Publication No. 76-e53
WA-36-9080

MEMORANDUM

November 5, 1976

State of Washington Department of Ecology

To: Glen Fiedler

From: Ron Pine

Subject: Water Quality through Columbia Basin Project

Attached are water quality data for three Bureau of Reclamation stations through the Columbia Basin Project listed as follows:

Station No.	Location
CBP 033	Main Canal at Long Lake Dam (Billy Clapp Lake)
CBP 010	Potholes Canal at Headworks Just Below Potholes Reservoir Dam
CBP 012	Scootney Wasteway Just Above Scootney Reservoir

The following is a summary of the data from these stations in relation to water quality standards:

Station No.	Water Temp°C (Standard ≤20°C)	pH (Standard 6.5-8.5)	Dissolved Oxygen mg/l (Standard >8.0)
CBP 033			
* 1	22.0	8.7	13.8
2	5.0	7.8	3.2 **
3	13.7	8.2	10.0
4	46	46	33
5	4	1	2
CBP 010			
* 1	25.0	9.2	14.0
2	6.0	7.1	7.4
3	15.3	8.5	9.7
4	46	46	34
5	10	35	3

CBP 012

* 1	27.0	9.5	13.7
2	8.0	7.1	7.0
3	15.6	8.4	10.0
4	44	44	33
5	11	27	3

* 1. Maximum
2. Minimum
3. Average
4. No. of observation
5. No. of observations not meeting standard

** Value is questionable

All of the data prior to 1964 at stations CBP 010 and CBP 012 are not valid because the samples were collected and shipped to the Bureau of Reclamation's lab in Boise without benefit of being iced. The data reflects this, particularly the carbonate (CO_3) analysis.

The water quality definitely changes through the project and this is apparent from the above table. In addition to these parameters the nutrient data shows that at station CBP 033 (Billy Clapp Lake) the water is nitrogen limited but at both the downstream stations it becomes phosphorous limited, probably because of the leaching of nitrogen from the fertilized soils.

REP:ee

cc: Dick Cunningham

Attachments

BANKS LAKE DATA SUMMARY - Important Characteristics

1. Classified as an oligotrophic lake.

2. O-PO_4 level .011 mg/1 to .02 mg/1

   Crab Creek = 1968 to 1970 ranged from an average of .14 to .16 mg/1.

3. NO_3 levels .003 mg/1 to .019 mg/1

   Crab Creek = 1968 to 1970 ranged from an average of .81 to 2.1 mg/1.

4. Banks Lake is essentially nitrogen limited.

5. Banks Lake is what you would call a modified dimictic lake, i.e. during the summer it has the characteristics of a partially stratified lake and a river run reservoir at the same time. The cold water pumped from the Columbia River slides under the warmer surface water giving the lake these odd characteristics.

6. pH levels

   9.0 maximum one reading over 2 year period.
   7.0 minimum with most reading between 7.8 and 8.4.

   Crab Creek has generally the same pH range.

7. Dissolved oxygen levels range from a low of 54% saturation in August to a high of 122% saturation in July. All values were at or above 100% saturation except during May, June, July, August, and September which are the most productive months. The highest saturation values were also found during these months.

   Crab Creek = High 106% Low 94%

8. Conductivity in Banks Lake varied from 97 umhos/cm^2 to 170 umhos/cm^2.

   Crab Creek = Average values from 1962 - 70

   Varied from 887 to 1209 umhos/cm^2.

The conclusion from all of this is that Banks Lake has excellent water quality before it enters the Columbia Basin Project. While it borders on a eutrophic water as far as OPO_4 is concerned it is very oligotrophic and limiting as far as total inorganic nitrogen is concerned. The levels of both these nutrients plus conductance increase many fold as the water flows through the project.

The Columbia River is Class A with a special condition for temperature.

Criteria: (abbreviated)

Total coliform	median value of 240
Dissolved oxygen	>8.0 ppm
Temperature	$\leq 68.0^{\circ}F$
pH	6.5 - 8.5

SITE	LOCATION	LATITUDE	LONGITUDE	S C C CODE	RIVER MILE	
CBR033	MAIN CA AT LONG LAKE DAM	472654.0	1191512.0	53 25 0	0.00	FEBRUARY 3,1976

DATE	TIME	TEMP DEG C	BAROM IN	FLOW CFS	DEPTH FT	FLD EC UMHO/CM	LAB EC X 10 6	FLD PH	LAB PH	TDS MG/L	SEDIMT MG/L	TURBID JTU	DSOLVD O2 MG/L	DSOLVD O2 PRCNT	DSOLVD N2+AR MG/L	N2+AR PRCNT	SATUR PRCNT
6/29/64	1410	20.0	.	6870.	.		200	.	8.4				.	.	.	.	.
7/27/64	1415	21.0	.	5850.	.		180	.	8.4				.	.	.	.	.
9/29/64	835	16.0	.	2700.	.		160	.	8.4				.	.	.	.	.
10/14/64	720	13.0	.	2250.	.		160	.	8.2				.	.	.	.	.
4/ 6/65	745	5.0	.	1600.	.		160	.	8.1				.	.	.	.	.
5/25/65	830	13.0	.	4900.	.		180	.	8.1				.	.	.	.	.
7/20/65	730	19.0	.	5900.	.		160	.	8.1				.	.	.	.	.
10/13/65	835	14.0	.	2400.	.		160	.	8.3				.	.	.	.	.
5/16/66	830	12.0	.	6130.	.		180	.	8.3				.	.	.	.	.
7/18/66	1300	20.0	.	6200.	.		160	.	8.3				.	.	.	.	.
10/17/66	1600	14.0	.	2300.	.		160	.	8.5				.	.	.	.	.
5/15/67	740	11.0	.	3470.	.		160	.	8.3				.	.	.	.	.
7/25/67	900	21.0	.	6500.	.		150	.	8.5				.	.	.	.	.
10/17/67	800	15.0	.	2250.	.		160	.	8.3				9.8	.	.	.	.
4/ 2/68	700	6.0	.	2260.	.		140	.	8.0				11.4	.	.	.	.
5/14/68	745	12.0	.	5930.	.		160	.	8.2				10.3	.	.	.	.
7/10/68	815	22.0	.	7520.	.		160	.	8.7				9.3	.	.	.	.
10/15/68	810	12.0	.	1660.	.		140	.	8.2				9.4	.	.	.	.
4/ 2/69	815	6.0	.	910.	.		160	.	8.2				11.7	.	.	.	.
5/13/69	745	14.0	.	5990.	.		140	.	8.0				10.7	.	.	.	.
7/15/69	820	18.0	.	7010.	.		140	.	8.4				10.1	.	.	.	.
10/15/69	755	12.0	.	1940.	.		140	.	8.2				9.4	.	.	.	.
4/ 6/70	1545	7.0	.	1790.	.		150	.	8.3				12.2	.	.	.	.
5/12/70	750	10.0	.	4940.	.		140	.	8.3				11.9	.	.	.	.
7/14/70	715	19.	.	7500.	.		150	.	8.2				10.3	.	.	.	.
10/14/70	825	12.	.	1770.	.		160	.	8.2				9.5	.	.	.	.
4/ 5/71	930	12.	.	1010.	.		160	.	8.2				13.8	.	.	.	.
5/11/71	845	18.	.	5490.	.		170	.	8.2				10.3	.	.	.	.
7/13/71	900	20.	.	7170.	.		140	.	8.1				9.7	.	.	.	.
10/19/71	1315	14.	.	2080.	.		150	.	8.1				8.7	.	.	.	.
4/ 3/72	900	6.5	.	1610.	.		140	.	8.1				9.6	.	.	.	.
5/15/72	845	14.	.	5980.	.		160	.	8.2				9.9	.	.	.	.
7/10/72	2100	18.5	.	7090.	.		150	.	8.2				9.0	.	.	.	.
10/17/72	2030	11.0	.	2160.	.		150	.	8.2				8.1	.	.	.	.
4/ 9/73	850	8.5	.	.	.		140	.	8.0			2	11.4	.	.	.	.
5/ 7/73	915	12.0	.	.	.		140	.	8.2			1	12.4	.	.	.	.
7/ 9/73	745	17.5	.	.	.		150	.	8.1		6	1	9.3	.	.	.	.
10/16/73	820	12.0	.	1940.	.		160	.	8.3		5	2	11.2	.	.	.	.
4/15/74	805	7.0	.	1880.	.		140	.	7.9		4	2	9.5	.	.	.	.
5/13/74	910	10.5	.	5790.	.		140	.	7.9		1	1	11.6	.	.	.	.
7/ 1/74	855	17.5	.	6540.	.		140	.	7.8			2	9.7	.	.	.	.
10/15/74	840	15.5	.	2510.	.		130	.	7.3		13	2	9.3	.	.	.	.
4/14/75	815	5.0	.	.	.		140	.	8.1		8	1	11.2	.	.	.	.
5/13/75	835	12.5	.	.	.		130	.	8.0		7	1	10.7	.	.	.	.
7/14/75	830	21.5	.	.	.		150	.	8.0		9	1	3.2	.	.	.	.
10/15/75	845	14.0	.	.	.		150	.	7.9		35	1	7.9	.	.	.	.
AVERAGE		13.7	0.00	4097.1	0.0	0.	153.	0.0	8.18	0.	9.	1.	10.0	0.0	0.0	0.0	0.0
MAXIMUM		22.0	0.00	7520.0	0.0	0.	200.	0.0	8.70	0.	35.	2.	13.8	0.0	0.0	0.0	0.0
MINIMUM		5.0	0.00	910.0	0.0	0.	130.	0.0	7.80	0.	1.	1.	3.2	0.0	0.0	0.0	0.0

SITE	LOCATION	LATITUDE	LONGITUDE	S C C CODE	RIVER MILE
CBP033	MAIN CA AT LONG LAKE DAM	472654.0	1191512.0	53 25 0	0.00

DATE	TIME	CO3-- MG/L	HCO3- MG/L	CL- MG/L	SO4-- MG/L	CA++ MG/L	MG++ MG/L	NA+ MG/L	K+ MG/L	F- MG/L
6/29/64	1410	0.00	85.43	2.13	.	22.85	5.11	1.84	0.78	.
7/27/64	1415	1.20	75.66	4.61	.	21.64	4.13	2.30	1.17	.
9/29/64	835	0.00	72.61	0.00	.	21.04	5.47	1.15	0.78	.
10/14/64	720	0.00	76.89	1.77	.	20.84	4.38	2.30	1.56	.
4/ 6/65	745	0.00	83.60	1.77	.	20.84	5.23	6.90	1.56	.
5/25/65	830	0.00	81.16	2.84	14.41	21.04	5.11	3.22	0.78	.
7/20/65	730	0.00	74.44	2.84	12.49	20.44	4.38	2.30	0.78	.
10/13/65	835	0.00	77.50	3.19	12.49	20.44	4.62	2.76	1.17	.
5/16/66	830	0.00	82.38	2.13	12.49	.	.	3.22	1.17	.
7/18/66	1300	0.60	76.27	4.61	14.89	21.04	4.38	2.53	0.78	.
10/17/66	1600	0.00	76.27	2.84	13.93	18.84	5.47	2.07	0.78	.
5/15/67	740	0.00	81.16	2.84	13.93	22.65	3.89	2.76	0.78	.
7/25/67	900	2.70	62.24	2.13	15.37	21.64	3.65	2.53	0.78	.
10/17/67	800	0.00	78.72	2.84	13.93	21.04	3.89	2.07	0.78	.
4/ 2/68	700	0.00	81.16	2.13	13.45	21.04	4.13	2.76	1.17	.
5/14/68	745	0.00	68.95	2.84	12.49	20.64	4.13	2.53	0.78	.
7/10/68	815	5.40	67.73	2.13	15.37	23.05	3.89	5.75	3.13	.
10/15/68	810	0.00	79.94	2.84	12.97	21.64	4.13	4.37	1.17	.
4/ 2/69	815	0.00	75.66	5.67	14.41	21.64	4.01	4.83	1.56	.
5/13/69	745	0.00	79.94	7.80	13.45	21.24	5.11	9.20	2.35	.
7/15/69	820	0.00	78.72	6.38	13.45	20.84	4.38	4.60	1.56	.
10/15/69	755	0.00	74.44	2.13	12.97	20.84	4.38	2.30	0.78	.
4/ 6/70	1545	0.30	82.99	3.19	13.45	21.24	3.77	3.45	1.17	.
5/12/70	750	0.00	74.44	6.03	12.97	21.24	4.26	2.76	0.78	.
7/14/70	715	0.30	79.94	3.19	12.49	22.44	4.62	2.99	1.17	.
10/14/70	825	0.00	78.72	4.61	15.85	21.24	5.72	2.53	0.78	.
4/ 5/71	930	0.00	82.38	3.19	13.45	22.44	5.23	2.99	0.78	.
5/11/71	845	0.00	85.43	2.48	13.93	22.44	5.84	2.99	1.17	.
7/13/71	900	0.00	82.38	2.84	15.37	21.04	4.26	3.68	1.17	.
10/19/71	1315	0.00	69.56	2.13	11.53	19.24	5.72	2.76	0.78	.
4/ 3/72	900	0.00	78.72	2.13	12.49	20.64	4.99	2.76	0.78	.
5/15/72	845	0.00	73.22	2.84	12.01	19.24	5.84	3.91	1.17	.
7/10/72	2100	0.00	78.11	2.84	12.49	20.04	4.86	2.53	1.17	.
10/17/72	2030	0.00	73.22	3.54	11.53	19.64	6.32	3.22	0.78	.
4/ 9/73	850	0.00	72.00	2.84	7.68	19.44	4.50	2.99	1.17	.
5/ 7/73	915	0.00	77.50	2.84	9.13	21.84	4.50	2.76	0.78	.
7/ 9/73	745	0.00	79.94	1.77	17.29	21.44	4.74	3.68	1.17	.
10/16/73	820	0.00	73.83	1.42	11.05	20.44	3.89	2.30	0.78	.
4/15/74	805	0.00	74.44	3.90	10.09	22.24	3.28	2.53	1.17	.
5/13/74	910	0.00	75.66	3.90	12.49	24.25	2.55	1.61	1.17	.
7/ 1/74	855	0.00	81.16	3.19	15.37	22.65	3.53	4.14	1.17	.
10/15/74	840	0.00	70.78	2.48	10.09	18.84	3.77	3.45	1.17	.
4/14/75	815	0.00	73.22	1.42	7.20	19.44	3.77	3.45	0.39	.
5/19/75	835	0.00	72.00	2.13	11.53	20.04	3.65	2.53	0.78	.
7/14/75	830	0.00	73.22	2.84	12.97	20.24	4.99	2.53	1.17	.
10/15/75	845	0.00	78.72	1.77	12.01	19.24	5.35	2.53	0.78	.
AVERAGE		0.23	76.79	3.00	12.85	21.03	4.53	3.16	1.08	0.00
MAXIMUM		5.39	85.42	7.79	17.29	24.24	6.32	9.19	3.12	0.00
MINIMUM		0.00	62.24	0.00	7.20	18.83	2.55	1.14	0.39	0.00

SITE LOCATION LATITUDE LONGITUDE S C C CODE RIVER MILE PAGE 3
CBP033 MAIN CA AT LONG LAKE DAM 472654.0 1191512.0 53 25 0 0.00 FEBRUARY 3,1976

DATE	TIME	SIO2 MG/L	BORON MG/L	P-ORTHO MG/L	P-TOTAL MG/L	N-NH3 MG/L	N-NO2 MG/L	N-NO3 MG/L	N-ORG MG/L	BOD2 MG/L	BOD5 MG/L	BOD10 MG/L	COD MG/L	TOTAL COLIFORM	FECAL COLIFORM
6/29/64	1410	.	.	.	.	.	.	.	.	.	.	.			
7/27/64	1415	.	.	.	.	.	.	.	.	.	.	.			
9/29/64	835	.	.	.	.	.	.	.	.	.	.	.			
10/14/64	720	.	.	.	.	.	.	.	.	.	.	.			
4/ 6/65	745	.	.	.	.	.	.	.	.	.	.	.			
5/25/65	830	.	.	.	.	.	.	.	.	.	.	.			
7/20/65	730	.	.	.	.	.	.	.	.	.	.	.			
10/13/65	835	.	.	.	.	.	.	.	.	.	.	.			
5/15/66	830	.	.	.	.	.	.	.	.	.	.	.			
7/18/66	1300	.	.	.	.	.	.	.	.	.	.	.			
10/17/66	1600	.	.	.	.	.	.	.	.	.	.	.			
5/15/67	740	.	.	.	.	.	.	.	.	.	.	.			
7/25/67	900	.	.	.	.	.	.	.	.	.	.	.			
10/17/67	800	2.0	.	0.02	0.03	0.00	0.00	0.00	.	.	.	.	9		
4/ 2/68	700	1.0	0.00	0.04	0.04	0.00 T	.	0.00	0.22	.	.	.	8		
5/14/68	745	1.4	0.03	0.00	0.13	0.02	0.00	0.00	0.48	.	.	.	2		
7/10/68	815	0.0	0.14	0.05	0.09	0.00	0.00	0.05	0.22	.	.	.	6		
10/15/68	810	0.3	0.01	0.05	0.05	0.00	0.00	0.00	0.28	.	.	.	12		
4/ 2/69	815	.	.	0.03	0.05	0.06 T	.	0.29	0.18	.	.	.	5		
5/13/69	745	.	.	0.00	0.01	0.01	0.00	0.00	0.19	.	.	.	5		
7/15/69	820	.	.	0.00	0.05	0.06 T	.	0.05	0.18	.	.	.	8		
10/15/69	755	.	.	0.02	0.03	0.08	0.00	0.01	0.11	.	.	.	6		
4/ 6/70	1545	.	.	0.04	0.10	0.00	0.00	0.00	0.32	.	.	.	8		
5/12/70	750	.	.	0.04	0.04	0.00	0.00	0.00	0.17	.	.	.	6		
7/14/70	715	.	.	0.03	0.10	0.01	0.00	0.00	0.19	.	.	.	4		
10/14/70	825	.	.	0.02	0.04	0.03	0.00	0.00	0.33	.	.	.	7		
4/ 5/71	930	.	.	0.01	0.04	0.02 T	.	0.02	0.07	.	.	.	7		
5/11/71	845	.	.	0.02	0.05	0.01	0.00	0.01	0.10	.	.	.	5		
7/13/71	900	.	.	0.05	0.07	0.00	0.00	0.02	0.01	.	.	.	6		
10/19/71	1315	.	.	0.02	0.06	0.00	0.00	0.06	0.21	.	.	.	6		
4/ 3/72	900	.	.	0.01	0.03	0.01	0.00	0.00	0.21	.	.	.	6		
5/15/72	845	.	.	0.01	0.05	0.01	0.00	0.01	0.07	.	.	.	5		
7/10/72	2100	.	.	0.01	0.04	0.00	0.00	0.01	0.16	.	.	.	5		
10/17/72	2030	.	.	0.06	0.11	0.00	0.00	0.03	0.19	.	.	.	6		
4/ 9/73	850	.	.	0.01	0.06	0.01	.	0.02	0.26	0.5	0.6	00.6	3	80	0
5/ 7/73	915	.	.	0.01	0.05	0.00	.	0.03	0.22	0.0	0.5	01.0	5	10	0
7/ 9/73	745	.	.	0.02	0.07	0.00	.	0.03	0.11	0.0	0.1	00.3	5	0	0
10/16/73	820	.	.	0.02	0.09	0.01	.	0.02	0.18	0.6	0.9	1.1	5	80	0
4/15/74	805	.	.	0.01	0.05	0.00	.	0.02	0.18	0.6	1.1	1.5	8	0	0
5/13/74	910	.	.	0.01	0.05	0.00	.	0.03	0.17	0.1	0.1	0.1	3	4	2
7/ 1/74	855	.	.	0.01	0.04	0.03	.	0.02	0.63	0.4	0.4	.	7	2	0
10/15/74	840	.	.	0.01	0.05	0.02	.	0.03	0.20	0.0	0.0	.	7	0	0
4/14/75	815	.	.	0.01	0.03	0.00	.	0.02	0.19	0.3	0.7	.	5	0	0
5/19/75	835	.	.	0.04	0.13	0.00	.	0.09	0.21	0.3	0.7	.	6	0	0
7/14/75	830	.	.	0.01	0.05	.	.	0.02	.	0.4	0.8	.	7	3	0
10/15/75	845	.	.	0.01	0.13	0.00	.	0.03	0.20	0.0	0.7	.	8	2	0
AVERAGE		0.9	0.04	0.02	0.06	0.01	0.00	0.03	0.21	0.2	0.5	0.7	6.	15.	0.
MAXIMUM		2.0	0.14	0.06	0.13	0.08	0.00	0.29	0.62	0.6	1.1	1.5	12.	80.	2.
MINIMUM		0.0	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.0	0.0	0.1	2.	0.	0.

SITE LOCATION
CBP010 POTHOLES CANAL AT HEADWORKS

LATITUDE 465854.0 LONGITUDE 1191538.0 S C C CODE 53 25 0 RIVER MILE 0.00

FEBRUARY 3,1976

DATE	TIME	TEMP DEG C	BAROM IN	FLOW CFS	DEPTH FT	FLD EC UMHO/CM	LAB EC X 10 6	FLD PH	LAB PH	TDS MG/L	SEDIMT MG/L	TURBID JTU	DSOLVD O2 MG/L	DSOLVD O2 PRCNT	DSOLVD N2+AR MG/L	N2+AR PRCNT	SATUR PRCNT
5/13/56	0	.	.	.	.		339	.	7.1				.	.	.	.	.
7/30/56	0	.	.	.	.		299	.	8.5				.	.	.	.	.
10/ 1/56	0	.	.	.	.		323	.	7.9				.	.	.	.	.
5/28/57	0	.	.	.	.		364	.	8.3				.	.	.	.	.
8/15/57	0	.	.	.	.		367	.	7.8				.	.	.	.	.
10/ 7/57	0	.	.	.	.		357	.	7.8				.	.	.	.	.
5/13/58	0	.	.	.	.		371	.	8.5				.	.	.	.	.
7/14/58	0	.	.	.	.		362	.	7.6				.	.	.	.	.
10/ 9/58	0	.	.	.	.		408	.	7.8				.	.	.	.	.
5/ 7/59	0	.	.	.	.		421	.	8.2				.	.	.	.	.
7/13/59	0	.	.	.	.		315	.	8.1				.	.	.	.	.
10/15/59	0	.	.	.	.		423	.	7.9				.	.	.	.	.
5/19/60	0	.	.	.	.		444	.	8.1				.	.	.	.	.
7/ 7/60	0	.	.	.	.		403	.	7.9				.	.	.	.	.
10/20/60	0	.	.	.	.		413	.	7.9				.	.	.	.	.
5/18/61	0	.	.	.	.		410	.	8.3				.	.	.	.	.
7/20/61	0	.	.	.	.		389	.	8.5				.	.	.	.	.
10/12/61	0	.	.	.	.		436	.	8.2				.	.	.	.	.
5/24/62	0	.	.	.	.		448	.	7.9				.	.	.	.	.
7/25/62	0	.	.	.	.		426	.	8.0				.	.	.	.	.
10/18/62	0	.	.	.	.		470	.	7.8				.	.	.	.	.
5/16/63	0	.	.	.	.		480	.	8.1				.	.	.	.	.
7/23/63	0	.	.	.	.		447	.	7.7				.	.	.	.	.
10/10/63	0	.	.	.	.		454	.	8.0				.	.	.	.	.
6/22/64	1610	20.0	.	1400.	.		520	.	8.6				.	.	.	.	.
7/27/64	945	23.0	.	1550.	.		480	.	9.1				.	.	.	.	.
9/22/64	1625	17.0	.	830.	.		500	.	8.9				.	.	.	.	.
10/13/64	1730	15.0	.	750.	.		500	.	9.0				.	.	.	.	.
4/ 5/65	1630	9.0	.	695.	.		580	.	8.7				.	.	.	.	.
5/24/65	945	15.0	.	1200.	.		540	.	8.5				.	.	.	.	.
7/19/65	830	23.0	.	1560.	.		500	.	9.0				.	.	.	.	.
10/12/65	820	15.0	.	765.	.		500	.	8.9				.	.	.	.	.
5/18/66	1120	14.0	.	1660.	.		500	.	8.5				.	.	.	.	.
7/18/66	800	21.0	.	1720.	.		440	.	9.0				.	.	.	.	.
10/17/66	1045	14.0	.	868.	.		480	.	8.8				.	.	.	.	.
5/15/67	1225	15.0	.	902.	.		450	.	8.7				.	.	.	.	.
7/24/67	820	23.0	.	1320.	.		410	.	9.2				8.7	.	.	.	.
10/16/67	1035	14.0	.	916.	.		480	.	8.5				9.7	.	.	.	.
4/ 1/68	1130	8.0	.	980.	.		520	.	8.6				10.7	.	.	.	.
5/13/68	900	14.0	.	2000.	.		500	.	8.6				9.3	.	.	.	.
7/ 9/68	1055	25.0	.	2310.	.		440	.	8.9				9.3	.	.	.	.
10/15/68	930	13.0	.	1300.	.		480	.	8.5				9.5	.	.	.	.
4/ 2/69	930	7.0	.	780.	.		540	.	8.4				11.0	.	.	.	.
5/12/69	900	17.0	.	1830.	.		460	.	8.8				9.4	.	.	.	.
7/14/69	950	20.0	.	2310.	.		460	.	8.9				9.0	.	.	.	.
10/14/69	1010	13.0	.	1520.	.		440	.	8.5				9.6	.	.	.	.
4/ 6/70	755	6.0	.	881.	.		510	.	8.6				11.1	.	.	.	.
5/11/70	910	13.0	.	1760.	.		450	.	8.9				9.5	.	.	.	.
7/15/70	945	23.	.	2360.	.		400	.	8.8				10.2	.	.	.	.
10/13/70	1100	14.	.	907.	.		460	.	8.6				9.1	.	.	.	.
4/ 5/71	1030	9.	.	666.	.		520	.	8.7				12.0	.	.	.	.

SITE	LOCATION	LATITUDE	LONGITUDE	S C C CODE	RIVER MILE
CBP010	POTHOLES CANAL AT HEADWORKS	465854.0	1191538.0	53 25 0	0.00

DATE	TIME	TEMP DEG C	BAROM IN	FLOW CFS	DEPTH FT	FLD EC UMHO/CM	LAB EC X 10 6	FLD PH	LAB PH	TDS MG/L	SEDIMT MG/L	TURBID JTU	DSOLVD O2 MG/L	DSOLVD O2 PRCNT	DSOLVD N2+AR MG/L	N2+AR PRCNT	SATUR PRCNT
5/10/71	1605	16.	.	2130.	.		510	.	8.6				14.0	.	.	.	.
7/12/71	1100	22.	.	2310.	.		440	.	8.8				7.6	.	.	.	.
10/18/71	1245	13.	.	1470.	.		490	.	8.4				9.9	.	.	.	.
4/ 3/72	1000	8.0	.	814.	.		500	.	8.7				9.1	.	.	.	.
5/15/72	1100	18.	.	1830.	.		440	.	8.6				9.5	.	.	.	.
7/10/72	1050	20.	.	2430.	.		440	.	8.8				9.6	.	.	.	.
10/17/72	1115	12.5	.	755.	.		470	.	8.5				9.8	.	.	.	.
4/ 9/73	1030	8.5	.	.	.		510	.	8.7			4	11.4	.	.	.	.
5/ 7/73	1300	15.0	.	.	.		490	.	8.4		6	1	7.4	.	.	.	.
7/ 9/73	1055	21.5	.	.	.		400	.	8.8		16	8	9.4	.	.	.	.
10/16/73	1030	14.0	.	982.	.		400	.	8.5		6	4	9.5	.	.	.	.
4/15/74	1000	10.0	.	1920.	.		440	.	8.6		9	2	9.2	.	.	.	.
5/13/74	1240	14.	1.40	2190.	.		400	.	8.6		8	3	10.4	160.0	.	.	.
7/ 1/74	1105	21.0	.	2420.	.		390	.	8.7			5	9.0	.	.	.	.
10/15/74	1210	14.0	.	1070.	.		410	.	8.6		21	4	9.6	.	.	.	.
4/14/75	920	7.5	.	.	.		430	.	8.7		21	4	11.3	.	.	.	.
5/19/75	1225	15.0	.	.	.		400	.	8.8		22	8	9.6	.	.	.	.
7/14/75	1115	23.0	.	.	.		420	.	8.6		5	5	7.7	.	.	.	.
10/14/75	1200	14.5	.	.	.		440	.	8.5		13	4	8.4	.	.	.	.
AVERAGE		15.3	1.40	1442.5	0.0	0.	443.	0.0	8.46	0.	12.	4.	9.7	*****	0.0	0.0	0.0
MAXIMUM		25.0	1.40	2560.0	0.0	0.	580.	0.0	9.20	0.	22.	8.	14.0	*****	0.0	0.0	0.0
MINIMUM		6.0	1.40	666.0	0.0	0.	299.	0.0	7.10	0.	5.	1.	7.4	*****	0.0	0.0	0.0

SITE	LOCATION	LATITUDE	LONGITUDE	S C C CODE	RIVER MILE
CBP010	POTHOLES CANAL AT HEADWORKS	465854.0	1191538.0	53 25 0	0.00

DATE	TIME	CO3-- MG/L	HCO3- MG/L	CL- MG/L	SO4-- MG/L	CA++ MG/L	MG++ MG/L	NA+ MG/L	K+ MG/L	F- MG/L
5/18/56	0	0.00	161.70	9.22	25.94	25.25	12.40	23.91	6.65	.
7/30/56	0	4.50	128.75	8.86	25.46	18.84	11.92	23.68	7.43	.
10/ 5/56	0	0.00	79.94	6.74	26.42	10.62	8.03	24.83	7.43	.
5/20/57	0	0.00	184.28	12.05	29.78	28.26	13.98	29.89	7.82	.
8/15/57	0	0.00	165.97	10.28	28.82	25.25	12.89	29.89	8.60	.
10/ 7/57	0	0.00	176.96	11.70	29.30	24.45	14.71	30.81	8.21	.
5/19/58	0	6.00	169.64	14.18	32.66	20.24	18.73	32.19	8.60	.
7/14/58	0	0.00	164.75	14.18	36.02	22.85	14.23	32.19	10.17	.
10/ 6/58	0	0.00	187.94	17.37	36.50	25.85	14.35	34.94	10.17	.
5/ 7/59	0	0.00	184.28	15.60	40.35	31.46	13.50	34.03	8.99	.
7/13/59	0	6.60	153.77	13.83	39.86	24.45	14.47	32.88	10.17	.
10/15/59	0	0.00	184.28	18.08	44.67	26.85	15.44	34.48	7.82	.
5/11/60	0	0.00	185.50	20.92	50.43	22.04	19.70	36.32	8.60	.
7/ 7/60	0	0.00	155.60	19.50	46.11	20.04	15.69	36.78	9.38	.
10/20/60	0	0.00	175.74	20.56	47.07	27.25	16.05	32.65	6.26	.
5/13/61	0	0.00	161.09	19.50	53.31	20.84	21.89	30.35	7.04	.
7/20/61	0	1.20	156.21	19.50	48.03	21.64	16.78	34.48	7.82	.
10/12/61	0	0.00	180.62	19.14	59.56	25.25	20.06	39.31	7.82	.
5/24/62	0	0.00	192.82	22.69	61.00	31.46	19.58	40.00	8.60	.
7/26/62	0	0.00	156.82	23.75	63.40	22.24	18.36	40.46	7.04	.
10/15/62	0	0.00	181.84	22.33	61.48	34.67	16.66	39.08	7.82	.
5/16/63	0	0.00	190.38	24.11	70.12	35.87	18.97	39.08	7.43	.
7/25/63	0	0.00	180.62	21.98	62.92	30.46	18.00	37.70	8.60	.
10/10/63	0	0.00	175.74	15.95	61.96	27.05	19.70	38.85	7.04	.
6/22/64	1610	12.90	158.65	26.23	.	57.72	2.92	44.83	7.04	.
7/27/64	945	17.40	111.67	24.81	.	24.85	16.05	45.98	7.04	.
9/28/64	1625	8.10	167.19	21.27	.	38.68	12.52	40.23	7.04	.
10/13/64	1730	16.20	183.67	18.08	.	33.07	14.11	43.68	7.04	.
4/ 5/65	1630	17.70	173.91	30.13	.	35.87	21.16	50.58	7.04	.
5/24/65	945	10.50	175.74	27.65	59.08	31.66	18.85	47.13	7.04	.
7/19/65	830	15.30	132.41	25.17	68.20	21.44	19.09	45.98	7.04	.
10/12/65	820	12.90	159.87	22.69	65.32	28.26	19.46	44.63	7.04	.
5/16/66	1120	6.00	183.67	24.81	75.89	0.00	40.74	44.63	6.65	.
7/16/66	800	11.70	161.09	25.52	61.48	27.45	19.09	40.23	6.26	.
10/17/66	1045	8.10	181.23	22.69	61.48	26.45	21.04	40.23	6.26	.
5/15/67	1225	12.00	155.60	19.50	59.08	32.87	16.66	34.48	5.47	.
7/24/67	820	21.30	113.50	19.85	60.52	21.64	17.15	36.78	7.43	.
10/16/67	1035	12.00	175.74	19.85	51.39	31.26	18.00	41.38	6.26	.
4/ 1/68	1130	21.30	170.86	26.94	72.53	35.87	20.79	45.98	7.04	.
5/13/68	900	12.00	178.79	23.04	69.16	33.67	19.33	42.53	6.26	.
7/ 9/68	1055	13.20	154.99	20.21	65.32	28.66	19.94	41.38	6.26	.
10/15/68	930	13.20	175.13	21.62	58.60	32.06	19.46	41.38	6.26	.
4/ 2/69	930	6.60	198.31	23.75	64.36	37.88	20.31	43.68	6.65	.
5/12/69	900	20.10	148.89	23.75	90.30	31.46	19.82	41.38	7.04	.
7/14/69	950	14.70	148.89	20.56	67.24	26.45	18.36	36.78	7.04	.
10/14/69	1010	13.20	179.40	21.62	58.12	31.26	19.33	37.24	6.26	.
4/ 6/70	755	8.10	211.74	23.40	71.56	37.47	21.04	42.53	7.04	.
5/11/70	910	22.50	142.79	23.40	57.64	30.86	20.31	42.53	7.04	.
7/13/70	945	26.70	115.33	14.89	58.12	22.24	19.09	39.08	6.65	.
10/13/70	1100	17.40	169.64	19.85	68.20	32.87	20.55	41.38	7.04	.
4/ 5/71	1030	15.00	192.21	19.14	52.83	36.87	20.79	39.08	6.26	.

SITE	LOCATION	LATITUDE	LONGITUDE	S C C CODE	RIVER MILE
C6PC10	POTHOLES CANAL AT HEADWORKS	465854.0	1191538.0	53 25 0	0.00

DATE	TIME	CO3-- MG/L	HCO3- MG/L	CL- MG/L	SO4-- MG/L	CA++ MG/L	MG++ MG/L	NA+ MG/L	K+ MG/L	F- MG/L
5/10/71	1605	11.10	187.33	19.14	61.00	34.47	21.89	42.53	6.65	.
7/12/71	1100	20.10	156.21	17.72	59.08	29.06	18.97	42.53	7.04	.
10/16/71	1245	14.10	194.65	17.37	54.75	32.26	20.06	39.08	6.65	.
4/ 3/72	1000	14.10	169.03	19.35	68.68	34.47	22.74	41.38	7.04	.
5/15/72	1100	11.70	167.80	22.69	63.88	29.46	20.19	35.63	5.86	.
7/10/72	1050	19.50	148.23	17.37	58.60	25.85	19.09	34.48	5.86	.
10/17/72	1115	8.10	186.72	16.31	54.27	33.87	17.15	37.93	5.86	.
4/ 4/73	1030	24.60	155.60	19.14	55.71	35.67	20.06	41.38	6.26	.
5/ 7/73	1300	6.00	192.21	19.50	60.04	33.27	17.75	39.08	5.86	.
7/ 9/73	1055	16.50	151.94	14.18	54.75	22.24	18.73	39.08	6.26	.
10/16/73	1030	16.50	175.74	10.63	43.23	29.06	16.66	33.34	5.86	.
4/15/74	1000	6.00	186.72	17.37	45.63	35.07	18.73	29.69	4.69	.
5/13/74	1240	7.20	181.84	15.60	50.91	32.87	18.24	35.63	5.86	.
7/ 1/74	1105	12.00	165.97	18.79	54.75	26.25	18.00	36.78	6.26	.
10/15/74	1210	12.30	185.50	13.83	48.51	29.66	18.97	37.93	5.47	.
4/14/75	920	21.90	156.82	10.99	52.83	29.26	19.58	36.32	5.47	.
5/19/75	1225	.	39.66	16.66	54.75	25.45	20.06	37.01	6.26	.
7/14/75	1115	9.90	176.35	15.24	46.11	28.66	19.21	35.86	7.04	.
10/14/75	1200	12.30	185.50	13.47	48.03	28.26	18.97	34.03	6.26	.
AVERAGE		9.40	166.00	18.98	54.36	28.67	18.10	37.93	7.05	0.00
MAXIMUM		26.69	211.73	30.13	90.29	57.71	40.73	50.57	10.16	0.00
MINIMUM		0.00	39.66	6.73	25.45	0.00	2.91	23.67	4.69	0.00

SITE LOCATION LATITUDE LONGITUDE S C C CODE RIVER MILE
CBP010 POTHOLES CANAL AT HEADWORKS 465854.0 1191538.0 53 25 0 0.00

DATE	TIME	SIO2 MG/L	BORON MG/L	P-ORTHO MG/L	P-TOTAL MG/L	N-NH3 MG/L	N-NO2 MG/L	N-NO3 MG/L	N-ORG MG/L	BOD2 MG/L	BOD5 MG/L	BOD10 MG/L	COD MG/L	TOTAL COLIFORM	FECAL COLIFORM
5/18/56	0	.	0.07	.	.	.	.	.	.	.	.	.			
7/30/56	0	.	0.16	.	.	.	.	.	.	.	.	.			
10/ 8/56	0	.	0.19	.	.	.	.	.	.	.	.	.			
5/20/57	0	.	0.02	.	.	.	.	.	.	.	.	.			
8/15/57	0	.	0.06	.	.	.	.	.	.	.	.	.			
10/ 7/57	0	.	0.06	.	.	.	.	.	.	.	.	.			
5/19/58	0	.	0.02	.	.	.	.	.	.	.	.	.			
7/14/58	0	.	0.00	.	.	.	.	.	.	.	.	.			
10/ 8/58	0	.	.	.	.	.	.	.	.	.	.	.			
5/ 7/59	0	.	0.00	.	.	.	.	.	.	.	.	.			
7/13/59	0	.	0.00	.	.	.	.	.	.	.	.	.			
10/15/59	0	.	0.10	.	.	.	.	.	.	.	.	.			
5/19/60	0	.	.	.	.	.	.	.	.	.	.	.			
7/ 7/60	0	.	0.05	.	.	.	.	.	.	.	.	.			
10/20/60	0	.	0.00	.	.	.	.	.	.	.	.	.			
5/18/61	0	.	0.00	.	.	.	.	.	.	.	.	.			
7/20/61	0	.	0.01	.	.	.	.	.	.	.	.	.			
10/12/61	0	.	0.04	.	.	.	.	.	.	.	.	.			
5/24/62	0	.	0.00	.	.	.	.	.	.	.	.	.			
7/25/62	0	.	0.00	.	.	.	.	.	.	.	.	.			
10/18/62	0	.	0.01	.	.	.	.	.	.	.	.	.			
5/16/63	0	.	0.00	.	.	.	.	.	.	.	.	.			
7/25/63	0	.	0.03	.	.	.	.	.	.	.	.	.			
10/10/63	0	.	0.09	.	.	.	.	.	.	.	.	.			
6/22/64	1610	.	.	.	.	.	.	.	.	.	.	.			
7/27/64	945	.	.	.	.	.	.	.	.	.	.	.			
9/28/64	1625	.	.	.	.	.	.	.	.	.	.	.			
10/13/64	1730	.	.	.	.	.	.	.	.	.	.	.			
4/ 5/65	1630	.	.	.	.	.	.	.	.	.	.	.			
5/24/65	945	.	.	.	.	.	.	.	.	.	.	.			
7/19/65	830	.	.	.	.	.	.	.	.	.	.	.			
10/12/65	820	.	.	.	.	.	.	.	.	.	.	.			
5/16/66	1120	.	.	.	.	.	.	.	.	.	.	.			
7/18/66	800	.	.	.	.	.	.	.	.	.	.	.			
10/17/66	1045	.	.	.	.	.	.	.	.	.	.	.			
5/15/67	1225	.	.	.	.	.	.	.	.	.	.	.			
7/24/67	820	.	.	.	.	.	.	.	.	.	.	.			
10/16/67	1035	14.8	.	0.02	0.03	0.00	0.37	0.64	0.60	.	.	.	12		
4/ 1/68	1130	12.0	0.04	0.04	0.06	0.08 L	0.01	1.14	1.38	.	.	.	14		
5/13/68	900	6.4	0.04	0.02	0.07	0.00	0.01	1.03	0.58	.	.	.	16		
7/ 9/68	1055	8.9	0.10	0.01	0.09	0.00	0.02	0.77	0.64	.	.	.	11		
10/15/68	930	16.1	0.04	0.02	0.78	0.16	0.03	0.75	0.62	.	.	.	22		
4/ 2/69	930	.	.	0.02	0.06	0.17	0.02	1.32	0.58	.	.	.	16		
5/12/69	900	.	.	0.00	0.00	0.01	0.02	0.67	0.53	.	.	.	9		
7/14/69	950	.	.	0.01	0.04	0.00	0.02	0.62	0.52	.	.	.	12		
10/14/69	1010	.	.	0.04	0.09	0.25	0.03	0.62	0.63	.	.	.	21		
4/ 6/70	755	.	.	0.00	0.07	0.02	0.02	1.00	0.53	.	.	.	18		
5/11/70	910	.	.	0.02	0.05	0.02	0.02	0.69	0.60	.	.	.	17		
7/13/70	945	.	.	0.01	0.11	0.00	0.03	0.38	0.67	.	.	.	19		
10/13/70	1100	.	.	0.02	0.16	0.29	0.02	0.85	0.55	.	.	.	16		
4/ 5/71	1030	.	.	0.01	0.06	0.03	0.02	1.32	0.34	.	.	.	14		

SITE	LOCATION	LATITUDE	LONGITUDE	S C C CODE	RIVER MILE
CBP010	POTHOLES CANAL AT HEADWORKS	465854.0	1191538.0	53 25 0	0.00

FEBRUARY 3,1976

DATE	TIME	SIO2 MG/L	BORON MG/L	P-ORTHO MG/L	P-TOTAL MG/L	N-NH3 MG/L	N-NO2 MG/L	N-NO3 MG/L	N-ORG MG/L	BOD2 MG/L	BOD5 MG/L	BOD10 MG/L	COD MG/L	TOTAL COLIFORM	FECAL COLIFORM
5/10/71	1605	.	.	0.01	0.04	0.01	0.02	0.94	0.29	.	.	.	15		
7/12/71	1100	.	.	0.01	0.05	0.01	0.02	0.65	0.07	.	.	.	21		
10/18/71	1245	.	.	0.02	0.06	0.21	0.03	0.65	0.79	.	.	.	17		
4/ 3/72	1000	.	.	0.01	0.06	0.01	0.03	1.36	0.68	.	.	.	16		
5/15/72	1100	.	.	0.01	0.07	0.02	0.02	0.79	0.51	.	.	.	13		
7/10/72	1050	.	.	0.02	0.08	0.03	0.03	0.42	0.86	.	.	.	16		
10/17/72	1115	.	.	0.02	0.06	0.16	0.02	0.81	0.56	.	.	.	15		
4/ 9/73	1030	.	.	0.03	0.09	0.04	.	1.23	0.75	0.8	2.4	02.4	15	0	0
5/ 7/73	1300	.	.	0.02	0.04	0.09	.	0.95	0.47	0.5	1.6	01.7	12	4	0
7/ 9/73	1055	.	.	0.03	0.20	0.03	.	0.50	0.79	0.5	2.5	02.5	16	0	0
10/16/73	1030	.	.	0.02	0.07	0.16	.	0.47	0.64	1.8	2.8	3.3	15	70	0
4/15/74	1000	.	.	0.04	0.25	0.01	.	0.84	0.31	0.7	1.0	1.6	18	0	0
5/13/74	1240	.	.	0.03	0.05	0.03	.	0.76	0.47	0.4	0.4	1.8	12	9	0
7/ 1/74	1105	.	.	0.01	0.05	0.03	.	0.51	0.63	1.3	2.3	.	24	0	0
10/15/74	1210	.	.	0.02	0.07	0.16	.	0.72	0.61	0.2	1.4	.	18	0	0
4/14/75	920	.	.	0.00	0.04	0.00	.	0.91	0.58	1.7	2.9	.	18	0	0
5/19/75	1225	.	.	0.02	0.05	0.02	.	0.59	0.45	0.9	1.9	.	17	0	0
7/14/75	1115	.	.	0.01	0.04	.	.	0.71	.	1.0	2.0	.	23	0	0
10/14/75	1200	.	.	0.02	0.10	0.20	.	0.62	0.41	0.2	1.6	.	18	0	0
AVERAGE		11.6	0.04	0.02	0.10	0.07	0.04	0.79	0.58	0.8	1.9	2.2	16.	6.	0.
MAXIMUM		16.1	0.18	0.04	0.78	0.29	0.37	1.36	1.38	1.7	2.9	3.3	24.	70.	0.
MINIMUM		6.4	0.00	0.00	0.00	0.00	0.01	0.37	0.07	0.2	0.4	1.6	9.	0.	0.

SITE	LOCATION	LATITUDE	LONGITUDE	S C C CODE	RIVER MILE
CRP012	SCOOTENEY WW AT SCOOTENEY R.E.	464320.0	1190135.0	53 21 0	0.00

DATE	TIME	TEMP DEG C	BAROM IN	FLOW CFS	DEPTH FT	FLD EC UMHO/CM	LAB EC X 10 6	FLD PH	LAB PH	TDS MG/L	SEDIMT MG/L	TURBID JTU	DSOLVD O2 MG/L	DSOLVD O2 PRCNT	DSOLVD N2+AR MG/L	N2+AR PRCNT	SATUR PRCNT
5/13/56	0	.	.	.	.		160	.	7.6				.	.	.	.	.
7/30/56	0	.	.	.	.		160	.	7.8				.	.	.	.	.
10/ 8/56	0	.	.	.	.		164	.	7.7				.	.	.	.	.
5/20/57	0	.	.	.	.		163	.	7.9				.	.	.	.	.
8/15/57	0	.	.	.	.		163	.	7.5				.	.	.	.	.
10/ 7/57	0	.	.	.	.		147	.	8.2				.	.	.	.	.
5/19/58	0	.	.	.	.		163	.	8.1				.	.	.	.	.
7/14/58	0	.	.	.	.		150	.	7.8				.	.	.	.	.
10/ 8/58	0	.	.	.	.		165	.	7.8				.	.	.	.	.
5/ 7/59	0	.	.	.	.		155	.	8.0				.	.	.	.	.
7/13/59	0	.	.	.	.		132	.	7.5				.	.	.	.	.
10/15/59	0	.	.	.	.		154	.	7.9				.	.	.	.	.
5/19/60	0	.	.	.	.		156	.	8.0				.	.	.	.	.
7/ 7/60	0	.	.	.	.		165	.	7.9				.	.	.	.	.
10/20/60	0	.	.	.	.		157	.	8.2				.	.	.	.	.
5/16/61	0	.	.	.	.		154	.	8.0				.	.	.	.	.
7/20/61	0	.	.	.	.		149	.	8.3				.	.	.	.	.
10/12/61	0	.	.	.	.		144	.	8.0				.	.	.	.	.
5/24/62	0	.	.	.	.		160	.	7.5				.	.	.	.	.
7/26/62	0	.	.	.	.		165	.	7.1				.	.	.	.	.
10/16/62	0	.	.	.	.		148	.	7.6				.	.	.	.	.
5/16/63	0	.	.	.	.		156	.	7.9				.	.	.	.	.
7/25/63	0	.	.	.	.		152	.	8.0				.	.	.	.	.
10/10/63	0	.	.	.	.		146	.	7.7				.	.	.	.	.
6/24/64	1610	23.5	.	73.	.		200	.	9.0				.	.	.	.	.
7/22/64	1225	22.0	.	48.	.		180	.	9.1				.	.	.	.	.
9/24/64	1026	16.0	.	55.	.		180	.	8.6				.	.	.	.	.
10/12/64	1130	14.0	.	30.	.		200	.	8.6				.	.	.	.	.
4/12/65	930	10.0	.	43.	.		180	.	8.2				.	.	.	.	.
5/24/65	1120	15.0	.	47.	.		200	.	8.7				.	.	.	.	.
7/19/65	1030	21.0	.	33.	.		160	.	9.0				.	.	.	.	.
10/12/65	935	12.0	.	29.	.		200	.	8.5				.	.	.	.	.
7/19/66	1155	22.0	.	34.	.		200	.	9.5				.	.	.	.	.
10/17/66	1130	11.0	.	34.	.		180	.	8.8				.	.	.	.	.
7/24/67	1130	24.0	.	20.	.		160	.	9.2				.	.	.	.	.
10/16/67	1210	13.0	.	12.	.		180	.	8.7				11.2	.	.	.	.
4/ 1/68	1630	11.0	.	54.	.		160	.	8.3				10.0	.	.	.	.
5/13/68	1215	16.0	.	23.	.		140	.	9.0				9.4	.	.	.	.
7/ 9/68	1325	27.0	.	13.	.		220	.	9.4				8.0	.	.	.	.
10/14/68	1255	11.0	.	32.	.		180	.	8.5				10.2	.	.	.	.
4/ 2/69	1030	12.0	.	20.	.		160	.	8.2				10.3	.	.	.	.
5/12/69	1250	19.0	.	22.	.		160	.	8.6				10.2	.	.	.	.
7/14/69	1050	20.0	.	48.	.		180	.	8.9				8.7	.	.	.	.
10/14/69	1115	9.0	.	56.	.		160	.	8.1				11.1	.	.	.	.
4/ 6/70	900	8.0	.	40.	.		160	.	8.3				10.9	.	.	.	.
5/11/70	1240	15.0	.	65.	.		160	.	8.9				10.3	.	.	.	.
7/13/70	1115	22.	.	52.	.		180	.	8.6				10.2	.	.	.	.
10/13/70	1200	13.	.	42.	.		160	.	8.6				10.5	.	.	.	.
4/ 5/71	1115	11.	.	86.	.		170	.	8.2				11.0	.	.	.	.
5/10/71	900	14.	.	23.	.		210	.	8.7				10.3	.	.	.	.
7/12/71	1300	23.	.	86.	.		180	.	8.6				7.0	.	.	.	.

SITE	LOCATION	LATITUDE	LONGITUDE	S C C CODE	RIVER MILE	
CBP012	SCOOTENEY WW AT SCOOTENEY R.E.	464320.0	1190135.0	53 21 0	0.00	FEBRUARY 3,1976

DATE	TIME	TEMP DEG C	BAROM IN	FLOW CFS	DEPTH FT	FLD EC UMHO/CM	LAB EC X 10 6	FLD PH	LAB PH	TDS MG/L	SEDIMT MG/L	TURBID JTU	DSOLVD O2 MG/L	DSOLVD O2 PRCNT	DSOLVD N2+AR MG/L	N2+AR PRCNT	SATUR PRCNT
10/18/71	1400	15.	.	20.	.		190	.	8.4				10.9	.	.	.	.
4/ 3/72	1045	9.5	.	43.	.		160	.	8.3				10.0	.	.	.	.
5/15/72	1200	17.	.	30.	.		180	.	8.5				13.7	.	.	.	.
7/10/72	1230	19.	.	23.	.		180	.	8.9				9.7	.	.	.	.
10/17/72	1315	13.0	.	50.	.		180	.	8.5				12.3	.	.	.	.
4/ 9/73	1310	10.5	.	.	.		150	.	8.1			8	10.8	.	.	.	.
5/ 7/73	1430	17.0	.	.	.		180	.	8.6		28	5	7.1	.	.	.	.
7/ 9/73	1240	20.5	.	.	.		190	.	8.9		22	4	8.9	.	.	.	.
10/15/73	1025	12.0	.	105.	.		160	.	8.2		1	1	10.9	.	.	.	.
4/15/74	1045	12.5	.	20.	.		200	.	8.4		12	2	9.1	.	.	.	.
5/13/74	1325	15.0	.	70.	.		210	.	9.1		1	2	12.8	.	.	.	.
7/ 1/74	1205	20.5	.	15.	.		210	.	8.1			6	8.3	.	.	.	.
10/15/74	1350	13.5	.	50.	.		140	.	8.8		29	7	12.0	.	.	.	.
4/14/75	1020	9.5	.	.	.		140	.	8.0		55	8	9.7	.	.	.	.
5/19/75	130	15.0	.	.	.		140	.	8.6		40	9	9.6	.	.	.	.
7/14/75	1300	23.0	.	.	.		290	.	9.1		43	20	7.8	.	.	.	.
10/15/75	1050	12.5	.	.	.		180	.	8.2		23	1	8.6	.	.	.	.
AVERAGE		15.6	0.00	41.7	0.0	0.	170.	0.0	8.35	0.	25.	6.	10.0	0.0	0.0	0.0	0.0
MAXIMUM		27.0	0.00	105.0	0.0	0.	290.	0.0	9.50	0.	55.	20.	13.7	0.0	0.0	0.0	0.0
MINIMUM		8.0	0.00	12.0	0.0	0.	132.	0.0	7.10	0.	1.	1.	7.0	0.0	0.0	0.0	0.0

SITE	LOCATION	LATITUDE	LONGITUDE	S C C CODE	RIVER MILE
CBP012	SCOOTENEY WW AT SCOOTENEY R.E.	464320.0	1190135.0	53 21 0	0.00

DATE	TIME	CO3-- MG/L	HCO3- MG/L	CL- MG/L	SO4-- MG/L	CA++ MG/L	MG++ MG/L	NA+ MG/L	K+ MG/L	F- MG/L
5/19/56	0	0.00	84.82	0.71	24.01	20.44	6.32	4.14	1.17	.
7/30/56	0	0.00	79.94	0.71	12.01	19.64	6.08	4.14	1.56	.
10/ 8/56	0	0.00	86.04	1.77	11.53	21.24	6.93	3.68	0.78	.
5/20/57	0	0.00	88.48	0.00	11.05	21.64	5.59	3.68	1.17	.
8/15/57	0	0.00	80.55	0.00	11.53	21.44	5.11	3.22	1.56	.
10/ 7/57	0	0.00	78.11	0.71	10.09	20.04	5.84	3.45	1.56	.
5/19/58	0	0.00	86.65	0.71	11.05	21.24	5.11	5.06	2.35	.
7/14/58	0	0.00	85.43	1.06	12.97	20.64	5.84	4.14	3.91	.
10/ 8/58	0	0.00	89.09	1.42	13.45	21.24	5.11	3.22	2.35	.
5/ 7/59	0	0.00	84.82	1.42	14.41	21.04	5.11	4.14	1.56	.
7/13/59	0	0.00	82.99	0.00	13.93	22.04	5.11	3.91	2.74	.
10/15/59	0	0.00	81.77	0.35	12.49	21.24	4.99	2.76	1.56	.
5/19/60	0	0.00	83.60	2.48	12.97	21.04	5.23	3.68	1.56	.
7/ 7/60	0	0.00	83.60	0.00	12.01	21.04	5.72	5.29	1.56	.
10/20/60	0	0.00	82.38	1.06	12.49	22.24	5.59	1.38	0.00	.
5/18/61	0	0.00	81.16	0.35	12.97	20.84	5.59	2.76	1.95	.
7/20/61	0	0.00	76.72	0.00	12.01	20.04	5.35	3.22	1.95	.
10/12/61	0	0.00	77.50	0.00	12.01	21.64	4.99	2.76	1.17	.
5/24/62	0	0.00	86.65	1.42	12.01	24.85	5.11	2.76	1.56	.
7/25/62	0	0.00	76.89	1.42	14.89	19.64	5.59	4.14	0.78	.
10/16/62	0	0.00	78.11	0.71	12.97	20.84	4.86	2.30	1.95	.
5/16/63	0	0.00	81.16	1.06	15.85	21.44	5.35	3.68	0.78	.
7/25/63	0	0.00	78.72	0.00	14.41	21.44	4.62	3.22	1.56	.
10/15/63	0	0.00	72.61	0.00	12.01	20.64	5.47	2.76	2.35	.
6/24/64	1610	9.30	76.27	3.90	.	22.44	5.23	4.60	1.17	.
7/22/64	1225	6.90	61.63	2.84	.	26.25	2.07	4.60	0.78	.
9/28/64	1026	0.00	73.83	0.71	.	20.24	5.59	4.60	0.78	.
10/12/64	1130	0.00	76.89	0.71	.	21.64	4.86	4.60	0.78	.
4/12/65	930	0.00	83.60	5.32	.	22.04	4.38	9.20	1.56	.
5/24/65	1120	6.90	72.00	2.84	16.33	21.04	4.86	4.60	1.17	.
7/14/65	1030	6.90	64.68	3.19	14.41	20.84	5.11	3.22	0.78	.
10/12/65	935	1.20	81.16	3.19	13.93	21.64	5.35	4.37	0.78	.
7/16/66	1155	.	.	.	.	0.00	0.00	.	.	.
10/17/66	1130	.	.	.	.	0.00	0.00	.	.	.
7/24/67	1130	10.50	58.58	2.84	16.81	22.44	4.01	3.91	1.17	.
10/15/67	1210	8.10	71.39	5.67	15.37	23.85	4.26	4.60	1.17	.
4/ 1/68	1630	2.70	82.38	2.48	14.89	21.64	4.62	3.22	1.56	.
5/13/68	1215	8.10	71.39	2.13	17.29	21.64	4.38	5.06	1.17	.
7/ 9/68	1325	21.30	64.07	2.84	22.57	25.05	5.96	14.94	2.35	.
10/14/68	1255	1.20	84.21	2.84	13.93	22.24	4.74	6.21	1.17	.
4/ 2/69	1030	0.00	81.16	5.67	14.89	22.65	5.35	3.91	1.17	.
5/12/69	1250	8.10	64.68	7.44	10.09	21.84	4.99	4.60	1.95	.
7/14/69	1050	5.40	73.22	3.90	19.69	22.44	4.86	6.90	2.35	.
10/14/69	1115	0.00	78.72	3.54	12.97	21.24	4.86	4.37	1.17	.
4/ 6/70	900	0.00	93.36	3.19	13.93	21.84	4.86	9.20	2.35	.
5/11/70	1240	6.60	74.44	4.25	15.37	22.04	5.35	5.52	0.78	.
7/13/70	1115	8.10	71.39	5.32	22.09	23.25	5.47	6.90	1.17	.
10/13/70	1200	3.90	70.78	5.32	19.69	22.04	4.62	4.37	0.78	.
4/ 5/71	1115	0.00	89.09	3.54	13.45	24.05	4.62	3.22	0.78	.
5/10/71	900	9.90	78.72	4.61	21.61	24.05	5.96	10.58	1.17	.
7/12/71	1300	9.90	65.29	3.54	20.17	21.84	5.96	6.44	1.17	.

SITE	LOCATION	LATITUDE	LONGITUDE	S C C CODE	RIVER MILE
CPP012	SCOOTENEY WW AT SCOOTENEY R.E.	464320.0	1190135.0	53 21 0	0.00

FEBRUARY 3,1976

DATE	TIME	CO3-- MG/L	HCO3- MG/L	CL- MG/L	SO4-- MG/L	CA++ MG/L	MG++ MG/L	NA+ MG/L	K+ MG/L	F- MG/L
10/18/71	1400	8.10	72.00	3.90	15.85	20.84	5.84	7.13	1.17	.
4/ 3/72	1045	0.30	70.78	2.13	11.53	21.04	5.23	2.53	1.17	.
5/15/72	1200	9.30	62.24	3.54	17.77	21.64	5.23	6.44	1.17	.
7/10/72	1230	15.30	57.36	4.25	18.25	21.24	5.72	7.13	1.17	.
10/17/72	1315	2.40	73.83	4.25	15.37	20.44	5.23	7.82	1.17	.
4/ 9/73	1310	0.00	82.38	2.84	11.05	20.24	4.50	4.37	1.17	.
5/ 7/73	1430	11.70	65.90	3.54	14.41	20.64	4.86	7.59	1.17	.
7/ 9/73	1240	14.10	62.24	2.48	20.17	22.85	5.35	7.59	1.17	.
10/15/73	1025	11.70	56.14	1.42	14.89	20.64	4.26	5.29	0.78	.
4/15/74	1045	2.40	101.90	5.67	22.09	24.85	5.47	16.32	1.17	.
5/13/74	1325	14.70	75.66	5.32	25.46	25.25	5.35	17.01	1.17	.
7/ 1/74	1205	0.00	34.78	5.67	24.50	24.45	5.11	12.64	1.17	.
10/15/74	1350	17.10	47.60	4.25	13.93	18.84	4.38	6.90	1.17	.
4/14/75	1020	0.00	69.56	1.42	7.20	19.84	2.92	5.75	0.39	.
5/17/75	130	7.50	65.90	4.25	12.49	19.04	4.86	5.29	1.17	.
7/14/75	1300	12.30	100.68	6.03	34.58	25.45	8.63	26.21	1.95	.
10/15/75	1050	0.00	78.11	4.61	14.41	19.64	5.72	6.90	1.17	.
AVERAGE		3.97	75.90	2.65	15.39	21.10	5.02	5.76	1.37	0.00
MAXIMUM		21.29	101.90	7.44	34.58	26.25	8.63	26.20	3.90	0.00
MINIMUM		0.00	34.78	0.00	7.20	0.00	0.00	1.37	0.00	0.00

SITE CBP012 — LOCATION: SCOOTENEY WW AT SCOOTENEY R.E. — LATITUDE 464320.0 — LONGITUDE 1190135.0 — S C C CODE 53 21 0 — RIVER MILE 0.00 — FEBRUARY 3,1976

DATE	TIME	SIO2 MG/L	BORON MG/L	P-ORTHO MG/L	P-TOTAL MG/L	N-NH3 MG/L	N-NO2 MG/L	N-NO3 MG/L	N-ORG MG/L	BOD2 MG/L	BOD5 MG/L	BOD10 MG/L	COD MG/L	TOTAL COLIFORM	FECAL COLIFORM
5/18/56	0	.	0.09	.	.	.	.	.	.	.	.	.			
7/30/56	0	.	0.21	.	.	.	.	.	.	.	.	.			
10/ 5/56	0	.	0.08	.	.	.	.	.	.	.	.	.			
5/20/57	0	.	0.00	.	.	.	.	.	.	.	.	.			
8/15/57	0	.	0.05	.	.	.	.	.	.	.	.	.			
10/ 7/57	0	.	0.03	.	.	.	.	.	.	.	.	.			
5/13/58	0	.	0.00	.	.	.	.	.	.	.	.	.			
7/14/58	0	.	0.00	.	.	.	.	.	.	.	.	.			
10/ 5/58	0	.	.	.	.	.	.	.	.	.	.	.			
5/ 7/59	0	.	0.00	.	.	.	.	.	.	.	.	.			
7/13/59	0	.	0.00	.	.	.	.	.	.	.	.	.			
10/15/59	0	.	0.30	.	.	.	.	.	.	.	.	.			
5/13/60	0	.	.	.	.	.	.	.	.	.	.	.			
7/ 7/60	0	.	0.07	.	.	.	.	.	.	.	.	.			
10/20/60	0	.	0.04	.	.	.	.	.	.	.	.	.			
5/18/61	0	.	0.02	.	.	.	.	.	.	.	.	.			
7/20/61	0	.	0.02	.	.	.	.	.	.	.	.	.			
10/12/61	0	.	0.02	.	.	.	.	.	.	.	.	.			
5/24/62	0	.	0.00	.	.	.	.	.	.	.	.	.			
7/26/62	0	.	0.00	.	.	.	.	.	.	.	.	.			
10/18/62	0	.	0.00	.	.	.	.	.	.	.	.	.			
5/16/63	0	.	0.01	.	.	.	.	.	.	.	.	.			
7/25/63	0	.	0.01	.	.	.	.	.	.	.	.	.			
10/10/63	0	.	0.04	.	.	.	.	.	.	.	.	.			
6/24/64	1610	.	.	.	.	.	.	.	.	.	.	.			
7/22/64	1225	.	.	.	.	.	.	.	.	.	.	.			
9/26/64	1026	.	.	.	.	.	.	.	.	.	.	.			
10/12/64	1130	.	.	.	.	.	.	.	.	.	.	.			
4/12/65	930	.	.	.	.	.	.	.	.	.	.	.			
5/24/65	1120	.	.	.	.	.	.	.	.	.	.	.			
7/13/65	1030	.	.	.	.	.	.	.	.	.	.	.			
10/12/65	935	.	.	.	.	.	.	.	.	.	.	.			
7/16/66	1155	.	.	.	.	.	.	.	.	.	.	.			
10/17/66	1130	.	.	.	.	.	.	.	.	.	.	.			
7/24/67	1130	.	.	.	.	.	.	.	.	.	.	.			
10/16/67	1210	2.0	.	0.01	0.02	.	0.00	0.03	0.33	.	.	.	13		
4/ 1/68	1630	0.9	0.02	0.06	0.06	0.00 L	0.01	0.03	0.62	.	.	.	9		
5/13/68	1215	2.8	0.02	0.02	0.12	0.00	0.00	0.18	0.30	.	.	.	7		
7/ 9/68	1325	1.9	0.14	0.05	0.18	0.00	0.01	0.38	0.65	.	.	.	5		
10/14/68	1255	1.2	0.02	0.03	0.03	0.09	0.00	0.00	0.16	.	.	.	9		
4/ 2/69	1030	0.4	0.04	0.00	0.01	0.12 T	.	0.00	0.13	.	.	.	9		
5/12/69	1250	0.6	0.03	0.00	0.04	0.00	0.00	0.00	0.21	.	.	.	8		
7/14/69	1050	3.4	0.11	0.02	0.09	0.02 T	.	0.34	0.25	.	.	.	7		
10/14/69	1115	1.2	0.07	0.04	0.05	0.03	0.00	0.06	0.10	.	.	.	11		
4/ 6/70	900	.	.	0.01	0.08	0.00 L	0.01	0.07	0.29	.	.	.	18		
5/11/70	1240	.	.	0.02	0.05	0.00 T	.	0.10	0.03	.	.	.	4		
7/13/70	1115	.	.	0.03	0.12	0.01 T	.	0.24	0.96	.	.	.	10		
10/13/70	1200	.	.	0.01	0.04	0.03	0.00	0.03	0.20	.	.	.	5		
4/ 5/71	1115	.	.	0.01	0.03	0.02 T	.	0.02	0.16	.	.	.	7		
5/10/71	900	.	.	0.02	0.07	0.02 T	.	0.29	0.18	.	.	.	9		
7/12/71	1300	.	.	0.02	0.04	0.00 T	.	0.28	0.02	.	.	.	8		

SITE	LOCATION	LATITUDE	LONGITUDE	S C C CODE	RIVER MILE
CBR012	SCOOTENEY WW AT SCOOTENEY R.E.	464320.0	1190135.0	53 21 0	0.00

DATE	TIME	SIO2 MG/L	BORON MG/L	P-ORTHO MG/L	P-TOTAL MG/L	N-NH3 MG/L	N-NO2 MG/L	N-NO3 MG/L	N-ORG MG/L	BOD2 MG/L	BOD5 MG/L	BOD10 MG/L	COD MG/L	TOTAL COLIFORM	FECAL COLIFORM
10/13/71	1400	.	.	0.01	0.03	0.01	0.00	0.20	0.23	.	.	.	7		
4/ 3/72	1045	.	.	0.01	0.08	0.01	0.00	0.03	0.27	.	.	.	7		
5/15/72	1200	.	.	0.01	0.06	0.02	0.00	0.28	0.32	.	.	.	8		
7/10/72	1230	.	.	0.02	0.09	0.04	0.01	0.34	0.34	.	.	.	8		
10/17/72	1315	.	.	0.01	0.06	0.00	0.00	0.37	0.22	.	.	.	7		
4/ 9/73	1310	.	.	0.01	0.12	0.01	.	0.06	0.24	0.4	1.0	01.3	6	20	0
5/ 7/73	1430	.	.	0.02	0.05	0.01	.	0.26	0.22	0.5	1.5	01.5	4	250	8
7/ 9/73	1240	.	.	0.03	0.19	0.03	.	0.42	0.46	0.0	0.2	00.5	8	20	14
10/15/73	1025	.	.	0.02	0.09	0.01	.	0.14	0.17	1.1	1.4	1.7	6	190	0
4/15/74	1045	.	.	0.03	0.09	0.00	.	0.69	0.14	0.2	0.3	0.8	9	0	0
5/13/74	1325	.	.	0.03	0.06	0.00	.	0.96	0.28	0.0	0.0	0.0	6	44	10
7/ 1/74	1205	.	.	0.04	0.05	0.22	.	0.70	0.32	0.6	0.8	.	11	44	0
10/15/74	1350	.	.	0.02	0.08	0.04	.	1.28	0.59	1.6	2.1	.	20	21	0
4/14/75	1020	.	.	0.01	0.09	0.00	.	0.13	0.25	0.6	1.1	.	7	5	0
5/19/75	130	.	.	0.01	0.18	0.01	.	0.23	0.28	0.6	1.0	.	8	6	0
7/14/75	1300	.	.	0.06	0.13	.	.	1.96	.	0.7	1.3	.	16	9	0
10/15/75	1050	.	.	0.01	0.04	0.00	.	0.26	0.29	0.0	0.2	.	8	19	0
AVERAGE		1.6	0.05	0.02	0.08	0.02	0.00	0.31	0.29	0.5	0.9	0.9	8.	52.	2.
MAXIMUM		3.4	0.30	0.06	0.18	0.21	0.01	1.96	0.96	1.6	2.0	1.7	20.	250.	14.
MINIMUM		0.4	0.00	0.00	0.01	0.00	0.00	0.00	0.02	0.0	0.0	0.0	4.	0.	0.