

# Appendix B-2

## IDF Curves and Data

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**TABLE B2-1 PEACE RIVER IDF DATA**

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TABLE 1	PEACE RIVER A				ALTA			3075040	
LATITUDE 5614	LONGITUDE 11727				ELEVATION/ALTITUDE 571 M				
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
YEAR	5 MIN	10 MIN	15 MIN	30 MIN	1 H	2 H	6 H	12 H	24 H
ANNEE									
1966	4.6	8.9	13.2	19.0	19.0	19.0	19.0	19.0	22.1
1967	3.8	5.3	5.6	5.6	7.1	9.7	14.7	15.5	16.3
1968	3.0	5.1	5.8	6.6	6.9	7.9	14.5	20.6	26.4
1969	1.0	1.5	2.3	4.6	7.9	11.4	26.7	43.7	50.3
1970	1.8	2.3	3.0	4.6	6.3	8.6	23.9	38.9	52.6
1971	4.3	5.8	6.3	7.6	11.9	21.1	32.8	33.3	33.3
1972	3.0	5.3	6.3	6.9	9.7	15.2	27.4	28.2	31.2
1973	6.3	12.7	19.0	34.3	34.3	34.3	34.3	35.6	56.1
1974	4.1	7.1	7.9	9.4	11.7	13.2	19.8	20.6	23.6
1975	5.3	6.6	6.9	8.4	12.2	14.5	26.7	33.8	38.1
1976	4.1	8.1	11.7	23.1	25.4	25.9	25.9	25.9	25.9
1977	5.8	7.4	9.4	11.4	11.9	11.9	22.4	37.3	43.9
1978	3.6	7.2	10.8	13.7	15.4	24.6	24.6	24.6	24.8
1979	6.0	7.1	9.5	10.7	10.9	10.9	23.5	27.6	28.0
1980	7.2	11.4	14.2	14.6	15.8	16.5	16.6	22.0	26.8
1981	3.6	7.1	10.0	11.9	12.8	13.0	13.0	25.0	26.2
1982	2.6	3.6	3.8	5.2	7.6	12.7	27.6	27.6	35.9
1983	-99.9	-99.9	-99.9	-99.9	11.8	16.0	16.0	17.9	28.1
1984	2.6	4.4	4.4	4.6	7.2	9.9	19.5	30.4	46.7
1985	4.0	7.8	11.2	16.2	16.4	19.2	22.7	26.6	29.4
1986	2.9	4.7	5.3	6.4	7.9	10.0	15.0	15.0	15.2
1987	7.1	13.7	15.6	19.0	19.0	23.8	24.7	24.7	26.8
1988	3.6	5.8	7.2	11.8	12.0	21.2	31.9	33.5	38.6
1989	5.3	9.5	12.1	16.0	20.2	28.1	29.3	31.6	39.7
1990	3.7	6.9	8.7	14.7	18.4	21.2	24.2	28.0	35.6
1992	4.0	6.0	6.0	6.3	6.5	8.0	16.9	22.4	23.1
1993	4.2	6.2	8.6	11.4	22.3	29.2	37.3	37.8	43.9
1994	6.1	6.6	6.6	7.6	10.2	13.9	20.6	28.3	42.8
1995	3.5	6.5	7.2	7.6	13.6	18.4	-99.9	-99.9	28.0
1996	3.9	5.7	8.0	9.8	11.6	13.9	-99.9	-99.9	40.4
1997	7.7	9.1	9.1	9.1	11.9	17.4	22.1	27.2	39.4
1998	2.9	5.0	6.9	7.7	7.9	8.7	9.2	-99.9	17.2
2000	9.2	9.9	9.9	13.3	14.4	14.6	21.8	33.0	58.3
2001	3.5	5.8	6.3	6.8	8.9	13.5	15.4	20.1	28.1
2002	2.8	3.2	3.2	3.2	5.1	8.5	17.3	32.5	45.0
2003	4.5	7.2	8.6	10.0	11.7	13.1	13.1	17.5	17.5
2004	5.1	9.1	12.8	18.7	24.9	27.3	29.3	34.4	46.7
2005	3.7	4.2	4.5	4.5	7.4	14.1	25.6	33.7	34.8
2006	-99.9	-99.9	-99.9	-99.9	11.6	11.8	21.3	22.8	22.8
NOTE: -99.9	INDICATES MSG DATA DONNEES MANQUANTES								
# YRS. ANNEES	37	37	37	37	39	39	37	36	39
MEAN MOYENNE	4.3	6.8	8.3	10.9	13.0	16.2	22.3	27.7	33.6
STD. DEV. ECART-TYPE	1.7	2.6	3.7	6.3	6.2	6.6	6.5	7.1	11.2
SKEW DISSYMETRIE	.84	.62	.79	1.71	1.44	.92	.21	.11	.39
KURTOSIS KURTOSIS	4.09	4.07	3.93	7.27	5.64	3.37	2.85	2.59	2.57

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**TABLE 2**                      **PEACE RIVER A**                      **ALTA**                      **3075040**  
**LATITUDE 5614**                      **LONGITUDE 11727**                      **ELEVATION/ALTITUDE 571 M**  
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RETURN PERIOD RAINFALL AMOUNTS (MM)  
 PERIODE DE RETOUR QUANTITIES DE PLUIE (MM)

DURATION	2	5	10	25	50	100	# YEARS
DUREE	YR/ANS	YR/ANS	YR/ANS	YR/ANS	YR/ANS	YR/ANS	ANNEES
5 MIN	4.1	5.6	6.5	7.8	8.7	9.7	37
10 MIN	6.3	8.6	10.1	12.1	13.5	14.9	37
15 MIN	7.7	11.0	13.1	15.8	17.8	19.8	37
30 MIN	9.8	15.4	19.1	23.7	27.1	30.5	37
1 H	12.0	17.5	21.1	25.7	29.1	32.5	39
2 H	15.1	21.0	24.9	29.8	33.4	37.0	39
6 H	21.3	27.0	30.8	35.6	39.2	42.7	37
12 H	26.5	32.8	36.9	42.2	46.0	49.9	36
24 H	31.7	41.7	48.3	56.6	62.7	68.9	39

RETURN PERIOD RAINFALL RATES (MM/HR)-95% CONFIDENCE' LIMITS  
 INTENSITE DE LA PLUIE PAR PERIODE DE RETOUR (MM/H)-LIMITES DE CONFIANCE DE 95%

TABLE B2-2 TETSA RIVER IDF DATA

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**TABLE 1**                      **TETSA RIVER**                      **B.C.**                      **1195J29**  
**LATITUDE 5839**                      **LONGITUDE 12414**                      **ELEVATION/ALTITUDE 810 M**  
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YEAR	5 MIN	10 MIN	15 MIN	30 MIN	1 H	2 H	6 H	12 H	24 H
ANNEE									
1994	7.4	11.0	13.7	19.2	24.7	28.6	47.6	47.8	52.8
1995	9.1	13.3	15.0	19.5	23.9	25.4	25.4	29.5	48.5
1996	3.3	3.6	4.0	5.5	10.4	14.2	30.0	49.7	67.9
1997	10.9	13.7	15.6	17.6	17.6	18.5	34.3	43.6	84.8
1998	4.1	6.1	8.3	10.0	10.6	16.9	-99.9	-99.9	47.6
1999	3.3	4.7	6.1	8.4	11.0	17.3	29.9	36.6	53.1
2000	5.4	10.1	14.1	18.3	20.0	25.0	25.0	31.2	39.6
2001	5.0	5.9	6.3	8.3	15.7	23.7	42.9	73.3	95.2
2002	3.1	3.3	3.5	4.7	6.2	9.4	18.3	27.6	33.1
2003	6.6	9.2	11.1	11.9	14.7	14.7	14.9	17.2	28.9
2004	5.6	9.6	12.8	14.1	14.1	15.0	22.7	35.8	41.2
2005	-99.9	-99.9	-99.9	-99.9	21.7	22.4	24.6	41.9	60.0

NOTE:-99.9 INDICATES MSG DATA  
 DONNEES MANQUANTES

# YRS.	11	11	11	11	12	12	11	11	12
ANNEES									
MEAN	5.8	8.2	10.0	12.5	15.9	19.3	28.7	39.5	54.4
MOYENNE									
STD. DEV.	2.5	3.7	4.5	5.5	5.8	5.7	9.8	14.7	20.0
ECART-TYPE									
SKEW	.89	.10	-.25	.00	.07	.04	.73	1.00	.91
DISSYMETRIE									
KURTOSIS	3.91	2.56	2.25	2.31	2.82	2.94	3.92	5.74	4.00
KURTOSIS									

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 TABLE 2                    TETSA RIVER                    B.C.                    1195J29  
 LATITUDE 5839                    LONGITUDE 12414                    ELEVATION/ALTITUDE 810 M  
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RETURN PERIOD RAINFALL AMOUNTS (MM)  
 PERIODE DE RETOUR QUANTITIES DE PLUIE (MM)

DURATION	2	5	10	25	50	100	# YEARS
DUREE	YR/ANS	YR/ANS	YR/ANS	YR/ANS	YR/ANS	YR/ANS	ANNEES
5 MIN	5.4	7.6	9.1	11.0	12.3	13.7	11
10 MIN	7.6	10.9	13.1	15.8	17.8	19.9	11
15 MIN	9.3	13.3	16.0	19.3	21.8	24.3	11
30 MIN	11.6	16.5	19.7	23.8	26.9	29.9	11
1 H	14.9	20.1	23.5	27.8	31.0	34.2	12
2 H	18.3	23.4	26.7	30.9	34.1	37.2	12
6 H	27.1	35.8	41.5	48.8	54.2	59.6	11
12 H	37.1	50.1	58.7	69.6	77.6	85.7	11
24 H	51.1	68.7	80.4	95.2	106.1	117.0	12

RETURN PERIOD RAINFALL RATES (MM/HR)-95% CONFIDENCE' LIMITS  
 INTENSITE DE LA PLUIE PAR PERIODE DE RETOUR (MM/H)-LIMITES DE CONFIANCE DE 95%

**TABLE B2-3 WATSON LAKE IDF DATA**

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TABLE 1		WATSON LAKE A				YUK.			2101200	
LATITUDE 6007		LONGITUDE 12849				ELEVATION/ALTITUDE			687 M	
YEAR	5 MIN	10 MIN	15 MIN	30 MIN	1 H	2 H	6 H	12 H	24 H	
ANNEE										
1970	3.8	4.6	5.1	5.8	7.4	12.2	16.0	26.2	31.2	
1971	2.3	3.3	3.8	4.1	4.3	5.6	11.4	14.0	15.7	
1972	2.0	3.8	4.1	5.8	7.4	8.6	12.4	16.8	16.8	
1973	2.3	3.0	4.1	5.1	6.1	8.1	12.7	13.7	16.5	
1974	3.6	4.6	6.1	7.4	7.9	11.4	27.4	37.3	45.5	
1975	2.8	4.3	5.3	6.1	6.6	9.1	15.2	20.8	32.0	
1976	3.0	4.6	6.1	6.1	6.1	8.1	18.3	26.7	37.1	
1977	2.3	3.8	4.3	4.6	6.6	8.9	12.4	19.6	26.2	
1978	2.1	3.3	4.5	9.0	11.3	15.7	16.5	21.9	24.8	
1979	3.2	5.0	7.1	7.6	8.2	14.3	33.7	45.1	46.4	
1980	2.6	4.4	6.6	9.5	9.5	9.7	11.1	13.8	16.8	
1981	1.4	2.6	3.3	3.9	7.0	10.3	14.9	16.2	27.1	
1982	1.9	3.2	3.6	4.4	5.2	9.4	24.4	34.0	39.3	
1983	.9	1.3	1.6	3.1	6.1	8.8	14.7	16.3	18.7	
1984	4.1	5.0	5.2	6.3	8.9	10.8	13.0	15.4	18.2	
1985	2.2	2.8	3.1	3.4	3.6	4.2	8.1	9.6	12.4	
1986	4.3	6.5	9.8	12.6	15.1	17.0	18.7	23.7	39.4	
1987	2.0	3.7	3.7	4.1	4.9	8.2	21.7	35.3	52.1	
1988	3.5	4.0	4.5	5.1	6.1	7.9	14.0	21.2	38.8	
1989	4.3	8.1	9.2	10.1	10.1	11.0	12.2	17.7	21.7	
1990	12.0	15.1	19.7	22.2	23.7	24.1	24.1	24.3	24.3	
1991	2.9	4.2	4.9	5.8	6.0	6.7	10.6	15.2	18.9	
1992	1.3	2.2	3.2	3.4	4.7	8.1	19.0	27.3	36.0	

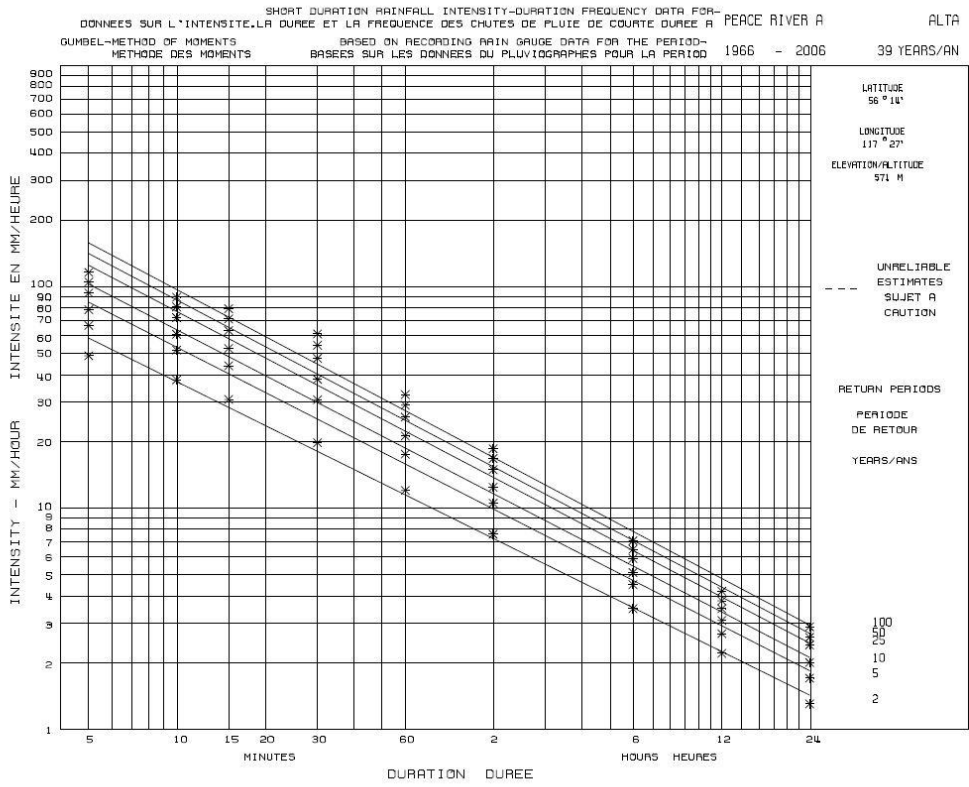
NOTE: -99.9 INDICATES MSG DATA  
DONNEES MANQUANTES

# YRS. ANNEES	23	23	23	23	23	23	23	23	23
MEAN MOYENNE	3.1	4.5	5.6	6.8	7.9	10.4	16.6	22.3	28.5
STD. DEV. ECART-TYPE	2.2	2.7	3.6	4.1	4.3	4.2	6.1	8.9	11.4
SKEW DISSYMETRIE	3.38	2.98	2.95	2.63	2.61	1.75	1.23	1.02	.46
KURTOSIS	16.71	13.94	13.59	11.59	11.25	7.37	4.66	3.92	2.43

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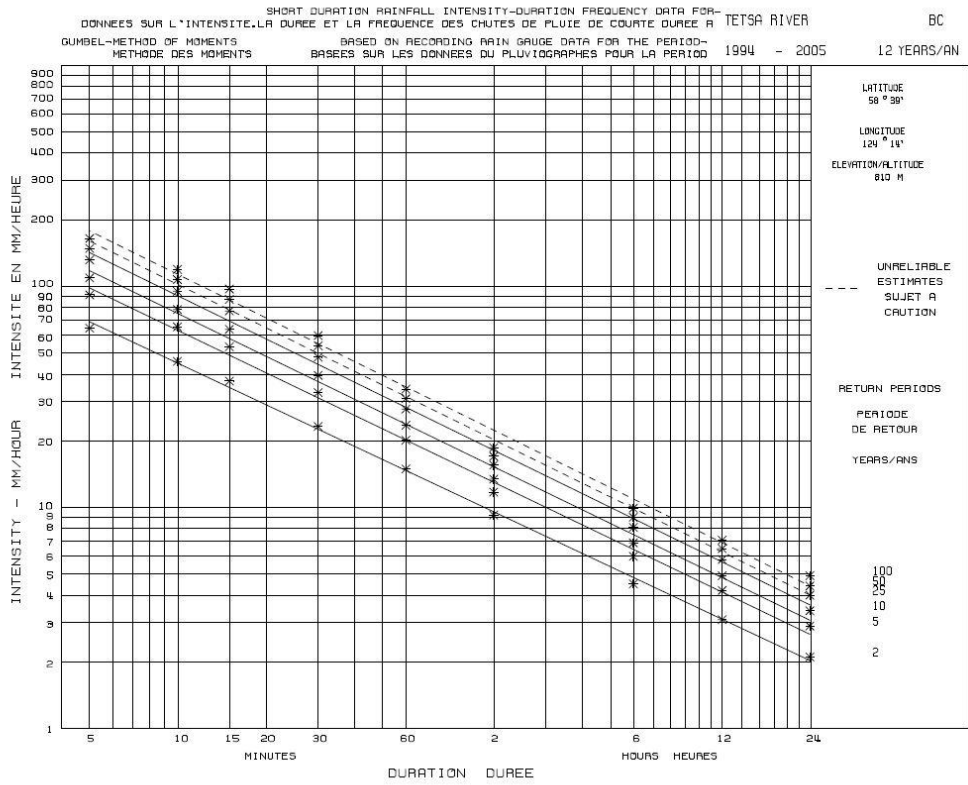
TABLE 2		WATSON LAKE A				YUK.			2101200	
LATITUDE 6007		LONGITUDE 12849				ELEVATION/ALTITUDE			687 M	
RETURN PERIOD RAINFALL AMOUNTS (MM) PERIODE DE RETOUR QUANTITIES DE PLUIE (MM)										
DURATION	2	5	10	25	50	100	# YEARS			
DUREE	YR/ANS	YR/ANS	YR/ANS	YR/ANS	YR/ANS	YR/ANS	ANNEES			
5 MIN	2.7	4.6	5.9	7.5	8.7	9.9	23			
10 MIN	4.1	6.4	8.0	10.0	11.5	13.0	23			
15 MIN	5.0	8.2	10.3	13.0	15.0	16.9	23			
30 MIN	6.1	9.7	12.2	15.2	17.5	19.7	23			
1 H	7.2	11.0	13.5	16.7	19.0	21.3	23			
2 H	9.7	13.4	15.9	19.0	21.3	23.6	23			
6 H	15.6	21.0	24.6	29.2	32.5	35.9	23			
12 H	20.8	28.6	33.8	40.4	45.2	50.1	23			
24 H	26.6	36.7	43.4	51.9	58.2	64.4	23			

RETURN PERIOD RAINFALL RATES (MM/HR)-95% CONFIDENCE' LIMITS  
INTENSITE DE LA PLUIE PAR PERIODE DE RETOUR (MM/H)-LIMITES DE CONFIANCE DE 95%



PREPARED BY - PREPARE PAR LE  
 ATMOSPHERIC ENVIRONMENT SERVICE - ENVIRONNEMENT CANADA  
 SERVICE DE L'ENVIRONNEMENT ATMOSPHERIQUE - ENVIRONNEMENT CANADA

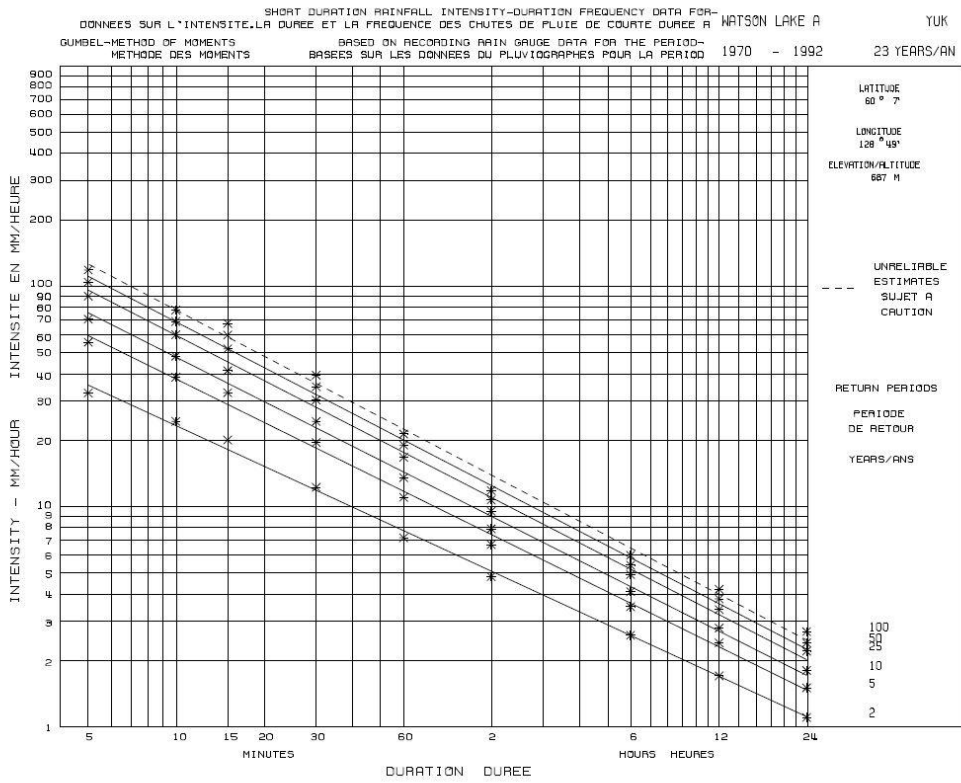
**Figure B2-1 - IDF Graph - Peace River**



PREPARED BY - PREPARE PAR LE  
 ATMOSPHERIC ENVIRONMENT SERVICE - ENVIRONNEMENT CANADA  
 SERVICE DE L'ENVIRONNEMENT ATMOSPHERIQUE - ENVIRONNEMENT CANADA

**Figure B2-2 - IDF Graph Tetsa River**





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 ATMOSPHERIC ENVIRONMENT SERVICE - ENVIRONNEMENT CANADA  
 SERVICE DE L'ENVIRONNEMENT ATMOSPHERIQUE - ENVIRONNEMENT CANADA

Figure B2-3 - IDF Graph Watson Lake