5	0		

THE SEASON MARCH TO OCTOBER AC-FT 11,760

Approved
District Chief U.S.G.S.
Dist. Engr. WS of Canada

Max. Disch. 388 cfs at 0500 MDT on May 22 (G.H. 5.05 ft). Max. G.H. Same ft at ____ on ____

Min. Disch. no flow cfs on ____ at times ____ (G.H. -- ft). Min. G.H. ____ ft on ____

Rating No. 5 used entire season. a - No gage-height record.

STORAGE FACTORS AND EVAPORATION LOSSES

STATION NAME MICHELE RESERVOIR

STATION NO. 11AB091 19 74

PERIOD	ELEVATION AT END OF PERIOD	CONTENTS IN CFS DAYS	CHANGE IN CONTENTS DUR. PERIOD	PAN EVAPOR -ATION	MEAN ELEVATION FOR PERIOD	EVAPOR -ATION LOSS	TOTAL CHANGE STORED + RELEASED -
Feb. 24	987.83	125	0				0
Feb.25 - Mar6	988.16	130	+ 5		988.00		+ 5
Mar. 7- 16	988.50	135	+ 5		988.33		+ 5
Mar.17- 27	990.45	170	+ 35		989.48		+ 35
Mar.28-Apr 6	992.20	204	+ 34	0.29	991.33	0	+ 34
Apr. 7- 16	993.98	245	+ 41	1.13	993.09	1	+ 42
Apr.17- 26	994.11	247	+ 2	1.41	994.13	2	+ 4
Apr.27-May 6	994.04	246	- 1	1.60	994.08	2	+ 1
May 7- 16	994.00	245	- 1	0.14	994.02	0	- 1
May 17- 27	996.45	306	+ 61	1.04	995.23	1	+ 62
May 28-Jun 6	998.42	360	+ 54	1.67	997.44	3	+ 57
June 7- 16	998.39	359	- 1	2.75	998.41	5	+ 4
June17- 26	998.34	357	- 2	3.34	998.37	6	+ 4
June27Jul 6	998.30	356	- 1	2.85	998.32	5	+ 4
July 7- 16	998.30	356	0	2.88	998.41	5	+ 5
July17- 27	997.92	346	- 10	3.82	998.11	6	- 4
July28-Aug 6	997.57	336	- 10	3.72	997.75	6	- 4
Aug 7- 16	997.80	342	+ 6	1.94	997.69	3	+ 9
Aug 17- 27	996.82	315	- 27	1.56	997.31	2	- 25
Aug 28-Sep 6	996.47	306	- 9	1.60	996.65	2	- 7
Sept 7- 16	996.10	297	- 9	0.88	996.29	1	- 8
Sept17- 26	995.74	287	- 10	1.14	995.92	2	- 8
Sept27-Oct 6	995.40	279	- 8	0.56	995.57	1	- 7
Oct. 7- 16	995.03	270	- 9	1.26	995.22	2	- 7
Oct.17- 27	995.66	261	- 9	0.69	994.85	1	- 8
TOTAL			+ 136			56	+ 192

COMPUTED BY: W. R. Klassen

CHECKED BY: K. G. Clarke

STORAGE FACTORS AND EVAPORATION LOSSES

STATION NAME GREASEWOOD RESERVOIR

STATION NO. 11AB092 19 74

PERIOD	ELEVATION AT END OF PERIOD	CONTENTS IN CFS DAYS	CHANGE IN CONTENTS DUR. PERIOD	PAN EVAPOR -ATION	MEAN ELEVATION FOR PERIOD	EVAPOR -ATION LOSS	TOTAL CHANGE STORED + RELEASED -
Feb. 24	80.00	0	0				0
Feb.25-Mar. 6	80.00	0	0				0
Mar. 7- 16	80.00	0	0				0
Mar.17- 27	80.00	0	0				0
Mar.28- Apr. 6	89.52	10	+ 10	0.29	83.67	0	+ 10
Apr. 7- 16	95.15	29	+ 19	1.13	91.81	0	+ 19
Apr.17- 26	97.40	42	+ 13	1.41	97.23	1	+ 14
Apr.27- May 6	95.26	29	- 13	1.60	95.60	0	- 13
May 7- 16	95.89	32	+ 3	0.14	95.42	0	+ 3
May 17- 27	97.17	40	+ 8	1.04	96.53	0	+ 8
May 28-June 6	98.23	47	+ 7	1.67	97.70	1	+ 8
June 7- 16	98.23	47	0	2.75	98.23	1	+ 1
June17- 26	97.93	45	- 2	3.34	98.08	1	- 1
June27- July 6	97.61	43	- 2	2.85	97.77	1	- 1
July7 - 16	97.30	41	- 2	2.88	97.46	1	- 1
July17- 27	96.80	38	- 3	3.82	97.05	1	- 2
July28-Aug 6	95.90	33	- 5	3.72	96.35	1	- 4
Aug. 7- 16	96.05	33	0	1.94	95.98	1	+ 1
Aug.17- 27	96.23	34	+ 1	1.56	96.14	0	+ 1
Aug.28-Sept. 6	96.40	35	+ 1	1.60	96.32	1	+ 2
Sept.7- 16	96.57	36	+ 1	0.88	96.49	0	+ 1
Sept17- 26	96.55	36	0	1.14	96.56	0	0
Sept27-Oct. 6	96.47	36	0	0.56	96.51	0	0
Oct. 7- 16	96.40	35	- 1	1.26	96.44	0	- 1
Oct.17- 27	80.00	0	- 35	0.69	87.60	0	- 35
TOTAL			0			10	+ 10

COMPUTED BY: W. R. Klassen . . . . .

CHECKED BY: K. G. Clarke . . . . . .

STORAGE FACTORS AND EVAPORATION LOSSES

STATION NAME MASSY RESERVOIR

STATION NO. 11AB104 19 74

PERIOD	ELEVATION AT END OF PERIOD	CONTENTS IN CFS DAYS	CHANGE IN CONTENTS DUR. PERIOD	PAN EVAPOR -ATION	MEAN ELEVATION FOR PERIOD	EVAPOR -ATION LOSS	TOTAL CHANGE STORED + RELEASED -
Feb. 24	93.20	71	0				0
Feb.-Mar 6	93.20	71	0				0
Mar.- 16	93.94	80	+ 9				+ 9
Mar17- 27	93.50	75	- 5				- 5
Mar28-Apr 6	92.95	68	- 7	0.29	93.93	0	- 7
Apr.7- 16	92.36	62	- 6	1.13	93.09	1	- 5
Apr17- 26	93.98	81	+ 19	1.41	93.31	1	+ 20
Apr27-May 6	91.08	49	- 32	1.60	92.19	1	- 31
May 7- 16	91.00	47	- 2	0.14	91.04	0	- 2
May17- 27	92.59	64	+ 17	1.04	91.80	1	+ 18
May28-Jun 6	93.83	79	+ 15	1.67	93.31	1	+ 16
June7- 16	93.22	71	- 8	2.75	93.53	2	- 6
June17- 26	92.62	65	- 6	3.34	92.92	2	- 4
June27-Jul 6	92.00	58	- 7	2.85	92.31	2	- 5
July 7- 16	92.10	59	+ 1	2.88	92.05	2	+ 3
July17- 27	91.23	50	- 9	3.82	91.67	2	- 7
July28-Aug 6	90.43	42	- 8	3.72	90.83	2	- 6
Aug 7- 16	90.55	43	+ 1	1.94	90.49	1	+ 2
Aug 17- 27	90.56	43	0	1.56	90.56	1	+ 1
Aug 28-Sep 6	90.58	43	0	1.60	90.57	1	+ 1
Sept 7- 16	90.60	43	0	0.88	90.59	1	+ 1
Sept17- 26	90.77	45	+ 2	1.14	90.67	1	+ 3
Sept27-Oct 6	90.99	47	+ 2	0.56	90.88	0	+ 2
Oct 7- 16	91.21	50	+ 3	1.26	91.10	1	+ 4
Oct 17- 27	91.45	52	+ 2	0.69	91.33	0	+ 2
TOTAL			- 19			+ 23	+ 4

COMPUTED BY: W. R. Klassen

CHECKED BY: K. G. Clarke

STORAGE FACTORS AND EVAPORATION LOSSES

STATION NAME BARE CREEK RESERVOIR

STATION NO. 11AB-94 19 74

PERIOD	ELEVATION AT END OF PERIOD	CONTENTS IN CFS DAYS	CHANGE IN CONTENTS DUR. PERIOD	PAN EVAPOR -ATION	MEAN ELEVATION FOR PERIOD	EVAPOR -ATION LOSS	TOTAL CHANGE STORED + RELEASED -
Feb. 24	3720.10	300	0				0
Feb. 25-Mar. 6	3720.10	300	0				0
Mar. 7- 16	3720.19	304	+ 4				+ 4
Mar. 17- 27	3720.30	307	+ 3				+ 3
Mar. 28-Apr. 6	3723.45	421	+ 114	0.29	3721.40	1	+ 115
Apr. 7- 16	3728.22	642	+ 221	1.13	3725.84	3	+ 224
Apr. 17- 26	3729.59	718	+ 76	1.41	3728.91	5	+ 81
Apr. 27-May 6	3730.75	788	+ 70	1.60	3730.17	6	+ 76
May 7- 16	3730.75	788	0	0.14	3730.75	1	+ 1
May 17 - 27	3730.75	788	0	1.04	3730.75	4	+ 4
May 28 - Jun 6	3730.75	788	0	1.67	3730.75	6	+ 6
June 7- 16	3730.50	772	- 16	2.75	3730.63	10	- 6
June17- 26	3730.24	756	- 16	3.34	3730.37	12	- 4
June27-Jul 6	3730.00	742	- 14	2.85	3730.12	10	- 4
July 7- 16	3729.72	726	- 16	2.88	3729.86	10	- 6
July14- 27	3729.49	712	- 14	3.82	3729.60	13	- 1
July28-Aug 6	3728.79	673	- 39	3.72	3729.06	12	- 27
Aug. 7- 16	3728.68	667	- 6	1.94	3728.74	6	0
Aug.17- 27	3728.57	660	- 7	1.56	3728.62	5	- 2
Aug.28-Sept. 6	3728.48	656	- 4	1.60	3728.52	5	+ 1
Sept.7- 16	3728.40	652	- 4	0.88	3728.44	3	- 1
Sept17- 26	3725.09	490	- 162	1.14	3725.92	3	- 159
Sept27-Oct- 6	3724.99	486	- 4	0.56	3725.04	1	- 3
Oct. 7- 16	3724.90	482	- 4	1.26	3724.94	3	- 1
Oct.17- 27	3724.81	478	- 4	0.69	3724.85	2	- 2
TOTAL			+ 178			121	+ 299

COMPUTED BY: W. R. Klassen . . . . .

CHECKED BY: K. G. Clarke . . . . .

STORAGE FACTORS AND EVAPORATION LOSSES

STATION NAME CRESSDAY RESERVOIR

STATION NO. 11AB097 19 74

PERIOD	ELEVATION AT END OF PERIOD	CONTENTS IN CFS DAYS	CHANGE IN CONTENTS DUR. PERIOD	PAN EVAPOR -ATION	MEAN ELEVATION FOR PERIOD	EVAPOR -ATION LOSS	TOTAL CHANGE STORED + RELEASED -
Feb. 25	3157.25	60	0				0
Feb.26-Mar. 7	3157.25	60	0		3157.25		0
Mar. 8- 17	3157.37	62	+ 2		3157.31		+ 2
Mar.18- 28	3157.50	65	+ 3		3157.44		+ 3
Mar.29-Apr. 7	3159.86	131	+ 66	0.40	3158.68	1	+ 67
Apr. 8- 17	3162.25	256	+ 125	1.15	3161.06	3	+ 128
Apr. 18- 27	3162.40	267	+ 11	1.33	3162.33	6	+ 17
Apr. 28-May 7	3162.25	256	- 11	1.75	3162.33	7	- 4
May 8- 17	3162.62	285	+ 29	0	3162.44	0	+ 29
May 18- 28	3162.62	285	0	1.18	3162.62	5	+ 5
May 29- Jun 7	3162.62	285	0	1.73	3162.62	8	+ 8
June 8- 17	3162.28	258	- 27	2.79	3162.45	12	- 15
June18- 27	3161.93	234	- 24	3.41	3162.11	14	- 10
June28- July7	3162.00	239	+ 5	2.76	3161.94	11	+ 16
July 8- 17	3161.89	231	- 8	2.94	3161.98	11	+ 3
July18- 28	3161.68	219	- 12	3.93	3161.79	14	+ 2
July29-Aug. 7	3161.50	208	- 11	3.67	3161.59	13	+ 2
Aug. 8- 17	3161.60	214	+ 6	1.72	3161.55	6	+ 12
Aug.18- 28	3161.46	206	- 8	1.55	3161.53	5	- 3
Aug.29-Sep. 7	3161.32	197	- 9	1.55	3161.39	5	- 4
Sept.8- 17	3161.18	190	- 7	0.87	3161.25	3	- 4
Sept18- 27	3161.04	183	- 7	1.12	3161.11	3	- 4
Sept.28-Oct.7	3160.91	172	- 11	0.56	3160.98	2	- 9
Oct. 8- 17	3160.76	169	- 3	1.35	3160.84	4	+ 1
Oct. 18- 28	3160.61	162	- 7	0.54	3160.69	1	- 6
TOTAL			+ 102			134	+ 236

COMPUTED BY: W. R. Klassen

CHECKED BY: K. G. Clarke

WATER SURVEY OF CANADA
DEC 19 1974 PAGE 4
REGINA, SASK.

WALBURGER COULEE BELOW DIVERSIONS

STATION NO. 11ABC86

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR		APR		MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	B	0.23	B	0	0.04	0	0	0	0			1
2			0	B	0.11	B	0	0.01	0	0	0	0			2
3			0	B	0.05	B	0	0	0	0	0	0			3
4			0	B	0.02	B	0	0	0	0	0	0			4
5			0	B	0.03	B	0	0	0	0	0	0			5
6			0	B	0.19		0	0	0	0	0	0			6
7			0	B	0.12		0	0.01	0	0	0	0			7
8			0	B	0.14		0	0.01	0	0	0	0			8
9			0	B	0.04		0	0.01	0	0	0	0			9
10			0	B	0.03		0	0	0	0	0	0			10
11			0	B	0.01		0	0	0	0	0	0			11
12			0	B	0		0	0	0	0	0	0			12
13			0	B	0		0.03	A 0	0	0	0	0			13
14			0	B	0		0	0	0	0	0	0			14
15			0	B	0		0	0	0	0	0	0			15
16			0	B	0		0	0	0	0	0	0			16
17			0	B	0		0	0	0	0	0	0			17
18			0	B	0		0	0	0	0	0	0			18
19			0	B	0		0	0	0	0	0	0			19
20			0	B	0		0	0	0	0	0	0			20
21			0	B	0		0.02	0	0	0	0	0			21
22			0	B	0		0.01	0	0	0	0	0			22
23			0	B	0		0.01	0	0	0	0	0			23
24			0	B	0		0	0	0	0	0	0			24
25			0	B	0		0	0	0	0	0	0			25
26			0	B	0		0	0	0	0	0	0			26
27			0.05	B	0.01		0	0	0	0	0	0			27
28			0.10	B	0		0	0	0	0	0	0			28
29			0.15	B	0		0	0	0	0	0	0			29
30			0.15	B	0		0.04	0	0	0	0	0			30
31			0.29	B			0.04		0	0		0			31
TOTAL			0.74		0.98		0.15	0.08	0	0	0	0			TOTAL
MEAN			0.02		0.03		0	0	0	0	0	0			MEAN
AC-FT			1.5		1.9		0.30	0.16	0	0	0	0			AC-FT
MAX			0.29		0.23		0.04	0.04	0	0	0	0			MAX
MIN			0		0		0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 0.01 CFS
TOTAL DISCHARGE, 3.9 AC-FT
MAXIMUM DAILY DISCHARGE, 0.29 CFS ON MAR 31
MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE, 0.81 CFS AT 1757 CST ON MAR 31, 1974

Approved
District Chief U.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

A-MANUAL GAUGE
B-ICE CONDITIONS

WATER SURVEY OF CANADA
DEC 23 1974 PAGE 2
REGINA, SASK

SPANGLER DITCH NEAR GOVENLOCK

STATION NO. 11AB060

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	0	0	1.8	14.0	20.9	3.9	0			1
2			0	0	0	0.49	3.2	20.8	0.08	0			2
3			0	0	0	0.12	7.6	20.2	0	0			3
4			0	0	0	0	7.5	17 4	0	0			4
5			0	0	0	0	7.4	17.2	0	0			5
6			0	0	9.3	0	1.7	14.4	0	0			6
7			0	0	23.0	0	0	10.6	0	0			7
8			0	0	24.3	0	0	9 5	0	0			8
9			0	0	25.1	0	0	7.9	0	0			9
10			0	0	30.1	0	0	9.7	0	0			10
11			0	0	30.4	0	0	11.8	0	0			11
12			0	0	30.8	0	0	11.7	0	0			12
13			0	0	37.7	0	0	11.7	0	0			13
14			0	0	33.9	0	0	10.6	0	0			14
15			0	0	33.1	5 3	0	9.1	0	0			15
16			0	0	21.4	15 9	0	9.1	0	0			16
17			0	0	1.5	17.9	0	5.5	0	0			17
18			0	0	0.57	18.5	0	0.08	0	0			18
19			0	0	0.17	18 7	0	6.5	0	0			19
20			0	0	0.01	18.9	0	13.3	0	0			20
21			0	0	4.4	22 2	0	8.2	0	0			21
22			0	0	2.2	29.9	15.0	5.0	0	0			22
23			0	0	0.66	36.6	39.7	6.6	0	0			23
24			0	0	0.27	38.5	40.2	6.5	0	0			24
25			0	0	0.02	37.2	40.1	6.2	0	0			25
26			0	0	0	28.2	39.8	6.2	0	0			26
27			0	0	0	23.5	37.0	6.3	0	0			27
28			0	0	0	23.3	28.0	3.5	0	0			28
29			0	0	0	19.3	21.7	3 0	0	0			29
30			0	0	0.63	5.7	14.5	6.8	0	0			30
31			0		1.2		21.2	6.8		0			31
TOTAL			0	0	312.33	362.01	338.6	303.08	3.98	0			TOTAL
MEAN			0	0	10.1	12.1	10.9	9.8	0.13	0			MEAN
AC-FT			0	0	620	718	672	601	7.9	0			AC-FT
MAX			0	0	37.7	38.5	40.2	20.9	3 9	0			MAX
MIN			0	0	0	0	0	0.08	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 5.4 CFS
TOTAL DISCHARGE, 2620 AC-FT
MAXIMUM DAILY DISCHARGE, 40.2 CFS ON JUL 24
MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE, 52.1 CFS AT 2005 CST ON MAY 13

Approved George Ade
District Chief U.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

R. L. CRAIN LIMITED

STORAGE FACTORS AND EVAPORATION LOSSES

STATION NAME JAYDOT RESERVOIR

STATION NO. 11AB098 19 74

PERIOD	ELEVATION AT END OF PERIOD	CONTENTS IN CFS DAYS	CHANGE IN CONTENTS DUR. PERIOD	PAN EVAPOR -ATION	MEAN ELEVATION FOR PERIOD	EVAPOR -ATION LOSS	TOTAL CHANGE STORED + RELEASED -
Feb. 26	3015.75	42	0				0
Feb. 27-Mar.8	3015.76	42	0		3015.75		0
Mar. 9- 18	3016.00	44	+ 2		3015.88		+ 2
Mar. 19- 29	3018.51	83	+ 39		3017.76		+ 39
Mar. 30-Apr.8	3020.78	142	+ 59	0.52	3019.65	1	+ 60
Apr. 9- 18	3021.01	150	+ 8	1.19	3021.02	3	+ 11
Apr. 19- 28	3020.96	148	- 2	1.26	3020.99	3	+ 1
Apr. 29-May 8	3020.90	146	- 2	1.85	3020.93	4	+ 2
May 9- 18	3021.27	159	+ 13	0	3021.09	0	+ 13
May 19- 29	3021.68	175	+ 16	1.34	3021.48	4	+ 20
May 30-Jun.8	3022.01	188	+ 13	1.76	3021.86	6	+ 19
June 9- 18	3022.01	188	0	2.81	3022.01	11	+ 11
Jun. 19- 28	3021.83	181	- 7	3.52	3021.92	13	+ 6
Jun. 29-Jul.8	3021.64	173	- 8	2.63	3021.74	9	+ 1
July 9- 18	3021.65	174	+ 1	3.04	3021.62	10	+ 11
Jul. 19- 29	3021.39	164	- 10	3.96	3021.52	12	+ 2
Jul. 30-Aug.8	3021.17	156	- 8	3.66	3021.28	10	+ 2
Aug. 9- 18	3021.30	160	+ 4	1.36	3021.24	4	+ 8
Aug. 19- 29	3020.86	145	- 15	1.77	3021.08	4	- 11
Aug. 30-Sep.8	3020.71	139	- 6	1.44	3020.79	3	- 3
Sep. 9- 18	3020.56	134	- 5	0.85	3020.64	2	- 3
Sep. 19- 28	3020.41	129	- 5	1.09	3020.49	2	- 3
Sep. 29-Oct.8	3020.26	125	- 4	0.56	3020.34	1	- 3
Oct. 9- 18	3020.11	120	- 5	1.45	3020.19	2	- 3
Oct. 19- 29	3019.95	116	- 4	0.38	3020.03	1	- 3
TOTAL			+ 74			105	+ 179

COMPUTED BY: W. R. Klassen

CHECKED BY: K. G.Clarke

WATER SURVEY OF CANADA
DEC 18 1974 PAGE 2
REGINA, SASK.

MIDDLE CREEK NEAR ALBERTA BOUNDARY

STATION NO. 11AB009

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0.15 B	4.8 B	6.4	3.4	0.71	0.47	0.48	0.52			1
2			0.15 B	2.7 B	3.7	18.1	0.76	0.45	0.46	0.50			2
3			0.15 B	1.5 B	2.5	7.6	0.75	0.46	0.50	0.45			3
4			0.15 B	1.4 B	1.9	3.2	0.71	0.53	0.53	0.42			4
5			0.15 B	2.6 B	1.3	1.5	0.71	0.45	0.51	0.45			5
6			0.15 B	7.3 B	1.1	1.0	0.71	0.38	0.51	0.47			6
7			0.15 B	13.3 B	0.82	0.88	0.71	0.45	0.53	0.51			7
8			0.16 B	73.1 B	0.69	0.87	0.79	0.34	0.47	0.49			8
9			0.26 B	93.6	0.71	0.80	0.97	0.31	0.42	0.49			9
10			0.30 B	92.2	0.56	0.75	0.78	0.33	0.39	0.47			10
11			0.34 B	86.5	0.57	0.79	1.1	0.41	0.37	0.42			11
12			0.38 B	69.8	0.56	0.81	0.74	0.39	0.40	0.39			12
13			0.36 B	55.9	0.84	0.79	0.64	0.64	0.43	0.35			13
14			0.32 B	37.3	0.76	0.75	0.57	0.47	0.44	0.33			14
15			0.29 B	30.9	0.55	0.71	0.77	0.38	0.42	0.36			15
16			0.28 B	40.2	0.52	0.67	1.1	0.29	0.39	0.38			16
17			0.30 B	47.3	4.7	1.2	0.54	0.28	0.37	0.39			17
18			0.29 B	46.4	12.9	1.2	0.51	0.23	0.36	0.39			18
19			0.29 B	54.9	7.6	1.1	0.52	0.18	0.34	0.39			19
20			0.29 B	57.5	9.1	0.96	0.51	0.25	0.34	0.41			20
21			0.29 B	46.9	33.2	0.95	0.47	0.35	0.35	0.36			21
22			0.28 B	37.6	95.2	1.2	0.56	0.44	0.39	0.37			22
23			0.23 B	24.8	66.6	1.1	0.57	0.47	0.42	0.42			23
24			0.22 B	22.3	50.6	1.1	0.55	0.41	0.44	0.40			24
25			0.20 B	32.1	53.8	1.1	0.54	0.29	0.48	0.42			25
26			0.18 B	36.9	47.9	1.1	0.60	0.40	0.51	0.46			26
27			0.16 B	40.7	34.1	0.90	0.52	0.55	0.51	0.48			27
28			0.37 B	58.7	21.8	0.65	0.52	0.57	0.52	0.48			28
29			0.67 B	33.7	11.7	0.61	0.53	0.53	0.49	0.47			29
30			13.9 B	11.5	5.7	0.64	0.49	0.46	0.50	0.48			30
31			9.8 B		4.6		0.48	0.47		0.50			31
TOTAL			31.21	1164.4	483.01	56.43	20.43	12.63	13.27	13.42			TOTAL
MEAN			1.0	38.8	15.6	1.9	0.66	0.41	0.44	0.43			MEAN
AC-FT			61.9	2310	958	112	40.5	25.1	26.3	26.6			AC-FT
MAX			13.9	93.6	95.2	18.1	1.1	0.64	0.53	0.52			MAX
MIN			0.15	1.4	0.55	0.61	0.47	0.18	0.34	0.33			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 7.3 CFS
TOTAL DISCHARGE, 3560 AC-FT
MAXIMUM DAILY DISCHARGE, 95.2 CFS ON MAY 22
MINIMUM DAILY DISCHARGE, 0.15 CFS ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE, 139 CFS AT 1447 CST ON MAY 22

Approved
District Chief W.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

B-ICE CONDITIONS

STORAGE FACTORS AND EVAPORATION LOSSES

STATION NAME MIDDLE CREEK RESERVOIR

STATION NO. 11AB080 19 74

PERIOD	ELEVATION AT END OF PERIOD	CONTENTS IN CFS DAYS	CHANGE IN CONTENTS DUR. PERIOD	PAN EVAPOR -ATION	MEAN ELEVATION FOR PERIOD	EVAPOR -ATION LOSS	TOTAL CHANGE STORED + RELEASED -
Feb. 25	3372.93	1116	0				0
Feb.26-Mar 7	3372.94	1120	+ 4				+ 4
Mar. 8- 17	3372.96	1129	+ 9				+ 9
Mar.18- 28	3372.99	1142	+ 13				+ 13
Mar.29-Apr 7	3373.30	1277	+ 135	0.15	3373.16	4	+ 139
Apr. 8- 17	3374.25	1710	+ 433	1.15	3373.99	31	+ 464
Apr.18- 27	3374.52	1838	+ 128	0.35	3374.43	10	+ 138
Apr.28-May 7	3374.54	1847	+ 9	1.75	3374.53	48	+ 57
May 8- 17	3374.35	1757	- 90	-3.14	3374.45	-87	- 177
May 18- 28	3375.10	2120	+ 363	0.40	3374.72	11	+ 374
May 29-Jun 7	3375.19	2164	+ 44	0.18	3375.21	5	+ 49
June8- 17	3375.03	2086	- 78	2.79	3375.12	80	+ 2
June18- 27	3374.96	2051	- 35	3.41	3374.97	97	+ 62
June28-Jul 7	3374.72	1934	- 117	2.04	3374.80	57	- 60
July 8- 17	3374.68	1914	- 20	1.80	3374.71	50	+ 30
July18- 28	3374.31	1738	- 176	3.93	3374.52	109	- 67
July29-Aug 7	3373.55	1389	- 349	3.59	3373.91	95	- 254
Aug 8- 17	3373.07	1176	- 213	0.37	3373.19	9	- 204
Aug 18- 28	3372.94	1120	- 56	1.28	3372.99	32	- 24
Aug 29-Sep 7	3372.79	1056	- 64	1.45	3372.85	36	- 28
Sept 8- 17	3372.73	1030	- 26	0.87	3372.76	21	- 5
Sept18- 27	3372.62	983	- 47	1.09	3372.67	27	- 20
Sept28-Oct 7	3372.55	954	- 29	0.56	3372.58	14	- 15
Oct 8- 17	3372.45	912	- 42	1.35	3372.51	33	- 9
Oct 18- 28	3372.36	874	- 38	0.54	3372.40	13	- 25
TOTAL			- 242	25.91		695	+ 453

Approved
District Chief U.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

COMPUTED BY: W. R. Klassen

CHECKED BY: K. G. Clarke

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	0	0	0	0	25.9	0	0			1
2			0	0	0	0	0	25.9	0	0			2
3			0	0	0	0	0	25.9	0	0			3
4			0	0	0	0	0	25.9	0	0			4
5			0	0	0	0	0	25.9	0	0			5
6			0	0	0	0	0	25.9	0	0			6
7			0	0	0	0	0	25.9	0	0			7
8			0	0	0	0	0	28.3	0	0			8
9			0	0	7.4	0	0	28.3	0	0			9
10			0	0	19.9	0	0	28.3	0	0			10
11			0	0	19.9	0	0	28.3	0	0			11
12			0	0	19.9	0	0	28.3	0	0			12
13			0	0	19.9	0	0	28.3	0	0			13
14			0	0	19.9	0	0	28.2	0	0			14
15			0	0	19.9	0	0	13.0	0	0			15
16			0	26.0	19.8	0	0	0	0	0			16
17			0	56.0	19.8	0	0	0	0	0			17
18			0	56.0	19.8	0	0	0	0	0			18
19			0	30.0	19.8	0	0	0	0	8.0			19
20			0	0	19.9	0	0	0	0	0			20
21			0	0	19.9	0	0	0	0	6.0			21
22			0	0	13.2	0	0	0	0	0			22
23			0	15.0	0	0	0	0	0	0			23
24			0	35.0	0	0	5.4	0	0	0			24
25			0	36.0	0	0	15.9	0	0	0			25
26			0	36.0	0	0	15.9	0	0	0			26
27			0	36.0	0	0	15.9	0	0	0			27
28			0	36.0	0	0	15.9	0	0	0			28
29			0	36.0	0	0	25.9	0	0	0			29
30			0	14.0	0	0	25.9	0	0	0			30
31			0		0		25.9	0		0			31
TOTAL			0	412.0	259.0	0	146.7	392.3	0	14.0			TOTAL
MEAN			0	13.7	8.4	0	4.7	12.7	0	0.45			MEAN
AC-FT			0	817	514	0	291	778	0	27.8			AC-FT
MAX			0	56.0	19.9	0	25.9	28.3	0	8.0			MAX
MIN			0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 5.0 CFS
TOTAL DISCHARGE, 2430 AC-FT
MAXIMUM DAILY DISCHARGE, 56.0 CFS ON APR 17
MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

R. L. CRAIN LIMITED

WATER SURVEY OF CANADA
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REGINA,SASK.

MIDDLE CREEK RESERVOIR BEDFORD OUTLET

STATION NO. 11AB114

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APP	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			20
21			0	0	0	0	0	0	0	0			21
22			0	0	0	0	0	0	0	0			22
23			0	0	0	0	0	0	0	0			23
24			0	0	0	0	0	0	0	0			24
25			0	0	0	0	0	0	0	0			25
26			0	0	0	0	0	0	0	0			26
27			0	0	0	0	0	0	0	0			27
28			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
AC-FT			0	0	0	0	0	0	0	0			AC-FT
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, 0.00 CFS
TOTAL DISCHARGE, 0.00 AC-FT
MAXIMUM DAILY DISCHARGE, 0 CFS ON MAR 1
MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

R. L. CRAIN LIMITED

WATER SURVEY OF CANADA — MIDDLE CREEK RESERVOIR FLOOD SPILLWAY — STATION NO. 114B115

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REGINA, SASK.

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

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			20
21			0	0	0	0	0	0	0	0			21
22			0	0	0	0	0	0	0	0			22
23			0	0	0	0	0	0	0	0			23
24			0	0	0	0	0	0	0	0			24
25			0	0	0	0	0	0	0	0			25
26			0	0	0	0	0	0	0	0			26
27			0	0	0	0	0	0	0	0			27
28			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
AC-FT			0	0	0	0	0	0	0	0			AC-FT
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, 0.00 CFS

TOTAL DISCHARGE, 0.00 AC-FT

MAXIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

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REGINA, SASK.

MIDDLE CREEK BELOW MIDDLE CREEK RESERVOIR

STATION NO. 11AB001

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0 B	0 B	1.9	0.23	0	23.3	0	0			1
2			0 B	0 B	0.20	0.04	0	22.8	0	0			2
3			0 B	0 B	0.06	0	0	20.0	0	0			3
4			0 B	0 B	0	0	0	19.9	0	0			4
5			0 B	0 B	0	0	0	18.9	0	0			5
6			0 B	1.0 B	0	0	0	19.9	0	0			6
7			0 B	10.0 B	0	0	0	29.4	0	0			7
8			0 B	7.1 B	0	0	0	35.5	0	0			8
9			0 B	5.5 B	0	0	0	35.8	0	0			9
10			0 B	8.6 B	0	0	0	33.2	0	0			10
11			0 B	8.2 B	0.16	0	0	35.3	0	0			11
12			0 B	9.1 B	3.0	0	0	30.0	0	0			12
13			0 B	6.8	9.4	0	0	31.2	0	0			13
14			0 B	3.3	4.7	0	0	31.0	0	0			14
15			0 B	4.4	4.1	0	0	27.6	0	0			15
16			0 B	5.1	4.8	0	0	2.0	0	0			16
17			0 B	41.2	4.8	0	0	0	0	0			17
18			0 B	57.8	3.4	0	0	0	0	0			18
19			0 B	51.7	2.1	0	0	0	0	0			19
20			0 B	3.6	1.2	0	0	0	0	0			20
21			0 B	0.42	20.8	0	0	0	0	0			21
22			0 B	0.28	9.1	0	0	0	0	0			22
23			0 B	0.44	27.6	0	0	0	0	0			23
24			0 B	41.3	7.1	0	0	0	0	0			24
25			0 B	52.4	0.43	0	0	0	0	0			25
26			0 B	50.1	0.11	0	0	0	0	0			26
27			0 B	14.2	0	0	0	0	0	0			27
28			0 B	11.3	0	0	0	0	0	0			28
29			0 B	11.5	0	0	0	0	0	0			29
30			0 B	18.1	0	0	0	0	0	0			30
31			0 B		1.8		12.7	0		0			31
TOTAL			0	415.84	106.76	0.27	12.7	415.8	0	0			TOTAL
MEAN			0	13.9	3.4	0.01	0.41	13.4	0	0			MEAN
AC-FT			0	825	212	0.54	25.2	825	0	0			AC-FT
MAX			0	57.8	27.6	0.23	12.7	35.8	0	0			MAX
MIN			0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 3.9 CFS
TOTAL DISCHARGE, 1890 AC-FT
MAXIMUM DAILY DISCHARGE, 57.8 CFS ON APR 18
MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE, 62.3 CFS AT 0204 ON April 19, 1974

Approved
District Chief U.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

B-ICE CONDITIONS

STORAGE FACTORS AND EVAPORATION LOSSES

STATION NAME MITCHELL RESERVOIR

STATION NO. 11AB099 19 74

PERIOD	ELEVATION AT END OF PERIOD	CONTENTS IN CFS DAYS	CHANGE IN CONTENTS DUR. PERIOD	PAN EVAPOR -ATION	MEAN ELEVATION FOR PERIOD	EVAPOR -ATION LOSS	TOTAL CHANGE STORED + RELEASED -
Feb. 25	107.45	57	0				0
Feb. 26-Mar.7	107.48	57	0				0
Mar. 8- 17	107.50	58	+ 1				+ 1
Mar. 18- 28	107.75	63	+ 5				+ 5
Mar. 29-Apr.7	109.02	94	+ 31	0.40	108.39	1	+ 32
Apr. 8- 17	110.30	138	+ 44	1.15	109.66	2	+ 46
Apr. 18- 27	110.62	151	+ 13	1.33	110.60	3	+ 16
Apr. 28-May 7	110.50	146	- 5	1.75	110.56	4	- 1
May 8- 17	112.14	220	+ 74	0	111.32	0	+ 74
May 18- 28	114.00	334	+ 114	1.18	113.07	4	+ 118
May 29-Jun.7	113.98	333	- 1	1.73	113.99	7	+ 6
Jun. 8- 17	113.76	318	- 15	2.79	113.87	12	- 3
Jun. 18- 27	113.56	304	- 14	3.41	113.66	14	0
Jun. 28-Jul.7	113.35	291	- 13	2.76	113.45	11	- 2
Jul. 8- 17	113.29	286	- 5	2.94	113.38	11	+ 6
Jul. 18- 28	113.01	268	- 18	3.93	113.15	14	- 4
Jul. 29-Aug.7	112.75	253	- 15	3.67	112.88	13	- 2
Aug. 8- 17	112.90	262	+ 9	1.72	112.83	6	+ 15
Aug. 18- 28	112.69	250	- 12	1.55	112.80	5	- 7
Aug. 29-Sep.7	112.50	240	- 10	1.55	112.60	5	- 5
Sep. 8- 17	112.43	236	- 4	0.87	112.47	3	- 1
Sep. 18- 27	112.36	232	- 4	1.12	112.40	4	0
Sep. 28-Oct.7	112.29	228	- 4	0.56	112.33	2	- 2
Oct. 8- 17	112.22	224	- 4	1.35	112.26	4	0
Oct. 18- 28	112.14	220	- 4	0.54	112.18	2	- 2
TOTAL			+ 163			127	+ 290

COMPUTED BY: W. R. Klassen

CHECKED BY: K. G. Clarke

WATER SURVEY OF CANADA
JAN 16 1975 PAGE 4
REGINA, SASK.

SQUAW COULEE NEAR WILLOW CREEK

STATION NO. 11AB1C3

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR		APR		MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	B	59.5	B	0	23.6	2.0	0	0.01	0			1
2			0	B	28.3	B	0	12.6	2.5	0	0.01	0			2
3			0	B	8.2		0	4.5	2.6	0	0	0			3
4			0	B	4.4		0	2.7	1.9	0	0	0			4
5			0	B	22.7		0	1.8	1.5	0	0	0			5
6			0	B	12.8		0	1.4	1.5	0	0	0			6
7			0	B	5.7		0	1.1	1.2	0.45	0	0			7
8			0	B	3.8		0	1.1	0.95	1.3	0	0			8
9			0	B	2.6		0	0.90	0.74	1.2	0	0			9
10			0	B	1.9		0	0.97	0.75	1.1	0	0			10
11			0	B	1.4		0	0.31	0.74	1.1	0	0			11
12			0	B	0.99		0	0.14	0.51	0.97	0	0			12
13			0.05	B	0.59		31.2	0	0.36	0.88	0	0			13
14			0.10	B	0.40		129	0	0.19	0.71	0	0			14
15			0.10	B	0.21		20.1	0	0.10	0.55	0	0			15
16			0.15	B	0.13		45.8	0	0.06	1.1	0	0			16
17			0.20	B	0.08		31.5	0	0.01	1.8	0	0			17
18			0.20	B	0.05		7.1	0	0	1.8	0	0			18
19			0.20	B	0.01		3.6	0	0	1.6	0	0			19
20			0.24	B	0		3.4	0	0	1.4	0	0			20
21			0.25	B	0		84.6	0	0	1.4	0	0			21
22			0.25	B	0		76.2	0	0	1.1	0	0			22
23			0.20	B	0		18.1	0	0	1.0	0	0			23
24			0.15	B	0		5.4	1.0	0	0.77	0	0			24
25			0.15	B	0		2.9	1.0	0	0.51	0	0			25
26			0.15	B	0		1.7	5.0	0	0.37	0	0			26
27			0.15	B	0		0.99	7.5	0	0.24	0	0			27
28			0.15	B	0		0.62	4.8	0	0.15	0	0			28
29			31.3	B	0		0.45	3.6	0	0.09	0	0			29
30			112	B	0		21.9	2.3	0	0.03	0	0			30
31			61.2	B			61.7		0	0.02		0			31
TOTAL			207.19		153.76		544.26	75.92	17.61	21.64	0.02	0			TOTAL
MEAN			6.7		5.1		17.6	2.5	0.57	0.70	0	0			MEAN
AC-FT			411		305		1080	151	34.9	42.9	0.04	0			AC-FT
MAX			112		59.5		129	23.6	2.6	1.8	0.01	0			MAX
MIN			0		0		0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 4.2 CFS
TOTAL DISCHARGE, 2020 AC-FT
MAXIMUM DAILY DISCHARGE, 129 CFS ON MAY 14
MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE, 233 CFS AT 03:50 CST ON MAY 14

Approved
District Chief W. S. B.
D. A. Davis
Dist. Engr. W. S. of Canada

B-ICE CONDITIONS
E-ESTIMATED

R. L. CRAIN LIMITED

Miscellaneous Diversions Made in LODGE CREEK (Alberta) **Tributary Basin, in 19** 74

Ditch Owner	Location	Diverting From	Approximate Acre-Feet Diverted
Comrey Grazing Assoc.		Bare Creek Reservoir	220
Good, L.	N.W. 29-5-1-4	Middle Creek	112
L. A. Ranch	N.E. 35-5-2-4	Middle Creek	0
Walburger, B.J.	E 1/2 36 N.E. 25-3-1-4	Lodge Creek	40
TOTAL			372

Miscellaneous Diversions Made in LODGE CREEK (Saskatchewan) **Tributary Basin, in** 1974

Ditch Owner	Location	Diverting From	Approximate Acre-Feet Diverted
Altawan Grazing Co-op Limited	S.W. 25 and rediverted S.E. 26-3-30-3	A Coulee	0
Battle Creek Ranch Ltd.	S.E. 25-4-30-3	A Coulee	0
Buchanan, H.	N.E. 4-2-29-3	Middle Creek	480 E
Buchanan, H.L.	S.W. 10-3-29-3	A Coulee	5
Eremenko, Daniel	S.W. 10-2-29-3	A Coulee	2
Jones, Arthur	S.W. 29-4-29-3	Middle Creek	20
Jones, A.L.	N.E. 4-4-29-3	Middle Creek	0
Jones, A.L., Jr.	N.E. 15-2-29-3	A Coulee	6
Pedersen, Carl	N.E. 15-2-29-3	A Coulee	9
Pedersen, Lewis	S.W. 22-2-29-3	A Coulee	18
Pedersen, Lewis	S 1/2 22-2-29-3	A Coulee	9
Pierce, John A.	N.E. 30-3-28-3	A Coulee	0
Saville, Joe M.	S.E. 29-3-30-3	A Coulee	45 E
Saville, Joe M.	N.W. 16 & S.W. 21-3-30-3	A Coulee	50 E
Stewart & Winnifred Stirling	N.W. 4-4-28-3	A Coulee	8
Stewart Stirling & Middlefork Ranching Ltd.	N.W. 2-4-29-3	A Slough	15
Stokke, Sigurd Hinman, E.W.	S.E. 20-2-29-3	Middle Creek	480 E
Trumpour, Edward S.	N.W. 24-3-29-3	Trumpour Coulee	4
Trumpour, Edward S.	S.W. 24-3-29-3	A Coulee	5
Trumpour, Edward S.	N.W. 24-3-29-3	Trumpour Coulee	3
Trumpour, Edward S.	N.W. 24-3-29-3	Trumpour Coulee	15
Trumpour, Edward S.	S.W. 28-2-29-3	A Coulee	4
Wagner, D.D.	N.W. 3-4-28-3	A Coulee	2
TOTAL			1180

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
TABLE PRINTED 12-20-74

1974 BATTLE CREEK AT INTERNATIONAL BOUNDARY NUMBER 06149500
DRAINAGE AREA 931.000 SQ MI

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			a 1.5	b470	3.9	72	50	35	3.6	.90		
2			b 1.7	238	3.2	68	27	26	3.6	1.7		
3			2.2	130	10	63	15	21	2.9	1.6		
4			1.7	105	7.1	72	11	36	2.2	1.4		
5			2.0	110	4.8	50	8.3	29	2.2	1.2		
6			2.7	100	3.7	44	7.9	24	2.0	.99		
7			2.1	b 68	3.1	49	9.5	21	2.3	1.4		
8			1.9	45	2.4	29	10	17	1.8	2.0		
9			1.9	42	1.8	21	14	20	1.6	2.9		
10			2.4	40	17	11	13	17	2.2	2.9		
11			2.6	29	77	7.2	25	15	2.2	4.6		
12			3.2	23	80	5.1	19	12	1.8	5.4		
13			4.0	14	105	3.8	16	9.1	2.0	4.2		
14			4.0	10	113	12	13	7.9	2.4	5.4		
15			1.4	8.3	98	10	13	5.9	2.0	6.2		
16			1.0	6.3	51	9.1	11	5.6	1.3	6.2		
17			7.9	5.5	29	6.2	11	8.3	.82	6.2		
18			8.7	4.8	25	4.6	7.2	13	.50	6.2		
19			5.9	4.0	31	35	4.4	7.9	.50	7.5		
20			4.4	3.4	34	38	3.2	6.2	.62	7.2		
21			4.0	3.4	405	28	2.2	5.4	.56	6.9		
22			3.8	2.8	191	23	1.7	6.5	.62	6.2		
23			5.6	4.0	113	24	1.4	7.9	.75	6.5		
24			6.9	4.4	116	33	1.3	7.2	.68	6.9		
25			7.9	4.0	81	64	1.8	5.9	.40	7.2		
26			7.5	3.6	49	43	2.7	5.4	.29	7.9		
27			6.5	8.1	61	43	3.0	4.9	.22	7.9		
28			b 8.7	8.2	41	64	5.1	4.6	.82	10		
29		------	b 72	6.2	31	68	3.8	4.4	.99	12		
30		------	b360	5.0	50	56	3.6	3.6	.75	8.3		
31		------	b311	------	46	------	4.0	3.2	------	8.3	------	
TOTAL			857.3	1,506.0	1,884.0	1,056.0	319.1	395.9	44.62	164.19		
MEAN			27.7	50.2	60.8	35.2	10.3	12.8	1.49	5.30		
MAX			360	470	405	72	50	36	3.6	12		
MIN			1.0	2.8	1.8	3.8	1.3	3.2	.22	.90		
AC-FT			1,700	2,990	3,740	2,090	633	785	89	326		

THE SEASON MARCH TO OCTOBER AC-FT 12,350

Max. Disch. 679 cfs at 1145 MDT on May 21 (G.H. 5.23 ft). Max. G.H. 6.43 (Ice jam) ft at 0045 on Apr. 1
Min./Disch. .22 cfs on Sept. 27 (G.H. -- ft). Min. G.H. -- ft on --

Rating No. 5 used entire season. a - No gage-height record. b - Stage-discharge relation affected by ice.

Approved
District Chief U.S.G.S.
Dist. Engr. WS of Canada

STORAGE FACTORS AND EVAPORATION LOSSES

STATION NAME ADAMS LAKE

STATION NO. 11AB095 19 74

PERIOD	ELEVATION AT END OF PERIOD	CONTENTS IN CFS DAYS	CHANGE IN CONTENTS DUR. PERIOD	PAN EVAPOR -ATION	MEAN ELEVATION FOR PERIOD	EVAPOR -ATION LOSS	TOTAL CHANGE STORED + RELEASED -
Feb. 17	3890.70	41	0				0
Feb. 18- 27	3890.70	41	0				0
Feb. 28-Mar.9	3890.84	43	+ 2				+ 2
Mar. 10- 20	3891.00	45	+ 2				+ 2
Mar. 21- 30	3891.22	48	+ 3				+ 3
Mar. 31-Apr.9	3897.50	330	+ 282	0.65	3894.36	2	+ 284
Apr. 10- 19	3897.50	330	0	1.23	3897.50	5	+ 5
Apr. 20- 29	3897.45	327	- 3	1.19	3897.48	5	+ 2
Apr. 30-May 9	3897.40	324	- 3	1.92	3897.42	8	+ 5
May 10- 20	3897.29	316	- 8	0	3897.34	0	- 8
May 21- 30	3897.18	309	- 7	1.40	3897.24	6	- 1
May 31-Jun.9	3897.00	297	- 12	1.88	3897.10	7	- 5
Jun. 10- 19	3896.77	282	- 15	2.82	3896.89	11	- 4
Jun. 20- 29	3896.55	268	- 14	3.61	3896.66	14	0
Jun. 30-Jul.9	3896.82	285	+ 17	2.45	3896.69	9	+ 26
Jul. 10- 20	3896.64	273	- 12	3.59	3896.73	14	+ 2
Jul. 21- 30	3896.45	261	- 12	3.60	3896.55	13	+ 1
Jul. 31-Aug.9	3896.26	249	- 12	3.42	3896.36	13	+ 1
Aug. 10- 20	3896.45	261	+ 12	1.39	3896.36	5	+ 17
Aug. 21- 30	3896.27	250	- 11	1.67	3896.36	6	- 5
Aug. 31-Sep.9	3896.08	238	- 12	1.35	3896.18	5	- 7
Sep. 10- 19	3895.90	227	- 11	0.87	3895.99	3	- 8
Sep. 20- 29	3895.81	222	- 5	1.06	3895.86	4	- 1
Sep. 30-Oct.9	3895.70	215	- 7	0.58	3895.76	2	- 5
Oct. 10- 20	3896.59	208	- 7	1.64	3895.55	6	- 1
Oct. 21- 26	3895.53	205	- 3	0.11	3895.56	0	- 3
TOTAL			+ 164			+138	+ 302

COMPUTED BY: W. R. Klassen

CHECKED BY: K. G. Clarke

STORAGE FACTORS AND EVAPORATION LOSSES

STATION NAME REESOR RESERVOIR

STATION NO. 11AB090 19 74

PERIOD	ELEVATION AT END OF PERIOD	CONTENTS IN CFS DAYS	CHANGE IN CONTENTS DUR. PERIOD	PAN EVAPOR -ATION	MEAN ELEVATION FOR PERIOD	EVAPOR -ATION LOSS	TOTAL CHANGE STORED + RELEASED -
Feb. 16	4023.25	638	0				0
Feb. 17- 26	4023.25	638	0				0
Feb. 27-Mar.8	4023.29	640	+ 2				+ 2
Mar. 9- 19	4023.40	648	+ 8				+ 8
Mar. 20- 29	4023.50	654	+ 6				+ 6
Mar. 30-Apr.8	4024.00	686	+ 32	0.52	4023.75	2	+ 34
Apr. 9- 18	4023.34	644	- 42	1.19	4023.67	4	- 38
Apr. 19- 28	4022.69	602	- 42	1.26	4023.02	5	- 37
Apr. 29-May 8	4022.60	597	- 5	1.85	4022.57	7	+ 2
May 9- 19	4022.75	607	+ 10	0	4022.68	0	+ 10
May 20- 29	4022.90	616	+ 9	1.31	4022.83	5	+ 14
May 30-Jun8	4022.43	587	- 29	1.76	4022.63	6	- 23
Jun. 9- 18	4022.23	574	- 13	2.81	4022.33	10	- 3
Jun. 19- 28	4022.03	562	- 12	3.52	4022.13	13	+ 1
Jun. 29-Jul.8	4021.83	550	- 12	2.63	4021.93	9	- 3
July 9- 19	4022.00	560	+ 10	3.41	4021.92	12	+ 22
July 20- 29	4021.82	549	- 11	3.59	4021.91	13	+ 2
July 30-Aug.8	4021.65	539	- 10	3.66	4021.74	13	+ 3
Aug. 9- 19	4021.75	545	+ 6	1.47	4021.70	5	+ 11
Aug. 20- 29	4021.58	535	- 10	1.66	4021.67	6	- 4
Aug. 30-Sep.8	4021.40	523	- 12	1.44	4021.49	5	- 7
Sep. 9- 18	4021.23	513	- 10	0.85	4021.32	3	- 7
Sep. 19- 28	4021.33	519	+ 6	1.09	4021.28	4	+ 10
Sep. 29-Oct.8	4021.43	525	+ 6	0.56	4021.38	2	+ 8
Oct. 9- 19	4021.53	532	+ 7	1.59	4021.48	6	+ 13
Oct. 20- 25	4021.59	535	+ 3	0.24	4021.56	1	+ 4
TOTAL			- 103			131	+ 28

COMPUTED BY: W. R. Klassen . . . . . .

CHECKED BY: K. G. Clarke . . . . . .

WATER SURVEY OF CANADA
JAN 16 1975 PAGE 2
REGINA, SASK.

GAFF DITCH NEAR MERRYFLAT

STATION NO. 1AB102

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	0	0.23	22.5	0.34	0.13	0.28	C.28			1
2			0	0	0.24	20.7	0.23	0.13	0.27	C.28			2
3			0	0	0.24	21.9	0.22	0.14	0.31	C.29			3
4			0	0	0.18	23.5	0.24	0.14	0.31	C.26			4
5			0	0.34	0.17	21.3	0.18	0.14	0.31	C.27			5
6			0	1.0	0.16	19.9	0.20	0.09	0.28	C.26			6
7			0	0.12	0.14	21.5	0.20	0.15	0.30	C.26			7
8			0	0.13	0.14	23.0	0.18	0.15	0.29	C.24			8
9			0	0.11	0.13	21.6	0.20	0.16	0.17	0.23			9
10			0	5.3	0.13	20.4	0.21	0.16	0.29	C.22			10
11			0	14.5	0.13	19.5	0.16	0.18	0.28	C.22			11
12			0	17.1	0.12	23.5	0.16	0.21	0.22	C.20			12
13			0	17.0	0.14	21.8	0.16	0.21	0.27	C.19			13
14			0	4.5	0.15	19.5	0.14	0.21	0.29	C.19			14
15			0	0.31	C.16	17.1	0.09	0.20	0.29	C.10 A			15
16			0	0.26	0.15	15.9	0.11	0.22	0.26	C.10 E			16
17			0	C.12	0.15	13.7	0.10	0.20	0.26	C.10 E			17
18			0	2.2	0.16	10.6	0.11	0.18	0.25	C.10 E			18
19			0	14.9	0.14	10.9	0.10	0.17	0.27	0.10 E			19
20			0	16.5	0.12	9.4	0.11	0.19	0.26	C.10 E			20
21			0	14.2	0.13	9.7	0.11	0.20	0.30	C.10 E			21
22			0	12.0	0.14	11.5	0.13	0.23	0.31	C.10 E			22
23			0	10.6	0.13	11.3	0.14	0.24	0.31	C.10 E			23
24			0	10.3	0.14	10.4	0.15	0.25	0.32	C.10 E			24
25			0	11.3	C.15	13.8	0.14	0.24	0.31	C.10 E			25
26			0	5.9	0.17	16.1	0.11	0.23	0.30	C.10 E			26
27			0	C.37	14.2	16.3	0.13	0.25	0.31	C.10 E			27
28			0	0.30	24.5	15.8	0.13	0.25	0.29	C.10 E			28
29			0	0.24	20.9	5.9	0.12	0.25	0.31	C.10 E			29
30			0	0.22	23.2	0.48	0.12	0.27	0.29	C.10 E			30
31			0		24.3		0.13	0.28		0.10 E			31
TOTAL			0	159.82	111.1	489.68	4.85	6.05	8.51	5.09			TOTAL
MEAN			0	5.3	3.6	16.3	0.16	0.20	0.28	C.16			MEAN
AC-FT			0	317	220	971	9.6	12.0	16.9	10.1			AC-FT
MAX			0	17.1	24.5	23.5	0.34	0.28	0.32	C.29			MAX
MIN			0	C	0.12	0.48	0.09	0.09	0.17	C.10			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 3.2 CFS
TOTAL DISCHARGE, 1560 AC-FT
MAXIMUM DAILY DISCHARGE, 24.5 CFS ON MAY 28
MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE, 26.6 CFS AT 17:50 CST ON May 31

Approved George Rike
District Chief U.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

A-MANUAL GAUGE

WATER SURVEY OF CANADA
JAN 10 1975 PAGE 2
REGINA, SASK.

CYPRESS LAKE WEST INFLOW CANAL

STATION NO. 11AB078

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0 B	33.8 B	37.0 E	54.2	0.51	0.07	0	0			1
2			0 B	39.3 B	34.1 A	50.5	0.58	0.08	0	0			2
3			0 B	31.9 B	34.1	37.6	0.56	0.04	0	0			3
4			0 B	32.3 B	33.4	22.9	0.55	0.01	0	0			4
5			0 B	49.3 B	32.2	22.6	0.57	0	0	0			5
6			0 B	110 B	25.9	22.1	0.63	0	0	0			6
7			0 B	73.4 B	13.2	15.0	0.74	0	0	0			7
8			0 B	57.8 B	1.6	3.5	1.2	0	0	0			8
9			0 B	63.8 B	1.5	2.7	1.7	0	0	0			9
10			0 B	62.8 B	1.5	3.0	1.8	0.06	0	0			10
11			0 B	67.9	1.5	2.6	6.0	0.16	0	0			11
12			0 B	60.9	1.5	1.3 A	20.7	0.14	0	0			12
13			0 B	64.3	11.0	1.2 E	20.0	0.63	0	0			13
14			0 B	56.0	24.4	1.1 E	20.7	0.31	0	0			14
15			0 B	49.6	21.2	1.0 E	18.4	0.24	0	0.01			15
16			0 B	52.7	21.6	0.94 E	2.0	0.20	0	0.03			16
17			0 B	44.1	21.0	0.88 E	1.0	0.19	0	0.02			17
18			0 B	40.4	21.0	0.83 E	0.94	0.16	0	0.01			18
19			0 B	41.1	22.9	0.78 E	0.89	0.14	0	0.02			19
20			0 B	36.7	34.3	0.74 E	0.56	0.11	0	0.02			20
21			0 B	38.0	51.5	0.70 E	0.47	0.04	0	0			21
22			0 B	33.1	96.4	0.67 E	0.49	0.02	0	0			22
23			0 B	24.2	100	0.64 E	0.50	0	0	0			23
24			0 B	23.2	180	0.62 E	0.49	0	0	0			24
25			0 B	19.5	205	0.60 A	0.44	0	0	0			25
26			0 B	25.9	205	0.60 E	0.41	0	0	0			26
27			0 B	34.9	148	0.60 E	0.37	0	0	0			27
28			0.10 B	53.5	92.3	0.60 A	0.32	0	0	0			28
29			3.7 B	56.6	47.9	0.54	0.24	0	0	0			29
30			7.5 B	42.0 E	47.0	0.55	0.14	0	0	0			30
31			15.0 B		70.2		0.12	0		0			31
TOTAL			26.30	1419.0	1638.2	251.59	104.02	2.60	0	0.11			TOTAL
MEAN			0.85	47.3	52.8	8.4	3.4	0.08	0	0			MEAN
AC-FT			52.2	2810	3250	499	206	5.2	0	0.22			AC-FT
MAX			15.0	110	205	54.2	20.7	0.63	0	0.03			MAX
MIN			0	19.5	1.5	0.54	0.12	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 14.0 CFS
TOTAL DISCHARGE, 6820 AC-FT
MAXIMUM DAILY DISCHARGE, 205 CFS ON MAY 25
MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE, CFS AT ON

Approved
District Chief U.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

A-MANUAL GAUGE
B-ICE CONDITIONS
E-ESTIMATED

WATER SURVEY OF CANADA
JAN 10 1975 PAGE 4
REGINA, SASK.

CYPRESS LAKE WEST INFLOW CANAL DRAIN

STATION NO. 11AB085

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0 B	1.0 B	0.01	0.01	0.02	0.01	0.01	0			1
2			0 B	1.3 B	0.01	0.01	0.02	0.01	0.01	0			2
3			0 B	1.6 B	0.01	0.01	0.01	0.01	0.01	0			3
4			0 B	1.9 B	0.01	0.01	0.01	0.01	0.01	0			4
5			0 B	1.5 B	0.01	0.01	0.01	0.01	0.01	0			5
6			0 B	1.1 B	0.01	0.01	0.01	0.01	0	0			6
7			0 B	0.80 B	2.1	0.01	0.01	0.01	0	0			7
8			0 B	0.50 B	0.19	0.01	0.02	0.01	0	0			8
9			0 B	0.24 B	0.13	0.01	0.02	0.01	0	0			9
10			0 B	0.17 B	0.08	0.01	0.02	0.01	0	0			10
11			0 B	0.10 B	0.08	0.01	0.01	0.01	0	0			11
12			0 B	0.09	0.07	0.01	0.01	0.02	0	0			12
13			0 B	0.08	1.2	0.01	0.02	0.03	0	0			13
14			0 B	0.06	0.09	0.02	0.02	0.02	0	0			14
15			0 B	0.07	0.08	0.02	0.01	0.02	0	0			15
16			0 B	0.06	0.07	0.02	0.01	0.02	0	0			16
17			0 B	0.04	0.07	0.02	0.01	0.02	0	0			17
18			0 B	0.03	0.07	0.02	0	0.02	0	0			18
19			0 B	0.02	0.07	0.02	0	0.02	0	0			19
20			0 B	0.01	0.08	0.02	0.01	0.02	[illegible]	0			20
21			0 B	0.01	0.11	0.03	0.01	0.03	0	0			21
22			0 B	0.01	0.11	0.04	0.01	0.03	0	0			22
23			0 B	0.01	0.08	0.04	0.01	0.03	0	0			23
24			0 B	0.01	0.04	0.04	0.01	0.03	0	0			24
25			0 B	0.01	0.03	0.05 A	0.01	0.03	0	0			25
26			0 B	0.01	0.03	0.04 E	0.01	0.03	0	0			26
27			0 B	0.01	0.03	0.04 E	0.01	0.02	0	0			27
28			0.01 B	0.01	0.02	0.04 A	0.01	0.02	0	0			28
29			0.20 B	0.01	0.01	0.02	0.01	0.02	0	0			29
30			0.40 B	0.01	0.02	0.02	0.01	0.02	0	0			30
31			0.70 B		0.02		0.01	0.01		0			31
TOTAL			1.31	10.77	4.94	0.63	0.36	0.57	0.05	0			TOTAL
MEAN			0.04	0.36	0.16	0.02	0.01	0.02	0	0			MEAN
AC-FT			2.6	21.4	9.8	1.2	0.71	1.1	0.10	0			AC-FT
MAX			0.70	1.9	2.1	0.05	0.02	0.03	0.01	0			MAX
MIN			0	0.01	0.01	0.01	0	0.01	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 0.08 CFS
TOTAL DISCHARGE, 36.9 AC-FT
MAXIMUM DAILY DISCHARGE, 2.1 CFS ON MAY 7
MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE, CFS AT ON

Approved George Dick
District Chief W.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

A-MANUAL GAUGE
B-ICE CONDITIONS
E-ESTIMATED

R. L. CRAIN LIMITED

WATER SURVEY OF CANADA
JAN 16 1975 PAGE 10
REGINA, SASK.

CYPRESS LAKE WEST OUTFLOW CANAL

STATION NO. 11AB077

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0 B	0 B	3.7	15.2	1.1	39.7	0.02	0.01			1
2			0 B	0.05 B	2.9	14.2	1.1	24.4	0.01	0.01			2
3			0 B	0.10 B	2.5	20.4	1.0	13.8	0	0.01			3
4			0 B	0.20 B	2.1	20.7	1.1	14.5	0	0.01			4
5			0 B	0.20 B	1.8	6.9	0.97	8.6	0	0.01			5
6			0 B	0.60 B	1.5	5.7	0.17	0.28	0	0.02			6
7			0 B	1.0 B	38.8	1.2	0.03	0.09	0	0.01			7
8			0 B	1.0 B	83.0	1.6	0.06	0.04	0.01	0.01			8
9			0 B	1.0 B	82.6	18.0	0.23	0.03	0.01	0.01			9
10			0 B	7.1 B	82.3	129	0.47	0.03	0.01	0.01			10
11			0 B	27.2 B	81.8	186	0.89	0.05	0.01	0.01			11
12			0 B	23.1 B	81.4	187	0.30	0.04	0.01	0			12
13			0 B	27.2	37.3	185	0.09	0.15	0.01	0.01			13
14			0 B	29.6	2.4	182	0.06	0.08	0.01	0.01			14
15			0 B	32.9	3.4	181	0.02	0.05	0.01	0.01			15
16			0 B	19.2	3.6	180	0.01	0.03	0.01	0.01 A			16
17			0 B	18.0	3.4	178	0.01	0.02	0.01	0.01 E			17
18			0 B	15.6	3.2	169	14.8	0.02	0	0.01 E			18
19			0 B	14.1	3.4	146	111	0.01	0	0.01 E			19
20			0 B	12.6	3.1	127	155	0.01	0.01	0.01 E			20
21			0 B	10.8	4.5	126	155	0.01	0.01	0.01 E			21
22			0 B	8.5	8.7	120	154	0.02	0.01	0.01 E			22
23			0 B	6.9	8.6	105	152	0.03	0.01	0.01 E			23
24			0 B	6.0	22.4	102	151	0.03	0	0.01 E			24
25			0 B	4.9	26.6	87.7	148	0.02	0	0.01 E			25
26			0 B	4.8	19.4	84.2	147	0.02	0.01	0.01 E			26
27			0 B	5.7	13.8	68.1	146	0.02	0.01	0.01 E			27
28			0 B	5.7	10.3	32.3	145	0.02	0.01	0.01 E			28
29			0 B	5.4	7.1	1.5	139	0.02	0.01	0.01 E			29
30			0 B	4.6	7.8	1.2	116	0.03	0.01	0.01 E			30
31			0 B		11.9		68.1	0.03		0.01 E			31
TOTAL			0	294.05	645.3	2681.9	1809.51	102.18	0.22	0.31			TOTAL
MEAN			0	9.8	21.5	89.4	58.4	3.3	0.01	0.01			MEAN
AC-FT			0	583	1320	5320	3590	203	0.44	0.61			AC-FT
MAX			0	32.9	83.0	187	155	39.7	0.02	0.02			MAX
MIN			0	0	1.5	1.2	0.01	0.01	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 22.7 CFS
TOTAL DISCHARGE, 11000 AC-FT
MAXIMUM DAILY DISCHARGE, 187 CFS ON JUN 12
MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE, CFS AT ON

Approved George Dike
District Chief U.S.G.S.

D.A. Davis
Dist. Eng. W.S. of Canada

A-MANUAL GAUGE
B-ICE CONDITIONS
E-ESTIMATED

WATER SURVEY OF CANADA
DEC 20 1974 PAGE 2
REGINA, SASK.

VIDORA DITCH NEAR CONSUL

STATION NO. 11ABC84

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	0	0	0	0	34.3	0	0			1
2			0	0	0	0	0	25.8	0	0			2
3			0	0	0	0	0	13.3	0	0			3
4			0	0	0	0	0	13.7	0	0			4
5			0	0	0	0	0	6.5	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	0.13	0	0	0			9
10			0	0	0	39.3	0.08	0	0	0			10
11			0	0	0	75.6	0	0	0	0			11
12			0	0	0	76.2	0	0	0	0			12
13			0	0	0	74.8	0	0	0	0			13
14			0	0	0	76.0	0	0	0	0			14
15			0	0	0	76.5	0	0	0	0			15
16			0	0	0	77.5	0	0	0	0			16
17			0	0	0	78.6	0	0	0	0			17
18			0	0	0	77.9	0	0	0	0			18
19			0	0	0	74.8	33.4	0	0	0			19
20			0	0	0	70.8	60.3	0	0	0			20
21			0	0	0	70.4	61.1	0	0	0			21
22			0	0	0	72.0	61.0	0	0	0			22
23			0	0	0	73.9	61.1	0	0	0			23
24			0	0	0	56.0	61.1	0	0	0			24
25			0	0	0	39.8	60.8	0	0	0			25
26			0	0	0	38.8	60.9	0	0	0			26
27			0	0	0	17.9	61.1	0	0	0			27
28			0	0	0	0	61.7	0	0	0			28
29			0	0	0	0	61.1	0	0	0			29
30			0	0	0	0	49.5	0	0	0			30
31			0		0		32.0	0		0			31
TOTAL			0	0	0	1165.4	725.31	93.6	0	0			TOTAL
MEAN			0	0	0	38.8	23.4	3.0	0	0			MEAN
AC-FT			0	0	0	2310	1440	186	0	0			AC-FT
MAX			0	0	0	78.6	61.7	34.3	0	0			MAX
MIN			0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 8.1 CFS
TOTAL DISCHARGE, 3940 AC-FT
MAXIMUM DAILY DISCHARGE, 78.6 CFS ON JUN 17
MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE, 79.5 CFS AT 0826 CST ON JUN 18

Approved George Dick
District Chief U.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

WATER SURVEY OF CANADA
JAN 16 1975 PAGE 4
REGINA, SASK.

RICHARDSON DITCH NEAR CONSUL

STATION NO. 11AB058

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0.01 B	0.01 B	0.01 E	0.06 E	0.07 E	10.7	0.01 E	C.01 E			1
2			0.01 B	0.01 B	0.02 E	0.06 E	0.05 E	0.10 A	0.01 E	C.01 E			2
3			0.01 B	0.01 B	0.02 E	0.05 E	0.03 E	0.10 E	0.01 E	C.01 E			3
4			0.01 B	0.01 B	0.03 E	0.05 A	0.01 A	0.09 E	0.01 E	C.01 E			4
5			0.01 B	0.01 B	0.03 E	0.05 E	0.01 E	0.09 E	0.01 E	C.01 E			5
6			0.01 B	0.01 E	0.03 E	0.05 E	0.01 E	0.08 E	0.01 E	C.01 E			6
7			0.01 B	0.01 E	0.04 E	0.05 E	0.01 E	0.08 E	0.01 E	C.01 E			7
8			0.01 B	0.01 E	0.04 E	0.05 E	0.01 E	0.08 E	0.01 E	C.01 E			8
9			0.01 B	0.01 E	0.04 E	0.05 E	0.01 E	0.07 E	0.01 E	C.01 E			9
10			0.01 B	0.01 E	0.05 E	34.5	0.01 E	0.07 E	0.01 E	C.01 E			10
11			0.01 B	0.01 E	0.05 E	60.6	0.01 E	0.06 E	0.01 E	C.01 E			11
12			0.01 B	0.01 E	0.06 E	68.6	0.01 E	0.06 E	0.01 E	C.01 E			12
13			0.01 B	0.01 E	0.06 E	71.3	0.01 E	0.06 E	0.01 E	C.01 E			13
14			0.01 B	0.01 E	0.06 E	71.2	0.01 E	0.05 E	0.01 E	C.01 E			14
15			0.01 B	C.01 E	0.07 E	71.7	0.01 E	0.05 E	0.01 E	C.01 E			15
16			0.01 B	C.01 E	0.07 E	70.7	0.01 A	0.04 E	0.01 A	C.01 A			16
17			0.01 B	0.01 E	0.08 E	69.5	0.01 E	0.04 E	0.01 E	C.01 E			17
18			0.01 B	0.01 E	0.08 E	59.5	0.01 E	0.04 E	0.01 E	C.01 E			18
19			0.01 B	0.01 E	0.08 E	52.4	41.9	0.03 E	0.01 E	0.01 E			19
20			0.01 B	0.01 E	0.09 E	37.9	59.1	0.03 E	0.01 E	C.01 E			20
21			0.01 B	0.01 E	0.09 E	19.9	54.3	0.02 E	0.01 E	C.01 E			21
22			0.01 B	0.01 E	0.09 E	8.3	51.2	0.02 E	0.01 E	C.01 E			22
23			0.01 B	0.01 E	0.10 A	8.8	50.0	0.01 E	0.01 E	C.01 E			23
24			0.01 B	0.01 E	0.10 E	9.6	49.2	0.01 A	0.01 A	C.01 E			24
25			0.01 B	0.01 E	0.09 E	5.0	48.1	0.01 E	0.01 E	C.01 E			25
26			0.01 B	0.01 E	0.09 E	0.18 E	43.0	0.01 E	0.01 E	C.01 E			26
27			0.01 B	0.01 E	0.08 E	0.16 E	38.8	0.01 E	0.01 E	C.01 E			27
28			0.01 B	0.01 E	0.08 E	0.14 E	39.6	0.01 E	0.01 E	C.01 E			28
29			0.01 B	0.01 E	0.08 E	0.12 E	43.6	0.01 E	0.01 E	0.01 E			29
30			0.01 B	0.01 A	0.07 E	0.10 E	35.7	0.01 E	0.01 E	C.01 E			30
31			0.01 B		0.07 E		26.8	0.01 E		C.01 E			31
TOTAL			0.31	0.30	1.95	720.67	581.60	12.05	0.30	C.31			TOTAL
MEAN			0.01	0.01	0.06	24.0	18.8	0.39	0.01	C.01			MEAN
AC-FT			0.61	0.60	3.9	1430	1150	23.9	0.60	0.61			AC-FT
MAX			0.01	0.01	0.10	71.7	59.1	10.7	0.01	0.01			MAX
MIN			0.01	0.01	0.01	0.05	0.01	0.01	0.01	C.01			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 5.4 CFS
TOTAL DISCHARGE, 2610 AC-FT
MAXIMUM DAILY DISCHARGE, 71.7 CFS ON JUN 15
MINIMUM DAILY DISCHARGE, 0.01 CFS ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE, CFS AT ON

Approved George Rose
District Chief U.S.G.S.

D. A. Davis
Dist. Engr. W.S. of Canada

A-MANUAL GAUGE
B-ICE CONDITIONS
E-ESTIMATED

R. L. CRAIN LIMITED

WATER SURVEY OF CANADA
DEC 23 1974 PAGE 2
REGINA, SASK.

MCKINNON DITCH NEAR CONSUL

STATION NO. 11AB044

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	0	0	0	0	4.0	0	0			1
2			0	0	0	0	0	0.04	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	0.04	0	0	0			6
7			0	0	0	0	0.04	0	0	0			7
8			0	0	0	0	0.03	0	0	0			8
9			0	0	0	0	0.05	0	0	0			9
10			0	0	0	0	0	0	0	0			10
11			0	0	0	33.3	0	0	0	0			11
12			0	0	0	47.3	0	0	0	0			12
13			0	0	0	47.6	0	0.06	0	0			13
14			0	0	0	46.4	0	0	0	0			14
15			0	0	0	46.9	0	0	0	0			15
16			0	0	0	43.5	0	0	0	0			16
17			0	0	0	45.0	0	0	0	0			17
18			0	0	0	47.2	0	0	0	0			18
19			0	0	0	51.3	0	0	0	0			19
20			0	0	0	38.9	19.9	0	0	0			20
21			0	0	0	41.5	29.2	0	0	0			21
22			0	0	0	50.3	34.7	0	0	0			22
23			0	0	0	36.6	37.9	0	0	0			23
24			0	0	0	28.4	36.3	0	0	0			24
25			0	0	0	10.8	36.2	0	0	0			25
26			0	0	0	0.26	32.7	0	0	0			26
27			0	0	0	0.10	38.5	0	0	0			27
28			0	0	0	0.03	38.0	0	0	0			28
29			0	0	0	0	34.8	0	0	0			29
30			0	0	0	0	32.8	0	0	0			30
31			0		0		22.4	0		0			31
TOTAL			0	0	0	615.39	393.56	4.10	0	0			TOTAL
MEAN			0	0	0	20.9	12.7	0.13	0	0			MEAN
AC-FT			0	0	0	1220	781	8.1	0	0			AC-FT
MAX			0	0	0	51.3	38.5	4.0	0	0			MAX
MIN			0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 4.1 CFS
TOTAL DISCHARGE, 2010 AC-FT
MAXIMUM DAILY DISCHARGE, 51.3 CFS ON JUN 19
MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE, 52.6 CFS AT 2038 CST ON JUN 18

Approved George Pike
District Chief U.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

WATER SURVEY OF CANADA
JAN 16 1975 PAGE 6
REGINA, SASK.

NASHLYN CANAL NEAR CONSUL

STATION NO. 11ABC18

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0 B	0	21.8	0.11	0	5.8	0	0			1
2			0 B	9.1	18.2	0.07	0	0.35	0	0			2
3			0 B	9.9	16.6	0.03	0	0.04	0	0			3
4			0 B	11.3	16.8	0	0	0	0	0			4
5			0 B	16.7	16.3	0	0	0	0	0			5
6			0 B	15.5	14.5	0	0	0	0	0			6
7			0 B	16.1	12.6	0.39	0	0	0	0			7
8			0 B	16.2	10.9	15.8	0	0	0	0			8
9			0 B	16.2	16.6	16.8	0	0	0	0			9
10			0 B	16.5	16.2	17.6	0	0	0	0			10
11			0 B	16.8	15.4	18.3	0	0	0	0			11
12			0 B	16.8	15.2	18.2	0	0	0	0			12
13			0 B	16.7	15.3	18.4	0	0	0	0			13
14			0 B	16.1	14.5	18.2	0	0	0	0			14
15			0 B	15.4	10.1	12.9	0	0	0	0			15
16			0 B	14.7	1.2	14.4	0	0	0	0			16
17			0 B	15.6	0.48	10.3	0	0	0	0			17
18			0 B	21.2	0.36	1.2	0	0	0	0			18
19			0 B	25.1	0.32	0.39	0	0	0	0			19
20			0 B	24.6	0.30	0.09	0	0	0	0			20
21			0 B	21.8	0.50	0.03	2.6	0	0	0			21
22			0 B	19.6	0.30	0	13.4	0	0	0			22
23			0 B	24.7	0.21	0	14.0	0	0	0			23
24			0 B	18.2	0.19	0.02	16.5	0	0	0			24
25			0 B	18.7	0.15	0.20	18.8	0	0	0			25
26			0	23.5	0.13	0.08	19.3	0	0	0			26
27			0	22.8	0.11	0	18.5	0	0	0			27
28			0	24.5	0.10	0	18.5	0	0	0			28
29			0	24.4	2.4	0	11.5	0	0	0			29
30			0	27.3	8.0	0	2.2	0	0	0			30
31			0		0.39		8.6	0		0			31
TOTAL			0	536.1	246.14	163.51	143.9	6.19	0	0			TOTAL
MEAN			0	17.9	7.9	5.5	4.6	0.20	0	0			MEAN
AC-FT			0	1060	488	324	285	12.3	0	0			AC-FT
MAX			0	27.3	21.8	18.4	19.3	5.8	0	0			MAX
MIN			0	0	0.10	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 4.5 CFS
TOTAL DISCHARGE, 2170 AC-FT
MAXIMUM DAILY DISCHARGE, 27.3 CFS ON APR 30
MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE, CFS AT ON

Approved George Ode
District Chief U.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

B-ICE CONDITIONS

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
TABLE PRINTED 1-18-75

1974 WOODPILE COULEE NEAR INTERNATIONAL BOUNDARY NUMBER 06150000
DRAINAGE AREA 60.200 SQ MI

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			0	253	0	.43						
2			0	88	0	.28						
3			0	19	0	.13						
4			0	8.0	0	0						
5			0	6.8	0	0						
6			0	10	0	0						
7			0	6.0	0	0						
8			0	3.3	0	0						
9			0	2.1	0	0						
10			0	1.3	0	0						
11			0	.87	0	0						
12			0	.55	0	0						
13			b .16	.28	19	0						
14			b 1.1	.05	31	0						
15			b .45	0	12	0						
16			a .30	0	18	0						
17			b 8.0	0	29	0						
18			b 4.0	0	8.8	0						
19			b 3.8	0	3.8	0						
20			a 3.5	0	6.0	0						
21			a 3.2	0	321	0						
22			2.9	0	142	0						
23			2.0	0	26	0						
24			a 1.8	0	8.4	0						
25			a 1.8	0	3.4	0						
26			a 1.6	0	2.0	0						
27			a 2.0	0	1.3	0						
28			11	0	.91	0						
29		------	74	0	.67	0						
30		------	120	0	.63	0						
31		------	176	------	.55	------			------		------	
TOTAL			417.61	399.25	634.46	.84	0	0	0	0		
MEAN			13.5	13.3	20.5	.028	0	0	0	0		
MAX			176	253	321	.43	0	0	0	0		
MIN			0	0	0	0	0	0	0	0		
AC-FT			828	792	1,260	1.7	0	0	0	0		

THE SEASON MARCH TO OCTOBER AC-FT 2880

Max. Disch. 519 cfs at 1400 MDT on May 21 (G.H. 5.53 ft). Max. G.H. Same ft at ____ on ____

Min. Disch. no flow cfs on most of season (G.H. ____ ft). Min.G. H. ____ ft on ____

Rating No. 6 used entire season. a - No gage-height record. b - Stage-discharge relation affected by ice.

Approved George Pike
District Chief U. S. G. S.
D. A. Davis
Dist. Engr. WS of Canada

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
TABLE PRINTED 1-18-75

1974 E F BATTLE CREEK NEAR INTERNATIONAL BOUNDARY NUMBER 06150500
DRAINAGE AREA 89.500 SQ MI

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			0	108	0	.24						
2			0	44	0	.16						
3			0	12	0	.10						
4			0	4.4	0	.02						
5			0	4.9	0	0						
6			0	13	0	0						
7			0	9.2	0	0						
8			0	3.8	0	0						
9			0	2.4	0	0						
10			0	1.4	0	0						
11			0	.81	0	0						
12			0	.62	0	0						
13			0	.41	0	0						
14			0	.27	0	0						
15			0	.16	0	0						
16			0	.12	0	0						
17			b 1.0	.06	0	0						
18			b 2.8	0	0	0						
19			b16	0	0	0						
20			b15	0	12	0						
21			b 4.7	0	478	0						
22			a 3.5	0	168	0						
23			a 2.5	0	41	0						
24			a 2.0	0	8.0	0						
25			a 1.5	0	3.2	0						
26			a 1.0	0	1.7	0						
27			a 1.5	0	1.0	0						
28			b 4.4	0	.62	0						
29		------	b153	0	.45	0						
30		------	283	0	.41	0						
31		------	178	------	.34	------			------		------	
TOTAL			669.9	205.55	714.72	.52	0	0	0	0		
MEAN			21.6	6.85	23.1	.017	0	0	0	0		
MAX			283	108	478	.24	0	0	0	0		
MIN			0	0	0	0	0	0	0	0		
AC-FT			1,330	408	1,420	1.0	0	0	0	0		

THE SEASON MARCH TO OCTOBER AC-FT 3,160

Approved
District Chief U. S. G. S.
Dist. Engr. WS of Canada

Max. Disch. 654 cfs at 1100 MDT on May 21 (G.H. 7.13 ft). Max. G.H. Same ft at ____ on ____

Min. Disch. no flow cfs on most of season (G.H. ____ ft). Min. G.H. ____ ft on ____

Rating No. 6 used entire season. a - No gage-height record. b - Stage-discharge relation affected by ice.

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
TABLE PRINTED 1-18-75

1974 LYONS CREEK AT INTERNATIONAL BOUNDARY NUMBER 06151000
DRAINAGE AREA 66.700 SQ MI

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			0	142	0	1.0						
2			0	70	0	.62						
3			0	34	0	.30						
4			0	33	0	.19						
5			0	18	0	.09						
6			0	15	0	.05						
7			0	31	0	.02						
8			0	18	0	0						
9			0	6.0	0	0						
10			0	4.4	0	0						
11			0	2.8	0	0						
12			0	1.8	0	0						
13			0	.87	0	0						
14			0	.62	0	0						
15			0	.30	0	0						
16			0	.19	0	0						
17			9.4	.09	0	0						
18			a 8.0	.05	0	0						
19			a 7.0	.04	0	0						
20			a 6.0	4.6	.98	0						
21			a 5.5	1.4	112	0						
22			a 5.0	.50	124	0						
23			a 4.5	.19	66	0						
24			a 4.0	.07	32	0						
25			a 3.5	.02	16	0						
26			a 3.0	0	6.5	0						
27			a 2.5	.05	4.0	0						
28			a 2.0	.04	5.6	0						
29		------	81	.02	6.2	0						
30		------	49	0	2.8	0						
31		------	109	------	1.6	------			------		------	
TOTAL			299.4	385.05	377.68	2.27	0	0	0	0		
MEAN			9.66	12.8	12.2	.076	0	0	0	0		
MAX			109	142	124	1.0	0	0	0	0		
MIN			0	0	0	0	0	0	0	0		
AC-FT			594	764	749	4.5	0	0	0	0		

THE SEASON MARCH TO OCTOBER AC-FT 2,110

Max. Disch. 190 cfs at 1600 MDT on Apr. 1 (G.H. 3.74 ft). Max. G.H. Same ft at ____ on ____

Min. Disch. no flow cfs on most of season (G.H. ____ ft). Min. G.H. ____ ft on ____

Rating No. 5 used entire season. a - No gage-height record.

Approved George Pike
District Chief U. S. G. S.
D. A. Downs
Dist. Engr. WS of Canada

Miscellaneous Diversions Made in BATTLE CREEK **Tributary Basin, in 19** 74

Ditch Owner	Location	Diverting From	Approximate Acre-Feet Diverted
Anderson, A. & E.H.	S.E. & N.E. 7-5-25-3	A Coulee	15
Backman, L.C.	S.E. 16-5-26-3	A Coulee	0
Backman, L.C.	S.E. 15-5-26-3	A Coulee	0
Backman, L.C.	S.W. 15-5-26-3	A Coulee	0
Battle Creek Ranch Ltd.	N.E. 9-6-29-3	Battle Creek	100
Behrman, H.F.	S.E. 18-4-26-3	Battle Creek	0 E
Behrman, W.	N.W. 24-4-26-3	Bushy Coulee	0
Behrman, William	S.E. 23-4-26-3	Slough	15
Behrman, Willie	S.E. 22-4-26-3	Bushy Coulee	8
Berg, Gunner	N.W. 18-4-25-3	A Coulee	13
Black, J.R.	N.W. 1-7-29-3	A Coulee	64
Black, J.R.	N.E. 6-7-28-3	Six Mile Coulee	55
Black, R.	N.W. 3-7-28-3	Half Way Coulee	15
Black, R.	N.E.10 & S.W. 11-7-28-3	Dorval Coulee	30
Black, R.	S.W.12-7-28-3	Spangler Coulee	30
Black, R.	N.E. 3-7-28-3	Menin Coulee	14
Brown, Clifford, M.	N.W. 18-5-26-3	A Slough	5
Demchenko, Samuel R.	N.W. 8-7-28-3	A Coulee	16
Dolosky, John	N.E. 5-3-25-3	Fothergill Coulee	10
Eccles, John E.	S.E. 15-4-27-3	A Coulee	0 E
Frame, Hugh & Frank, John	N.W. 3-3-27-3	Swede Coulee	7
Frame, Hugh	S.E. 34-2-27-3	A Coulee	0
Frame, Hugh	N.W. 34-2-27-3	A Coulee	38
Frank, John	S.W. 2-3-27-2	Battle Creek	5

Miscellaneous Diversions Made in BATTLE CREEK **Tributary Basin, in 19**74

Ditch Owner	Location	Diverting From	Approximate Acre-Feet Diverted
Funk, Ben	N.E. 4-3-26-3	A Coulee	13
Funk, Ben	S.E. 4-3-26-3	A Coulee	35
Funk, Ben	S.E. 4-3-26-3	A Coulee	17
Funk, Ben	N.E. 20-3-26-3	A Coulee	18
Funk, Ben	N.E.6 & S.E. 7-3-26-3	Stenhouse Coulee	24
Gaff, E. & Schaefer, S.	N.W. 25-5-29-3	A Coulee	15 E
Gaff, E. & Schaefer, S.	N.E. 26-5-29-3	A Coulee	15 E
Gaff, V.M.	S.W. 27-5-29-3	A Coulee	0
Glagan, Edward	N.W. 15-3-27-3	Battle Creek	34
Glagan, Otto M.	N.E. 1-5-27-3	A Coulee	2
Hansen, Vernon L.	S.E. 36 & N.1/2 25-2-27-3	Coulee No. 2	12
Hansen, Vernon L.	N.W. 25-2-27-3	Coulee No. 1	26
Harmon, Paul	N.E. 19-2-25-3	A Coulee	8
Harmon, Paul	2 pts. S.E. 19-2-25-3	A Coulee	11
Harmon, Paul	S.E. 20-2-25-3	Bellamy Coulee	6
Heglund, Lloyd W.	N.W. 19-4-26-3	A Coulee	0
Huery, John & Fred Sr.	S.W. 33-2-25-3	A Coulee	13
Johnson, Merl	W 1/2 5-5-25-3	A Coulee	27
Kisell, Jos. Jr.	N.W. 15-3-27-3	Battle Creek	0
Kisell, Jos. Jr.	S.E. 16-3-27-3	Kompan Coulee	14
Kisell, Jos. Jr.	S.W. 16-3-27-3	Kissell Coulee	6 E
Leslie, John	S.E. 11& S.W.12-8-29-3	Six Mile Coulee	0
Leslie, Robert & James	N.E. 13-8-29-3	Herington Coulee	12
Lotton, Ken	N.E. 23-3-26-3	A Coulee	7 E

Miscellaneous Diversions Made in BATTLE CREEK **Tributary Basin, in 19**74

Ditch Owner	Location	Diverting From	Approximate Acre-Feet Diverted
Lotton, Ken	N.W. 23-3-26-3	A Coulee	8 E
McConnell, John E.	S.W. 22-5-26-3	A Coulee	4
McConnell, John E.	S.E. 36-5-26-3	A Coulee	5
McConnell, James & John	N.E. 25-5-26-3	A Coulee	5
McCuaig, Duncan J.	E 1/2 1-4-27-3	A Coulee	3
McCuaig, D.J.	S.W. 2-4-27-3	A Coulee	2
McCuaig, D.J.	E 1/2 3-4-27-3	A Coulee	3
McKelvey, Howard	N.E. 31-4-27-3	A Slough	0
Neitz, P.	2 pts. S.W.18-6-27-3	Rough Coulee	68
Neitz, Paul	N.W. 18-5-27-3	A Coulee	2
Olson, Howard C.	N.W. 10-5-25-3	A Coulee	8
Olson, Howard C.	N.W. 10-5-25-3	A Coulee	7
Ormiston, George & Ella	N.E. 5-4-26-3	A Coulee	0
Palmer, Harley	N.W. 19-3-25-3	A Slough	12
Palmer, James	N.E. 26-4-26-3	A Coulee	15
Parsonage Ranching Ltd.	S.W. 33-6-29-3	Battle Creek	20
Parsonage Bros.	N.E. 28-5-28-3	Battle Creek	50
Parsonage, G.C.	N.W. 11-7-29-3	Mull Creek	35
Parsonage, G.C.	N.W. 11-7-29-3	Mull Creek	16
Pasonage, G.C. & G.W.	S.E. 4-6-29-3	Battle Creek	107
Pederson, Lenard & Willis	S.W. 13-5-26-3	A Coulee	0
Pederson, Lenard & Willis	S.W. 24-5-26-3	A Coulee	8
Pettyjohn, Gordon	S.W. 18-6-28-3	A Coulee	1
Pettyjohn, Terry	N.W. 33-5-29-3	Battle Creek	6

Miscellaneous Diversions Made in BATTLE CREEK **Tributary Basin, in 1974**

Ditch Owner	Location	Diverting From	Approximate Acre-Feet Diverted
Pridmore, James	S.E. 33-5-27-3	Battle Creek	10
Pridmore, James E.	N.W. 28-5-27-3	A Coulee	0
Pridmore, James	N.E. 29-5-27-3	A Coulee	7
Rabe, Marvin	N.W. 31-4-25-3	A Coulee	5
Rabe, Richard	N.E. 36-4-26-3	A Coulee	9
Rabe, R.	N.E. & S.W.36-4-26-3	A Coulee	10
Reamer, Gordon & Edith	N.E. 16-3-26-3	A Coulee	7
Reamer, Myrtle	N.E. 21-3-26-3	A Coulee	13
Reynolds, Albert	N.E. 36-3-28-3	A Coulee	2
Reynolds, Albert	S.E. 35-3-28-3	A Coulee	3
Reynolds, Reginald	N.E. 35-3-28-3	A Coulee	2
Schmidt, Stanley F.	N.W. 31-2-26-3	Stenhouse Coulee	14
Schmidt, Stanley F.	N.W. 32-2-26-3	Coulee No. 3	5
Schmidt, Stanley F.	N.W. 32-2-26-3	Coulee No. 2	3
Schmidt, Stanley F.	N.W. 32-2-26-3	Coulee No. 1	3
Schmidt, Stanley F.	N.E. 32 & S.E.32-2-26-3	A Coulee	10
Schmidt, Stanley F.	N.E. 31-2-26-3	A Coulee	5
Schmidt, S.F.	S. 1/2 31-2-26-3	Battle Creek	17
Schmidt, S.F.	S.E. 5-3-26-3 N.W. 32-2-26-3	A Coulee	10
Schmidt, Stanley	S.E. 31-2-26-3	Battle Creek	5
Smith, Clifford	N.E. 34-4-27-3	A Coulee	0
Smith, Clifford	N.W. 34-4-27-3	A Coulee	0
Sterling, Raymond	S.W. 23-3-27-3	A Coulee	5
Sterling, Raymond	S.W. 20-3-27-3	A Coulee	7

Miscellaneous Diversions Made in BATTLE CREEK **Tributary Basin, in 1974**

Ditch Owner	Location	Diverting From	Approximate Acre-Feet Diverted
Sterling, Raymond	N.W. 23-3-27-3	A Coulee	3
Stetar, Thomas	S.W. 21-3-27-3	A Coulee	2
Stetar, Thomas	N.E. 16-3-27-3	Kompan Coulee	3
Stetar, Thomas	N.E. 16-3-27-3	A Coulee	5
Sveund, Emma C.	S.E. 9-5-25-3	A Coulee	4
Sveund, Emma C.	N.E. 9-5-25-3	A Coulee	12
Sveund, Emma C.	S.W. 9-5-25-3	A Coulee	7
Sveund, Mrs. Emma	S.W. 9-5-25-3	A Coulee	12
Sveund, Mrs. Emma	S.E. 9-5-25-3	A Coulee	5
Swift, Leroy J.	N.E. 15-3-26-3	A Coulee	0
Swift, Leroy	S.W. 18-3-25-3	Rangeview Coulee	0
Swithart, J.W. & P.	S.E. 17-3-16-3	A Coulee	14
Teigen, Gordon	N.W. 17-5-25-3	A Coulee	10
Tenborg, L.D.	S.W. 33-3-27-3	A Coulee	2
Tenborg, N.H. & L.D.	N.E. 28-3-27-3	A Coulee	5
Tenborg, N.H. & L.D.	N.E. 28-3-27-3	Battle Creek	0
Tittle, S.	S.W. 30-2-26-3	A Coulee	27
Wilson, Lyle	N.W. 1-6-28-3	A Coulee	30
Worthy Grazing Co-op	N.E. 36-2-28-3	A Coulee	0
SUB-TOTAL			1433
Domestic Projects	(33.5% of 1433)		+ 480
TOTAL			1913

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
TABLE PRINTED 1-24-75

1974 WHITEWATER CREEK NEAR INTERNATIONAL BOUNDARY NUMBER 06156000
DRAINAGE AREA 458.000 SQ MI

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			b .70	b 236	1.3	1.4	.06	0	.07	.06		
2			b 9.0	b 115	1.0	1.2	.06	0	.07	.07		
3			b 5.3	b 58	.90	1.0	.06	0	.07	.06		
4			b 2.6	29	.84	.84	.05	0	.07	.06		
5			b 5.1	20	.77	.69	.05	0	.07	.07		
6			b 31	24	.69	.60	.08	0	.07	.07		
7			a 20	16	.63	.53	.11	0	.06	.07		
8			a 10	9.7	.55	.48	.13	0	.05	.07		
9			a 5.0	6.5	.46	.43	.11	.02	.05	.08		
10			a 7.0	5.1	.39	.37	.09	.03	.06	.08		
11			9.0	4.1	.35	.35	.12	.05	.06	.07		
12			b113	3.2	.33	.35	.10	.05	.06	.07		
13			b299	2.8	6.6	.31	.07	.07	.07	.07		
14			b249	2.8	5.9	.26	.06	.30	.07	.07		
15			b189	6.2	3.0	.22	.05	.26	.07	.07		
16			b 31	4.8	1.7	.18	.04	.19	.06	.08		
17			b 18	3.9	1.2	.16	.03	.14	.05	.08		
18			b184	3.0	1.1	.14	.03	.12	.05	.08		
19			b133	2.6	1.1	.12	.02	.10	.06	.08		
20			a 85	2.0	34	.10	.03	.14	.06	.08		
21			b 54	1.6	58	3.8	.03	.14	.06	.08		
22			b 12	1.4	34	1.5	.02	.12	.06	.08		
23			b 6.2	1.1	19	.87	.02	.11	.06	.08		
24			a 3.0	1.0	11	.55	.01	.10	.06	.08		
25			a 2.0	.97	6.8	.39	.01	.08	.06	.08		
26			a 2.0	2.8	5.3	.26	.01	.08	.05	.09		
27			a 1.5	9.7	4.1	.16	.01	.07	.06	.10		
28			b 4.1	5.9	3.2	.12	0	.08	.07	.10		
29		------	b226	3.4	2.3	.08	0	.08	.06	.10		
30		------	b610	2.1	1.8	.07	0	.07	.06	.10		
31		------	b498	------	1.5	------	0	.07	------	.10	------	
TOTAL			2,824.50	584.67	209.81	17.53	1.46	2.47	1.85	2.43		
MEAN			91.1	19.5	6.77	.58	.047	.080	.062	.078		
MAX			610	236	58	3.8	.13	.30	.07	.10		
MIN			.70	.97	.33	.07	0	0	.05	.06		
AC-FT			5,600	1,160	416	35	2.9	4.9	3.7	4.8		

THE SEASON MARCH TO OCTOBER AC-FT 7,230

Approved George Dike
District Chief, U.S.G.S.
D. A. Dane
Dist. Engr., WS of Canada

Max. Disch. 686 cfs at 1900 on Mar. 30 (G.H. 4.72 ft). Max. G.H. Same ft at ____ on ____
Min. Disch. no flow cfs on July 28 to Aug. 8 (G.H. -- ft). Min. G.H. ____ ft on ____
Est 0.62 backwater from ice

Rating No. 3 used entire season. a - No gage-height record. b - Stage-discharge relation affected by ice.

STORAGE FACTORS AND EVAPORATION LOSSES

STATION NAME EASTEND RESERVOIR

STATION NO. 11AC055 19 74

PERIOD	ELEVATION AT END OF PERIOD	CONTENTS IN CFS DAYS	CHANGE IN CONTENTS DUR. PERIOD	PAN EVAPOR -ATION	MEAN ELEVATION FOR PERIOD	EVAPOR -ATION LOSS	TOTAL CHANGE STORED + RELEASED -
Feb. 21	3003.58	88	0				0
Feb.22-Mar. 3	3003.57	88	0				0
Mar. 4- 13	3003.60	89	+ 1				+ 1
Mar.14- 24	3003.58	88	- 1				- 1
Mar.25-Apr. 3	3005.86	215	+ 127	0.09	3004.05	0	+ 127
Apr. 4- 13	3012.34	1052	+ 837	0.75	3010.41	7	+ 844
Apr.14- 23	3012.37	1058	+ 6	1.16	3012.40	14	+ 20
Apr.24-May 3	3012.53	1091	+ 33	1.35	3012.53	16	+ 49
May 4- 13	3012.82	1150	+ 59	2.12	3012.52	25	+ 84
May 14- 24	3012.63	1112	- 38	1.39	3012.60	17	- 21
May 25-Jun. 3	3012.24	1032	- 80	2.58	3012.46	31	- 49
Jun. 4- 13	3012.64	1114	+ 82	2.69	3012.43	32	+ 114
Jun.14- 23	3010.98	801	- 313	3.47	3012.07	39	- 274
Jun.24-Jul. 3	3007.58	361	- 440	3.73	3009.03	27	- 413
Jul. 4- 13	3009.01	517	+ 156	3.17	3008.13	20	+ 176
Jul.14- 24	3008.98	514	- 3	3.75	3009.28	28	+ 25
Jul.25-Aug. 3	3007.80	382	- 132	3.22	3008.25	21	- 111
Aug. 4- 13	3007.50	353	- 29	2.02	3007.02	11	- 18
Aug.14- 24	3005.66	202	- 151	2.09	3006.78	10	- 141
Aug.25-Sep. 3	3003.96	103	- 99	1.66	3004.57	5	- 94
Sep. 4- 13	3003.85	99	- 4	1.21	3003.85	3	- 1
Sep.14- 23	3003.74	95	- 4	1.78	3003.82	5	+ 1
Sep.24-Oct. 3	3003.72	94	- 1	0.98	3003.74	2	+ 1
Oct. 4- 13	3003.51	86	- 8	1.01	3003.60	2	- 6
Oct.14- 24	3003.55	87	+ 1	1.17	3003.51	3	+ 4
TOTAL			- 1			318	+ 317

Approved George Ashe
District Chief U.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

COMPUTED BY: . W. R. Klassen . . . .

CHECKED BY:. . F. M. O'Neill . . . .

WATER SURVEY OF CANADA
JAN 23 1975 PAGE 2
REGINA, SASK.

FRENCHMAN RIVER BELOW EASTEND RESERVOIR

STATION NO. 11AC001

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			15.2 B	191 B	67.6	118	7.2	5.5	15.0	8.2			1
2			15.8 B	140 B	63.1	136	7.4	5.3	13.0	9.6			2
3			16.4 B	56.1 B	82.5	134	7.3	5.4	11.7	10.6			3
4			17.0 B	9.7 B	92.5	110	7.0	5.4	10.4	11.9			4
5			17.2 B	14.5 B	93.7	39.8	7.3	5.2	9.4	12.2			5
6			17.4 B	16.5 B	65.7	12.6	7.3	4.9	8.7	12.5			6
7			17.5 B	18.6 B	51.3	12.2	7.5	5.3	8.1	17.2			7
8			17.7 B	20.2 B	51.5	12.7	8.4	5.1	8.3	16.3			8
9			18.4 B	111 B	48.6	12.4	9.4	13.8	8.7	12.9			9
10			19.1 B	233	48.8	11.8	8.0	5.8	9.7	12.8			10
11			19.9 B	280	47.6	26.9	7.0	5.9	9.3	11.7			11
12			20.6 B	315	46.0	26.5	6.3	5.8	9.2	12.9			12
13			21.3 B	269	59.1	10.8	5.8	6.3	9.5	11.8			13
14			21.5 B	185	123	11.0	5.8	27.8	9.7	11.2			14
15			21.7 B	150	194	10.9	5.8	41.6	9.7	11.6			15
16			21.9 B	151	146	11.1	5.7	40.9	9.3	11.7			16
17			22.1 B	156	127	11.7	5.3	38.2	9.3	13.1			17
18			22.3 B	181	119	11.7	5.5	37.4	8.9	13.7			18
19			21.6 B	180	109	11.9	5.9	34.2	9.6	13.3			19
20			20.8 B	179	113	11.7	5.9	33.5	8.2	14.1			20
21			20.0 B	174	130	11.4	5.9	32.1	9.6	12.9			21
22			19.2 B	141	163	11.2	6.1	30.2	10.7	12.7			22
23			18.4 B	102	204	10.8	6.1	28.6	8.8	14.7			23
24			17.6 B	105	243	10.8	6.3	27.1	8.8	14.4			24
25			16.9 B	131	404	10.1	6.1	25.6	8.6	14.2			25
26		13.6 B	16.2 B	168	364	9.0	6.0	24.0	8.7	14.1			26
27		14.1 B	16.0 B	161	118	7.9	5.9	22.1	8.0	15.1			27
28		14.6 B	24.0 B	202	89.7	7.6	5.8	20.5	8.2	15.1			28
29			36.0 B	259	138	7.3	5.8	18.9	8.0	15.7 A			29
30			89.8 B	166	114	7.4	5.7	17.4	8.0	15.7 E			30
31			210 B		103		5.7	15.9		15.7 E			31
TOTAL			868.5	4465.6	3819.7	837.2	201.2	595.7	283.1	409.6			TOTAL
MEAN			28.0	149	123	27.9	6.5	19.2	9.4	13.2			MEAN
AC-FT			1720	8860	7580	1660	399	1180	562	812			AC-FT
MAX			210	315	404	136	9.4	41.6	15.0	17.2			MAX
MIN			15.2	9.7	46.0	7.3	5.3	4.9	8.0	8.2			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 46.9 CFS
TOTAL DISCHARGE, 22900 AC-FT
MAXIMUM DAILY DISCHARGE, 404 CFS ON MAY 25
MINIMUM DAILY DISCHARGE, 4.9 CFS ON AUG 6

MAXIMUM INSTANTANEOUS DISCHARGE, 417 CFS AT 21:00 CST ON MAY 25

Approved George Dibb
District Chief U.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

A-MANUAL GAUGE
B-ICE CONDITIONS
E-ESTIMATED

WATER SURVEY OF CANADA
JAN 23 1975 PAGE 4
REGINA, SASK.

FRENCHMAN RIVER BELOW EASTEND IRRIGATION PROJECT

STATION NO. 11AC057

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1					128	76.0	13.0	17.2	20.7	10.6			1
2					59.4	98.1	17.3	13.4	18.9	10.3			2
3					53.7	110	20.9	15.0	17.0	10.6			3
4					68.9	108	13.3	17.9	15.9	12.3			4
5					73.0	77.7	9.7	18.9	14.4	13.7			5
6					72.4	38.1	8.0	13.3	13.0	15.1			6
7					52.4	17.0	8.3	15.0	11.9	14.9			7
8					44.3	14.8	8.2	19.6	11.0	16.4			8
9					42.1	14.3	7.6	26.2	10.6	22.4			9
10					41.0	13.7	11.3	25.8	10.6	17.2			10
11					40.2	12.6	29.2	20.6	10.9	14.8			11
12					39.0	18.3	23.3	12.0	11.4	14.5			12
13					44.2	30.8	12.7	14.7	11.5	14.1			13
14					49.3	16.6	11.4	26.6	11.4	14.7			14
15					123	11.3	8.3	26.4	11.4	14.2			15
16					161	10.0	6.9	40.7	10.9	13.6			16
17					118	9.9	6.3	38.7	10.1	13.9			17
18					109	10.1	5.9	37.8	10.0	14.5			18
19					94.4	14.6	6.0	36.8	9.7	16.0			19
20					89.5	13.7	6.1	36.0	9.7	16.1			20
21					126	14.8	5.8	35.7	10.6	15.8			21
22					135	18.3	6.1	34.8	10.0	15.7			22
23					164	18.6	6.6	33.4	10.1	15.1			23
24					181	19.0	6.4	32.0	11.7	15.4			24
25					273	22.6	6.6	30.5	10.7	17.0			25
26				134 A	396	21.8	9.9	29.8	9.7	16.3			26
27				168	314	20.7	12.2	28.9	10.1	15.9			27
28				153	66.8	18.5	17.0	27.7	10.1	15.7 A			28
29				217	89.7	13.0	15.6	26.2	10.1	15.5 E			29
30				226	107	13.1	15.6	24.3	10.0	15.5 E			30
31					85.7		18.5	22.5		15.5 E			31
TOTAL					3437.0	896.0	354.0	798.1	354.1	463.3			TOTAL
MEAN					111	29.9	11.4	25.7	11.8	14.9			MEAN
AC-FT					6820	1780	702	1580	702	919			AC-FT
MAX					396	110	29.2	40.7	20.7	22.4			MAX
MIN					39.0	9.9	5.8	12.0	9.7	10.3			MIN

SUMMARY FOR THE MONTHS MAY TO OCT
MEAN DISCHARGE, 34.3 CFS
TOTAL DISCHARGE, 12500 AC-FT
MAXIMUM DAILY DISCHARGE, 396 CFS ON MAY 26
MINIMUM DAILY DISCHARGE, 5.8 CFS ON JUL 21

MAXIMUM INSTANTANEOUS DISCHARGE, 409 CFS AT 17:30 CST ON MAY 26

Approved
District Chief U.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

A-MANUAL GAUGE
E-ESTIMATED

STORAGE FACTORS AND EVAPORATION LOSSES

STATION NAME VAL MARIE WEST RESERVOIR

STATION NO. 11AC063 19 74

PERIOD	ELEVATION AT END OF PERIOD	CONTENTS IN CFS DAYS	CHANGE IN CONTENTS DUR. PERIOD	PAN EVAPOR -ATION	MEAN ELEVATION FOR PERIOD	EVAPOR -ATION LOSS	TOTAL CHANGE STORED + RELEASED -
Feb. 25	2673.90	1156	0				0
Feb.26-Mar. 7	2673.98	1175	+ 19				+ 19
Mar. 8- 17	2674.76	1369	+ 194				+ 194
Mar.18- 28	2676.25	1758	+ 389				+ 389
Mar.29-Apr. 7	2676.54	1836	+ 78	0.33	2675.65	5	+ 83
Apr. 8- 17	2676.14	1728	- 108	1.97	2676.02	31	- 77
Apr.18- 27	2676.75	1895	+ 167	3.17	2676.80	51	+ 218
Apr.28-May 7	2677.05	1979	+ 84	1.87	2676.99	31	+ 115
May 8- 17	2677.04	1976	- 3	1.83	2676.98	30	+ 27
May 18- 28	2676.52	1831	- 145	1.80	2676.88	29	- 116
May 29-Jun. 7	2676.73	1889	+ 58	2.47	2676.77	40	+ 98
Jun. 8- 17	2675.51	1563	- 326	3.50	2676.15	56	- 270
Jun.18- 27	2674.45	1292	- 271	4.66	2674.84	69	- 202
Jun.28-Jul. 7	2674.53	1312	+ 20	3.39	2674.46	49	+ 69
Jul. 8- 17	2674.89	1402	+ 90	3.95	2674.86	58	+ 148
Jul.18- 28	2672.84	914	- 488	4.03	2673.75	55	- 433
Jul.29-Aug. 7	2670.88	534	- 380	3.18	2671.69	36	- 344
Aug. 8- 17	2671.90	718	+ 184	1.47	2671.17	15	+ 199
Aug.18- 28	2673.31	1017	+ 299	2.13	2672.72	27	+ 326
Aug.29-Sep. 7	2673.91	1158	+ 141	1.83	2673.70	25	+ 166
Sep. 8- 17	2673.97	1173	+ 15	1.86	2674.00	26	+ 41
Sep.18- 27	2673.71	1110	- 63	1.95	2673.84	27	- 36
Sep.28-Oct. 7	2673.54	1070	- 40	1.53	2673.61	21	- 19
Oct. 8- 17	2673.63	1091	+ 21	1.73	2673.57	23	+ 44
Oct.18- 28	2673.77	1125	+ 34	0.64	2673.69	9	+ 43
TOTAL			- 31			713	+ 682

Approved
District Chief U.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

COMPUTED BY: W. R. Klassen

CHECKED BY: F. M. O'Neill

STORAGE FACTORS AND EVAPORATION LOSSES

STATION NAME VAL MARIE RESERVOIR

STATION NO. 11AC056 19 74

PERIOD	ELEVATION AT END OF PERIOD	CONTENTS IN CFS DAYS	CHANGE IN CONTENTS DUR. PERIOD	PAN EVAPOR -ATION	MEAN ELEVATION FOR PERIOD	EVAPOR -ATION LOSS	TOTAL CHANGE STORED + RELEASED -
Feb. 25	2626.10	632	0				0
Feb.26-Mar. 7	2626.33	678	+ 46				+ 46
Mar. 8- 17	2626.77	774	+ 96				+ 96
Mar.18- 28	2627.17	868	+ 94				+ 94
Mar.29-Apr. 7	2634.13	3759	+ 2891	0.33	2631.85	9	+2900
Apr. 8- 17	2636.99	5768	+ 2009	1.97	2635.74	82	+2091
Apr.18- 27	2638.26	6837	+ 1069	3.17	2637.55	155	+1224
Apr.28-May 7	2637.94	6559	- 278	1.87	2638.34	96	- 182
May 8- 17	2637.16	5906	- 653	1.83	2637.32	88	- 565
May 18- 28	2637.61	6279	+ 373	1.80	2637.83	89	+ 462
May 29-Jun. 7	2636.03	5021	- 1258	2.47	2636.48	112	-1146
Jun. 8- 17	2634.85	4205	- 816	3.50	2635.49	142	- 674
Jun.18- 27	2633.21	3240	- 965	4.66	2633.95	158	- 807
Jun.28-Jul. 7	2632.62	2936	- 304	3.39	2632.78	99	- 205
Jul. 8- 17	2632.32	2790	- 146	3.95	2632.53	113	- 33
Jul.18- 28	2630.76	2081	- 709	4.03	2631.60	107	- 602
Jul.29-Aug. 7	2628.97	1396	- 685	3.18	2629.80	71	- 614
Aug. 8- 17	2629.12	1447	+ 51	1.47	2629.05	29	+ 80
Aug.18- 28	2629.07	1430	- 17	2.13	2629.13	43	+ 26
Aug.29-Sep. 7	2628.89	1369	- 61	1.83	2628.96	36	- 25
Sep. 8- 17	2628.90	1372	+ 3	1.86	2628.88	36	+ 39
Sep.18- 27	2628.99	1403	+ 31	1.95	2628.96	39	+ 70
Sep.28-Oct. 7	2628.42	1215	- 188	1.53	2628.64	29	- 159
Oct. 8- 17	2628.47	1231	+ 16	1.73	2628.46	32	+ 48
Oct.18- 28	2628.53	1251	+ 20	0.64	2628.50	12	+ 32
TOTAL			+ 619			1577	+2196

Approved George Ache
District Chief U.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

COMPUTED BY: W. R. Klassen

CHECKED BY: F. M. O'Neill

Water Survey of Canada

DAILY PAN EVAPORATION & PRECIPITATION IN INCHES

Station - Val Marie

Year - 1974

APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		Day
Evap.	Prec.	Evap.	Prec.	Evap.	Prec.	Evap.	Prec.	Evap.	Prec.	Evap.	Prec.	Evap.	Prec.	
.03 E		.28	0.04	.30		.26		.24		.15		.52		1
.04 E		.05	0.05	.40		.15	0.06	.30		.19		.33		2
.04 E		.20		.30		.30		.30		.22		.28		3
.05 E		.15		.35		.40		.40		.20		--	T	4
.05 E		.30		.30		--		.60		.07		--	T	5
.06 E		.16	0.04	.20		.17	0.36	.10	0.16	.26		--		6
.06 E		.20		-.06	0.20	.15	0.08	.15		.14		.40		7
.07 E		.30		.20		.30	0.05	-.25	0.35	.20		.18		8
.07 E		.20	0.01	.40		.40		.08	0.08	.13		.16		9
.08 E		.20	0.03	.20		-.37	0.76	-.30	0.50	.12	0.05	.24		10
.08 E		.10		.25		.24	0.06	.10	0.03	.04		.10		11
.09 E	0.09	-.38	0.73	.40		.40		-.19	0.38	.10		--		12
-.13	0.36	.05	0.01	.50		--		-.43	0.55	.20		.43		13
.30		.10	0.01	.30		.80		-.20	0.27	.20		.07		14
--		.13	0.01	.49		.50	0.01	.10		.26		.20		15
.66		.20		.46		.40		.20		.33		.20		16
.30		.03	0.10	.30		.40		.20		.23		.15		17
.25		-.06	0.07	.50		.40		.30		.07		.12		18
.34		-.47	0.65	.50		.03	0.29	-.10	0.27	.16		.23		19
.26		-1.30	1.54	.45		.30		.10		.18	0.03	.29		20
.05	0.16	-.10	0.06	.30		.40		.10		.20		--		21
.16		.06		.50		.40		.20	0.05	.10		--		22
.30		.15	0.06	.45		.40		.27		.27				23
.46		.20		.50		.40		.20		.26				24
.30		.14	0.01	.36		--		.09	0.20	.28				25
.45		.36		.60		.70		.20		.20		FROZEN		26
-.90	1.34	.25	0.03	.50		.36		.10		.20				27
--		.15		.50		.35		.15		--				28
.20		.20	0.03	.50		.35		.25		--		--		29
.20		.10		.46		--		.15	0.03	--		--		30
		.15				.58		.17				--		31
3.92	1.95	2.10	3.48	11.41	0.20	9.17	1.67	3.58	2.87	4.96	0.08	3.90	0.00	Total

WATER SURVEY OF CANADA
JAN 23 1975 PAGE 6
REGINA, SASK.

FRENCHMAN RIVER BELOW VAL MARIE

STATION NO. 11AC051

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1					125	350	37.2	31.7	2.8	54.1			1
2					181	366	35.7	35.5	2.6	54.6			2
3					214	365	32.5	34.6	2.4	53.2			3
4					211	328	29.1	34.0	2.1	49.9			4
5					209	243	17.3	30.4	2.0	17.6			5
6					207	213	15.6	27.7	1.8	5.0			6
7					206	59.8	10.3	27.4	2.1	3.4			7
8					204	34.1	8.0	27.8	1.9	3.3			8
9					203	46.3	7.1	20.6	2.1	4.0			9
10					200	51.2	6.3	21.7	2.3	3.9			10
11					199	61.6	8.3	16.8	2.3	3.5			11
12					199	64.8	6.6	15.1	2.3	4.0			12
13					202	69.2	5.7	10.5	2.7	3.7			13
14					195	60.2	4.5	18.1	2.5	3.9			14
15					45.3	47.4	4.0	18.4	2.3	4.1			15
16					21.9	65.4	5.5	10.3	1.9	4.1			16
17					18.8	80.7	5.5	7.8	1.9	4.0			17
18					18.7	77.3	16.3	4.7	1.8	3.9			18
19				46.7 A	18.7	66.2	15.1	3.2	1.7	3.9			19
20				30.0	47.0	66.9	11.6	2.9	1.7	6.0			20
21				25.5	146	75.3	16.7	2.7	1.8	5.9			21
22				21.5	358	70.3	21.9	2.7	1.7	5.0			22
23				19.3	491	71.2	25.6	3.2	1.8	5.5			23
24				18.1	528	68.4	28.8	3.9	1.6	5.3			24
25				17.0	991	59.3	32.4	3.6	2.0	5.5			25
26				22.9	992	49.0	34.2	3.6	3.2	5.5			26
27				36.1	429	46.0	33.0	3.3	4.7	5.5			27
28				50.6	321	41.3	29.1	3.5	5.4	5.6			28
29				55.2	292	38.8	31.7	3.0	5.9	6.0			29
30				93.9	305	30.9	29.0	2.2	6.5	6.0			30
31					320		29.0	2.7		5.7 A			31
TOTAL					8058.4	3266.6	593.6	433.6	77.8	351.6			TOTAL
MEAN					260	109	19.1	14.0	2.6	11.3			MEAN
AC-FT					16000	6480	1180	860	154	697			AC-FT
MAX					992	366	37.2	35.5	6.5	54.6			MAX
MIN					18.7	30.9	4.0	2.2	1.6	3.3			MIN

SUMMARY FOR THE MONTHS MAY TO OCT
MEAN DISCHARGE, 69.5 CFS
TOTAL DISCHARGE, 25400 AC-FT
MAXIMUM DAILY DISCHARGE, 992 CFS ON MAY 26
MINIMUM DAILY DISCHARGE, 1.6 CFS ON SEP 24

MAXIMUM INSTANTANEOUS DISCHARGE, 1,800 CFS AT 20:40 CST ON MAY 25

Approved George Pike
District Chief U.S.G.S.

A-MANUAL GAUGE

D.A. Davis
Dist. Engr. W.S. of Canada

WATER SURVEY OF CANADA
JAN 16 1975 PAGE 2
REGINA, SASK.

FRENCHMAN RIVER AT INTERNATIONAL BOUNDARY

STATION NO. 11AC041

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR		APR		MAY		JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			11.5	B	1080	B	69.9		283	37.1	28.6	0.07	0			1
2			74.5	B	1160	B	120		295	31.6	26.5	0.06	0			2
3			48.1	B	1190	B	136		323	35.8	28.2	0.07	17.3			3
4			39.9	B	1150	B	182		335	35.4	34.2	0.05	50.4			4
5			37.3	B	1140	B	192		340	32.0	31.6	0.03	48.8			5
6			47.0	B	812	B	180		286	33.3	28.0	0	44.6			6
7			35.0	B	766	B	183		212	31.3	30.0	0	29.3			7
8			18.2	B	726	B	192		149	29.6	28.4	0	9.8			8
9			15.2	B	688	B	192		56.9	21.0	73.3	0	4.5			9
10			10.2	B	664	B	192		39.9	13.4	31.3	0	2.2			10
11			14.7	B	625	B	188		46.6	9.1	49.5	0	1.8			11
12			38.6	B	486		185		50.1	6.2	41.5	0	1.1			12
13			85.6	B	408		199		58.6	5.3	23.7	0	0.70			13
14			79.2	B	266		198		59.3	4.2	92.1	0	0.66			14
15			93.7	B	188		185		59.2	3.9	158	0	0.60			15
16			85.2	B	151		129		50.2	3.9	82.2	0	0.59			16
17			129	B	121		41.6		40.3	3.3	28.4	0	0.54			17
18			144	B	100		29.0		60.2	2.7	16.3	0	0.37			18
19			91.9	B	94.7		24.0		68.6	2.2	9.2	0	0.37			19
20			115	B	74.7		148		65.9	2.0	7.8	0	0.35			20
21			96.2	B	67.8		598	A	58.7	9.4	6.3	0	0.41			21
22			70.8	B	43.4		808	E	66.1	11.5	13.0	0	0.63			22
23			42.1	B	34.0		820	E	65.7	8.9	7.6	0	2.5			23
24			25.8	B	31.5		673	A	66.2	15.5	3.9	0	5.5			24
25			18.8	B	25.9		612		66.1	21.6	2.2	0	6.2			25
26			15.1	B	33.0		618		59.1	24.9	1.4	0	6.3			26
27			19.3	B	97.5		651		52.9	33.7	0.93	0	6.5			27
28			84.5	B	333		704		42.8	33.1	0.52	0	6.1			28
29			226	B	121		730		41.0	29.8	0.29	0	6.1			29
30			459	B	89.6		364		38.7	27.3	0.18	0	6.7			30
31			779	B			283			32.5	0.12		5.5	A		31
TOTAL			3050.4		12767.1		9916.5		3436.1	591.5	883.24	0.28	260.42			TOTAL
MEAN			98.4		426		320		115	19.1	28.5	0.01	8.4			MEAN
AC-FT			6050		25300		19700		6820	1170	1750	0.56	517			AC-FT
MAX			779		1190		820		340	37.1	158	0.07	50.4			MAX
MIN			10.2		25.9		24.0		38.7	2.0	0.12	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 126 CFS
TOTAL DISCHARGE, 61300 AC-FT
MAXIMUM DAILY DISCHARGE, 1190 CFS ON APR 3
MINIMUM DAILY DISCHARGE, 0 CFS ON SEP 6

MAXIMUM INSTANTANEOUS DISCHARGE, 1280 CFS AT 10:30 CST ON APR. 5 1974

Approved George Ike
District Chief U.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

A-MANUAL GAUGE
B-ICE CONDITIONS
E-ESTIMATED

WATER SURVEY OF CANADA
JAN 10 1975 PAGE 6
REGINA, SASK.

BELANGER CREEK DIVERSION TO CYPRESS LAKE

STATION NO. 11AC064

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0 B	0 B	18.3	58.9	0	0	0	0			1
2			0 B	0.09 B	19.3	40.6	0	0	0	0			2
3			0 B	2.6 B	19.4	31.0	0	0	0	0			3
4			0 B	5.2 B	16.4	26.2	0	0	0	0			4
5			0 B	10.6 B	14.4	23.9	0	0	0	0			5
6			0 B	25.6 B	13.6	23.7	0	0	0	0			6
7			0 B	111	13.3	23.8	0	0	0	0			7
8			0 B	115	12.8	22.3	0	0	0	0			8
9			0 B	127	12.7	21.0	0	0	0	0			9
10			0 B	137	12.5	19.6	0	0	0	0			10
11			0 B	106	12.5	14.2	0	0	0	0			11
12			0 B	99.6	12.2	0.10	0	0	0	0			12
13			0 B	68.6	28.5	0	0	0	0	0			13
14			0 B	44.8	53.8	0	0	0	0	0			14
15			0 B	48.1	41.0	0	0	0	0	0			15
16			0 B	52.4	29.2	0	0	0	0	0			16
17			0 B	56.6	28.0	0	0	0	0	0			17
18			0 B	57.7	24.9	0	0	0	0	0			18
19			0 B	65.7	24.5	0	0	0	0	0			19
20			0 B	57.4	22.8	0	0	0	0	0			20
21			0 B	39.3	25.7	0	0	0	0	0			21
22			0 B	23.6	24.5	0	0	0	0	0			22
23			0 B	22.4	46.4	0	0	0	0	0			23
24			0 B	31.4	281	0	0	0	0	0			24
25			0 B	34.3	355	0	0	0	0	0			25
26			0 B	33.9	276	0	0	0	0	0			26
27			0 B	53.6	216	0	0	0	0	0			27
28			0 B	67.1	98.5	0	0	0	0	0			28
29			0 B	30.5	54.8	0	0	0	0	0			29
30			0 B	18.7	84.9	0	0	0	0	0			30
31			0 B		98.7		0	0		0			31
TOTAL			0	1545.79	1991.6	305.30	0	0	0	0			TOTAL
MEAN			0	51.5	64.2	10.2	0	0	0	0			MEAN
AC-FT			0	3070	3950	606	0	0	0	0			AC-FT
MAX			0	137	355	58.9	0	0	0	0			MAX
MIN			0	0	12.2	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 15.7 CFS
TOTAL DISCHARGE, 7630 AC-FT
MAXIMUM DAILY DISCHARGE, 355 CFS ON MAY 25
MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE, CFS AT ON

Approved George Ode
District Chief U.S.G.S.

D. A. Davis
Dist. Engr. W.S. of Canada

B-ICE CONDITIONS

STORAGE FACTORS AND EVAPORATION LOSSES

STATION NAME CYPRESS LAKE

STATION NO. 11AC037 19 74

PERIOD	ELEVATION AT END OF PERIOD	CONTENTS IN CFS DAYS	CHANGE IN CONTENTS DUR. PERIOD	PAN EVAPOR -ATION	MEAN ELEVATION FOR PERIOD	EVAPOR -ATION LOSS	TOTAL CHANGE STORED + RELEASED -
Feb. 19	3192.26	25382	0				
Feb.20-Mar. 1	3192.27	25408	+ 26				
Mar. 2- 11	3192.28	25434	+ 26				
Mar.12- 22	3192.27	25408	- 26				
Mar.23-Apr. 1	3192.37	25671	+ 263				
Apr. 2- 11	3192.90	27065	+1394	0.74	3192.60	113	
Apr.12- 21	3193.32	28182	+1117	0.88	3193.16	136	
Apr.22-May 1	3193.60	28929	+ 747	1.69	3193.45	262	
May 2- 11	3193.50	28663	- 266	1.77	3193.61	275	
May 12- 22	3193.98	29944	+1281	1.32	3193.73	205	
May 23-Jun. 1	3195.10	32974	+3030	2.34	3194.67	368	
June 2- 11	3195.04	32810	- 164	2.65	3195.14	419	
June12- 21	3194.42	31132	-1678	3.54	3194.66	556	
June22-Jul. 1	3194.04	30105	-1027	3.90	3194.19	610	
July 2- 11	3193.93	29810	- 295	2.87	3193.97	447	
July12- 22	3193.61	28956	- 854	3.92	3193.84	610	
July23-Aug. 1	3192.73	26618	-2338	3.22	3193.09	496	
Aug. 2- 11	3192.63	26355	- 263	2.30	3192.64	352	
Aug.12- 22	3192.61	26302	- 53	1.84	3192.65	281	
Aug.23-Sep. 1	3192.50	26013	- 289	1.70	3192.57	260	
Sep. 2- 11	3192.40	25750	- 263	1.77	3192.45	270	
Sep.12- 21	3192.33	25566	- 184	1.37	3192.36	209	
Sep.22-Oct. 1	3192.23	25303	- 263	0.89	3192.28	135	
Oct. 2- 11	3192.16	25119	- 184	1.51	3192.19	229	
Oct.12- 22	3192.08	24908	- 211	1.17	3192.11	177	
Oct.23- 31	3192.05	24830	- 78	0.15	3192.06	23	
TOTAL			- 552			6433	

Approved George Oake
District Chief U.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

COMPUTED BY: W. R. Klassen . . . . . .

CHECKED BY: F. M. O'Neill . . . . . .

· CYPRESS LAKE STORAGE FOR YEAR 1974 ·

Note:-All figures are in Sec.-Ft. days unless otherwise stated.

PERIOD	BATTLE CREEK DIVERSION 1 Cypress Lake West Inflow Canal Measured	2 Cypress Lake West Outflow Canal Measured	3 Cypress Lake West Inflow Canal Drain Measured	4 Total Release From West End of Cypress Lake 2+3	5 Net Diversion to Storage from Battle Creek 1-4	FRENCHMAN DIVERSION 6 Belanger Creek Diversion to Cypress Lake Measured	7 Cypress Lake East Outflow Canal Measured	8 Net Diversion to Storage from Frenchman River Basin 6-7	CYPRESS LAKE BASIN 9 Evaporation Computed from Pan Data	10 Net Quantity Diverted into Storage 5+8	11 Actual Quantity in Storage from Elevations & Capacity Table (OCT. 31/73) 11A Quantity in Storage end of Period	11B Increment during Period (from 11A)	12 Quantity Stored from Cypress Lake Drainage Basin 12A For Period (11B-10)	12B Total from Mar.1 1940 to date
Feb 20-Mar 1	0	0	0	0	0	0	1 -	1	0 -	1	* 25224 25408 +	26 +	27	
Mar 2-12	0	0	0	0	0	0	14 -	14	0 -	14	25434 +	26 +	40	
Mar 12-22	0	0	0	0	0	0	16 -	16	0 -	16	25408 -	26 -	10	
Mar 23-Apr 1	60	0	2	2 +	58	640	16 +	624	0 +	682	25671 +	263 -	419	
Apr 2-11	589	39	9	48 +	541	590	4 +	586	113 +	1127	27065 +	1394 +	267	
Apr 12-21	484	203	1	204 +	280	334	63 +	271	136 +	551	28182 +	1117 +	566	
Apr 22-May 1	350	56	0	56 +	294	147	89 +	58	262 +	352	28929 +	747 +	395	
May 2-11	179	379	3	382 -	203	315	47 +	268	275 +	65	28663 -	266 -	331	
May 12-22	327	154	2	156 +	171	1570	156 +	1414	205 +	1585	29944 +	1281 -	304	
May 23-June 1	1150	143	1	144 +	1006	247	35 +	212	368 +	1218	32974 +	3030 +	1812	
June 2-11	183	404	0	404 -	221	0	21 -	21	419 -	242	32810 -	164 +	78	
June 12-21	9	1661	0	1661 -	1652	0	14 -	14	556 -	1666	31132 -	1678 -	12	
June 22-July 1	6	603	1	604 -	598	0	9 -	9	610 -	607	30105 -	1027 -	420	
July 2-11	14	6	0	6 +	8	0	4 -	4	447 +	4	29810 -	295 -	299	
July 12-22	86	590	0	590 -	504	0	1 -	1	610 -	505	28956 -	854 -	349	
July 23-Aug 1	3	1252	0	1252 -	1249	0	621 -	621	496 -	1870	26618 -	2338 -	468	
Aug 2-11	0	62	0	62 -	62	0	19 -	19	352 -	81	26355 -	263 -	182	
Aug 12-22	2	1	0	1 +	1	0	32 -	32	281 -	31	26302 -	53 -	22	
Aug 23-Sept 1	0	0	0	0	0	0	2 -	2	260 -	2	26013 -	289 -	287	
Sept 2-11	0	0	0	0	0	0	5 -	5	270 -	5	25750 -	263 -	258	
Sept 12-21	0	0	0	0	0	0	6 -	6	209 -	6	25566 -	184 -	178	
Sept 22-Oct 1	0	0	0	0	0	0	7 -	7	135 -	7	25303 -	263 -	256	
Oct 2-11	0	0	0	0	0	0	12 -	12	229 -	12	25119 -	184 -	172	
Oct 12-22	0	0	0	0	0	0	19 -	19	177 -	19	24908 -	211 -	192	
Oct 23-31	0	0	0	0	0	0	14 -	14	23 -	14	24830 -	78 -	64	
TOTAL C.F.S. Days	3442	5553	19	5572 -	2130	3843	1227 +	2616	6433 +	486		552 -	1038	
TOTAL Acre-FT.	6827	11014	38	11052 -	4225	7623	2434 +	5189	12760 +	964		1095 -	2059	

Computed by: W.R.Dawson Checked by: C.A.Geiger

D[redacted]atio[redacted] Co[redacted] as [redacted]ows[redacted]

CYPRESS LAKE NATURAL OVERFLOW STUDY

for ~~[illegible]~~ 1974

Total storage on Oct. 31/73 = 25224
Natural storage " " " " = - 3180
Diverted carryover to Feb. 20/74 = 22044

Date	1 TOTAL RESERVOIR STORAGE	2 Cypress L. West Inflow Canal less Canal Drain	3 Belanger C. D. V. to Cypress Lake	4 Total Diversion into Reservoir	5 Cypress L. East Outflow Canal	6 Cypress L. West Outflow Canal	7 Total Canal Release from Reservoir	8 Net Diversion into Reservoir	9 Cumulated Diversion into Reservoir	10 Diverted Carryover from	11 NATURAL STORAGE IN RESERVOIR	12 NATURAL DAILY INFLOW	13 Natural Storage in Lake previous day + natural inflow for the day	14 NATURAL DAILY OVERFLOW	15 NATURAL STORAGE in Lake at end of day
	From Graph	Auto Record	Auto Record	2+3	Auto Record	Auto Record	5+6	4-7	Σ 8		1-9-10	Computed from 11	Computed from 12 & 15	From 13 & Rating table	13-14
MAR. 1	25408	Values from Col. 11A of Cypress Lake storage table						- 1	- 1	22044	3365				
11	25434							- 14	- 15		3405				
22	25408							- 16	- 31		3395				
APR. 1	25671							+ 682	+ 651		2976				
11	27065							+1127	+1778		3243				
21	28182							+ 551	+2329		3809				
MAY 1	28929							+ 352	+2681		4204				
11	28663							+ 65	+2746		3873				
22	29944							+1585	+4331		3569				
JUN. 1	32974							+1218	+5549		5381				
11	32810							- 242	+5307		5459				
21	31132							-1666	+3641		5447				
JUL. 1	30105							- 607	+3034		5027				
11	29810							+ 4	+3038		4728				
22	28956							- 505	+2533		4379				
AUG. 1	26618							-1870	+ 663		3911				
11	26355							- 81	+ 582		3729				
22	26302							- 31	+ 551		3707				
SEP. 1	26013							- 2	+ 549		3420				
11	25750							- 5	+ 544		3162				
21	25566							- 6	+ 538		2984				
OCT. 1	25303							- 7	+ 531		2728				
11	25119							- 12	+ 519		2556				
22	24908							- 19	+ 500		2364				
31	24830							- 14	+ 486	22044	2300				

Values from Col. 10 of Cypress Lake storage table

Maximum natural storage for the year 1974 was less than 16,450 c.f.s.-days, the point at which natural overflow would occure.

Therefore there is no natural overflow during the year 1974.

Computed by W.R. Klassen

Checked by C.O. Geiger

George Pike
District Engr. U.S.G.S.

D.A. Davis
Sr. Engr. U.S. of Canada

Water Survey of Canada

DAILY PAN EVAPORATION & PRECIPITATION IN INCHES

Station - Consul

Year - 1974

APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		Day
Evap.	Prec.	Evap.	Prec.	Evap.	Prec.	Evap.	Prec.	Evap.	Prec.	Evap.	Prec.	Evap.	Prec.	
--		--		.20		.02	0.30	.19		--		--		1
--	0.09	--	0.04	.41		.20		.28		.31		.30		2
--		--		.29		.30		.35		.25		.20		3
--		.19		.30		.30		.29		.20		--	0.03	4
.24		.28		.22		.24		.42		.07		--		5
--		.10	0.04	.30		.18	0.10	-.10	0.25	.28		--		6
--		.23		.14		.21		.10		.09		.10		7
--		.29		.20		.14	0.20	-.15	0.28	.17		.19		8
.20		.27		.30		-.09	0.51	.04	0.14	.18		.15		9
.07	0.03	.10	0.06	.28		--	0.28	-.15	0.35	.17		.19		10
.11		.14	0.03	.21		.30		.20		.02	0.03	.35		11
.10		-1.15	1.42	.38		.50		-.85	1.12	--		--		12
--		-.02	0.14	.36		.30		-.10	0.18	--		--		13
--		.02	0.05	.35		.43		.10		.15		.17		14
--		-.22	0.33	.50		--	0.35	.10		.18		.16		15
.19		.09	0.01	.40		.35		.14		.24		.16		16
.10		-.07	0.17	.39		.30		.30		.28		.10		17
.24		-.03	0.08	.40		.34		.20		.02	0.05	.10		18
.19		.06	0.01	.34		.26	0.12	.18		.10		.28		19
.06		-.64	0.83	.28	0.14	.41		.07		.19		.20		20
--		-.12	0.26	--		.32		.16		.16		--		21
--		.10		.29		.20	0.04	.24		.18		--		22
.38		.23		.38		.33		.30		.23		--		23
.36		.23		.09	0.39	.30		.30		.20		FROZEN		24
.40		.20		.22	0.10	.35		.05	0.13	.28				25
-.72	0.84	.40		.37		.30		.13		--				26
--	0.06	.18	0.10	.43		.33		.08	0.04	--				27
--	0.05	.10		.48		.32		.10		--				28
.16		-.95	1.39	.40		.38		.30		--		--		29
.16		--	0.12	.43		.30	0.09	.17		--		.08		30
		.04	0.10			.28	0.05	.10				.07		31
2.42	1.07	0.05	5.18	9.34	0.63	8.10	2.04	3.54	2.49	3.95	0.08	2.80	0.03	Total

WATER SURVEY OF CANADA
JAN 10 1975 PAGE 8
REGINA, SASK.

CYPRESS LAKE EAST OUTFLOW CANAL

STATION NO. 11AC060

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			1.3 B	1.6 B	2.9	4.3	0.53	57.7	0.43	0.92			1
2			1.3 B	0 B	3.1	3.1	0.51	6.3	0.45	1.0			2
3			1.3 B	0 B	3.1	2.4	0.44	1.6	0.46	0.98			3
4			1.4 B	0 B	3.4	2.2	0.44	0.60	0.45	0.95			4
5			1.4 B	0 B	3.3	1.9	0.42	0.59	0.37	0.98			5
6			1.4 B	0 B	3.1	2.0	0.33	0.26	0.64	1.1			6
7			1.5 B	0 B	3.1	2.0	0.45	0.80	0.35	1.4			7
8			1.5 B	0 B	2.9	2.1	0.67	0.76	0.32	1.4			8
9			1.4 B	0 B	2.7	1.9	0.47	1.6	0.41	1.4			9
10			1.4 B	0.67 B	7.2	1.8	0.39	2.3	0.71	1.4			10
11			1.3 B	3.4 B	14.7	1.8	0.33	4.4	0.43	1.5			11
12			1.4 B	6.1 B	14.4	1.7	0.18	1.8	0.43	1.5			12
13			1.5 B	3.3 B	15.9	1.6	0.14	10.8	0.63	1.6			13
14			1.5 B	2.3	14.6	1.8	0.12	6.7	1.7	1.7			14
15			1.5 B	4.4	23.4	2.0	0.10	4.6	0.71	1.8			15
16			1.5 B	7.2	27.6	1.6	0.11	2.4	0.37	2.0			16
17			1.4 B	8.2	20.1	1.3	0.10	1.5	0.37	1.8			17
18			1.4 B	7.0	13.1	1.1	0.08	1.3	0.33	1.7			18
19			1.4 B	6.1	9.3	0.97	0.08	0.71	0.37	1.7			19
20			1.4 B	8.5	2.2	0.89	0.07	0.61	0.42	1.7			20
21			1.4 B	10.0	6.6	1.1	0.05	0.60	0.45	1.6			21
22			1.4 B	11.0	8.6	1.5	0.03	0.43	0.44	1.4			22
23			1.3 B	11.7	5.8	1.3	16.3	0.24	0.45	1.5			23
24			1.3 B	11.6	3.6	1.0	71.5	0.19	0.48	1.5			24
25			1.3 B	11.7	3.1	0.99	68.3	0.17	0.42	1.5			25
26			1.3 B	10.4	2.6	1.0	64.8	0.18	1.2	1.5			26
27			1.2 B	11.2	1.9	0.94	67.9	0.19	0.62	1.6			27
28			1.2 B	13.0	2.0	0.85	68.3	0.19	0.66	1.6			28
29			1.8 B	3.4	1.9	0.70	68.0	0.18	0.73	1.5 A			29
30			2.4 B	2.3	5.1	0.63	69.0	0.19	0.85	1.5 E			30
31			2.7 B		4.9		69.4	0.20		1.5 E			31
TOTAL			45.5	155.07	236.2	48.47	569.54	110.09	16.65	45.23			TOTAL
MEAN			1.5	5.2	7.6	1.6	18.4	3.6	0.56	1.5			MEAN
AC-FT			90.2	308	469	96.1	1130	218	33.0	89.7			AC-FT
MAX			2.7	13.0	27.6	4.3	71.5	57.7	1.7	2.0			MAX
MIN			1.2	0	1.9	0.63	0.03	0.17	0.32	0.92			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 5.0 CFS
TOTAL DISCHARGE, 2430 AC-FT
MAXIMUM DAILY DISCHARGE, 71.5 CFS ON JUL 24
MINIMUM DAILY DISCHARGE, 0 CFS ON APR 2

MAXIMUM INSTANTANEOUS DISCHARGE, CFS AT ON

Approved George Pike
District Chief U.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

A-MANUAL GAUGE
B-ICE CONDITIONS
E-ESTIMATED

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EASTEND CANAL

STATION NO. 11AC052

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	0	0.01	0.01	62.0	64.9	0	0			1
2			0	0	0.02	0.01	47.9	64.5	0	0			2
3			0	0	0.02	0.01	10.6	60.2	0	0			3
4			0	0	0.02	1.8	12.7	42.5	0	0			4
5			0	0	0.03	2.9	13.9	36.6	0	0			5
6			0	0	0.03	3.4	9.9	33.0	0	0			6
7			0	0	0.04	3.5	0.38	30.8	0	0			7
8			0	0.02 A	0.02	3.5	0.59	10.2	0	0			8
9			0	0.01	0.01	3.5	0.69	0.16	0	0			9
10			0	0	0.01	3.2	0.05	0.05	0	0			10
11			0	0	0.01	3.4	0.01	0.02	0	0			11
12			0	0.01	0.01	3.5	0	0.01	0	0			12
13			0	0.01	0.03	4.6	0	0.04	0	0			13
14			0	0.01	0.01	5.7	0	0	0	0			14
15			0	0.02	0.01	5.7	0	0	0	0			15
16			0	0.02	0.01	5.7	0.01	0	0	0			16
17			0	0.01	0.02	41.8	0.01	0	0	0			17
18			0	0.01	0.09	62.0	0.02	0	0	0			18
19			0	0.01	0.03	62.1	0.03	0	0	0			19
20			0	0.01	0.02	62.0	0.08	0	0	0			20
21			0	0.01	0.02	61.7	0.14	0	0	0			21
22			0	0.01	0.01	61.5	0.15	0	0	0			22
23			0	0.01	0.01	61.2	15.3	0	0	0			23
24			0	0.01	0.01	65.1	33.5	0	0	0			24
25			0	0	0.01	67.4	44.3	0	0	0			25
26			0	0	0.01	67.8	55.2	0	0	0			26
27			0	0.04	0.01	68.9	60.0	0	0	0			27
28			0	0.02	0.01	67.3	59.8	0	0	0			28
29			0	0.02	0.02	65.4	63.6	0	0	0			29
30			0	0.02	0.02	63.9	65.2	0	0	0			30
31			0		0.02		64.7	0		0			31
TOTAL			0	0.28	0.60	928.53	620.76	342.98	0	0			TOTAL
MEAN			0	0.01	0.02	31.0	20.0	11.1	0	0			MEAN
AC-FT			0	0.56	1.2	1840	1230	680	0	0			AC-FT
MAX			0	0.04	0.09	68.9	65.2	64.9	0	0			MAX
MIN			0	0	0.01	0.01	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 7.7 CFS
TOTAL DISCHARGE, 3750 AC-FT
MAXIMUM DAILY DISCHARGE, 68.9 CFS ON JUN 27
MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

MAXIMUM INSTANTANEOUS DISCHARGE, CFS AT ON

Approved George Pike
District Chief U.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

A-MANUAL GAUGE

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VAL MARIE WEST PUMPING CANAL

STATION NO. 11AC066

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	0	0	0	0	27.3	0	0			1
2			0	0	0	0	0	27.3	0	0			2
3			0	0	0	4.7	0	27.3	0	0			3
4			0	0	0	28.1	0	27.4	0	0			4
5			0	0	0	28.1	0	27.4	0	3.9			5
6			0	0	0	28.1	0	27.4	0	0			6
7			0	0	0	27.6	0	27.5	0	0			7
8			0	0	0	28.1	0	27.5	0	0			8
9			0	0	0	28.0	0	27.5	0	0			9
10			0	0	0	27.5	0	19.0	0	0			10
11			0	0	0	15.1	0	6.2	0	0			11
12			0	0	0	15.2	0	0	0	0			12
13			0	0	0	1.3	0	0	0	0			13
14			0	0	0	15.3	0	0	0	0			14
15			0	0	0	24.8	0	0	0	0			15
16			0	0	0	28.8	20.5	0	0	0			16
17			0	0	0	28.8	19.9	0	0	0			17
18			0	0	0	29.0	16.3	0	0	0			18
19			0	0	0	28.8	27.8	0	0	0			19
20			0	0	0	28.7	27.8	0	0	0			20
21			0	0	0	17.8	27.8	0	0	0			21
22			0	0	0	15.3	27.7	0	0	0			22
23			0	0	0	15.3	27.7	0	0	0			23
24			0	0	0	15.2	27.7	0	0	0			24
25			0	0	0	15.1	27.6	0	0	0			25
26			0	0	0	15.1	27.5	0	0	0			26
27			0	0	0	13.2	8.0	0	0	0			27
28			0	0	0	6.9	22.6	0	0	0			28
29			0	0	0	0	27.4	0	0	0			29
30			0	0	0	0	22.5	0	0	0			30
31			0		0		18.4	0		0			31
TOTAL			0	0	0	529.9	377.2	271.8	0	3.9			TOTAL
MEAN			0	0	0	17.7	12.2	8.8	0	0.13			MEAN
AC-FT			0	0	0	1050	748	539	0	7.7			AC-FT
MAX			0	0	0	29.0	27.8	27.5	0	3.9			MAX
MIN			0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 4.8 CFS
TOTAL DISCHARGE, 2340 AC-FT
MAXIMUM DAILY DISCHARGE, 29.0 CFS ON JUN 18
MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

Approved George Pike
District Chief U.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

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REGINA.SASK.

'VAL MARIE WEST GRAVITY CANAL

STATION NO. 11AC065

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	0	0	0	6.9	11.7	0	0			1
2			0	0	0	0	3.2	6.9	0	0			2
3			0	0	0	0	5.2	6.2	0	0			3
4			0	0	0	6.8	7.0	5.9	0	0			4
5			0	0	0	9.6	7.0	6.1	0	0			5
6			0	0	0	17.2	5.5	9.5	0	0			6
7			0	0	0	17.2	1.3	8.3	0	0			7
8			0	0	0	21.6	1.3	5.2	0	0			8
9			0	0	0	20.0	1.3	2.2	0	0			9
10			0	0	0	10.2	1.3	0	0	0			10
11			0	0	0	14.2	1.8	0	0	0			11
12			0	0	0	20.8	1.8	0	0	0			12
13			0	0	0	8.6	2.5	0	0	0			13
14			0	0	0	22.4	2.5	0	0	0			14
15			0	0	0	32.4	14.8	0	0	0			15
16			0	0	0	33.3	24.3	0	0	0			16
17			0	0	0	31.6	30.0	0	0	0			17
18			0	0	0	28.4	30.1	0	0	0			18
19			0	0	0	21.3	28.8	0	0	0			19
20			0	0	0	21.7	24.3	0	0	0			20
21			0	0	0	19.1	19.9	0	0	0			21
22			0	0	0	14.6	20.6	0	0	0			22
23			0	0	0	10.3	24.5	0	0	0			23
24			0	0	0	8.4	23.7	0	0	0			24
25			0	0	0	17.9	21.7	0	0	0			25
26			0	0	0	17.0	21.2 E	0	0	0			26
27			0	0	0	13.4	23.1 E	0	0	0			27
28			0	0	0	11.0	19.6 E	0	0	0			28
29			0	0	0	8.0	19.1 E	0	0	0			29
30			0	0	0	8.6	18.7	0	0	0			30
31			0		0		16.5	0		0			31
TOTAL			0	0	0	465.6	429.5	62.0	0	0			TOTAL
MEAN			0	0	0	15.5	13.9	2.0	0	0			MEAN
AC-FT			0	0	0	924	852	123	0	0			AC-FT
MAX			0	0	0	33.3	30.1	11.7	0	0			MAX
MIN			0	0	0	0	1.3	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 3.9 CFS
TOTAL DISCHARGE, 1906 AC-FT
MAXIMUM DAILY DISCHARGE, 33.3 CFS ON JUN 16
MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

Approved George Rike
District Chief W.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

E-ESTIMATED

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VAL MARIE ELECTRIC PUMP NO. 1

STATION NO. 11AC068

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	0	0	0	0	3.2	0	0			1
2			0	0	0	0	1.4	3.2	0	0			2
3			0	0	0	0	3.0	3.2	0	0			3
4			0	0	0	0	3.0	3.2	0	0			4
5			0	0	0	0.20	3.0	3.2	0	0			5
6			0	0	0	2.5	3.0	1.00	0	0			6
7			0	0	0	2.5	3.0	0	0	0			7
8			0	0	0	3.2	3.0	2.0	0	0			8
9			0	0	0	3.1	2.4	2.6	0	0			9
10			0	0	0	3.1	0	2.6	0	0			10
11			0	0	0	3.1	0	2.6	0	0			11
12			0	0	0	3.1	0	2.6	0	0			12
13			0	0	0	3.1	0	2.6	0	0			13
14			0	0	0	3.1	0	2.6	0	0			14
15			0	0	0	3.1	0	2.6	0	0			15
16			0	0	0	3.1	0	2.6	0	0			16
17			0	0	0	3.1	0	1.9	0	0			17
18			0	0	0	3.1	1.7	0	0	0			18
19			0	0	0	3.0	3.3	0	0	0			19
20			0	0	0	3.0	3.3	0	0	0			20
21			0	0	0	3.0	3.3	0	0	0			21
22			0	0	0	3.0	3.3	0	0	0			22
23			0	0	0	3.0	3.3	0	0	0			23
24			0	0	0	3.0	3.3	0	0	0			24
25			0	0	0	3.0	3.3	0	0	0			25
26			0	0	0	0	3.3	0	0	0			26
27			0	0	0	0	1.00	0	0	0			27
28			0	0	0	0	0	0	0	0			28
29			0	0	0	0	1.3	0	0	0			29
30			0	0	0	0	3.2	0	0	0			30
31			0		0		3.2	0		0			31
TOTAL			0	0	0	60.40	58.60	41.70	0	0			TOTAL
MEAN			0	0	0	2.0	1.9	1.3	0	0			MEAN
AC-FT			0	0	0	120	116	82.7	0	0			AC-FT
MAX			0	0	0	3.2	3.3	3.2	0	0			MAX
MIN			0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 0.66 CFS
TOTAL DISCHARGE, 319 AC-FT
MAXIMUM DAILY DISCHARGE, 3.3 CFS ON JUL 19
MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

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VAL MARIE ELECTRIC PUMP NO. 2

STATION NO. 11AC069

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

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	0.20	0	0	0	0			7
8			0	0	0	2.5	0	0	0	0			8
9			0	0	0	2.5	0	0	0	0			9
10			0	0	0	2.5	0	0	0	0			10
11			0	0	0	0.50	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	1.5	0	0	0	0			19
20			0	0	0	2.5	0	0	0	0			20
21			0	0	0	2.5	0.90	0	0	0			21
22			0	0	0	2.5	2.5	0	0	0			22
23			0	0	0	2.5	2.5	0	0	0			23
24			0	0	0	2.5	2.5	0	0	0			24
25			0	0	0	1.5	2.5	0	0	0			25
26			0	0	0	0	0.80	0	0	0			26
27			0	0	0	0	0	0	0	0			27
28			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	23.70	11.70	0	0	0			TOTAL
MEAN			0	0	0	0.79	0.38	0	0	0			MEAN
AC-FT			0	0	0	47.0	23.2	0	0	0			AC-FT
MAX			0	0	0	2.5	2.5	0	0	0			MAX
MIN			0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 0.14 CFS
TOTAL DISCHARGE, 70.2 AC-FT
MAXIMUM DAILY DISCHARGE, 2.5 CFS ON JUN 8
MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

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VAL MARIE MAIN CANAL

STATION NO. 11AC054

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0	0	0	0	35.5	84.9	0	0			1
2			0	0	0	0	26.5	83.3	0	0			2
3			0	0	0	0	20.8	81.9	0	0			3
4			0	0	0	0	11.2	80.0	0	0			4
5			0	0	0	0	15.3	76.4	0	0			5
6			0	0	0	0	0	67.6	0	0			6
7			0	0	0	0	0	45.2	0	0			7
8			0	0	0	37.7	0	32.4	0	0			8
9			0	0	0	68.6	0	24.5	0	0			9
10			0	0	0	68.3	0	15.4	0	0			10
11			0	0	0	67.6	0	12.3	0	0			11
12			0	0	0	99.1	0	10.0	0	0			12
13			0	0	0	100.0	0	5.0	0	0			13
14			0	0	0	69.3	0	0	0	0			14
15			0	0	0	119	0	0	0	0			15
16			0	0	0	119	18.1	0	0	0			16
17			0	0	0	116	34.1	0	0	0			17
18			0	0	0	113	34.6	0	0	0			18
19			0	0	0	111	45.7	0	0	0			19
20			0	0	0	110	57.0	0	0	0			20
21			0	0	0	109	69.1	0	0	0			21
22			0	0	0	108	79.0	0	0	0			22
23			0	0	0	102	85.1	0	0	0			23
24			0	0	0	96.1	89.8	0	0	0			24
25			0	0	0	86.9	92.5	0	0	0			25
26			0	0	0	81.2	93.0	0	0	0			26
27			0	0	0	66.7	91.6	0	0	0			27
28			0	0	0	53.0	90.1	0	0	0			28
29			0	0	0	42.3	88.5	0	0	0			29
30			0	0	0	42.1	87.2	0	0	0			30
31			0		0		85.9	0		0			31
TOTAL			0	0	0	1985.9	1250.6	618.9	0	0			TOTAL
MEAN			0	0	0	66.2	40.3	20.0	0	0			MEAN
AC-FT			0	0	0	3940	2480	1230	0	0			AC-FT
MAX			0	0	0	119	93.0	84.9	0	0			MAX
MIN			0	0	0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 15.7 CFS
TOTAL DISCHARGE, 7650 AC-FT
MAXIMUM DAILY DISCHARGE, 119 CFS ON JUN 15
MINIMUM DAILY DISCHARGE, 0 CFS ON MAR 1

Approved George Ogle
District Chief U.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

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WATER SURVEY OF CANADA
JAN 23 1975 PAGE 8
REGINA, SASK.

DENNIEL CREEK NEAR VAL MARIE

STATION NO. 11AC025

(PRELIMINARY) DAILY DISCHARGE IN CUBIC FEET PER SECOND FOR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1			0.50 B	376 B	6.9	7.9	0	0	0.08	0.31			1
2			0.50 B	344 B	5.3	6.4	0	0	0.06	0.23			2
3			0.50 B	212 B	4.4	5.0	0	0	0.01	0.21			3
4			0.50 B	106 B	3.5	3.9	0	0	0	0.25			4
5			1.5 B	169 B	2.8	3.1	0	0	0	0.30			5
6			1.6 B	338 B	2.3	2.5	0	0	0	0.31			6
7			1.1 B	180 B	2.0	2.2	0	0	0	0.11			7
8			0.77 B	132 B	1.7	1.9	0	0	0	0.03			8
9			0.50 B	204 B	1.4	1.6	0.02	0	0	0			9
10			0.34 B	236	1.3	1.3	0	0	0	0			10
11			0.26 B	109	1.1	1.1	0.01	0	0	0			11
12			0.28 B	76.8	1.1	1.0	0	0	0.08	0			12
13			0.46 B	66.7	1.4	0.82	0	0.08	0.08	0			13
14			0.24 B	42.9	1.4	0.64	0	0.41	0.06	0			14
15			0.27 B	35.9	1.3	0.49	0	0.44	0.11	0			15
16			0.19 B	26.6	1.2	0.37	0	0.36	0.11	0			16
17			2.3 B	20.4	1.0	0.30	0	0.29	0.16	0			17
18			7.2 B	15.6	1.0	0.28	0	0.19	0.13	0.03			18
19			2.3 B	12.3	1.1	0.20	0	0.06	0.08	0.08			19
20			3.1 B	9.9	2.3	0.20	0	0.10	0	0.10			20
21			2.2 B	9.4	249	0.20	0	0.07	0	0.15			21
22			2.6 B	8.8	304	0.10	0	0.05	0	0.21			22
23			1.6 B	7.5	227	0	0	0.05	0	0			23
24			1.0 B	6.7	138	0	0	0.02	0	0			24
25			0.44 B	11.1	99.6	0	0	0	0	0			25
26			0.34 B	6.1	60.0	0	0	0	0.07	0			26
27			0.38 B	18.6	33.1	0	0	0	0.15	0			27
28			33.4 B	27.5	21.5	0	0	0.03	0.24	0			28
29			28[illegible]	13.8	16.8	0	0	0.02	0.34	0			29
30			787 B	8.9	12.4	0	0	0.02	0.45	0			30
31			841 B		10.0		0	0.06		0.10 A			31
TOTAL			1974.37	2831.5	1214.6	41.50	0.03	2.25	2.21	2.42			TOTAL
MEAN			63.7	94.4	39.2	1.4	0	0.07	0.07	0.08			MEAN
AC-FT			3920	5620	2410	82.3	0.06	4.5	4.4	4.8			AC-FT
MAX			841	376	304	7.9	0.02	0.44	0.45	0.31			MAX
MIN			0.19	6.1	1.0	0	0	0	0	0			MIN

SUMMARY FOR THE MONTHS MAR TO OCT
MEAN DISCHARGE, 24.8 CFS
TOTAL DISCHARGE, 12000 AC-FT
MAXIMUM DAILY DISCHARGE, 841 CFS ON MAR 31
MINIMUM DAILY DISCHARGE, 0 CFS ON JUN 23

MAXIMUM INSTANTANEOUS DISCHARGE, 965 CFS AT 09:30 CST ON MAR 31

Approved
District Chief U.S.G.S.

D.A. Davis
Dist. Engr. W.S. of Canada

A-MANUAL GAUGE
B-ICE CONDITIONS

Miscellaneous Diversions Made in FRENCHMAN RIVER **Tributary Basin, in 19** 74

Ditch Owner	Location	Diverting From	Approximate Acre-Feet Diverted
Agar, Roland	NW 20-7-24-3	A Coulee	12
Alexander, Keith & Eleanor	2pts. NW 2-7-23-3	Concrete Coulee	0
Alexander, Keith & Eleanor	SE 2-7-23-3	N. Br. Frenchman R.	0
Ali, Lucien	NW 24-3-13-3	A Coulee	5
Archer, Roland R.	SE 27-7-25-3	A Coulee	0
Archer, Roland R.	SW 18-7-24-3	A Coulee	2
Armstrong, Bert A.	NW 24-6-21-3	A Coulee	12
Armstrong, John	W1/2 4-8-24-3	Armstrong Creek	200E
Armstrong, John	NE5&SW8-8-24-3	Clarence Coulee	45
Armstrong, John C.	NW 32-7-24-3	A Coulee	60
Armstrong, John C.	SE 31-7-24-3	A Coulee	10
Armstrong, Larry	SE 27-6-21-3	Outlaw Coulee	20
Armstrong, Lewis	NW 2-8-24-3	Coulee No. 1	20
Armstrong, Lewis	SW 2-8-24-3	Coulee No. 2	20
Armstrong, Lewis	NW 9-8-24-3	A Coulee	3
Armstrong, Raymond	E1/2 24-6-24-3	Frenchman River	25
Armstrong, Sam & Jack	SW 8-8-24-3	Clarence Coulee	25
Armstrong, Sam & Jack	NW 9-8-24-3	Armstrong Creek	58
Armstrong, Samuel & Lewis, John	NW 28-6-24-3	Sloughs	1
Armstrong, Samuel & Lewis, John	N1/2 3-7-24-3	A Coulee	10
Armstrong, Samuel & Lewis, John	SW 4-7-24-3	A Slough	0
Arnal, Clifford & Clarence	SE 30-7-23-3	Blacktail Creek	12
Arnal, G.C.	NE 27-7-24-3	A Coulee	5E
Bock, Harry	SE 36-6-21-3	A Coulee	6E

DEPARTMENT OF THE ENVIRONMENT
INLAND WATERS BRANCH-WATER SURVEY OF CANADA

Miscellaneous Diversions Made in FRENCHMAN RIVER **Tributary Basin, in 19** 74

Ditch Owner	Location	Diverting From	Approximate Acre-Feet Diverted
Brekus, S.E. & Hester, F.	NE 28-7-26-3	Lone Pine Creek	22
Brekus, S.E. & Hester, F.	SE 27-7-26-3	Lone Pine Creek	35
Brekus, S.E. & Hester, F.	NW 22-7-26-3	A Coulee	8
Breton, Lucien V.	NW 11-7-23-3	A Slough	7
Bryan, G.H.	SE22&SW23-8-26-3	A Coulee	0
Bryan, W. Guy c/o Bryan, Harley	NW 11-8-26-3	A Coulee	0
Busse, J.P.	NE 9&SW16-5-19-3	Chambery Coulee	20
Busse, J.P.	NE 9-5-19-3	Chambery Coulee	0
Busse, J.P.	SE 16-5-19-3	A Coulee	15
Caton, J. W. & Armella	SW 31-6-24-3	Fairwell Creek	133
Caton, J. W. & Armella	SW 13-6-25-3	Moirvale Creek	80
Caton, J.W. & Armella	SW 31-6-24-3	Fairwell Creek	200
Clarke, C.B.	SW 31-4-18-3	Frenchman River	18
Clarke, C.B.	SE 32-4-18-3	Frenchman River	0
Clarke, C.B.	S1/2 31-4-18-3	Frenchman River	0
Clarke, C.B.	SW 33-4-18-3	Frenchman River	0
Clarke C.B.	SW 32-4-18-3	Frenchman River	0
Currie, Wm. M.	NE 2-5-22-3	A Coulee	2
Cypress Cattle Co.	SE 14-6-25-3	Moirvale Coulee	10E
David, Stanley & Lloyd	N1/2 20-7-23-3	Blacktail Creek	17
Dixon, Bruce M.	NW 2-2-11-3	Breed Creek	0
Dixon, Clifford G.	NW 8-6-12-3	A Coulee	15
Duke, Frank	SE 32-6-20-3	A Coulee	2
Duke, F.&G.	SW 31-6-20-3	A Coulee	5

Miscellaneous Diversions Made in FRENCHMAN RIVER **Tributary Basin, in 1974**

Ditch Owner	Location	Diverting From	Approximate Acre-Feet Diverted
Duke, Glen & Fred	SW 31-6-20-3	A Coulee	2
Fordice, L.E.	NW 18-7-25-3	A Coulee	4
Fordice, L.E.	NW 19-7-25-3	A Coulee	7
Fordice, Luther E.	SE 24-7-26-3	A Coulee	3
Fordice, Luther E.	NW 18-7-25-3	Belanger Creek	15
Fordice, Luther	SE 12-7-26-3	A Coulee	0
Freel, R. F.	NW 24-6-23-3	Frenchman R.	13
Gallot, Marius	NW 16-7-24-3	A Coulee	4E
Garissere, Jean	SW 30-8-25-3	A Coulee	0
Gillespie, Donald & Norah	NW 10-1-10-3	Molstead Creek	9
Greenlay, V. R.	NE 33-4-17-3	A Coulee	30
Greenlay, V. R.	NW 28-4-17-3	A Coulee	30
The Gunn Grazing Co-Op	SW 19-6-17-3	A Slough	9
Hanson Brothers	NW 16-8-22-3	N. Br. Frenchman R.	0
Hanson, Glennis	SW 15-6-20-3	A Coulee	2
Hanson, Sidney	SW 33-8-23-3	A Coulee	17
Hayes, George	NW 28-4-12-3	A Coulee	5E
Jensen, Homer C.	2Pts. SE32, SW32 & NE 30-4-17-3	Frenchman R.	0
Jensen, Homer C.	SE 32-4-17-3	Frenchman R.	0
Jensen, Homer C.	NW 6-6-16-3	Climax	15
Larson, W.C.	R/A Between NE 33 & NW 34-2-12-3	Little Pinto Creek	25
Larson, W.C.	SW 4-3-12-3	A Creek	20
Larson, W.C.	NE 35-2-12-3	A Creek	22
Larson, W.C.	NE 34-2-12-3	A Coulee	25

DEPARTMENT OF THE ENVIRONMENT
INLAND WATERS BRANCH-WATER SURVEY OF CANADA

Miscellaneous Diversions Made in FRENCHMAN RIVER **Tributary Basin, in 19** 74

Ditch Owner	Location	Diverting From	Approximate Acre-Feet Diverted
McCuaig, D.	NE 13-5-21-3	A Coulee	17
Nadeau, Ovide	SW 36-3-13-3	A Coulee	10
Nadeau, O.	NW 2-4-13-3	E. Br. Denniel Cr.	10
Olson, Mrs. Alma	SE 7-4-12-3	A Coulee	5
Olson, Clifford G.	W1/2 5-4-12-3	A Coulee	15E
Olson, Francis	SW 16-4-12-3	A Coulee	4
Olson, F.E.	NE 17-4-12-3	A Coulee	6
Olson, F.E.	NW 16-4-12-3	E. Br. Denniel Cr.	25
Olson, F.E.	NW 17-4-12-3	A Coulee	5
Olson, G.C.	2Pts. on NW 8-4-12-3	A Coulee	5E
Pearson, A.	SE 15-6-23-3	A Coulee	1
Pearson, A.	NE21 & SE 28-6-23-3	Frenchman River	8
Pearson, Alfred	N1/2 22-6-23-3	Frenchman River	6
Pearson, Alfred	N1/2 22-6-23-3	Frenchman River	0
Pearson, Donald J.	NE 10-6-23-3	A Coulee	8
Perrin, S.M. & Moorehead, I.R.	NW 2-8-25-3	A Coulee	12
Perrin, S.M. & Moorehead, I.R.	NW 2-8-25-3	A Coulee	13
Perrin, S.M. & Moorehead, I.R.	NE 3-8-25-3	Willow Creek	15
Oliver, Rene & Pinel, Ernest	NE 9-3-14-3	A Slough	13
Reid, Carl	NE 10 & SE 15-3-10-3	A Coulee	18E
Reid, Carl	NW 3-3-10-3	A Coulee	5E
Saville, W.G.	NW 10-7-24-3	A Coulee	22
Saville, Wm. & Ann	NW 2-7-24-3	A Coulee	19
Shufletoski, Lewis	SW 1-8-24-3	Belanger Creek	10

Miscellaneous Diversions Made in FRENCHMAN RIVER **Tributary Basin, in 19** 74

Ditch Owner	Location	Diverting From	Approximate Acre-Feet Diverted
Smith, C.W.	SW 8-4-10-3	A Coulee	3
Smith, C.W.	SE 7-4-10-3	A Coulee	0
Smith, C.W.	NW 5-4-10-3	A Coulee	4
Stredwick, R.S.	SE 27-6-22-3	Frenchman River	36
Syverson, Edwin	SE 7-6-24-3	A Coulee	0
Syverson, Edwin	SW 8-6-24-3	A Coulee	3
Topham, W.S.	N1/28& SE 17-7-22-3	N. Br. Frenchman R.	0
Walker, Francis	NE 13-1-11-3	Coulee No. 1	0
Walker, Francis	NE 13-1-11-3	Coulee No. 2	0
Walker, Francis	NW 24 & SE 27-1-11-3	Frenchman R.	0
Walker Ranch Ltd.	NE 16-4-12-3	A Coulee	0
Walker, U.W.	NE 1-5-12-3	A Coulee	6
Way, R.J. & Gillespie, D.T.	NW 9-1-10-3	Frenchman River	3
Way, R.J. & Gillespie, D.T.	NW 3-1-10-3	Frenchman River	8
White, C.D.	NE 20-5-17-3	Horse Camp Creek	43
White, C.D. & B.M.	SE 15-6-18-3	A Coulee	3
White, F.J.	NE 23-5-17-3	A Coulee	30
White, Fred T.	SW 36-5-17-3	McDonald Coulee	25
White, Fred T.	SW 23-5-17-3	Frenchman River	22
White, F.T.	SW 36-5-17-3	McDonald Coulee	20
White, Wm. F.	SE 5-8-22-3	Calf Creek	65
Whitney, Jack	NE 28-7-26-3	Lone Pine Creek	10
Whitney, Jack A.	NW 33-7-26-3	Lone Pine Creek	10
Widdifield, Charles F.	SW 26-5-21-3	Eastbrook Coulee	50

DEPARTMENT OF THE ENVIRONMENT
INLAND WATERS BRANCH-WATER SURVEY OF CANADA

Miscellaneous Diversions Made in FRENCHMAN RIVER **Tributary Basin, in 19**74

Ditch Owner	Location	Diverting From	Approximate Acre-Feet Diverted
Williamson, Fred	NE 1-6-21-3	Eastbrook Coulee	145
Wranesck, George	NE 30-6-13-3	A Coulee	15
		Sub-Total	2150
Domestic Projects	(45% Of 2150)		+ 968
		Total	3118

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
TABLE PRINTED 1-23-75

1974 ROCK CREEK BELOW HORSE CREEK, NEAR INT BOUNDARY NUMBER 06169500
DRAINAGE AREA 328.000 SQ MI

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			b 1.0	b 635	27	16	2.1	.45	1.3	1.5	3.3	
2			b 3.5	b 565	24	15	2.3	.40	1.3	1.5	3.1	
3			b 2.5	b 460	21	14	2.6	.37	1.3	1.7	3.1	
4			b 3.0	b 490	20	12	2.4	.40	1.2	1.8	3.1	
5			b 4.0	b 595	20	12	2.3	.37	1.2	2.0	3.1	
6			b 5.0	b 1,020	18	11	2.8	.33	1.2	2.1		
7			b 3.0	b 925	17	11	3.7	.30	1.2	2.3		
8			b 1.5	b 710	16	19	10	1.6	1.2	2.7		
9			b 1.0	b 675	15	16	34	23	1.3	3.5		
10			b 1.5	b 650	15	11	37	9.0	1.0	3.6		
11			b 1.5	b 530	15	9.9	23	15	1.2	3.5		
12			b 2.5	b 430	14	9.3	12	5.8	1.3	3.6		
13			b 9.5	b 365	14	8.8	6.9	2.8	1.3	3.4		
14			b 100	b 330	15	7.8	4.4	9.0	1.2	3.3		
15			b 165	271	17	6.9	2.8	36	1.3	3.6		
16			b 105	190	18	6.9	2.3	33	1.6	3.6		
17			b 75	161	17	7.2	1.7	19	1.5	3.6		
18			b 45	132	16	7.5	1.5	12	1.5	3.4		
19			b 25	121	15	6.4	1.3	7.5	1.4	3.3		
20			b 15	109	19	5.6	1.3	5.3	1.5	3.3		
21		a.80	b 10	81	134	5.3	1.2	3.7	1.5	2.9		
22		a.80	b 8.0	57	303	5.0	1.0	2.8	1.5	2.9		
23		b.60	b 3.5	43	211	4.7	.91	2.6	1.5	3.1		
24		b.70	b 4.0	34	105	4.2	.85	2.3	1.5	3.1		
25		b.90	b 5.5	32	57	3.5	.73	2.0	1.6	3.1		
26		b 1.4	b 6.0	29	39	3.1	.54	1.7	1.5	2.9		
27		b 1.3	b 8.0	34	29	2.6	.54	1.6	1.4	3.0		
28		b.70	b 9.5	60	24	2.6	.54	1.4	1.4	3.3		
29		------	b 10	40	21	2.4	.54	1.4	1.3	3.2		
30		------	b 75	33	19	2.3	.54	1.3	1.3	3.2		
31		------	b 810	------	17	------	.54	1.3	------	3.3	------	
TOTAL			1,519.0	9,807	1,312	249.0	164.33	203.72	40.5	91.3		
MEAN			49.0	327	42.3	8.30	5.30	6.57	1.35	2.95		
MAX			810	1,020	303	19	37	36	1.6	3.6		
MIN			1.0	29	14	2.3	.54	.30	1.0	1.5		
AC-FT			3,010	19,450	2,600	494	326	404	80	181		

THE SEASON MARCH TO OCTOBER AC-FT 26,550

Max. Discharge about 1,200 cfs at 1300 MDT ON Apr. 6 (G.H. Est 3.10 backwater from ice 10.59 ft). Max. G.H. Same ft at ____ on ____
Min. Discharge 0.30 cfs on Aug. 7 (G.H. -.08 shift 2.18 ft). Min. G.H. Same ft on ____ on ____

Rating No. 4 used entire season. a - No gage-height record. b - Stage-discharge relation affected by ice.

Approved George Dike
District Chief U.S.G.S.
D. A. Davis
Dist. Engr. WS of Canada

UNITED STATES DEPARTMENT OF INTERIOR - GEOLOGICAL SURVEY - WATER RESOURCES DIVISION
TABLE PRINTED 1-23-75

1974 MCEACHERN CREEK AT INTERNATIONAL BOUNDARY NUMBER 06170000
DRAINAGE AREA 182.000 SQ MI

DISCHARGE, IN CUBIC FEET PER SECOND, CALENDAR YEAR 1974

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			0	b578	9.0	3.5	0	0	.02	0	.02	
2			0	b319	6.3	9.0	0	0	.02	0	.02	
3			0	334	4.7	7.6	0	0	.02	0	.03	
4			0	270	3.2	4.7	0	0	.01	0	.03	
5			0	390	2.4	2.6	0	0	.01	0	.03	
6			0	598	1.9	1.6	0	0	.01	0		
7			0	310	1.4	1.2	.01	0	.01	0		
8			0	208	1.3	1.1	3.0	.01	.01	0		
9			0	332	.87	.84	1.0	14	.01	0		
10			0	462	.81	.63	.71	6.3	.01	0		
11			0	268	.74	.48	.31	2.3	.01	0		
12			0	202	.60	.39	.16	.77	.01	0		
13			0	160	.84	.30	.14	.43	.01	0		
14			0	108	.81	.23	.43	3.8	.01	0		
15			0	80	.74	.19	.25	17	.01	0		
16			0	72	.63	.16	.13	8.4	0	.01		
17			0	56	.53	.14	.05	4.9	0	.01		
18			0	47	.60	.13	.02	2.7	0	.01		
19			0	38	.53	.07	.01	1.1	0	.01		
20			0	33	.84	.07	.01	.71	0	.01		
21		0	0	23	129	.07	0	.39	0	.01		
22		0	0	15	326	.08	0	.23	0	.01		
23		0	0	15	137	.07	0	.15	0	.01		
24		0	0	12	53	.05	0	.09	0	.01		
25		0	0	12	33	.03	0	.07	0	.01		
26		0	0	7.6	20	.02	0	.05	0	.02		
27		0	0	6.8	13	.01	0	.05	0	.02		
28		0	.05	10	9.2	0	0	.04	0	.02		
29		------	b 4.5	15	6.8	0	0	.04	0	.01		
30		------	b258	12	4.9	0	0	.03	0	.01		
31		------	b1,030	------	3.9	------	0	.03	------	.01	------	
TOTAL			1,292.55	4,993.4	774.54	35.25	6.23	63.59	.18	.19		
MEAN			41.7	166	25.0	1.18	.20	2.05	.006	.006		
MAX			1,030	598	326	9.0	3.0	17	.02	.02		
MIN			0	6.8	.53	0	0	0	0	0		
AC-FT			2,560	9,900	1,540	70	12	126	.4	.4		

THE SEASON MARCH TO OCTOBER AC-FT 14,210

Approved
District Chief U. S. G. S.
Dist. Engr. WS of Canada

Max. Disch. about 1,200 cfs at 0300 on Mar. 31 (G.H. 7.28 ft). Max. G.H. Same ft at ____ on ____
Min. Disch. no flow cfs on at times (G.H. ____ ft). Min. G.H. ____ ft on ____
Rating No. 6 used entire season. b - Stage-discharge relation affected by ice. Est .75 ft backwater from ice

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