

APPENDIX D

PHYSICAL LIMNOLOGY DATA

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APPENDIX D-1

THE PARAMETERS USED FOR CALCULATION OF HYPOLIMNETIC AREAL OXYGEN DEFICIT OF LAKES SKAHA, OSOYOOS AND WOOD

	SYMBOL	SKAHA LAKE	OSOYOOS LAKE (northern part)	WOOD LAKE
1. The area of the 20 m izobath accepted as the upper limit of the hypolimnion in $\text{cm}^2 \cdot 10^{10}$	A_{20}	10.115	4.855	4.95
2. The volume of the lake below the 20 m izobath in liters $\cdot 10^{10}$	V_{20}	22.346	7.1514	4.15
3. The weighted average of the hypolimnetic temperature in °C September 11, 1969, August 24-25, 1971	\bar{T}_{20}	7.0 <u>7.4</u>	7.9 <u>9.4</u>	<u>6.0</u>
4. The weighted average concentration of oxygen in hypolimnion in mg/l O_2 , September 11, 1969, August 24-25, 1971	\bar{O}_{2S}	7.3 <u>7.4</u>	3.9 <u>4.8</u>	
5. The assumed hypolimnetic oxygen concentration in mg/l O_2 on May 1, 1969, May 1, 1971	\bar{O}_{2M}	11.8 11.6	11.5 11.1	12.2
6. Hypolimnetic areal oxygen deficit in $\text{mg/cm}^2 \cdot \text{day O}_2$ during the period May 1 - September 11, 1969, May 1 - August 24-25, 1971.	$\frac{(\bar{O}_{2M} - \bar{O}_{2S}) \cdot V_{20}}{A_{20} \cdot 130(120) \text{ days}}$	0.076 <u>0.077</u>	0.086 <u>0.077</u>	<u>0.080</u>

APPENDIX D-2

MEAN CONCENTRATIONS OF OXYGEN IN THE OKANAGAN MAIN VALLEY LAKES, 1972

(Parts per million - Percent Saturation in Brackets)

LAKE	SPRING (APRIL)		EARLY SUMMER (MAY-JUNE)		LATE SUMMER (JULY-AUG.)		FALL (OCT.)	
	SURFACE	BOTTOM	EPILIMNION	HYPOLIMNION	EPILIMNION	HYPOLIMNION	EPILIMNION	HYPOLIMNION
<u>OSOYOOS</u>								
Stn. 1	12.4 (101)	12.4 (103)	9.8 (93)	9.4 (79)	8.0 (90)	5.5 (46)	10.1 (100)	3.3 (28)
N. Basin Stn. 3	9.7 (97)	9.4 (75)	9.7 (96)	9.3 (77)	8.5 (96)	5.9 (51)	9.8 (98)	10.1 (89)*
C. Basin	8.8 (73)	8.0 (66)	Surface 9.8 (96)	Bottom 9.3 (88)	Surface 9.0 (105)	Bottom 4.0 (40)	Surface 10.7 (106)	Bottom 9.5 (97)
S. Basin	11.6 (99)	11.7 (99)	9.3 (96)	7.3 (67)	9.5 (105)	2.5 (27)	10.5 (107)	9.0 (90)
<u>SKAHA</u>	12.8 (103)	12.3 (97)**	10.6 (104)	11.1 (92)	8.8 (106)	8.3 (70)	11.2 (105)	6.7 (56)
<u>WOOD</u>	11.4 (93)	11.1 (88)	11.4 (112)	7.5 (56)	9.8 (109)	2.2 (18)	9.8 (98)	0.8 (6)
<u>KALAMALKA</u>	12.0 (98)	12.0 (95)	10.3 (105)	11.6 (97)	8.8 (100)	11.3 (89)***	10.8 (106)	12.2 (97)
<u>OKANAGAN</u>								
South	14.8 (117)	14.8 (117)	11.3 (102)	12.4 (100)	9.6 (103)	10.8 (87)	10.7 (104)	11.5 (93)
North	13.0 (106)	12.6 (98)	10.8 (104)	11.6 (93)	9.6 (107)	10.7 (72)	10.4 (106)	10.9 (79)

* Mixing had occurred on Station 3 and overturn had occurred in Central and S. Basins.

** Data based on one station only.

*** No data for July.

APPENDIX D-3

DAILY OXYGEN DEPLETION RATES. AREAL DEPLETION RATES AND TROPHIC

INDICES FOR THE MAIN VALLEY LAKES, 1972

LAKE	MAXIMUM DEPTH (m)	MEAN HYPOLIMNION THICKNESS (m)	NO. OF DAYS FROM SPRING OVERTURN	ORDINARY DEPLETION RATE (mg/l/day)	AREAL DEPLETION RATE (mg/cm ² /day)	TROPHIC INDEX MESOTROPHY = 1.0
Wood	34	10.6	165	0.061	0.065	1.5
Osoyoos	60	10.7	123	0.035	0.038	0.9
Skaha	56	43.7	161	0.034	0.148	3.6
Okanagan	230	--	128	0.015	--	--
Kalamalka	140	--	121	0.009	--	--

APPENDIX D-4

FIELD MEASUREMENTS FOR TEMPERATURE, CONDUCTIVITY, DISSOLVED OXYGEN AND pH FOR THE MAIN VALLEY LAKES.

WOOD LAKE

STATION 1 APRIL/71 SOUNDING DEPTH - 24 METERS SECCHI DISC READING - 2.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	6.7	397	10.4	8.37	2.0
5	6.5	373	11.2	8.35	1.9
10	6.2	374	11.6	8.30	1.8
22	4.8	370	11.0	8.20	1.8

STATION 4 APRIL/71 SOUNDING DEPTH - 17 METERS SECCHI DISC READING - 1.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	5.5	352	11.2	7.80	1.9
5	5.5	331	11.6	8.00	1.6
10	5.0	336	11.5	8.00	2.7
15	4.2	328	11.0	5.70	2.3

STATION 1 MAY/71 SOUNDING DEPTH - 27 METERS SECCHI DISC READING - 5.25 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	16.8	441	10.8	ND	ND
5	16.0	410	10.7	ND	ND
10	9.5	412	12.2	ND	ND
25	4.0	405	8.8	ND	ND

STATION 2 MAY/71 SOUNDING DEPTH - 32 METERS SECCHI DISC READING - 5.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	16.9	386	10.8	ND	ND
5	16.5	373	10.8	ND	ND
10	9.4	380	12.1	ND	ND
25	4.7	391	7.0	ND	ND
30	4.6	387	5.2	ND	ND

* pH recorded from samples in Kelowna Field Laboratory

* Turbidity recorded from samples in Kelowna Field Laboratory

APPENDIX D-4

FIELD MEASUREMENTS - WOOD LAKE

TEMPERATURE, CONDUCTIVITY, DISSOLVED OXYGEN AND pH

STATION 1 JUNE/71 SOUNDING DEPTH - 27 METERS SECCHI DISC READING - 1.5 METERS						STATION 4 JUNE/71 SOUNDING DEPTH - 17 METERS SECCHI DISC READING - 2.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units*	Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	17.1	389	12.2	8.70	2.5	1	15.1	363	11.9	8.80	2.1
5	16.0	359	11.4	8.65	2.2	5	14.8	367	11.0	8.70	1.4
10	14.8	368	10.8	8.60	1.1	10	12.5	365	10.5	8.55	1.2
15	7.5	378	9.6	8.10	1.4	15	6.3	373	9.2	7.90	1.5
20	5.3	398	6.8	7.80	0.51						
25	4.8	388	3.2	7.60	1.5						

STATION 4 JULY/71 SOUNDING DEPTH - 19 METERS SECCHI DISC READING - 1.0 METERS						STATION 4 AUGUST/71 SOUNDING DEPTH - 19 METERS SECCHI DISC READING - 4.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units	Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	23.2	386	13.1	9.30	ND	1	21.5	304	9.4	9.05	0.48
5	18.0	384	13.4	9.20	ND	5	18.5	304	9.4	9.05	0.65
10	9.0	437	5.9	8.25	ND	10	11.3	344	8.6	8.55	2.30
17	4.9	463	2.9	7.50	ND	17	5.8	869	1.4	7.65	0.77

* pH recorded from samples in Kelowna Field Laboratory

* Turbidity recorded from samples in Kelowna Field Laboratory

FIELD MEASUREMENTS - KALAMALKA LAKE TEMPERATURE,FIELD MEASUREMENTS - WOOD LAKETEMPERATURE, CONDUCTIVITY, DISSOLVED OXYGEN AND pH

<u>STATION 1</u> OCTOBER/71 SOUNDING DEPTHS - 28 METERS SECCHI DISC READING - 2.0 METERS						<u>STATION 2</u> OCTOBER/71 SOUNDING DEPTHS - 31 METERS SECCHI DISC READING - 2.3 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH*	Turbidity* Jackson Units	Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	14.2	322	9.8	8.9	1.7	1	14.2	320	10.4	8.9	1.5
10	13.0	326	8.6	8.8	1.6	10	14.0	323	9.5	8.8	1.3
15	7.6	373	0.7	7.7	1.1	15	9.0	371	0.9	7.7	0.8
20	5.8	374	0.8	7.6	3.4	20	6.4	371	0.6	7.6	1.7
26	5.8	374	1.0	7.6	4.1	29	5.7	375	0.6	7.6	3.5

<u>STATION 4</u> OCTOBER/71 SOUNDING DEPTHS - 20 METERS SECCHI DISC READING - 2.2 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	14.2	320	10.6	8.9	1.7
10	14.0	319	10.0	8.9	1.5
15	8.9	341	6.0	8.4	0.8
18	6.5	371	0.8	7.7	1.2

* pH recorded from samples in Kelowna Field Laboratory

* Turbidity recorded from sampler in Kelowna Field Laboratory

CONDUCTIVITY, DISSOLVED OXYGEN AND pH

STATION 2 APRIL/71 SOUNDING DEPTH - 48 METERS SECCHI DISC READING - 18.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	4.2	391	10.7	7.80	0.3
5	4.2	373	11.0	7.85	0.3
10	4.2	373	11.1	7.90	0.2
25	4.2	381	11.1	8.00	0.2
46	4.1	378	11.2	8.20	0.2

STATION 4 APRIL/71 SOUNDING DEPTH - 80 METERS SECCHI DISC READING - 15.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	3.9	483	13.6	7.90	0.2
5	3.9	425	13.0	7.85	0.3
10	3.9	410	12.9	7.70	0.3
25	3.7	404	12.5	7.68	0.3
50	3.7	403	13.0	7.60	0.3
78	3.7	370	13.5	7.60	0.3

STATION 2 MAY/71 SOUNDING DEPTH - 56 METERS SECCHI DISC READING - 8.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	14.3	440	9.5	ND	ND
4	12.9	429	10.4	ND	ND
7	9.0	426	12.0	ND	ND
13	5.8	408	12.6	ND	ND
19	5.0	397	12.6	ND	ND
30	4.3	402	12.0	ND	ND
40	4.2	402	11.6	ND	ND
54	4.1	402	11.4	ND	ND

STATION 4 MAY/71 SOUNDING DEPTH - 102 METERS SECCHI DISC READING - 7.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	10.7	452	11.2	ND	ND
5	9.0	444	11.4	ND	ND
10	7.8	440	10.2	ND	ND
25	5.0	434	12.7	ND	ND
50	4.9	437	12.2	ND	ND
100	4.5	432	12.0	ND	ND

* Turbidity recorded from samples in Kelowna Field Laboratory

APPENDIX D-4

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FIELD MEASUREMENTS - KALAMALKA LAKE
TEMPERATURE, CONDUCTIVITY, DISSOLVED OXYGEN AND pH

<u>STATION 2</u> JUNE/71 SOUNDING DEPTH - 62 METERS SECCHI DISC READING - 9.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	15.0	430	10.8	8.10	0.23
5	12.5	415	10.5	8.20	0.27
10	8.1	414	11.1	8.30	0.35
25	4.9	414	13.0	8.25	0.37
50	4.5	421	12.4	8.20	0.15
60	4.5	423	12.8	8.15	0.16

<u>STATION 4</u> JUNE/71 SOUNDING DEPTH - 107 METERS SECCHI DISC READING - 9.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	15.0	435	10.6	8.45	0.25
5	11.9	419	10.5	8.50	0.28
10	8.8	412	11.1	8.50	0.25
25	4.9	439	12.6	8.45	0.28
50	4.8	444	11.8	8.35	0.22
105	4.4	430	11.4	8.35	0.20

<u>STATION 5</u> AUGUST/71 SOUNDING DEPTH - 92 METERS SECCHI DISC READING - 5.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C*	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	21.9	387	8.5	8.40	0.75
5	16.0	389	8.8	8.35	0.78
10	10.0	387	9.2	8.35	0.92
25	5.2	387	11.8	8.20	0.48
50	4.8	387	11.0	8.10	0.26
90	4.7	390	11.6	8.05	0.11

<u>STATION 4</u> OCTOBER/71 SOUNDING DEPTH - 102 METERS SECCHI DISC READING - 7.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C*	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	15.1	381	10.7	8.5	0.3
5	15.0	380	10.8	8.5	0.4
10	13.5	380	11.0	8.5	0.4
25	5.4	390	12.8	8.3	0.5
50	5.0	392	12.2	8.2	0.3
100	4.8	383	12.0	8.1	0.3

*pH recorded from samples in Kelowna Field Laboratory

*Turbidity recorded from samples in Kelowna Field Laboratory

*Conductivity recorded from samples in Kelowna Field Laboratory

APPENDIX D-4

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FIELD MEASUREMENT - OKANAGAN LAKE

TEMPERATURE, CONDUCTIVITY, DISSOLVED OXYGEN AND pH

STATION 8 APRIL/71 SOUNDING DEPTH - 52 METERS SECCHI DISC READING - 8.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25 ^o C	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	5.2	277	15.6	8.10	0.2
5	5.1	264	15.6	8.20	0.4
10	4.9	261	15.2	8.05	0.3
25	4.4	255	14.9	8.10	0.2
50	4.2	256	14.8	8.10	0.3

STATION 11 MAY/71 SOUNDING DEPTH - 183 METERS SECCHI DISC READING - 8.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25 ^o C	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	6.2	226	13.3	8.00	0.19
5	4.9	254	13.1	8.20	0.15
10	4.7	259	12.1	8.20	0.13
25	4.2	269	12.1	8.15	0.15
50	4.0	266	11.9	8.00	0.18
100	3.8	259	12.4	8.00	0.15
180	3.8	262	13.1	8.10	1.00

STATION 13 MAY/71 SOUNDING DEPTH - 221 METERS SECCHI DISC READING - 9.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25 ^o C	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	6.5	278	12.9	8.20	0.15
5	6.0	265	13.0	8.20	0.32
10	5.2	275	13.1	8.20	0.18
25	4.0	275	12.2	8.15	0.19
50	4.0	277	12.3	8.15	0.13
100	3.9	277	12.4	8.10	0.16
219	3.8	280	12.3	8.10	0.27

STATION 4 JUNE/71 SOUNDING DEPTH - 124 METERS SECCHI DISC READING - 6.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25 ^o C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	10.0	ND	11.0	ND	ND
5	9.0	ND	11.4	ND	ND
10	6.9	ND	11.7	ND	ND
25	5.2	ND	12.2	ND	ND
50	4.9	ND	12.3	ND	ND
100	4.8	ND	12.3	ND	ND
122	4.6	ND	12.1	ND	ND

APPENDIX D-4

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* pH recorded from samples in Kelowna Field Laboratory. * Turbidity recorded from samples in Kelowna Field Laboratory.

FIELD MEASUREMENTS - OKANAGAN LAKE
TEMPERATURE, CONDUCTIVITY, DISSOLVED OXYGEN AND pH

STATION 11 JUNE/71 SOUNDING DEPTH - 170 METERS SECCHI DISC READING - 3.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	8.5	260	11.4	ND	ND
5	7.6	266	11.9	ND	ND
10	7.0	280	11.9	ND	ND
25	5.6	268	12.0	ND	ND
50	4.4	268	12.0	ND	ND
100	4.0	280	12.0	ND	ND
168	3.9	283	11.9	ND	ND

STATION 17 JUNE/71 SOUNDING DEPTH - 16 METERS SECCHI DISC READING - 5.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	16.2	281	10.8	ND	ND
5	16.2	269	10.8	ND	ND
10	13.8	266	10.8	ND	ND
14	7.8	279	11.0	ND	ND

STATION 18 JUNE/71 SOUNDING DEPTH - 22 METERS SECCHI DISC READING - 3 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	15.0	285	10.7	ND	ND
5	13.8	266	10.7	ND	ND
10	13.0	281	10.8	ND	ND
17	6.1	281	11.2	ND	ND

STATION 4 JUNE/71 SOUNDING DEPTH - 126 METERS SECCHI DISC READING - 6 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	14.1	273	10.9	8.00	0.39
5	11.0	254	10.8	8.10	0.29
10	9.0	268	11.4	8.10	0.38
25	6.1	275	12.2	8.10	0.39
50	5.1	272	12.3	8.10	0.60

*Turbidity recorded from samples in Kelowna Field Laboratory

APPENDIX D-4

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FIELD MEASUREMENTS - OKANAGAN LAKE
TEMPERATURE, CONDUCTIVITY, DISSOLVED OXYGEN AND pH

<u>STATION 8</u>					
JUNE/71					
SOUNDING DEPTH - 70 METERS SECCHI DISC READING - 8 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	13.5	270	10.4	8.20	0.27
5	13.0	271	11.5	8.30	0.34
10	11.2	281	11.2	8.35	0.47
25	15.4	282	12.6	8.20	0.56
50	4.8	288	12.2	8.25	0.30
68	4.6	331	12.2	8.30	0.20

<u>STATION 10</u>					
JUNE/71					
SOUNDING DEPTH - 64 METERS SECCHI DISC READING - 8 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	15.0	291	11.2	8.20	0.25
5	14.0	283	11.3	8.25	0.36
10	10.3	271	11.3	8.30	0.44
25	6.1	308	12.4	8.20	0.49
50	4.4	298	12.5	8.10	0.28
62	4.3	291	12.2	8.10	0.42

<u>STATION 11</u>					
JUNE/71					
SOUNDING DEPTH - 184 METERS SECCHI DISC READING - 7 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	15.5	251	10.3	8.15	0.60
5	12.0	261	10.8	8.15	0.50
10	10.0	255	11.1	8.15	0.48
25	5.3	268	11.4	8.00	0.51
50	4.2	282	12.0	8.00	0.13
100	4.0	289	12.1	8.00	0.14
182	3.9	290	11.8	7.90	0.14

<u>STATION 13</u>					
JUNE/71					
SOUNDING DEPTH - 212 METERS SECCHI DISC READING - 7 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	13.3	298	11.0	8.40	0.68
5	12.2	285	10.9	8.40	0.54
10	10.0	290	11.0	8.10	0.44
25	6.0	299	11.8	8.00	0.34
50	4.8	304	11.6	8.25	0.15
100	4.2	302	11.9	8.00	0.32
212	3.9	299	11.6	8.00	4.90

APPENDIX D-4

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* Turbidity recorded from samples in Kelowna Field Laboratory

FIELD MEASUREMENTS - OKANAGAN LAKE
TEMPERATURE, CONDUCTIVITY, DISSOLVED OXYGEN AND pH

<u>STATION 1</u> JULY/71 SOUNDING DEPTH - 83 METERS SECCHI DISC READING - 10.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	17.8	279	9.0	8.2	ND
5	15.0	278	3.8	8.25	ND
10	12.0	279	9.8	8.3	ND
25	6.0	306	10.4	8.2	ND
50	4.9	310	10.4	8.1	ND
81	4.9	306	10.2	8.1	ND

<u>STATION 4</u> JULY/71 SOUNDING DEPTH - 167 METERS SECCHI DISC READING - 11.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	17.5	289	9.8	8.3	ND
5	15.8	305	9.8	8.3	ND
10	13.0	291	10.4	8.3	ND
25	6.2	313	11.3	8.2	ND
50	5.0	273	11.1	8.15	ND
100	4.8	288	11.2	8.1	ND
128	4.7	282	11.3	8.0	ND

<u>STATION 11</u> JULY/71 SOUNDING DEPTH - 167 METERS SECCHI DISC READING - 9.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	21.4	287	9.5	8.5	ND
5	15.0	267	9.4	8.65	ND
10	11.1	286	10.2	8.45	ND
25	5.5	320	10.8	8.2	ND
50	4.5	315	11.0	8.2	ND
100	3.9	318	11.0	8.2	ND
165	3.8	331	10.8	8.1	ND

<u>STATION 13</u> JULY/71 SOUNDING DEPTH - 175 METERS SECCHI DISC READING - 8.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	23.2	293	9.3	8.3	ND
5	14.5	273	9.3	8.4	ND
10	12.0	281	10.4	8.3	ND
25	6.1	305	10.8	8.05	ND
50	4.5	308	11.2	8.0	ND
100	4.0	311	11.4	8.0	ND
173	3.8	313	10.8	8.0	ND

APPENDIX D-4

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FIELD MEASUREMENTS - OKANAGAN LAKE
TEMPERATURE, CONDUCTIVITY, DISSOLVED OXYGEN AND pH

STATION 17 JULY/71 SOUNDING DEPTH - 16 METERS SECCHI DISC READING - 4.75 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	20.0	290	9.6	8.7	ND
5	16.0	285	9.6	8.65	ND
10	14.9	284	10.5	8.6	ND
14	13.0	293	10.0	8.5	ND

STATION 10 SEPTEMBER/71 SOUNDING DEPTH - 60 METERS SECCHI DISC READING - 8.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C*	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	17.5	256	9.6	8.45	0.31
5	13.5	254	9.5	8.40	0.27
10	6.0	258	10.5	8.30	0.43
25	5.0	263	11.7	8.00	0.23
50	4.5	265	11.6	7.95	0.11
58	4.5	267	11.5	7.95	0.17

STATION 13 SEPTEMBER/71 SOUNDING DEPTH - 192 METERS SECCHI DISC READING - 9.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C*	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	20.8	258	9.4	8.50	0.21
5	20.8	255	9.4	8.45	0.28
10	16.0	256	9.4	8.45	0.23
25	5.8	263	11.0	7.95	0.31
50	4.0	262	11.5	7.95	0.22
100	3.9	265	11.6	7.95	0.10
190	3.8	265	11.2	7.95	0.14

STATION 17 SEPTEMBER/71 SOUNDING DEPTH - 16 METERS SECCHI DISC READING - 7.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C*	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	21.1	263	9.2	8.35	0.43
5	21.1	264	9.2	8.50	0.36
10	19.0	263	9.1	8.55	0.58
14	7.7	268	9.3	8.05	0.87

* Conductivity recorded from samples in Kelowna Field Laboratory
 * pH recorded from samples in Kelowna Field Laboratory
 * Turbidity recorded from samples in Kelowna Field Laboratory

APPENDIX D-4

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FIELD MEASUREMENTS - OKANAGAN LAKE TEMPERATURE,

CONDUCTIVITY, DISSOLVED OXYGEN AND pH

STATION 18 SEPTEMBER/71 SOUNDING DEPTH - 21 METERS SECCHI DISC READING - 8.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C*	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	21.0	263	9.4	8.55	0.34
10	21.0	258	9.2	8.55	0.34
15	11.0	261	10.3	8.25	0.61
19	6.8	265	10.0	7.95	0.98

STATION 1 OCTOBER/71 SOUNDING DEPTH - 82 METERS SECCHI DISC READING - 10.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C*	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	7.8	268	11.4	8.1	0.2
5	7.0	266	11.4	8.1	0.2
10	6.4	260	11.6	8.0	0.3
25	6.0	266	11.6	8.0	0.3
50	5.4	264	11.7	8.0	0.2
80	5.2	264	11.8	8.1	0.2

STATION 4 OCTOBER/71 SOUNDING DEPTH - 135 METERS SECCHI DISC READING - 8.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C*	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	14.1	260	10.6	8.4	0.3
5	13.3	260	10.5	8.4	0.3
10	13.0	260	10.5	8.4	0.5
25	6.2	263	11.4	8.0	0.5
50	5.3	264	11.7	8.0	0.3
100	5.1	266	11.9	8.0	0.2
133	5.1	266	12.0	8.0	0.1

STATION 10 OCTOBER/71 SOUNDING DEPTH - 55 METERS SECCHI DISC READING - 11 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C*	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	15.2	260	10.8	8.4	0.2
5	15.0	259	10.6	8.4	0.3
15	12.0	260	10.5	8.3	0.2
25	6.0	266	11.4	8.1	0.5
53	4.6	266	11.8	8.0	0.7

* Conductivity recorded from samples in Kelowna Field Laboratory

* pH recorded from samples in Kelowna Field Laboratory

* Turbidity recorded from samples in Kelowna Field Laboratory

APPENDIX D-4

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FIELD MEASUREMENTS - OKANAGAN LAKE
TEMPERATURE, CONDUCTIVITY, DISSOLVED OXYGEN AND pH

STATION 11 OCTOBER/71 SOUNDING DEPTH - 154 METERS SECCHI DISC READING - 9.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C*	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	14.9	258	10.8	8.5	0.1
5	14.8	256	10.8	8.5	0.1
10	14.8	258	10.6	8.4	0.1
25	7.0	258	10.6	8.3	0.1
50	5.2	265	11.3	8.0	0.2
100	4.2	262	11.6	8.1	0.1
152	3.8	263	11.9	7.9	0.9

STATION 17 OCTOBER/71 SOUNDING DEPTH - 17 METERS SECCHI DISC READING - 8.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	14.9	259	10.5	8.5	0.2
5	14.9	260	10.4	8.5	0.3
10	14.8	255	10.3	8.5	0.2
15	14.8	264	10.2	8.4	0.2

STATION 18 OCTOBER/71 SOUNDING DEPTH - 21 METERS SECCHI DISC READING - 7.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C*	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	14.9	261	10.2	8.5	0.2
5	14.9	261	10.2	8.5	0.2
10	14.9	260	10.1	8.5	0.2
19	11.4	259	10.0	8.4	0.2

- * Conductivity recorded from samples in Kelowna Field Laboratory
- * pH recorded from samples in Kelowna Field Laboratory
- * Turbidity recorded from samples in Kelowna Field Laboratory

APPENDIX D-4

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FIELD MEASUREMENTS - SKAHA LAKE TEMPERATURE,
CONDUCTIVITY, DISSOLVED OXYGEN AND pH

STATION 1 APRIL/71 SOUNDING DEPTH - 12 METERS SECCHI DISC READING - 6.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25 ^o C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	6.0	278	12.8	8.15	0.4
5	5.6	259	12.9	7.90	0.7
10	5.0	254	12.8	8.00	0.7

STATION 2 APRIL/71 SOUNDING DEPTH - 49 METERS SECCHI DISC READING - 6.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25 ^o C	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	5.8	294	ND	8.45	0.4
5	5.5	285	ND	8.45	0.4
10	4.6	283	ND	8.40	0.4
25	4.2	290	ND	8.40	0.5
47	4.1	291	ND	8.35	0.6

STATION 4 APRIL/71 SOUNDING DEPTH - 50 METERS SECCHI DISC READING - 7.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25 ^o C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	5.7	277	ND	8.10	0.4
5	5.5	277	ND	8.00	0.5
10	5.3	277	ND	8.00	0.4
25	4.6	269	ND	8.00	0.4
48	4.1	289	ND	7.90	0.6

STATION 6 MAY/71 SOUNDING DEPTH - 39 METERS SECCHI DISC READING - 6.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25 ^o C	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	5.9	275	13.0	8.40	0.4
5	5.8	273	12.5	8.40	0.4
10	5.5	272	13.2	8.40	0.5
25	5.1	273	12.5	8.40	0.5
37	4.7	273	12.2	8.30	0.5

* Turbidity recorded from samples in Kelowna Field Laboratory

* pH recorded from samples in Kelowna Field Laboratory

APPENDIX D-4

CONTINUED

FIELD MEASUREMENTS - SKAHA LAKE

TEMPERATURE, CONDUCTIVITY, DISSOLVED OXYGEN AND pH

STATION 1 MAY/71 SOUNDING DEPTH - 12 METERS SECCHI DISC READING - 4.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	10.4	296	11.0	ND	ND
5	9.8	282	11.0	ND	ND
10	9.0	291	11.0	ND	ND

STATION 2 MAY/71 SOUNDING DEPTH - 50 METERS SECCHI DISC READING - 4.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	13.7	299	11.3	ND	ND
5	12.2	288	11.2	ND	ND
10	10.4	283	11.2	ND	ND
25	5.8	310	12.4	ND	ND
48	4.8	297	10.9	ND	ND

STATION 1 JUNE/71 SOUNDING DEPTH - 12 METERS SECCHI DISC READING - 4.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	13.9	266	10.0	8.05	0.7
5	13.6	263	10.0	8.05	0.91
10	12.3	267	10.0	8.05	1.2

STATION 2 JUNE/71 SOUNDING DEPTH - 46 METERS SECCHI DISC READING - 4.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	15.0	239	10.4	8.25	0.65
5	14.9	241	10.1	8.30	0.66
10	13.4	247	9.9	8.20	0.74
15	7.8	262	10.4	8.15	0.61
20	7.2	282	11.0	8.15	0.64
30	5.8	283	11.2	8.20	0.41
40	5.0	282	10.8	8.05	0.62

* Turbidity recorded from samples in Kelowna Field Laboratory.

APPENDIX D-4

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FIELD MEASUREMENTS - SKAHA LAKE
TEMPERATURE, CONDUCTIVITY, DISSOLVED OXYGEN AND pH

<u>STATION 4</u> JUNE/71 SOUNDING DEPTH - 46 METERS SECCHI DISC READING - 5.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25 ^o C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	15.8	272	10.2	8.20	0.63
5	15.2	264	10.0	8.20	0.61
10	13.0	268	9.9	8.20	0.67
15	8.3	282	10.4	8.15	0.67
20	7.1	290	10.8	8.10	0.59
30	5.8	306	10.8	8.10	0.41
44	5.2	286	10.8	8.05	2.10

<u>STATION 6</u> JUNE/71 SOUNDING DEPTH - 40 METERS SECCHI DISC READING - 4.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25 ^o C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	16.0	261	10.2	8.20	0.55
5	15.2	254	10.1	8.20	0.78
10	12.6	267	9.9	8.15	0.68
15	7.7	272	10.4	8.10	0.55
20	6.7	302	10.8	8.05	0.60
30	6.0	290	10.8	8.00	0.70
38	6.0	291	10.5	8.00	0.57

<u>STATION 2</u> JULY/71 SOUNDING DEPTH - 46 METERS SECCHI DISC READING - 4.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25 ^o C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	22.0	303	10.4	8.80	ND
5	19.0	286	11.5	8.80	ND
10	15.3	298	9.2	8.40	ND
25	6.7	344	10.2	8.20	ND
44	5.4	329	8.9	8.20	ND

<u>STATION 4</u> JULY/71 SOUNDING DEPTH - 45 METERS SECCHI DISC READING - 4.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25 ^o C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	25.0	283	10.4	8.90	ND
5	18.3	286	10.8	8.85	ND
10	15.4	293	8.7	8.35	ND
25	6.9	320	9.1	8.10	ND
43	5.4	328	9.2	8.00	ND

* Turbidity recorded from samples in Kelowna Field Laboratory

APPENDIX D-4

. . . CONTINUED

FIELD MEASUREMENTS - SKAHA LAKE
TEMPERATURE, CONDUCTIVITY, DISSOLVED OXYGEN AND pH

<u>STATION 6</u> JULY/71 SOUNDING DEPTH - 38 METERS SECCHI DISC READING - 4.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	24.6	285	9.8	9.00	ND
5	20.0	279	11.0	9.20	ND
10	15.8	288	8.8	8.80	ND
25	6.8	319	8.6	8.40	ND
36	6.3	320	8.3	8.20	ND

<u>STATION 1</u> AUGUST/71 SOUNDING DEPTH - 12 METERS SECCHI DISC READING - 5.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C*	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	21.0	252	9.2	8.60	0.51
5	21.0	256	9.0	8.30	0.71
10	14.8	252	9.0	8.55	0.58

<u>STATION 1</u> OCTOBER/71 SOUNDING DEPTH - 12 METERS SECCHI DISC READING - 4.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C*	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	14.2	257	11.2	8.7	1.5
5	14.1	257	11.0	8.7	1.2
10	14.0	258	10.2	8.5	0.4

<u>STATION 6</u> OCTOBER/71 SOUNDING DEPTH - 41 METERS SECCHI DISC READING - 0.25 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C*	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	14.3	259	11.8	8.8	8.2
15	13.5	262	10.4	8.5	0.4
18	9.2	273	7.2	7.7	0.5
30	7.5	273	6.4	7.7	0.6
39	7.5	270	4.7	7.5	1.3

- * Conductivity recorded from samples in Kelowna Field Laboratory
- * pH recorded from samples in Kelowna Field Laboratory
- * Turbidity recorded from samples in Kelowna Field Laboratory

APPENDIX D-4
CONTINUED

FIELD MEASUREMENTS - OSOYOOS LAKE
TEMPERATURE, CONDUCTIVITY, DISSOLVED OXYGEN AND pH

<u>STATION 1</u> APRIL/71 SOUNDING DEPTH - 37 METERS SECCHI DISC READING - 4.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	5.5	320	12.2	8.10	0.5
5	5.3	320	12.6	7.70	0.6
10	5.2	306	12.4	8.00	0.7
25	4.0	315	12.0	7.40	1.3
35	ND	350	12.8	7.90	0.8

<u>STATION 3</u> APRIL/71 SOUNDING DEPTH - 42 METERS SECCHI DISC READING - 2.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	7.0	293	9.4	8.20	0.9
5	6.9	306	10.2	7.50	0.8
10	6.4	301	9.8	7.40	0.9
25	5.9	297	9.4	7.60	0.8
40	5.8	310	9.3	7.50	0.8

<u>STATION 6</u> APRIL/71 SOUNDING DEPTH - 22 METERS SECCHI DISC READING - ND METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	7.9	312	11.4	8.50	0.6
5	7.9	297	11.6	8.30	0.9
10	7.8	297	11.8	8.40	0.5
20	7.1	297	11.6	8.00	0.7

<u>STATION 1</u> MAY/71 SOUNDING DEPTH - 37 METERS SECCHI DISC READING - 1.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	12.1	266	10.3	ND	ND
5	12.0	258	10.1	ND	ND
10	11.2	257	10.1	ND	ND
25	7.4	305	9.5	ND	ND
35	7.0	308	9.7	ND	ND

* Turbidity recorded from samples in Kelowna Field Laboratory

APPENDIX D-4

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TEMPERATURE, CONDUCTIVITY, DISSOLVED OXYGEN AND pH

STATION 6 MAY/71 SOUNDING DEPTH - 22 METERS SECCHI DISC READING - 4.5 METERS						STATION 1 JUNE/71 SOUNDING DEPTH - 38 METERS SECCHI DISC READING - 3.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units	Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	13.2	288	9.90	ND	ND	1	15.9	284	10.0	8.35	1.1
5	13.2	290	9.80	ND	ND	5	15.5	261	9.8	8.35	1.5
10	12.7	293	9.55	ND	ND	10	14.2	258	9.6	8.25	1.7
20	9.8	306	8.20	ND	ND	15	12.8	267	9.3	8.20	1.8
						20	9.1	283	9.2	8.10	1.6
						25	8.2	311	9.2	8.00	1.4
						30	7.8	319	9.1	8.00	1.6
						36	7.4	292	9.6	8.30	1.8
STATION 3 JUNE/71 SOUNDING DEPTH - 42 METERS SECCHI DISC READING - 3.5 METERS						STATION 6 JUNE/71 SOUNDING DEPTH - 25 METERS SECCHI DISC READING - 2.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity* Jackson Units	Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	16.3	294	10.0	8.10	1.1	1	17.0	294	9.4	8.30	0.52
8	15.0	260	9.6	8.10	1.3	5	16.2	277	9.2	8.30	0.67
12	13.0	264	9.0	7.95	1.3	10	14.3	279	8.2	8.10	0.68
20	7.6	327	8.8	7.80	1.0	23	10.7	325	4.3	7.70	0.68
30	7.5	334	8.8	7.80	0.75						
40	7.4	320	8.6	7.80	0.96						

APPENDIX D-4

... CONTINUED

* Turbidity recorded from samples in Kelowna Field Laboratory/

FIELD MEASUREMENTS - OSOYOOS LAKE

TEMPERATURE, CONDUCTIVITY, DISSOLVED OXYGEN AND pH

STATION 1 JULY/71 SOUNDING DEPTH - 37 METERS SECCHI DISC READING - 4.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	21.0	280	9.6	8.50	ND
8	18.8	270	9.3	8.40	ND
12	14.9	274	7.4	7.95	ND
15	11.5	299	7.1	7.90	ND
18	8.8	323	7.3	7.80	ND
20	8.4	331	7.1	7.80	ND
30	8.2	333	6.2	7.80	ND
34	8.1	325	5.9	7.50	ND

STATION 3 JULY/71 SOUNDING DEPTH - 40 METERS SECCHI DISC READING - 2.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	23.7	267	9.7	8.60	ND
5	19.5	268	9.4	8.50	ND
10	17.4	271	8.1	8.20	ND
25	8.4	334	7.3	7.90	ND
38	8.3	340	6.7	7.80	ND

STATION 5 JULY/71 SOUNDING DEPTH - 15 METERS SECCHI DISC READING - 3.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	22.0	265	9.9	8.60	ND
5	18.0	273	10.4	8.65	ND
10	16.6	282	6.3	8.10	ND
13	15.8	289	2.3	7.70	ND

STATION 6 JULY/71 SOUNDING DEPTH - 26 METERS SECCHI DISC READING - 4.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C	Dissolved Oxygen	pH	Turbidity Jackson Units
1	21.5	275	9.60	8.30	ND
5	20.0	281	9.60	8.20	ND
10	15.3	302	5.60	7.50	ND
24	11.9	346	0.50	7.30	ND

APPENDIX D-4

... CONTINUED

FIELD MEASUREMENTS - OSOYOOS LAKE
TEMPERATURE, CONDUCTIVITY, DISSOLVED OXYGEN AND pH

STATION 3 AUGUST/71 SOUNDING DEPTH - 43 METERS SECCHI DISC READING - 3.0 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C*	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	21.8	255	8.8	8.10	0.89
5	21.5	258	8.6	8.20	0.81
15	14.0	262	5.2	7.40	0.71
20	9.0	288	4.8	7.45	1.50
30	8.8	290	4.8	7.40	1.30
41	8.6	287	4.9	7.40	1.10

STATION 5 AUGUST/71 SOUNDING DEPTH - 13 METERS SECCHI DISC READING - 2.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C*	Dissolved Oxygen	pH	Turbidity* Jackson Units
1	21.6	256	8.3	8.50	0.86
7	21.5	256	8.0	8.60	0.90
11	16.7	260	0.6	7.60	0.54

STATION 6 AUGUST/71 SOUNDING DEPTH - 23 METERS SECCHI DISC READING - 2.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C*	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	22.7	263	8.3	8.60	0.74
5	22.6	266	8.4	8.55	0.82
10	18.6	268	6.8	8.25	0.82
15	15.3	291	0.7	7.50	0.76
21	14.4	298	0.6	7.55	0.76

STATION 1 OCTOBER/71 SOUNDING DEPTH - 37 METERS SECCHI DISC READING - 3.5 METERS					
Depth Meters	BT Temperature Degrees Centigrade	Conductivity at 25° C*	Dissolved Oxygen	pH*	Turbidity* Jackson Units
1	14.2	272	10.2	8.3	0.6
15	14.2	274	10.1	8.2	0.8
17	14.2	274	10.1	8.3	0.9
20	9.2	288	2.8	7.8	0.6
36	8.8	285	3.9	7.5	0.8

* Conductivity recorded from samples in Kelowna Field Laboratory

* pH recorded from samples in Kelowna Field Laboratory

* Turbidity recorded from samples in Kelowna Field Laboratory

APPENDIX D-4

CONTINUED

APPENDIX D-5

PERIOD OF MAXIMUM SURFACE TEMPERATURES, SUMMER HEAT INCOMES AND TRANSMISSION VALUES
FOR THE MAIN VALLEY LAKES, 1972

SURFACE TEMPERATURES

LAKE	INSTRUMENT DEPTH (m)	TIMES OF MAXIMUM TEMPERATURES	MAXIMUM TEMPERATURE (OBSERVED)
WOOD	1.5	29 July-2 August	27.5°C
KALAMALKA	1.5	30 July - 1 August	28.0
OKANAGAN (Vernon Arm)	1.5	4 - 8 August	26.5
OKANAGAN (Kelowna)	1.5	8 - 13 August	24.5
OKANAGAN (Penticton)	2.	6 - 10 August	25.0 (30 July)
SKAHA (Okanagan Falls)	2.	9 - 13 August	25.0
VASEUX (Outlet)	2.	31 July - 5 August	27.5

SUMMER HEAT INCOMES

LAKE	CRUISE NO:	TIME OF OBSERVATION	HEAT CONTENT (g cal/cm ²)
OKANAGAN	5	30 August	33,300
KALAMALKA	5	25 August	25,100
SKAHA	5	24 August	22,200
OSOYOOS (N)	5	23 August	21,900
WOOD	5	25 August	18,100

TRANSMISSION VALUES

LAKE	\bar{x} SECCHI ^a	T ^b	BLUE T ₄₅₀	FILTERS GREEN T ₅₃₀	RED T ₆₃₀
WOOD	2.5	49.7	46.2	58.6	45.3
OSOYOOS	3.3	59.6	56.4	67.0	56.0
SKAHA	4.5	69.3	65.4	74.5	64.3
OKANAGAN	8.0	74.7	76.4	80.1	68.0
KALAMALKA	9.0	81.8	85.6	86.0	74.5

^a n = 6

^b T = 1/3 (T₄₅₀ + T₅₃₀ + T₆₃₀)